



Appendix E. Output Power Measurement

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlined in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set Gain Factors (β_c and β_d) and parameters were set according to each
 - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - iii. Set RMC 12.2Kbps + HSDPA mode.
 - iv. Set Cell Power = -86 dBm
 - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
 - vi. Select HSDPA Uplink Parameters
 - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
 - viii. Set Ack-Nack Repetition Factor to 3
 - ix. Set CQI Feedback Cycle (k) to 4 ms
 - x. Set CQI Repetition Factor to 2
 - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and $\Delta_{NACK} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{hs} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.

Setup Configuration

**HSUPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
 - iii. Set Cell Power = -86 dBm
 - iv. Set Channel Type = 12.2k + HSPA
 - v. Set UE Target Power
 - vi. Power Ctrl Mode= Alternating bits
 - vii. Set and observe the E-TFCI
 - viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/2 25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

**DC-HSDPA 3GPP release 8 Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set RMC 12.2Kbps + HSDPA mode.
 - ii. Set Cell Power = -25 dBm
 - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - iv. Select HSDPA Uplink Parameters
 - v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - a. Subtest 1: $\beta_c/\beta_d=2/15$
 - b. Subtest 2: $\beta_c/\beta_d=12/15$
 - c. Subtest 3: $\beta_c/\beta_d=15/8$
 - d. Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

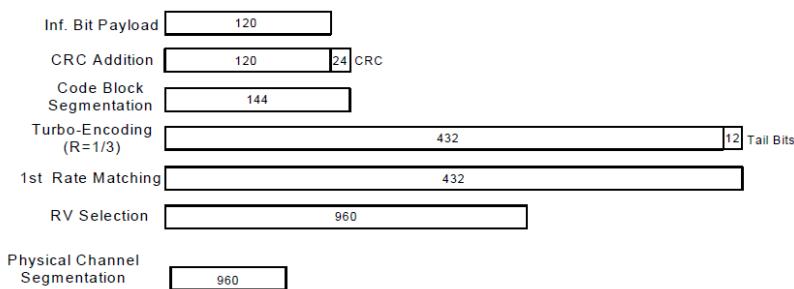
The following tests were conducted according to the test requirements outlined in 3GPP TS 34.121 specification.
A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12**Table C.8.1.12: Fixed Reference Channel H-Set 12**

PARAMETER	UNIT	VALUE
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK

Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.

Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.

**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)****Setup Configuration**

**HSPA+ 3GPP release 7 (uplink category 7) 16QAM, Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2E:HSPA+:UL with 16QAM
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.4, quoted from the TS 34.121-1 s5.2E
 - iii. Set Channel Params
 - iv. Set Cell Power = -86 dBm
 - v. Set Channel Type = HSPA
 - vi. Set UE Target Power =21 dBm
 - vii. Power Ctrl Mode= All Up Bits
 - viii. Set Manual Uplink DPCH Bc/Bd = Manual
 - ix. Set Manual Uplink DPCH Bc and Bd=15,15(for 34.121-1 v8.10.0 table C11.1.4 sub-test 1)
 - x. Set HSPA Conn DL Channel Levels
 - xi. Set HS-SCCH Configs
 - xii. Set RB Test Mode Setup
 - xiii. Set Common HSUPA Parameters
 - xiv. Set Serving Grant
 - xv. Confirm that E-TFCI is equal to the target E-TFCI of 105 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed1}: 30/15$ $\beta_{ed2}: 30/15$	$\beta_{ed3}: 24/15$ $\beta_{ed4}: 24/15$	3.5	2.5	14	105	105

Note 1: $\Delta ACK, \Delta NACK$ and $\Delta CQI = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$.

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Setup Configuration**<WCDMA Conducted Power>****General Note:**

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA / HSPA+ is $\leq 1/4$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than $1/4$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.



Full&Default Power Mode

Band		WCDMA II Ant2 Default			Tune-up Limit (dBm)	WCDMA IV Ant2 Default			Tune-up Limit (dBm)	WCDMA V Ant0 Default			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.90	23.94	23.95	25.00	23.71	23.90	23.82	25.00	23.90	23.97	23.92	25.00
3GPP Rel 99	RMC 12.2Kbps	23.92	23.97	23.96	25.00	23.78	23.92	23.85	25.00	23.93	23.98	23.95	25.00
3GPP Rel 6	HSDPA Subtest-1	22.88	23.05	23.05	24.00	22.89	22.91	23.03	24.00	22.62	22.83	22.81	24.00
3GPP Rel 6	HSDPA Subtest-2	22.88	22.94	22.94	24.00	22.80	22.94	22.89	24.00	22.77	22.70	22.72	24.00
3GPP Rel 6	HSDPA Subtest-3	22.43	22.32	22.36	23.50	22.41	22.32	22.28	23.50	22.24	22.25	22.18	23.50
3GPP Rel 6	HSDPA Subtest-4	22.30	22.46	22.41	23.50	22.26	22.44	22.35	23.50	22.18	22.33	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	22.84	22.90	23.02	24.00	22.65	22.77	23.02	24.00	22.59	22.77	22.90	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.03	22.92	22.95	24.00	23.02	22.88	22.74	24.00	22.93	22.70	22.76	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.53	22.51	22.37	23.50	22.47	22.35	22.35	23.50	22.33	22.30	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.58	22.34	22.37	23.50	22.37	22.31	22.28	23.50	22.36	22.30	22.17	23.50
3GPP Rel 6	HSUPA Subtest-1	22.91	22.89	23.02	24.00	22.83	22.72	22.91	24.00	22.68	22.63	22.81	24.00
3GPP Rel 6	HSUPA Subtest-2	20.90	20.81	21.08	22.00	20.83	20.63	21.00	22.00	20.78	20.68	20.82	22.00
3GPP Rel 6	HSUPA Subtest-3	21.83	21.98	21.99	23.00	21.65	21.78	21.93	23.00	21.68	21.76	21.80	23.00
3GPP Rel 6	HSUPA Subtest-4	20.83	20.84	20.95	22.00	20.66	20.81	20.85	22.00	20.60	20.58	20.82	22.00
3GPP Rel 6	HSUPA Subtest-5	22.87	23.05	22.92	24.00	22.69	22.84	22.92	24.00	22.78	22.88	22.88	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.46	20.49	20.35	21.50	20.29	20.43	20.31	21.50	20.26	20.38	20.26	21.50

Band		WCDMA V Ant1 Default			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.67	22.70	22.60	24.00
3GPP Rel 99	RMC 12.2Kbps	22.68	22.71	22.62	24.00
3GPP Rel 6	HSDPA Subtest-1	21.37	21.61	21.54	23.00
3GPP Rel 6	HSDPA Subtest-2	21.49	21.40	21.43	23.00
3GPP Rel 6	HSDPA Subtest-3	21.03	20.99	20.87	22.50
3GPP Rel 6	HSDPA Subtest-4	20.90	21.05	20.95	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.33	21.44	21.63	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.66	21.41	21.54	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.02	21.03	20.88	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.12	20.98	20.88	22.50
3GPP Rel 6	HSUPA Subtest-1	21.35	21.38	21.56	23.00
3GPP Rel 6	HSUPA Subtest-2	19.53	19.40	19.50	21.00
3GPP Rel 6	HSUPA Subtest-3	20.39	20.54	20.51	22.00
3GPP Rel 6	HSUPA Subtest-4	19.36	19.27	19.52	21.00
3GPP Rel 6	HSUPA Subtest-5	21.51	21.58	21.57	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.03	19.07	19.00	20.50



Reduced Power Mode for DS1 0

Band		WCDMA II Ant2 DS10			Tune-up Limit (dBm)	WCDMA IV Ant2 DS10			Tune-up Limit (dBm)	WCDMA V Ant0 DS10			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.81	22.83	22.81	23.20	22.52	22.72	22.65	23.20	23.90	23.97	23.92	25.00
3GPP Rel 99	RMC 12.2Kbps	22.81	22.92	22.90	23.20	22.65	22.78	22.75	23.20	23.93	23.98	23.95	25.00
3GPP Rel 6	HSDPA Subtest-1	21.73	21.99	21.98	22.20	21.68	21.71	21.85	22.20	22.62	22.83	22.81	24.00
3GPP Rel 6	HSDPA Subtest-2	21.79	21.81	21.87	22.20	21.58	21.71	21.63	22.20	22.77	22.70	22.72	24.00
3GPP Rel 6	HSDPA Subtest-3	21.31	21.25	21.21	21.70	21.27	21.15	21.06	21.70	22.24	22.25	22.18	23.50
3GPP Rel 6	HSDPA Subtest-4	21.16	21.34	21.35	21.70	21.08	21.27	21.15	21.70	22.18	22.33	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.70	21.82	21.98	22.20	21.50	21.52	21.78	22.20	22.59	22.77	22.90	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.97	21.85	21.83	22.20	21.80	21.69	21.51	22.20	22.93	22.70	22.76	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.44	21.43	21.28	21.70	21.30	21.12	21.14	21.70	22.33	22.30	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.42	21.25	21.31	21.70	21.22	21.08	21.03	21.70	22.36	22.30	22.17	23.50
3GPP Rel 6	HSUPA Subtest-1	21.78	21.73	21.93	22.20	21.58	21.47	21.66	22.20	22.68	22.63	22.81	24.00
3GPP Rel 6	HSUPA Subtest-2	19.78	19.74	19.93	20.20	19.64	19.44	19.85	20.20	20.78	20.68	20.82	22.00
3GPP Rel 6	HSUPA Subtest-3	20.72	20.91	20.91	21.20	20.41	20.61	20.77	21.20	21.68	21.76	21.80	23.00
3GPP Rel 6	HSUPA Subtest-4	19.76	19.69	19.80	20.20	19.51	19.63	19.63	20.20	20.60	20.58	20.82	22.00
3GPP Rel 6	HSUPA Subtest-5	21.80	21.98	21.80	22.20	21.55	21.68	21.67	22.20	22.78	22.88	22.88	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.32	19.39	19.25	19.70	19.06	19.20	19.15	19.70	20.26	20.38	20.26	21.50

Reduced Power Mode for DS1 1

Band		WCDMA II Ant2 DS11			Tune-up Limit (dBm)	WCDMA IV Ant2 DS11			Tune-up Limit (dBm)	WCDMA V Ant0 DS11			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	20.81	20.87	20.82	21.70	21.59	21.74	21.63	22.90	23.90	23.97	23.92	25.00
3GPP Rel 99	RMC 12.2Kbps	20.84	20.97	20.88	21.70	21.68	21.79	21.71	22.90	23.93	23.98	23.95	25.00
3GPP Rel 6	HSDPA Subtest-1	19.80	19.98	19.95	20.70	20.73	20.77	20.92	21.90	22.62	22.83	22.81	24.00
3GPP Rel 6	HSDPA Subtest-2	19.86	19.88	19.86	20.70	20.67	20.81	20.80	21.90	22.77	22.70	22.72	24.00
3GPP Rel 6	HSDPA Subtest-3	19.40	19.20	19.25	20.20	20.24	20.15	20.15	21.40	22.24	22.25	22.18	23.50
3GPP Rel 6	HSDPA Subtest-4	19.20	19.44	19.29	20.20	20.10	20.25	20.17	21.40	22.18	22.33	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	19.76	19.78	19.95	20.70	20.55	20.69	20.91	21.90	22.59	22.77	22.90	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	19.97	19.90	19.92	20.70	20.91	20.73	20.59	21.90	22.93	22.70	22.76	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	19.43	19.47	19.34	20.20	20.36	20.19	20.27	21.40	22.33	22.30	22.16	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	19.46	19.25	19.32	20.20	20.24	20.20	20.14	21.40	22.36	22.30	22.17	23.50
3GPP Rel 6	HSUPA Subtest-1	19.81	19.87	19.95	20.70	20.73	20.56	20.82	21.90	22.68	22.63	22.81	24.00
3GPP Rel 6	HSUPA Subtest-2	17.81	17.75	17.99	18.70	18.74	18.52	18.82	19.90	20.78	20.68	20.82	22.00
3GPP Rel 6	HSUPA Subtest-3	18.70	18.95	18.96	19.70	19.57	19.61	19.86	20.90	21.68	21.76	21.80	23.00
3GPP Rel 6	HSUPA Subtest-4	17.71	17.71	17.84	18.70	18.50	18.64	18.76	19.90	20.60	20.58	20.82	22.00
3GPP Rel 6	HSUPA Subtest-5	19.83	19.98	19.86	20.70	20.54	20.70	20.83	21.90	22.78	22.88	22.88	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.38	17.46	17.27	18.20	18.13	18.31	18.19	19.40	20.26	20.38	20.26	21.50



Reduced Power Mode for DS1 2

Band		WCDMA II Ant2 DS12			Tune-up Limit (dBm)	WCDMA IV Ant2 DS12			Tune-up Limit (dBm)	WCDMA V Ant0 DS12			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	18.34	18.35	18.38	19.60	18.08	18.21	18.23	19.40	21.36	21.46	21.40	22.70
3GPP Rel 99	RMC 12.2Kbps	18.39	18.45	18.40	19.60	18.25	18.31	18.26	19.40	21.40	21.49	21.42	22.70
3GPP Rel 6	HSDPA Subtest-1	17.41	17.50	17.54	18.60	17.29	17.36	17.47	18.40	20.13	20.33	20.27	21.70
3GPP Rel 6	HSDPA Subtest-2	17.37	17.45	17.39	18.60	17.19	17.33	17.32	18.40	20.28	20.18	20.23	21.70
3GPP Rel 6	HSDPA Subtest-3	16.96	16.77	16.80	18.10	16.77	16.67	16.68	17.90	19.66	19.74	19.68	21.20
3GPP Rel 6	HSDPA Subtest-4	16.83	16.97	16.91	18.10	16.70	16.86	16.72	17.90	19.63	19.80	19.65	21.20
3GPP Rel 8	DC-HSDPA Subtest-1	17.27	17.42	17.56	18.60	17.07	17.17	17.48	18.40	20.01	20.19	20.32	21.70
3GPP Rel 8	DC-HSDPA Subtest-2	17.56	17.42	17.44	18.60	17.48	17.26	17.12	18.40	20.34	20.12	20.20	21.70
3GPP Rel 8	DC-HSDPA Subtest-3	17.03	16.95	16.86	18.10	16.91	16.76	16.71	17.90	19.84	19.77	19.68	21.20
3GPP Rel 8	DC-HSDPA Subtest-4	17.10	16.79	16.90	18.10	16.79	16.73	16.74	17.90	19.81	19.78	19.61	21.20
3GPP Rel 6	HSUPA Subtest-1	17.46	17.42	17.49	18.60	17.30	17.14	17.35	18.40	20.13	20.14	20.33	21.70
3GPP Rel 6	HSUPA Subtest-2	15.35	15.28	15.62	16.60	15.29	14.98	15.42	16.40	18.28	18.12	18.29	19.70
3GPP Rel 6	HSUPA Subtest-3	16.30	16.48	16.49	17.60	16.09	16.19	16.34	17.40	19.11	19.27	19.32	20.70
3GPP Rel 6	HSUPA Subtest-4	15.29	15.30	15.49	16.60	15.04	15.27	15.25	16.40	18.11	18.01	18.34	19.70
3GPP Rel 6	HSUPA Subtest-5	17.38	17.50	17.45	18.60	17.07	17.20	17.38	18.40	20.30	20.29	20.38	21.70
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	15.01	15.01	14.94	16.10	14.71	14.81	14.68	15.90	17.74	17.91	17.72	19.20

Reduced Power Mode for DS1 4

Band		WCDMA II Ant2 DS14			Tune-up Limit (dBm)	WCDMA IV Ant2 DS14			Tune-up Limit (dBm)	WCDMA V Ant0 DS14			Tune-up Limit (dBm)
		9262	9400	9538		1312	1413	1513		4132	4182	4233	
TX Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Rx Channel		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	19.31	19.37	19.32	20.20	20.09	20.24	20.13	21.40	23.39	23.47	23.42	24.50
3GPP Rel 99	RMC 12.2Kbps	19.34	19.47	19.38	20.20	20.18	20.29	20.21	21.40	23.43	23.48	23.45	24.50
3GPP Rel 6	HSDPA Subtest-1	18.30	18.48	18.45	19.20	19.23	19.27	19.42	20.40	22.13	22.37	22.35	23.50
3GPP Rel 6	HSDPA Subtest-2	18.36	18.38	18.36	19.20	19.17	19.31	19.30	20.40	22.21	22.14	22.24	23.50
3GPP Rel 6	HSDPA Subtest-3	17.90	17.70	17.75	18.70	18.74	18.65	18.65	19.90	21.79	21.75	21.71	23.00
3GPP Rel 6	HSDPA Subtest-4	17.70	17.94	17.79	18.70	18.60	18.75	18.67	19.90	21.66	21.79	21.65	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	18.26	18.28	18.45	19.20	19.05	19.19	19.41	20.40	22.14	22.27	22.44	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	18.47	18.40	18.42	19.20	19.41	19.23	19.09	20.40	22.41	22.20	22.23	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	17.93	17.97	17.84	18.70	18.86	18.69	18.77	19.90	21.84	21.80	21.70	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	17.96	17.75	17.82	18.70	18.74	18.70	18.64	19.90	21.81	21.74	21.67	23.00
3GPP Rel 6	HSUPA Subtest-1	18.31	18.37	18.45	19.20	19.23	19.06	19.32	20.40	22.15	22.09	22.32	23.50
3GPP Rel 6	HSUPA Subtest-2	16.31	16.25	16.49	17.20	17.24	17.02	17.32	18.40	20.30	20.18	20.30	21.50
3GPP Rel 6	HSUPA Subtest-3	17.20	17.45	17.46	18.20	18.07	18.11	18.36	19.40	21.21	21.30	21.29	22.50
3GPP Rel 6	HSUPA Subtest-4	16.21	16.21	16.34	17.20	17.00	17.14	17.26	18.40	20.08	20.02	20.37	21.50
3GPP Rel 6	HSUPA Subtest-5	18.33	18.48	18.36	19.20	19.04	19.20	19.33	20.40	22.33	22.43	22.41	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	15.88	15.96	15.77	16.70	16.63	16.81	16.69	17.90	19.74	19.93	19.71	21.00



Band		WCDMA V Ant1 DS14			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.67	22.70	22.60	24.00
3GPP Rel 99	RMC 12.2Kbps	22.68	22.71	22.62	24.00
3GPP Rel 6	HSDPA Subtest-1	21.37	21.61	21.54	23.00
3GPP Rel 6	HSDPA Subtest-2	21.49	21.40	21.43	23.00
3GPP Rel 6	HSDPA Subtest-3	21.03	20.99	20.87	22.50
3GPP Rel 6	HSDPA Subtest-4	20.90	21.05	20.95	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.33	21.44	21.63	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.66	21.41	21.54	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.02	21.03	20.88	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.12	20.98	20.88	22.50
3GPP Rel 6	HSUPA Subtest-1	21.35	21.38	21.56	23.00
3GPP Rel 6	HSUPA Subtest-2	19.53	19.40	19.50	21.00
3GPP Rel 6	HSUPA Subtest-3	20.39	20.54	20.51	22.00
3GPP Rel 6	HSUPA Subtest-4	19.36	19.27	19.52	21.00
3GPP Rel 6	HSUPA Subtest-5	21.51	21.58	21.57	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.03	19.07	19.00	20.50

Reduced Power Mode for DS1 5

Band		WCDMA II Ant2 DS15			Tune-up Limit (dBm)	WCDMA IV Ant2 DS15			Tune-up Limit (dBm)	WCDMA V Ant0 DS15			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	21.31	21.33	21.31	21.70	21.52	21.72	21.65	22.20	23.39	23.47	23.42	24.50
3GPP Rel 99	RMC 12.2Kbps	21.31	21.42	21.37	21.70	21.65	21.78	21.75	22.20	23.43	23.48	23.45	24.50
3GPP Rel 6	HSDPA Subtest-1	20.23	20.49	20.48	20.70	20.68	20.71	20.85	21.20	22.13	22.37	22.35	23.50
3GPP Rel 6	HSDPA Subtest-2	20.29	20.31	20.37	20.70	20.58	20.71	20.63	21.20	22.21	22.14	22.24	23.50
3GPP Rel 6	HSDPA Subtest-3	19.81	19.75	19.71	20.20	20.27	20.15	20.06	20.70	21.79	21.75	21.71	23.00
3GPP Rel 6	HSDPA Subtest-4	19.66	19.84	19.85	20.20	20.08	20.27	20.15	20.70	21.66	21.79	21.65	23.00
3GPP Rel 8	DC-HSDPA Subtest-1	20.20	20.32	20.48	20.70	20.50	20.52	20.78	21.20	22.14	22.27	22.44	23.50
3GPP Rel 8	DC-HSDPA Subtest-2	20.47	20.35	20.33	20.70	20.80	20.69	20.51	21.20	22.41	22.20	22.23	23.50
3GPP Rel 8	DC-HSDPA Subtest-3	19.94	19.93	19.78	20.20	20.30	20.12	20.14	20.70	21.84	21.80	21.70	23.00
3GPP Rel 8	DC-HSDPA Subtest-4	19.92	19.75	19.81	20.20	20.22	20.08	20.03	20.70	21.81	21.74	21.67	23.00
3GPP Rel 6	HSUPA Subtest-1	20.28	20.23	20.43	20.70	20.58	20.47	20.66	21.20	22.15	22.09	22.32	23.50
3GPP Rel 6	HSUPA Subtest-2	18.28	18.24	18.43	18.70	18.64	18.44	18.85	19.20	20.30	20.18	20.30	21.50
3GPP Rel 6	HSUPA Subtest-3	19.22	19.41	19.41	19.70	19.41	19.61	19.77	20.20	21.21	21.30	21.29	22.50
3GPP Rel 6	HSUPA Subtest-4	18.26	18.19	18.30	18.70	18.51	18.63	18.63	19.20	20.08	20.02	20.37	21.50
3GPP Rel 6	HSUPA Subtest-5	20.30	20.48	20.30	20.70	20.55	20.68	20.67	21.20	22.33	22.43	22.41	23.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	17.82	17.89	17.75	18.20	18.06	18.20	18.15	18.70	19.74	19.93	19.71	21.00



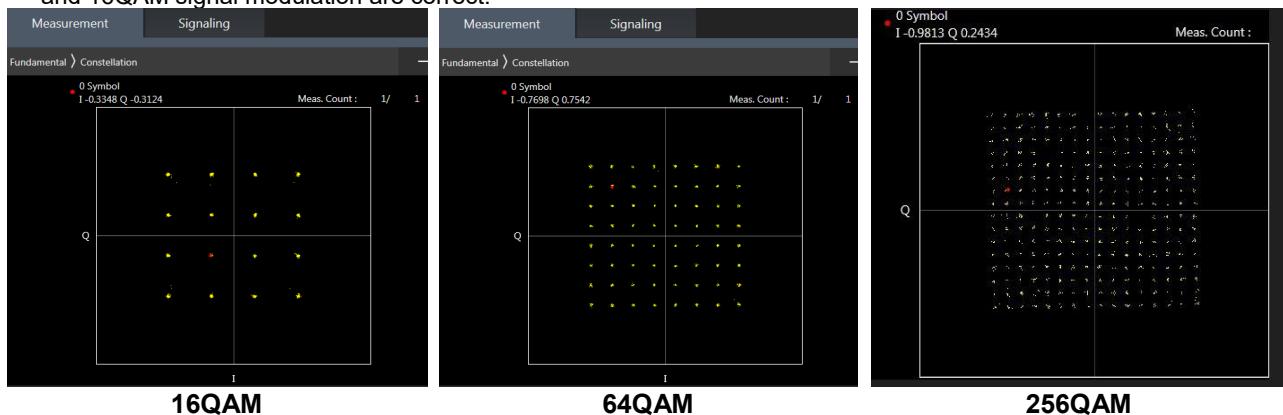
Band		WCDMA V Ant1 DS15			Tune-up Limit (dBm)
TX Channel		4132	4182	4233	
Rx Channel		4357	4407	4458	
Frequency (MHz)		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	22.67	22.70	22.60	24.00
3GPP Rel 99	RMC 12.2Kbps	22.68	22.71	22.62	24.00
3GPP Rel 6	HSDPA Subtest-1	21.37	21.61	21.54	23.00
3GPP Rel 6	HSDPA Subtest-2	21.49	21.40	21.43	23.00
3GPP Rel 6	HSDPA Subtest-3	21.03	20.99	20.87	22.50
3GPP Rel 6	HSDPA Subtest-4	20.90	21.05	20.95	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.33	21.44	21.63	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	21.66	21.41	21.54	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.02	21.03	20.88	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.12	20.98	20.88	22.50
3GPP Rel 6	HSUPA Subtest-1	21.35	21.38	21.56	23.00
3GPP Rel 6	HSUPA Subtest-2	19.53	19.40	19.50	21.00
3GPP Rel 6	HSUPA Subtest-3	20.39	20.54	20.51	22.00
3GPP Rel 6	HSUPA Subtest-4	19.36	19.27	19.52	21.00
3GPP Rel 6	HSUPA Subtest-5	21.51	21.58	21.57	23.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	19.03	19.07	19.00	20.50



<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are $\leq 0.8 \text{ W/kg}$. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is $> 1.45 \text{ W/kg}$, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2} \text{ dB}$ higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is $\leq 1.45 \text{ W/kg}$; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2} \text{ dB}$ higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is $\leq 1.45 \text{ W/kg}$; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE 4 / B5 / B12 / B17 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2 / 4 / 5 / 17 / 38 SAR test was covered by Band 25 / 66 / 26 / 12 / 41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.



**Full&Default Power Mode**

Band 5 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	23.69	23.70	23.59	25	0
10	QPSK	1	25	23.61	23.64	23.65		
10	QPSK	1	49	23.61	23.59	23.64		
10	QPSK	25	0	22.78	22.83	22.81		
10	QPSK	25	12	22.62	22.61	22.51	24	1
10	QPSK	25	25	22.73	22.71	22.71		
10	QPSK	50	0	22.75	22.81	22.80		
10	16QAM	1	0	23.05	23.07	23.08		
10	16QAM	1	25	22.87	22.94	22.89	24	1
10	16QAM	1	49	22.97	22.91	23.01		
10	16QAM	25	0	21.81	21.78	21.71		
10	16QAM	25	12	21.58	21.61	21.63		
10	16QAM	25	25	21.77	21.72	21.65	23	2
10	16QAM	50	0	21.65	21.65	21.62		
10	64QAM	1	0	21.84	21.80	21.73		
10	64QAM	1	25	21.90	21.81	21.83		
10	64QAM	1	49	21.76	21.76	21.75	23	2
10	64QAM	25	0	21.91	21.82	21.72		
10	64QAM	25	12	21.79	21.76	21.78		
10	64QAM	25	25	21.70	21.69	21.70		
10	64QAM	50	0	21.71	21.74	21.76	22	3
10	256QAM	1	0	18.64	18.67	18.64		
10	256QAM	1	25	18.51	18.61	18.65		
10	256QAM	1	49	18.52	18.54	18.62		
10	256QAM	25	0	18.74	18.76	18.66	20	5
10	256QAM	25	12	18.61	18.69	18.76		
10	256QAM	25	25	18.71	18.71	18.80		
10	256QAM	50	0	18.62	18.65	18.61		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.62	23.63	23.53	25	0
5	QPSK	1	12	23.43	23.58	23.55		
5	QPSK	1	24	23.50	23.57	23.55		
5	QPSK	12	0	22.79	22.64	22.73		
5	QPSK	12	7	22.57	22.49	22.35	24	1
5	QPSK	12	13	22.61	22.60	22.61		
5	QPSK	25	0	22.59	22.68	22.68		
5	16QAM	1	0	22.95	23.02	22.95		
5	16QAM	1	12	22.76	22.87	22.76	24	1
5	16QAM	1	24	22.94	22.88	22.89		
5	16QAM	12	0	21.67	21.62	21.69		
5	16QAM	12	7	21.43	21.53	21.45		
5	16QAM	12	13	21.60	21.60	21.61	23	2
5	16QAM	25	0	21.61	21.47	21.56		
5	64QAM	1	0	21.79	21.67	21.63		
5	64QAM	1	12	21.80	21.70	21.67		
5	64QAM	1	24	21.66	21.65	21.63	23	2
5	64QAM	12	0	21.81	21.68	21.59		
5	64QAM	12	7	21.65	21.63	21.66		
5	64QAM	12	13	21.52	21.65	21.66		



5	64QAM	25	0	21.61	21.61	21.61		
5	256QAM	1	0	18.50	18.65	18.47	20	5
5	256QAM	1	12	18.41	18.56	18.56		
5	256QAM	1	24	18.48	18.40	18.56		
5	256QAM	12	0	18.70	18.67	18.53		
5	256QAM	12	7	18.56	18.63	18.62	20	5
5	256QAM	12	13	18.69	18.56	18.66		
5	256QAM	25	0	18.53	18.49	18.54		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.55	23.64	23.44	25	0
3	QPSK	1	8	23.50	23.58	23.51		
3	QPSK	1	14	23.49	23.45	23.56		
3	QPSK	8	0	22.80	22.72	22.72	24	1
3	QPSK	8	4	22.59	22.47	22.40		
3	QPSK	8	7	22.63	22.62	22.59		
3	QPSK	15	0	22.67	22.68	22.64		
3	16QAM	1	0	23.01	22.95	22.92	24	1
3	16QAM	1	8	22.69	22.80	22.76		
3	16QAM	1	14	22.92	22.81	22.96		
3	16QAM	8	0	21.63	21.68	21.60	23	2
3	16QAM	8	4	21.42	21.55	21.50		
3	16QAM	8	7	21.63	21.66	21.57		
3	16QAM	15	0	21.53	21.49	21.58		
3	64QAM	1	0	21.79	21.71	21.57	23	2
3	64QAM	1	8	21.87	21.73	21.69		
3	64QAM	1	14	21.65	21.64	21.68		
3	64QAM	8	0	21.88	21.74	21.57	22	3
3	64QAM	8	4	21.61	21.67	21.63		
3	64QAM	8	7	21.55	21.66	21.58		
3	64QAM	15	0	21.62	21.67	21.72		
3	256QAM	1	0	18.58	18.60	18.57	20	5
3	256QAM	1	8	18.37	18.57	18.53		
3	256QAM	1	14	18.36	18.37	18.52		
3	256QAM	8	0	18.65	18.66	18.49	20	5
3	256QAM	8	4	18.46	18.52	18.62		
3	256QAM	8	7	18.59	18.62	18.71		
3	256QAM	15	0	18.56	18.53	18.49		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.56	23.60	23.45	25	0
1.4	QPSK	1	3	23.43	23.48	23.59		
1.4	QPSK	1	5	23.50	23.46	23.59		
1.4	QPSK	3	0	23.66	23.66	23.45		
1.4	QPSK	3	1	23.50	23.54	23.53		
1.4	QPSK	3	3	23.54	23.41	23.62		
1.4	QPSK	6	0	22.71	22.68	22.69	24	1
1.4	16QAM	1	0	22.48	22.54	22.46	24	1
1.4	16QAM	1	3	22.64	22.60	22.60		
1.4	16QAM	1	5	22.60	22.59	22.68		
1.4	16QAM	3	0	22.99	22.90	23.06		
1.4	16QAM	3	1	22.81	22.92	22.73		
1.4	16QAM	3	3	22.82	22.87	22.91		
1.4	16QAM	6	0	21.64	21.62	21.66	23	2
1.4	64QAM	1	0	21.52	21.53	21.52	23	2
1.4	64QAM	1	3	21.62	21.69	21.56		



1.4	64QAM	1	5	21.61	21.62	21.50		
1.4	64QAM	3	0	21.81	21.72	21.56		
1.4	64QAM	3	1	21.87	21.68	21.67		
1.4	64QAM	3	3	21.65	21.69	21.62		
1.4	64QAM	6	0	21.82	21.73	21.66		
1.4	256QAM	1	0	18.44	18.59	18.67		
1.4	256QAM	1	3	18.55	18.59	18.76		
1.4	256QAM	1	5	18.51	18.59	18.56		
1.4	256QAM	3	0	18.52	18.58	18.51		
1.4	256QAM	3	1	18.45	18.52	18.61		
1.4	256QAM	3	3	18.61	18.58	18.68		
1.4	256QAM	6	0	18.47	18.51	18.54		

Band 12 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.65	23.89	23.76	25	0
10	QPSK	1	25	23.79	23.84	23.84		
10	QPSK	1	49	23.85	23.79	23.76		
10	QPSK	25	0	22.77	22.85	22.83	24	1
10	QPSK	25	12	22.73	22.80	22.80		
10	QPSK	25	25	22.69	22.73	22.75		
10	QPSK	50	0	22.64	22.81	22.73		
10	16QAM	1	0	23.28	23.22	23.14		
10	16QAM	1	25	23.03	23.04	23.01	24	1
10	16QAM	1	49	23.15	23.13	23.07		
10	16QAM	25	0	21.72	21.70	21.72		
10	16QAM	25	12	21.50	21.56	21.53	23	2
10	16QAM	25	25	21.59	21.69	21.71		
10	16QAM	50	0	21.45	21.53	21.43		
10	64QAM	1	0	22.11	22.16	22.25		
10	64QAM	1	25	22.16	22.12	22.22	23	2
10	64QAM	1	49	22.15	22.09	22.04		
10	64QAM	25	0	20.72	20.74	20.83		
10	64QAM	25	12	20.78	20.73	20.66	22	3
10	64QAM	25	25	20.84	20.85	20.91		
10	64QAM	50	0	20.80	20.79	20.79		
10	256QAM	1	0	19.41	19.34	19.38		
10	256QAM	1	25	19.20	19.29	19.32	20	5
10	256QAM	1	49	19.41	19.40	19.31		
10	256QAM	25	0	18.88	18.94	19.00		
10	256QAM	25	12	18.90	18.85	18.75	20	5
10	256QAM	25	25	18.97	18.87	18.94		
10	256QAM	50	0	18.82	18.87	18.95		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.60	23.76	23.67	25	0
5	QPSK	1	12	23.64	23.75	23.70		
5	QPSK	1	24	23.79	23.71	23.59		
5	QPSK	12	0	22.69	22.63	22.80	24	1
5	QPSK	12	7	22.70	22.70	22.71		
5	QPSK	12	13	22.64	22.60	22.63		
5	QPSK	25	0	22.59	22.60	22.71		
5	16QAM	1	0	23.24	23.08	23.04	24	1



5	16QAM	1	12	22.87	22.86	22.99		
5	16QAM	1	24	23.05	23.07	22.94		
5	16QAM	12	0	21.61	21.61	21.55		
5	16QAM	12	7	21.41	21.54	21.45		
5	16QAM	12	13	21.55	21.58	21.59		
5	16QAM	25	0	21.40	21.49	21.40		
5	64QAM	1	0	22.03	22.01	22.15		
5	64QAM	1	12	22.07	21.98	22.14		
5	64QAM	1	24	22.12	22.05	21.99		
5	64QAM	12	0	20.66	20.58	20.68		
5	64QAM	12	7	20.66	20.57	20.61		
5	64QAM	12	13	20.66	20.82	20.75		
5	64QAM	25	0	20.65	20.76	20.66		
5	256QAM	1	0	19.31	19.19	19.21		
5	256QAM	1	12	19.13	19.15	19.27		
5	256QAM	1	24	19.32	19.24	19.24		
5	256QAM	12	0	18.82	18.84	18.96		
5	256QAM	12	7	18.77	18.78	18.59		
5	256QAM	12	13	18.92	18.81	18.86		
5	256QAM	25	0	18.66	18.73	18.77		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.48	23.71	23.70	25	0
3	QPSK	1	8	23.74	23.68	23.66		
3	QPSK	1	14	23.73	23.63	23.61		
3	QPSK	8	0	22.71	22.65	22.72	24	1
3	QPSK	8	4	22.62	22.74	22.76		
3	QPSK	8	7	22.52	22.70	22.58		
3	QPSK	15	0	22.56	22.55	22.61		
3	16QAM	1	0	23.16	23.04	23.09	24	1
3	16QAM	1	8	22.86	22.96	22.99		
3	16QAM	1	14	23.13	22.95	22.96		
3	16QAM	8	0	21.66	21.55	21.56	23	2
3	16QAM	8	4	21.36	21.45	21.46		
3	16QAM	8	7	21.46	21.56	21.57		
3	16QAM	15	0	21.37	21.48	21.36		
3	64QAM	1	0	21.98	22.10	22.18	23	2
3	64QAM	1	8	22.08	22.10	22.19		
3	64QAM	1	14	21.97	22.01	21.99		
3	64QAM	8	0	20.67	20.61	20.66	22	3
3	64QAM	8	4	20.62	20.58	20.55		
3	64QAM	8	7	20.75	20.79	20.76		
3	64QAM	15	0	20.76	20.68	20.63		
3	256QAM	1	0	19.31	19.29	19.34	20	5
3	256QAM	1	8	19.10	19.17	19.16		
3	256QAM	1	14	19.38	19.23	19.13		
3	256QAM	8	0	18.80	18.90	18.95	20	5
3	256QAM	8	4	18.88	18.69	18.71		
3	256QAM	8	7	18.82	18.84	18.87		
3	256QAM	15	0	18.77	18.76	18.85		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	23.60	23.73	23.63	25	0
1.4	QPSK	1	3	23.72	23.74	23.73		
1.4	QPSK	1	5	23.76	23.71	23.69		
1.4	QPSK	3	0	23.49	23.79	23.58		



1.4	QPSK	3	1	23.71	23.81	23.75		
1.4	QPSK	3	3	23.76	23.69	23.69		
1.4	QPSK	6	0	22.62	22.59	22.72	24	1
1.4	16QAM	1	0	22.60	22.68	22.65		
1.4	16QAM	1	3	22.52	22.65	22.61		
1.4	16QAM	1	5	22.51	22.58	22.55		
1.4	16QAM	3	0	23.25	23.10	22.99		
1.4	16QAM	3	1	22.99	22.94	22.99		
1.4	16QAM	3	3	23.03	22.98	23.01		
1.4	16QAM	6	0	21.68	21.66	21.55	23	2
1.4	64QAM	1	0	21.46	21.40	21.42		
1.4	64QAM	1	3	21.48	21.52	21.63		
1.4	64QAM	1	5	21.42	21.45	21.36		
1.4	64QAM	3	0	22.03	22.06	22.08		
1.4	64QAM	3	1	22.02	21.99	22.06		
1.4	64QAM	3	3	22.06	21.92	21.96		
1.4	64QAM	6	0	20.57	20.58	20.77	22	3
1.4	256QAM	1	0	19.31	19.21	19.21		
1.4	256QAM	1	3	19.11	19.18	19.27		
1.4	256QAM	1	5	19.23	19.33	19.18		
1.4	256QAM	3	0	18.70	18.85	18.97		
1.4	256QAM	3	1	18.81	18.67	18.73		
1.4	256QAM	3	3	18.82	18.84	18.88		
1.4	256QAM	6	0	18.65	18.73	18.77	20	5



Band 13 Ant0 Default									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				23230				25	
Frequency (MHz)				782					
10	QPSK	1	0		23.71				
10	QPSK	1	25		23.67		24	0	
10	QPSK	1	49		23.57				
10	QPSK	25	0		22.71				
10	QPSK	25	12		22.63		24	1	
10	QPSK	25	25		22.58				
10	QPSK	50	0		22.59				
10	16QAM	1	0		22.89		24	1	
10	16QAM	1	25		23.06				
10	16QAM	1	49		23.07				
10	16QAM	25	0		21.64		23	2	
10	16QAM	25	12		21.80				
10	16QAM	25	25		21.82				
10	16QAM	50	0		21.78		23	2	
10	64QAM	1	0		22.05				
10	64QAM	1	25		22.12				
10	64QAM	1	49		22.08		22	3	
10	64QAM	25	0		20.66				
10	64QAM	25	12		20.89				
10	64QAM	25	25		20.87		20	5	
10	64QAM	50	0		20.68				
10	256QAM	1	0		18.75				
10	256QAM	1	25		18.61		20	5	
10	256QAM	1	49		18.57				
10	256QAM	25	0		18.75		20	5	
10	256QAM	25	12		18.88				
10	256QAM	25	25		18.85				
10	256QAM	50	0		18.87		Tune-up limit (dBm)	MPR (dB)	
Channel				23205	23230	23255			
Frequency (MHz)				779.5	782	784.5			
5	QPSK	1	0	23.52	23.65	23.39	25	0	
5	QPSK	1	12	23.35	23.59	23.49			
5	QPSK	1	24	23.25	23.44	23.40			
5	QPSK	12	0	22.52	22.63	22.36	24	1	
5	QPSK	12	7	22.52	22.49	22.45			
5	QPSK	12	13	22.38	22.42	22.33			
5	QPSK	25	0	22.47	22.44	22.36	24	1	
5	16QAM	1	0	22.66	22.80	22.69			
5	16QAM	1	12	22.93	23.03	22.99			
5	16QAM	1	24	22.96	23.05	22.74	23	2	
5	16QAM	12	0	21.31	21.61	21.44			
5	16QAM	12	7	21.61	21.68	21.55			
5	16QAM	12	13	21.71	21.75	21.61	23	2	
5	16QAM	25	0	21.56	21.68	21.64			
5	64QAM	1	0	21.74	21.94	21.92	23	2	
5	64QAM	1	12	21.88	22.06	21.93			
5	64QAM	1	24	21.79	21.98	21.86			
5	64QAM	12	0	20.41	20.59	20.38	22	3	
5	64QAM	12	7	20.60	20.81	20.83			
5	64QAM	12	13	20.55	20.80	20.68			



5	64QAM	25	0	20.45	20.53	20.46		
5	256QAM	1	0	18.49	18.70	18.55	20	5
5	256QAM	1	12	18.39	18.54	18.53		
5	256QAM	1	24	18.38	18.42	18.35		
5	256QAM	12	0	18.44	18.62	18.62		
5	256QAM	12	7	18.67	18.78	18.80	20	5
5	256QAM	12	13	18.60	18.78	18.55		
5	256QAM	25	0	18.52	18.78	18.56		

Band 14 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23330				
Frequency (MHz)				793				
10	QPSK	1	0		23.83		25	0
10	QPSK	1	25		23.76			
10	QPSK	1	49		23.79			
10	QPSK	25	0		22.82			
10	QPSK	25	12		22.67		24	1
10	QPSK	25	25		22.78			
10	QPSK	50	0		22.80			
10	16QAM	1	0		23.12		24	1
10	16QAM	1	25		23.24			
10	16QAM	1	49		23.04			
10	16QAM	25	0		21.80			
10	16QAM	25	12		21.90		23	2
10	16QAM	25	25		21.82			
10	16QAM	50	0		21.86			
10	64QAM	1	0		21.73		23	2
10	64QAM	1	25		21.72			
10	64QAM	1	49		21.69			
10	64QAM	25	0		20.79			
10	64QAM	25	12		20.78		22	3
10	64QAM	25	25		20.78			
10	64QAM	50	0		20.79			
10	256QAM	1	0		18.76		20	5
10	256QAM	1	25		18.90			
10	256QAM	1	49		18.84			
10	256QAM	25	0		18.71			
10	256QAM	25	12		18.83		20	5
10	256QAM	25	25		18.76			
10	256QAM	50	0		18.62			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	23.63	23.81	23.63	25	0
5	QPSK	1	12	23.66	23.66	23.63		
5	QPSK	1	24	23.68	23.70	23.53		
5	QPSK	12	0	22.38	22.52	22.37		
5	QPSK	12	7	22.39	22.59	22.48	24	1
5	QPSK	12	13	22.73	22.74	22.48		
5	QPSK	25	0	22.57	22.68	22.70		
5	16QAM	1	0	22.85	22.97	23.03	24	1
5	16QAM	1	12	22.97	23.20	23.07		
5	16QAM	1	24	22.77	22.92	22.79		
5	16QAM	12	0	21.56	21.64	21.66	23	2
5	16QAM	12	7	21.85	21.78	21.68		



5	16QAM	12	13	21.68	21.74	21.68		
5	16QAM	25	0	21.75	21.73	21.81		
5	64QAM	1	0	21.59	21.57	21.42		
5	64QAM	1	12	21.54	21.65	21.50		
5	64QAM	1	24	21.49	21.67	21.47		
5	64QAM	12	0	20.63	20.64	20.62		
5	64QAM	12	7	20.59	20.71	20.43		
5	64QAM	12	13	20.45	20.65	20.67		
5	64QAM	25	0	20.58	20.62	20.63		
5	256QAM	1	0	18.52	18.62	18.59		
5	256QAM	1	12	18.66	18.76	18.67		
5	256QAM	1	24	18.60	18.82	18.70		
5	256QAM	12	0	18.46	18.61	18.51		
5	256QAM	12	7	18.63	18.67	18.60		
5	256QAM	12	13	18.61	18.70	18.56		
5	256QAM	25	0	18.46	18.49	18.42		

Band 17 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.77	23.82	23.74	25	0
10	QPSK	1	25	23.77	23.81	23.73		
10	QPSK	1	49	23.71	23.79	23.58		
10	QPSK	25	0	22.71	22.78	22.72	24	1
10	QPSK	25	12	22.76	22.72	22.70		
10	QPSK	25	25	22.70	22.72	22.66		
10	QPSK	50	0	22.65	22.69	22.58		
10	16QAM	1	0	22.86	22.91	22.98	24	1
10	16QAM	1	25	23.05	23.04	23.13		
10	16QAM	1	49	22.83	22.92	22.90		
10	16QAM	25	0	21.63	21.71	21.76	23	2
10	16QAM	25	12	21.67	21.76	21.72		
10	16QAM	25	25	21.70	21.69	21.75		
10	16QAM	50	0	21.94	21.90	21.85		
10	64QAM	1	0	21.95	21.89	21.84	23	2
10	64QAM	1	25	21.74	21.73	21.68		
10	64QAM	1	49	21.88	21.79	21.70		
10	64QAM	25	0	20.72	20.72	20.76	22	3
10	64QAM	25	12	20.79	20.75	20.77		
10	64QAM	25	25	20.93	20.85	20.90		
10	64QAM	50	0	20.65	20.73	20.67		
10	256QAM	1	0	19.21	19.22	19.29	20	5
10	256QAM	1	25	19.21	19.24	19.32		
10	256QAM	1	49	19.31	19.33	19.39		
10	256QAM	25	0	19.25	19.19	19.17	20	5
10	256QAM	25	12	19.33	19.25	19.18		
10	256QAM	25	25	19.31	19.21	19.29		
10	256QAM	50	0	19.10	19.14	19.12		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.69	23.76	23.72	25	0
5	QPSK	1	12	23.70	23.66	23.68		
5	QPSK	1	24	23.58	23.62	23.53		
5	QPSK	12	0	22.53	22.52	22.57	24	1



5	QPSK	12	7	22.63	22.60	22.60		
5	QPSK	12	13	22.56	22.57	22.50		
5	QPSK	25	0	22.55	22.44	22.43		1
5	16QAM	1	0	22.72	22.84	22.88		
5	16QAM	1	12	23.02	22.99	23.10		24
5	16QAM	1	24	22.77	22.83	22.84		
5	16QAM	12	0	21.51	21.56	21.59		23
5	16QAM	12	7	21.59	21.72	21.61		
5	16QAM	12	13	21.56	21.61	21.59		2
5	16QAM	25	0	21.81	21.84	21.72		
5	64QAM	1	0	21.86	21.80	21.73		23
5	64QAM	1	12	21.64	21.62	21.64		
5	64QAM	1	24	21.83	21.68	21.61		2
5	64QAM	12	0	20.64	20.55	20.60		
5	64QAM	12	7	20.64	20.62	20.68		22
5	64QAM	12	13	20.84	20.71	20.75		
5	64QAM	25	0	20.59	20.62	20.51		3
5	256QAM	1	0	19.11	19.16	19.26		
5	256QAM	1	12	19.05	19.14	19.18		5
5	256QAM	1	24	19.25	19.24	19.23		
5	256QAM	12	0	19.22	19.10	19.00		20
5	256QAM	12	7	19.22	19.14	19.05		
5	256QAM	12	13	19.16	19.06	19.12		5
5	256QAM	25	0	19.07	19.09	19.04		

Band 26 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		0
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	23.58	23.62	23.50		25
15	QPSK	1	37	23.51	23.57	23.55		
15	QPSK	1	74	23.49	23.53	23.58		1
15	QPSK	36	0	22.73	22.75	22.65		
15	QPSK	36	20	22.65	22.63	22.56		24
15	QPSK	36	39	22.72	22.67	22.67		
15	QPSK	75	0	22.59	22.63	22.60		20
15	16QAM	1	0	22.89	22.80	22.83		
15	16QAM	1	37	22.70	22.76	22.79		1
15	16QAM	1	74	22.70	22.69	22.69		
15	16QAM	36	0	21.75	21.70	21.62		23
15	16QAM	36	20	21.53	21.49	21.51		
15	16QAM	36	39	21.69	21.61	21.60		2
15	16QAM	75	0	21.61	21.56	21.46		
15	64QAM	1	0	21.59	21.59	21.56		2
15	64QAM	1	37	21.72	21.72	21.80		
15	64QAM	1	74	21.59	21.64	21.56		23
15	64QAM	36	0	20.57	20.61	20.62		
15	64QAM	36	20	20.60	20.51	20.42		22
15	64QAM	36	39	20.59	20.61	20.54		
15	64QAM	75	0	20.58	20.58	20.65		3
15	256QAM	1	0	18.82	18.74	18.80		
15	256QAM	1	37	18.92	18.83	18.86		5
15	256QAM	1	74	18.82	18.83	18.84		
15	256QAM	36	0	18.60	18.65	18.67		5
15	256QAM	36	20	18.70	18.70	18.73		



15	256QAM	36	39	18.70	18.70	18.75		
15	256QAM	75	0	18.86	18.79	18.73		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	23.47	23.53	23.37	25	0
10	QPSK	1	25	23.41	23.49	23.41		
10	QPSK	1	49	23.42	23.38	23.46		
10	QPSK	25	0	22.58	22.65	22.60	24	1
10	QPSK	25	12	22.57	22.60	22.43		
10	QPSK	25	25	22.60	22.67	22.62		
10	QPSK	50	0	22.44	22.47	22.54		
10	16QAM	1	0	22.74	22.77	22.67	24	1
10	16QAM	1	25	22.65	22.74	22.76		
10	16QAM	1	49	22.60	22.63	22.67		
10	16QAM	25	0	21.64	21.66	21.54	23	2
10	16QAM	25	12	21.50	21.34	21.37		
10	16QAM	25	25	21.56	21.47	21.49		
10	16QAM	50	0	21.52	21.45	21.30		
10	64QAM	1	0	21.55	21.56	21.49	23	2
10	64QAM	1	25	21.64	21.66	21.73		
10	64QAM	1	49	21.49	21.47	21.43		
10	64QAM	25	0	20.41	20.51	20.45	22	3
10	64QAM	25	12	20.50	20.45	20.32		
10	64QAM	25	25	20.50	20.47	20.39		
10	64QAM	50	0	20.55	20.42	20.52		
10	256QAM	1	0	18.66	18.58	18.70	20	5
10	256QAM	1	25	18.89	18.80	18.82		
10	256QAM	1	49	18.64	18.72	18.74		
10	256QAM	25	0	18.54	18.58	18.63	20	5
10	256QAM	25	12	18.65	18.60	18.59		
10	256QAM	25	25	18.57	18.62	18.70		
10	256QAM	50	0	18.81	18.65	18.70		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	23.41	23.49	23.35	25	0
5	QPSK	1	12	23.39	23.52	23.38		
5	QPSK	1	24	23.39	23.50	23.47		
5	QPSK	12	0	22.67	22.64	22.47	24	1
5	QPSK	12	7	22.51	22.52	22.53		
5	QPSK	12	13	22.62	22.66	22.63		
5	QPSK	25	0	22.53	22.52	22.48		
5	16QAM	1	0	22.84	22.67	22.75	24	1
5	16QAM	1	12	22.53	22.72	22.74		
5	16QAM	1	24	22.67	22.57	22.57		
5	16QAM	12	0	21.57	21.60	21.58	23	2
5	16QAM	12	7	21.44	21.38	21.42		
5	16QAM	12	13	21.54	21.51	21.51		
5	16QAM	25	0	21.44	21.39	21.28		
5	64QAM	1	0	21.45	21.53	21.40	23	2
5	64QAM	1	12	21.57	21.58	21.63		
5	64QAM	1	24	21.56	21.49	21.45		
5	64QAM	12	0	20.47	20.58	20.55	22	3
5	64QAM	12	7	20.46	20.48	20.40		
5	64QAM	12	13	20.41	20.54	20.48		
5	64QAM	25	0	20.44	20.51	20.54		
5	256QAM	1	0	18.70	18.66	18.76	20	5



5	256QAM	1	12	18.76	18.65	18.75	20	5
5	256QAM	1	24	18.71	18.71	18.78		
5	256QAM	12	0	18.48	18.49	18.56		
5	256QAM	12	7	18.59	18.66	18.56		
5	256QAM	12	13	18.58	18.67	18.65		
5	256QAM	25	0	18.76	18.67	18.69		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	23.51	23.57	23.37	25	0
3	QPSK	1	8	23.37	23.52	23.49		
3	QPSK	1	14	23.33	23.37	23.56		
3	QPSK	8	0	22.64	22.57	22.61	24	1
3	QPSK	8	4	22.62	22.58	22.53		
3	QPSK	8	7	22.63	22.58	22.50		
3	QPSK	15	0	22.45	22.52	22.55	24	1
3	16QAM	1	0	22.72	22.65	22.80		
3	16QAM	1	8	22.67	22.62	22.76		
3	16QAM	1	14	22.60	22.66	22.58	23	2
3	16QAM	8	0	21.70	21.64	21.56		
3	16QAM	8	4	21.47	21.39	21.39		
3	16QAM	8	7	21.54	21.54	21.45	23	2
3	16QAM	15	0	21.47	21.53	21.36		
3	64QAM	1	0	21.51	21.48	21.53		
3	64QAM	1	8	21.64	21.62	21.69	23	2
3	64QAM	1	14	21.49	21.59	21.40		
3	64QAM	8	0	20.49	20.45	20.48		
3	64QAM	8	4	20.53	20.46	20.25	22	3
3	64QAM	8	7	20.50	20.57	20.39		
3	64QAM	15	0	20.48	20.46	20.55		
3	256QAM	1	0	18.65	18.66	18.66	20	5
3	256QAM	1	8	18.79	18.72	18.78		
3	256QAM	1	14	18.66	18.75	18.76		
3	256QAM	8	0	18.43	18.52	18.52	20	5
3	256QAM	8	4	18.54	18.57	18.60		
3	256QAM	8	7	18.63	18.65	18.59		
3	256QAM	15	0	18.81	18.72	18.65	20	5
Channel				26697	26865	27033		
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	23.45	23.56	23.45	25	0
1.4	QPSK	1	3	23.38	23.42	23.37		
1.4	QPSK	1	5	23.35	23.37	23.54		
1.4	QPSK	3	0	23.43	23.53	23.35		
1.4	QPSK	3	1	23.38	23.54	23.39		
1.4	QPSK	3	3	23.36	23.36	23.42		
1.4	QPSK	6	0	22.61	22.63	22.49	24	1
1.4	16QAM	1	0	22.53	22.52	22.53		
1.4	16QAM	1	3	22.68	22.58	22.63		
1.4	16QAM	1	5	22.57	22.50	22.51	24	1
1.4	16QAM	3	0	22.84	22.66	22.79		
1.4	16QAM	3	1	22.66	22.58	22.61		
1.4	16QAM	3	3	22.57	22.53	22.58	23	2
1.4	16QAM	6	0	21.58	21.62	21.55		
1.4	64QAM	1	0	21.48	21.41	21.36		
1.4	64QAM	1	3	21.63	21.46	21.47	23	2
1.4	64QAM	1	5	21.51	21.45	21.30		
1.4	64QAM	3	0	21.57	21.43	21.53		



1.4	64QAM	3	1	21.55	21.70	21.66		
1.4	64QAM	3	3	21.55	21.58	21.45		
1.4	64QAM	6	0	20.46	20.48	20.52	22	3
1.4	256QAM	1	0	18.78	18.64	18.74	20	5
1.4	256QAM	1	3	18.88	18.77	18.75		
1.4	256QAM	1	5	18.69	18.74	18.82		
1.4	256QAM	3	0	18.43	18.62	18.56		
1.4	256QAM	3	1	18.57	18.53	18.60		
1.4	256QAM	3	3	18.65	18.61	18.60	20	5
1.4	256QAM	6	0	18.81	18.75	18.60		

Band 71 Ant0 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133297	133372		
Frequency (MHz)				673	680.5	688		
20	QPSK	1	0	22.67	22.76	22.63	24	0
20	QPSK	1	49	22.66	22.73	22.69		
20	QPSK	1	99	22.66	22.65	22.62		
20	QPSK	50	0	21.65	21.68	21.63	23	1
20	QPSK	50	24	21.64	21.60	21.64		
20	QPSK	50	50	21.55	21.52	21.62		
20	QPSK	100	0	21.59	21.62	21.60		
20	16QAM	1	0	21.82	21.87	21.93		
20	16QAM	1	49	21.82	21.83	21.82	23	1
20	16QAM	1	99	21.98	21.91	21.88		
20	16QAM	50	0	20.67	20.65	20.64		
20	16QAM	50	24	20.58	20.58	20.53	22	2
20	16QAM	50	50	20.79	20.78	20.70		
20	16QAM	100	0	20.67	20.66	20.70		
20	64QAM	1	0	20.91	20.95	21.04	22	2
20	64QAM	1	49	21.06	21.01	21.07		
20	64QAM	1	99	20.96	20.97	20.94		
20	64QAM	50	0	19.72	19.67	19.66	21	3
20	64QAM	50	24	19.47	19.55	19.54		
20	64QAM	50	50	19.66	19.64	19.57		
20	64QAM	100	0	19.60	19.62	19.55		
20	256QAM	1	0	17.68	17.60	17.65		
20	256QAM	1	49	17.62	17.61	17.71	19	5
20	256QAM	1	99	17.71	17.70	17.71		
20	256QAM	50	0	17.63	17.55	17.58		
20	256QAM	50	24	17.56	17.59	17.57	19	5
20	256QAM	50	50	17.52	17.61	17.71		
20	256QAM	100	0	17.64	17.70	17.79		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	22.65	22.70	22.52	24	0
15	QPSK	1	37	22.63	22.60	22.53		
15	QPSK	1	74	22.51	22.61	22.51		
15	QPSK	36	0	21.44	21.49	21.57	23	1
15	QPSK	36	20	21.50	21.48	21.57		
15	QPSK	36	39	21.52	21.37	21.56		
15	QPSK	75	0	21.40	21.40	21.47		
15	16QAM	1	0	21.64	21.80	21.89	23	1
15	16QAM	1	37	21.79	21.77	21.77		
15	16QAM	1	74	21.92	21.88	21.71		



15	16QAM	36	0	20.50	20.61	20.61	22	2
15	16QAM	36	20	20.47	20.47	20.43		
15	16QAM	36	39	20.73	20.69	20.61		
15	16QAM	75	0	20.57	20.57	20.58		
15	64QAM	1	0	20.81	20.90	21.00	22	2
15	64QAM	1	37	20.91	20.96	20.99		
15	64QAM	1	74	20.86	20.84	20.77		
15	64QAM	36	0	19.63	19.59	19.48		
15	64QAM	36	20	19.30	19.50	19.52	21	3
15	64QAM	36	39	19.56	19.47	19.53		
15	64QAM	75	0	19.49	19.52	19.51		
15	256QAM	1	0	17.53	17.52	17.55		
15	256QAM	1	37	17.45	17.53	17.55	19	5
15	256QAM	1	74	17.67	17.62	17.57		
15	256QAM	36	0	17.59	17.38	17.40		
15	256QAM	36	20	17.53	17.57	17.40		
15	256QAM	36	39	17.35	17.58	17.67	19	5
15	256QAM	75	0	17.57	17.65	17.70		
Channel				133172	133297	133422		
Frequency (MHz)				668	680.5	693	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	22.64	22.70	22.52	24	0
10	QPSK	1	25	22.62	22.63	22.55		
10	QPSK	1	49	22.56	22.49	22.50		
10	QPSK	25	0	21.38	21.59	21.55		
10	QPSK	25	12	21.61	21.46	21.59	23	1
10	QPSK	25	25	21.46	21.39	21.47		
10	QPSK	50	0	21.35	21.47	21.44		
10	16QAM	1	0	21.75	21.70	21.88		
10	16QAM	1	25	21.64	21.75	21.68	23	1
10	16QAM	1	49	21.81	21.87	21.86		
10	16QAM	25	0	20.53	20.56	20.55		
10	16QAM	25	12	20.43	20.45	20.44		
10	16QAM	25	25	20.63	20.73	20.53	22	2
10	16QAM	50	0	20.52	20.51	20.59		
10	64QAM	1	0	20.74	20.86	20.93		
10	64QAM	1	25	20.99	20.88	20.95		
10	64QAM	1	49	20.80	20.86	20.86	22	2
10	64QAM	25	0	19.69	19.64	19.56		
10	64QAM	25	12	19.37	19.40	19.44		
10	64QAM	25	25	19.55	19.53	19.48		
10	64QAM	50	0	19.46	19.45	19.46	21	3
10	256QAM	1	0	17.62	17.51	17.48		
10	256QAM	1	25	17.54	17.55	17.59		
10	256QAM	1	49	17.54	17.67	17.54		
10	256QAM	25	0	17.56	17.41	17.52	19	5
10	256QAM	25	12	17.46	17.55	17.48		
10	256QAM	25	25	17.35	17.54	17.65		
10	256QAM	50	0	17.47	17.66	17.72		
Channel				133147	133297	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	0	22.61	22.68	22.52	24	0
5	QPSK	1	12	22.63	22.62	22.60		
5	QPSK	1	24	22.60	22.59	22.49		
5	QPSK	12	0	21.51	21.61	21.53		
5	QPSK	12	7	21.58	21.49	21.49	23	1
5	QPSK	12	13	21.52	21.41	21.52		



5	QPSK	25	0	21.40	21.46	21.58		
5	16QAM	1	0	21.77	21.72	21.81	23	1
5	16QAM	1	12	21.78	21.79	21.71		
5	16QAM	1	24	21.90	21.78	21.76		
5	16QAM	12	0	20.62	20.54	20.54		
5	16QAM	12	7	20.41	20.43	20.40	22	2
5	16QAM	12	13	20.68	20.63	20.58		
5	16QAM	25	0	20.63	20.61	20.56		
5	64QAM	1	0	20.74	20.90	21.00	22	2
5	64QAM	1	12	21.02	20.93	20.98		
5	64QAM	1	24	20.81	20.85	20.85		
5	64QAM	12	0	19.57	19.58	19.58	21	3
5	64QAM	12	7	19.41	19.45	19.47		
5	64QAM	12	13	19.52	19.47	19.50		
5	64QAM	25	0	19.57	19.58	19.39		
5	256QAM	1	0	17.57	17.43	17.55	19	5
5	256QAM	1	12	17.52	17.53	17.59		
5	256QAM	1	24	17.61	17.60	17.66		
5	256QAM	12	0	17.54	17.44	17.45	19	5
5	256QAM	12	7	17.42	17.48	17.43		
5	256QAM	12	13	17.41	17.53	17.66		
5	256QAM	25	0	17.51	17.61	17.76		

Band 5 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.30	22.36	22.23	24	0
10	QPSK	1	25	22.22	22.29	22.31		
10	QPSK	1	49	22.31	22.20	22.28		
10	QPSK	25	0	21.48	21.54	21.53		
10	QPSK	25	12	21.24	21.22	21.19	23	1
10	QPSK	25	25	21.37	21.42	21.38		
10	QPSK	50	0	21.45	21.50	21.47		
10	16QAM	1	0	21.65	21.72	21.72	23	1
10	16QAM	1	25	21.57	21.57	21.60		
10	16QAM	1	49	21.67	21.52	21.66		
10	16QAM	25	0	20.52	20.49	20.35		
10	16QAM	25	12	20.23	20.22	20.33	22	2
10	16QAM	25	25	20.40	20.36	20.33		
10	16QAM	50	0	20.34	20.31	20.25		
10	64QAM	1	0	20.51	20.50	20.38	22	2
10	64QAM	1	25	20.55	20.42	20.50		
10	64QAM	1	49	20.42	20.47	20.41		
10	64QAM	25	0	20.62	20.50	20.38	21	3
10	64QAM	25	12	20.43	20.44	20.39		
10	64QAM	25	25	20.40	20.30	20.35		
10	64QAM	50	0	20.31	20.34	20.41		
10	256QAM	1	0	17.31	17.27	17.35	19	5
10	256QAM	1	25	17.14	17.30	17.36		
10	256QAM	1	49	17.19	17.23	17.34		
10	256QAM	25	0	17.37	17.44	17.26	19	5
10	256QAM	25	12	17.23	17.31	17.37		
10	256QAM	25	25	17.37	17.37	17.41		
10	256QAM	50	0	17.27	17.34	17.26		



Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.26	22.28	22.14	24	0
5	QPSK	1	12	22.17	22.18	22.22		
5	QPSK	1	24	22.23	22.08	22.12		
5	QPSK	12	0	21.33	21.41	21.38		
5	QPSK	12	7	21.12	21.12	21.15		
5	QPSK	12	13	21.27	21.36	21.26		
5	QPSK	25	0	21.32	21.44	21.40	23	1
5	16QAM	1	0	21.50	21.68	21.59		
5	16QAM	1	12	21.48	21.44	21.52		
5	16QAM	1	24	21.53	21.43	21.52		
5	16QAM	12	0	20.39	20.35	20.19		
5	16QAM	12	7	20.16	20.07	20.19		
5	16QAM	12	13	20.33	20.24	20.20	22	2
5	16QAM	25	0	20.19	20.26	20.10		
5	64QAM	1	0	20.46	20.40	20.32		
5	64QAM	1	12	20.40	20.29	20.40		
5	64QAM	1	24	20.31	20.38	20.35		
5	64QAM	12	0	20.50	20.45	20.22		
5	64QAM	12	7	20.33	20.33	20.27	21	3
5	64QAM	12	13	20.28	20.25	20.31		
5	64QAM	25	0	20.15	20.18	20.31		
5	256QAM	1	0	17.22	17.15	17.28		
5	256QAM	1	12	17.04	17.16	17.29		
5	256QAM	1	24	17.06	17.11	17.28		
5	256QAM	12	0	17.27	17.31	17.14	19	5
5	256QAM	12	7	17.17	17.21	17.27		
5	256QAM	12	13	17.24	17.26	17.25		
5	256QAM	25	0	17.18	17.28	17.12		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.16	22.24	22.10	24	0
3	QPSK	1	8	22.11	22.18	22.16		
3	QPSK	1	14	22.21	22.14	22.19		
3	QPSK	8	0	21.43	21.45	21.47		
3	QPSK	8	4	21.11	21.12	21.06		
3	QPSK	8	7	21.32	21.37	21.22		
3	QPSK	15	0	21.39	21.44	21.42	23	1
3	16QAM	1	0	21.61	21.59	21.62		
3	16QAM	1	8	21.41	21.41	21.50		
3	16QAM	1	14	21.52	21.38	21.59		
3	16QAM	8	0	20.43	20.37	20.22		
3	16QAM	8	4	20.12	20.07	20.19		
3	16QAM	8	7	20.28	20.23	20.18	22	2
3	16QAM	15	0	20.22	20.21	20.10		
3	64QAM	1	0	20.41	20.37	20.22		
3	64QAM	1	8	20.48	20.33	20.43		
3	64QAM	1	14	20.34	20.33	20.36		
3	64QAM	8	0	20.50	20.45	20.30		
3	64QAM	8	4	20.29	20.29	20.24	21	3
3	64QAM	8	7	20.30	20.23	20.24		
3	64QAM	15	0	20.15	20.27	20.25		
3	256QAM	1	0	17.17	17.17	17.25		
3	256QAM	1	8	17.06	17.16	17.27		
3	256QAM	1	14	17.09	17.14	17.22		



3	256QAM	8	0	17.32	17.35	17.14	19	5
3	256QAM	8	4	17.07	17.18	17.31		
3	256QAM	8	7	17.30	17.31	17.37		
3	256QAM	15	0	17.22	17.22	17.15		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.18	22.21	22.12	24	0
1.4	QPSK	1	3	22.14	22.22	22.17		
1.4	QPSK	1	5	22.25	22.12	22.16		
1.4	QPSK	3	0	22.20	22.21	22.16		
1.4	QPSK	3	1	22.12	22.15	22.18		
1.4	QPSK	3	3	22.26	22.14	22.15		
1.4	QPSK	6	0	21.36	21.39	21.39		
1.4	16QAM	1	0	21.57	21.63	21.56	23	1
1.4	16QAM	1	3	21.51	21.45	21.55		
1.4	16QAM	1	5	21.60	21.40	21.52		
1.4	16QAM	3	0	21.52	21.62	21.65		
1.4	16QAM	3	1	21.51	21.50	21.46		
1.4	16QAM	3	3	21.61	21.44	21.60		
1.4	16QAM	6	0	20.24	20.19	20.15		
1.4	64QAM	1	0	20.44	20.44	20.33	22	2
1.4	64QAM	1	3	20.49	20.36	20.36		
1.4	64QAM	1	5	20.35	20.36	20.33		
1.4	64QAM	3	0	20.52	20.42	20.34		
1.4	64QAM	3	1	20.33	20.31	20.24		
1.4	64QAM	3	3	20.25	20.22	20.21		
1.4	64QAM	6	0	20.26	20.21	20.29		
1.4	256QAM	1	0	17.22	17.19	17.24	19	5
1.4	256QAM	1	3	17.01	17.24	17.31		
1.4	256QAM	1	5	17.09	17.16	17.28		
1.4	256QAM	3	0	17.22	17.36	17.15		
1.4	256QAM	3	1	17.18	17.23	17.32		
1.4	256QAM	3	3	17.32	17.24	17.31		
1.4	256QAM	6	0	17.14	17.26	17.12		

Band 12 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	22.47	22.52	22.41	24	0
10	QPSK	1	25	22.42	22.48	22.49		
10	QPSK	1	49	22.37	22.37	22.48		
10	QPSK	25	0	21.55	21.68	21.66		
10	QPSK	25	12	21.47	21.38	21.33		
10	QPSK	25	25	21.55	21.55	21.49		
10	QPSK	50	0	21.55	21.66	21.64		
10	16QAM	1	0	21.82	21.87	21.86	23	1
10	16QAM	1	25	21.74	21.79	21.75		
10	16QAM	1	49	21.73	21.70	21.89		
10	16QAM	25	0	20.59	20.62	20.57		22
10	16QAM	25	12	20.45	20.44	20.50		
10	16QAM	25	25	20.62	20.51	20.50		
10	16QAM	50	0	20.46	20.43	20.39		
10	64QAM	1	0	20.63	20.60	20.53	22	2
10	64QAM	1	25	20.74	20.66	20.60		



10	64QAM	1	49	20.59	20.64	20.53		
10	64QAM	25	0	20.75	20.67	20.52	21	3
10	64QAM	25	12	20.60	20.63	20.55		
10	64QAM	25	25	20.56	20.56	20.47		
10	64QAM	50	0	20.52	20.52	20.52		
10	256QAM	1	0	17.48	17.54	17.47	19	5
10	256QAM	1	25	17.31	17.45	17.45		
10	256QAM	1	49	17.36	17.36	17.49		
10	256QAM	25	0	17.59	17.53	17.50		
10	256QAM	25	12	17.43	17.54	17.57	19	5
10	256QAM	25	25	17.56	17.50	17.59		
10	256QAM	50	0	17.49	17.52	17.49		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	22.36	22.47	22.26	24	0
5	QPSK	1	12	22.32	22.32	22.35		
5	QPSK	1	24	22.30	22.23	22.33		
5	QPSK	12	0	21.50	21.64	21.61		
5	QPSK	12	7	21.40	21.31	21.19	23	1
5	QPSK	12	13	21.45	21.44	21.35		
5	QPSK	25	0	21.41	21.61	21.57		
5	16QAM	1	0	21.75	21.81	21.75		
5	16QAM	1	12	21.65	21.67	21.70	23	1
5	16QAM	1	24	21.64	21.58	21.76		
5	16QAM	12	0	20.45	20.51	20.46		
5	16QAM	12	7	20.38	20.36	20.37		
5	16QAM	12	13	20.47	20.36	20.36	22	2
5	16QAM	25	0	20.40	20.28	20.30		
5	64QAM	1	0	20.50	20.50	20.44	22	2
5	64QAM	1	12	20.61	20.55	20.56		
5	64QAM	1	24	20.49	20.56	20.39		
5	64QAM	12	0	20.67	20.54	20.38		
5	64QAM	12	7	20.53	20.55	20.45	21	3
5	64QAM	12	13	20.41	20.45	20.38		
5	64QAM	25	0	20.44	20.42	20.42		
5	256QAM	1	0	17.36	17.39	17.34	19	5
5	256QAM	1	12	17.26	17.39	17.33		
5	256QAM	1	24	17.30	17.32	17.38		
5	256QAM	12	0	17.54	17.41	17.35		
5	256QAM	12	7	17.37	17.43	17.48	19	5
5	256QAM	12	13	17.50	17.35	17.46		
5	256QAM	25	0	17.36	17.40	17.37		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	22.33	22.45	22.35	24	0
3	QPSK	1	8	22.34	22.32	22.34		
3	QPSK	1	14	22.25	22.30	22.35		
3	QPSK	8	0	21.48	21.52	21.59		
3	QPSK	8	4	21.41	21.27	21.22	23	1
3	QPSK	8	7	21.47	21.45	21.39		
3	QPSK	15	0	21.44	21.50	21.58		
3	16QAM	1	0	21.67	21.77	21.70		
3	16QAM	1	8	21.68	21.74	21.64	23	1
3	16QAM	1	14	21.66	21.59	21.83		
3	16QAM	8	0	20.54	20.47	20.46		
3	16QAM	8	4	20.40	20.37	20.35		



3	16QAM	8	7	20.56	20.38	20.37		
3	16QAM	15	0	20.37	20.35	20.27		
3	64QAM	1	0	20.50	20.44	20.38	22	2
3	64QAM	1	8	20.68	20.51	20.45		
3	64QAM	1	14	20.45	20.49	20.43	21	3
3	64QAM	8	0	20.66	20.61	20.45		
3	64QAM	8	4	20.54	20.54	20.46	21	3
3	64QAM	8	7	20.51	20.50	20.32		
3	64QAM	15	0	20.37	20.39	20.40	19	5
3	256QAM	1	0	17.44	17.42	17.40		
3	256QAM	1	8	17.16	17.40	17.29	19	5
3	256QAM	1	14	17.31	17.30	17.39	19	5
3	256QAM	8	0	17.46	17.43	17.45		
3	256QAM	8	4	17.36	17.49	17.48	19	5
3	256QAM	8	7	17.51	17.44	17.46		
3	256QAM	15	0	17.37	17.47	17.40	Tune-up limit (dBm)	MPR (dB)
Channel				23017	23095	23173		
Frequency (MHz)				699.7	707.5	715.3	24	0
1.4	QPSK	1	0	22.36	22.41	22.33		
1.4	QPSK	1	3	22.30	22.39	22.40	24	0
1.4	QPSK	1	5	22.30	22.32	22.43		
1.4	QPSK	3	0	22.34	22.45	22.30	24	0
1.4	QPSK	3	1	22.26	22.39	22.43		
1.4	QPSK	3	3	22.27	22.22	22.38	23	1
1.4	QPSK	6	0	21.41	21.52	21.50		
1.4	16QAM	1	0	21.78	21.76	21.78	23	1
1.4	16QAM	1	3	21.63	21.73	21.71		
1.4	16QAM	1	5	21.69	21.56	21.83	23	1
1.4	16QAM	3	0	21.74	21.82	21.75		
1.4	16QAM	3	1	21.69	21.72	21.63	22	2
1.4	16QAM	3	3	21.59	21.60	21.79		
1.4	16QAM	6	0	20.41	20.28	20.25	22	2
1.4	64QAM	1	0	20.59	20.47	20.40		
1.4	64QAM	1	3	20.63	20.55	20.55	22	2
1.4	64QAM	1	5	20.51	20.55	20.39		
1.4	64QAM	3	0	20.66	20.59	20.47	22	2
1.4	64QAM	3	1	20.52	20.49	20.47		
1.4	64QAM	3	3	20.44	20.48	20.42	21	3
1.4	64QAM	6	0	20.45	20.47	20.47		
1.4	256QAM	1	0	17.43	17.48	17.36	19	5
1.4	256QAM	1	3	17.25	17.31	17.38		
1.4	256QAM	1	5	17.21	17.26	17.34	19	5
1.4	256QAM	3	0	17.47	17.40	17.45		
1.4	256QAM	3	1	17.38	17.40	17.51	19	5
1.4	256QAM	3	3	17.47	17.40	17.48		
1.4	256QAM	6	0	17.34	17.37	17.38	19	5

Band 13 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23230				
Frequency (MHz)				782				
10	QPSK	1	0		22.45		24	0
10	QPSK	1	25		22.37			
10	QPSK	1	49		22.39			
10	QPSK	25	0		21.62			



10	QPSK	25	12		21.34			
10	QPSK	25	25		21.45			
10	QPSK	50	0		21.61			
10	16QAM	1	0		21.84		23	1
10	16QAM	1	25		21.70			
10	16QAM	1	49		21.64			
10	16QAM	25	0		20.58			22
10	16QAM	25	12		20.39			
10	16QAM	25	25		20.43			
10	16QAM	50	0		20.44		22	2
10	64QAM	1	0		20.59			
10	64QAM	1	25		20.62			
10	64QAM	1	49		20.46			
10	64QAM	25	0		20.56			21
10	64QAM	25	12		20.49			
10	64QAM	25	25		20.40			
10	64QAM	50	0		20.44		19	5
10	256QAM	1	0		17.47			
10	256QAM	1	25		17.31			
10	256QAM	1	49		17.28			
10	256QAM	25	0		17.57			19
10	256QAM	25	12		17.46			
10	256QAM	25	25		17.43			
10	256QAM	50	0		17.46		Tune-up limit (dBm)	MPR (dB)
Channel				23205	23230	23255		
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	22.42	22.25	22.26	24	0
5	QPSK	1	12	22.20	22.29	22.31		
5	QPSK	1	24	22.33	22.21	22.30		
5	QPSK	12	0	21.41	21.40	21.51	23	1
5	QPSK	12	7	21.23	21.35	21.15		
5	QPSK	12	13	21.34	21.35	21.28		
5	QPSK	25	0	21.38	21.52	21.42		
5	16QAM	1	0	21.78	21.69	21.67		23
5	16QAM	1	12	21.50	21.57	21.56		
5	16QAM	1	24	21.64	21.53	21.70		
5	16QAM	12	0	20.45	20.44	20.38	22	2
5	16QAM	12	7	20.30	20.26	20.25		
5	16QAM	12	13	20.39	20.30	20.33		
5	16QAM	25	0	20.37	20.27	20.29		
5	64QAM	1	0	20.48	20.45	20.36	22	2
5	64QAM	1	12	20.60	20.49	20.54		
5	64QAM	1	24	20.37	20.40	20.33		
5	64QAM	12	0	20.60	20.46	20.38	21	3
5	64QAM	12	7	20.45	20.41	20.46		
5	64QAM	12	13	20.40	20.33	20.29		
5	64QAM	25	0	20.40	20.48	20.44		
5	256QAM	1	0	17.35	17.39	17.37	19	5
5	256QAM	1	12	17.19	17.20	17.33		
5	256QAM	1	24	17.18	17.26	17.29		
5	256QAM	12	0	17.35	17.37	17.33	19	5
5	256QAM	12	7	17.29	17.33	17.44		
5	256QAM	12	13	17.38	17.46	17.44		
5	256QAM	25	0	17.16	17.29	17.31		



Band 14 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23330				
Frequency (MHz)				793				
10	QPSK	1	0		22.47		24	0
10	QPSK	1	25		22.36			
10	QPSK	1	49		22.41			
10	QPSK	25	0		21.54			
10	QPSK	25	12		21.36			
10	QPSK	25	25		21.52			
10	QPSK	50	0		21.60			
10	16QAM	1	0		21.86		23	1
10	16QAM	1	25		21.65			
10	16QAM	1	49		21.71			
10	16QAM	25	0		20.57			
10	16QAM	25	12		20.32			
10	16QAM	25	25		20.46			
10	16QAM	50	0		20.43			
10	64QAM	1	0		20.61		22	2
10	64QAM	1	25		20.56			
10	64QAM	1	49		20.59			
10	64QAM	25	0		20.64			
10	64QAM	25	12		20.57			
10	64QAM	25	25		20.51			
10	64QAM	50	0		20.48			
10	256QAM	1	0		17.46		19	5
10	256QAM	1	25		17.34			
10	256QAM	1	49		17.32			
10	256QAM	25	0		17.56			
10	256QAM	25	12		17.40			
10	256QAM	25	25		17.43			
10	256QAM	50	0		17.47			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	22.41	22.40	22.30	24	0
5	QPSK	1	12	22.29	22.34	22.26		
5	QPSK	1	24	22.25	22.19	22.25		
5	QPSK	12	0	21.47	21.42	21.51		
5	QPSK	12	7	21.20	21.21	21.14		
5	QPSK	12	13	21.38	21.30	21.33		
5	QPSK	25	0	21.40	21.43	21.47		
5	16QAM	1	0	21.72	21.66	21.73	23	1
5	16QAM	1	12	21.54	21.56	21.52		
5	16QAM	1	24	21.69	21.68	21.70		
5	16QAM	12	0	20.49	20.49	20.40		
5	16QAM	12	7	20.35	20.25	20.30		
5	16QAM	12	13	20.45	20.36	20.41		
5	16QAM	25	0	20.37	20.28	20.28		
5	64QAM	1	0	20.46	20.54	20.46	22	2
5	64QAM	1	12	20.63	20.50	20.52		
5	64QAM	1	24	20.52	20.45	20.41		
5	64QAM	12	0	20.56	20.50	20.35		
5	64QAM	12	7	20.44	20.44	20.40		
5	64QAM	12	13	20.35	20.38	20.33		



5	64QAM	25	0	20.43	20.40	20.42		
5	256QAM	1	0	17.39	17.29	17.30	19	5
5	256QAM	1	12	17.16	17.29	17.31		
5	256QAM	1	24	17.26	17.19	17.27		
5	256QAM	12	0	17.33	17.49	17.36		
5	256QAM	12	7	17.31	17.43	17.38	19	5
5	256QAM	12	13	17.39	17.34	17.53		
5	256QAM	25	0	17.32	17.30	17.29		

Band 17 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	22.60	22.66	22.51	24	0
10	QPSK	1	25	22.63	22.64	22.58		
10	QPSK	1	49	22.52	22.57	22.60		
10	QPSK	25	0	21.77	21.83	21.82		
10	QPSK	25	12	21.56	21.62	21.51	23	1
10	QPSK	25	25	21.74	21.71	21.64		
10	QPSK	50	0	21.71	21.79	21.71		
10	16QAM	1	0	22.00	22.02	22.09		
10	16QAM	1	25	21.79	21.88	21.82	23	1
10	16QAM	1	49	21.93	21.93	21.92		
10	16QAM	25	0	20.83	20.71	20.61		
10	16QAM	25	12	20.55	20.54	20.56		
10	16QAM	25	25	20.71	20.68	20.65	22	2
10	16QAM	50	0	20.59	20.64	20.55		
10	64QAM	1	0	20.77	20.72	20.71		
10	64QAM	1	25	20.81	20.82	20.81		
10	64QAM	1	49	20.66	20.76	20.70	22	2
10	64QAM	25	0	20.82	20.78	20.72		
10	64QAM	25	12	20.69	20.77	20.68		
10	64QAM	25	25	20.60	20.62	20.63		
10	64QAM	50	0	20.71	20.74	20.68	21	3
10	256QAM	1	0	17.58	17.58	17.65		
10	256QAM	1	25	17.50	17.61	17.58		
10	256QAM	1	49	17.51	17.48	17.54		
10	256QAM	25	0	17.64	17.74	17.66	19	5
10	256QAM	25	12	17.62	17.63	17.73		
10	256QAM	25	25	17.72	17.61	17.75		
10	256QAM	50	0	17.57	17.60	17.52		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	22.47	22.56	22.37	24	0
5	QPSK	1	12	22.52	22.54	22.53		
5	QPSK	1	24	22.45	22.49	22.44		
5	QPSK	12	0	21.70	21.73	21.75		
5	QPSK	12	7	21.41	21.48	21.36	23	1
5	QPSK	12	13	21.69	21.61	21.52		
5	QPSK	25	0	21.57	21.67	21.57		
5	16QAM	1	0	21.87	21.93	21.99		
5	16QAM	1	12	21.73	21.77	21.68	23	1
5	16QAM	1	24	21.85	21.85	21.82		
5	16QAM	12	0	20.69	20.62	20.57		
5	16QAM	12	7	20.51	20.49	20.46		



5	16QAM	12	13	20.60	20.62	20.59		
5	16QAM	25	0	20.44	20.53	20.42		
5	64QAM	1	0	20.63	20.63	20.59		2
5	64QAM	1	12	20.68	20.76	20.69		
5	64QAM	1	24	20.60	20.63	20.62		2
5	64QAM	12	0	20.75	20.70	20.57		
5	64QAM	12	7	20.57	20.71	20.63		3
5	64QAM	12	13	20.54	20.56	20.51		
5	64QAM	25	0	20.57	20.69	20.55		
5	256QAM	1	0	17.46	17.49	17.54		5
5	256QAM	1	12	17.46	17.57	17.48		
5	256QAM	1	24	17.39	17.43	17.44		
5	256QAM	12	0	17.49	17.61	17.56		5
5	256QAM	12	7	17.51	17.54	17.59		
5	256QAM	12	13	17.60	17.57	17.64		5
5	256QAM	25	0	17.48	17.55	17.42		

Band 26 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	22.30	22.34	22.22	24	0
15	QPSK	1	37	22.23	22.30	22.32		
15	QPSK	1	74	22.19	22.22	22.26		
15	QPSK	36	0	21.47	21.49	21.47	23	1
15	QPSK	36	20	21.21	21.26	21.10		
15	QPSK	36	39	21.37	21.32	21.40		
15	QPSK	75	0	21.40	21.47	21.40		
15	16QAM	1	0	21.72	21.67	21.74	23	1
15	16QAM	1	37	21.53	21.55	21.53		
15	16QAM	1	74	21.59	21.59	21.65		
15	16QAM	36	0	20.50	20.45	20.34	22	2
15	16QAM	36	20	20.22	20.22	20.31		
15	16QAM	36	39	20.37	20.35	20.27		
15	16QAM	75	0	20.34	20.25	20.26		
15	64QAM	1	0	20.53	20.50	20.42	22	2
15	64QAM	1	37	20.56	20.45	20.49		
15	64QAM	1	74	20.46	20.41	20.39		
15	64QAM	36	0	20.52	20.49	20.40	21	3
15	64QAM	36	20	20.49	20.37	20.43		
15	64QAM	36	39	20.34	20.35	20.32		
15	64QAM	75	0	20.36	20.37	20.38		
15	256QAM	1	0	17.25	17.25	17.25	19	5
15	256QAM	1	37	17.11	17.27	17.27		
15	256QAM	1	74	17.21	17.19	17.31		
15	256QAM	36	0	17.44	17.34	17.36		
15	256QAM	36	20	17.25	17.28	17.44	19	5
15	256QAM	36	39	17.39	17.30	17.41		
15	256QAM	75	0	17.30	17.30	17.30		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	22.20	22.21	22.06	24	0
10	QPSK	1	25	22.12	22.17	22.21		
10	QPSK	1	49	22.09	22.18	22.14		
10	QPSK	25	0	21.41	21.35	21.33		



10	QPSK	25	12	21.11	21.20	21.03		
10	QPSK	25	25	21.33	21.23	21.32		
10	QPSK	50	0	21.30	21.40	21.26		
10	16QAM	1	0	21.61	21.60	21.67		
10	16QAM	1	25	21.47	21.45	21.39		1
10	16QAM	1	49	21.47	21.50	21.60		
10	16QAM	25	0	20.45	20.35	20.21		
10	16QAM	25	12	20.11	20.16	20.16		
10	16QAM	25	25	20.26	20.21	20.18		2
10	16QAM	50	0	20.25	20.12	20.12		
10	64QAM	1	0	20.38	20.35	20.36		2
10	64QAM	1	25	20.42	20.34	20.41		
10	64QAM	1	49	20.38	20.32	20.29		
10	64QAM	25	0	20.47	20.43	20.27		
10	64QAM	25	12	20.41	20.24	20.36		3
10	64QAM	25	25	20.27	20.20	20.17		
10	64QAM	50	0	20.30	20.32	20.24		
10	256QAM	1	0	17.16	17.20	17.20		
10	256QAM	1	25	17.06	17.20	17.13		5
10	256QAM	1	49	17.07	17.15	17.17		
10	256QAM	25	0	17.37	17.21	17.32		
10	256QAM	25	12	17.10	17.13	17.30		
10	256QAM	25	25	17.34	17.14	17.31		5
10	256QAM	50	0	17.25	17.20	17.22		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	22.22	22.21	22.14		0
5	QPSK	1	12	22.11	22.23	22.27		
5	QPSK	1	24	22.05	22.11	22.16		
5	QPSK	12	0	21.32	21.35	21.39		
5	QPSK	12	7	21.13	21.13	21.06		1
5	QPSK	12	13	21.27	21.22	21.28		
5	QPSK	25	0	21.29	21.32	21.30		
5	16QAM	1	0	21.65	21.55	21.69		
5	16QAM	1	12	21.47	21.49	21.40		1
5	16QAM	1	24	21.54	21.52	21.50		
5	16QAM	12	0	20.42	20.32	20.23		
5	16QAM	12	7	20.08	20.09	20.15		
5	16QAM	12	13	20.28	20.22	20.15		2
5	16QAM	25	0	20.20	20.14	20.17		
5	64QAM	1	0	20.43	20.43	20.38		2
5	64QAM	1	12	20.45	20.39	20.40		
5	64QAM	1	24	20.35	20.25	20.27		
5	64QAM	12	0	20.40	20.36	20.30		
5	64QAM	12	7	20.36	20.31	20.34		3
5	64QAM	12	13	20.27	20.21	20.20		
5	64QAM	25	0	20.23	20.31	20.27		
5	256QAM	1	0	17.12	17.17	17.13		5
5	256QAM	1	12	17.04	17.13	17.20		
5	256QAM	1	24	17.16	17.09	17.27		
5	256QAM	12	0	17.34	17.22	17.24		
5	256QAM	12	7	17.15	17.14	17.34		5
5	256QAM	12	13	17.28	17.22	17.28		
5	256QAM	25	0	17.21	17.25	17.23		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		



3	QPSK	1	0	22.16	22.29	22.08	24	0
3	QPSK	1	8	22.17	22.15	22.22		
3	QPSK	1	14	22.10	22.10	22.13		
3	QPSK	8	0	21.36	21.39	21.38	23	1
3	QPSK	8	4	21.09	21.16	21.04		
3	QPSK	8	7	21.30	21.21	21.32		
3	QPSK	15	0	21.33	21.36	21.25	23	1
3	16QAM	1	0	21.66	21.56	21.60		
3	16QAM	1	8	21.39	21.40	21.48		
3	16QAM	1	14	21.54	21.54	21.52	22	2
3	16QAM	8	0	20.35	20.33	20.27		
3	16QAM	8	4	20.06	20.11	20.21		
3	16QAM	8	7	20.30	20.24	20.15	22	2
3	16QAM	15	0	20.24	20.15	20.18		
3	64QAM	1	0	20.48	20.39	20.27	22	2
3	64QAM	1	8	20.41	20.34	20.38		
3	64QAM	1	14	20.34	20.34	20.32		
3	64QAM	8	0	20.36	20.39	20.31	21	3
3	64QAM	8	4	20.37	20.29	20.31		
3	64QAM	8	7	20.23	20.22	20.18		
3	64QAM	15	0	20.25	20.24	20.24	19	5
3	256QAM	1	0	17.17	17.19	17.17		
3	256QAM	1	8	17.03	17.19	17.13		
3	256QAM	1	14	17.17	17.09	17.25	19	5
3	256QAM	8	0	17.35	17.28	17.22	19	5
3	256QAM	8	4	17.19	17.23	17.35		
3	256QAM	8	7	17.26	17.24	17.36		
3	256QAM	15	0	17.23	17.18	17.22	19	5
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	22.15	22.22	22.15	24	0
1.4	QPSK	1	3	22.14	22.22	22.23		
1.4	QPSK	1	5	22.15	22.12	22.19		
1.4	QPSK	3	0	22.18	22.29	22.17		
1.4	QPSK	3	1	22.09	22.17	22.24		
1.4	QPSK	3	3	22.09	22.09	22.10		
1.4	QPSK	6	0	21.25	21.37	21.25	23	1
1.4	16QAM	1	0	21.58	21.54	21.64	23	1
1.4	16QAM	1	3	21.47	21.48	21.46		
1.4	16QAM	1	5	21.51	21.45	21.58		
1.4	16QAM	3	0	21.56	21.60	21.60		
1.4	16QAM	3	1	21.40	21.48	21.48		
1.4	16QAM	3	3	21.47	21.54	21.58		
1.4	16QAM	6	0	20.18	20.14	20.19	22	2
1.4	64QAM	1	0	20.42	20.44	20.37	22	2
1.4	64QAM	1	3	20.46	20.36	20.42		
1.4	64QAM	1	5	20.37	20.25	20.26		
1.4	64QAM	3	0	20.45	20.40	20.34		
1.4	64QAM	3	1	20.36	20.28	20.28		
1.4	64QAM	3	3	20.27	20.24	20.21		
1.4	64QAM	6	0	20.30	20.30	20.29	21	3
1.4	256QAM	1	0	17.17	17.15	17.21	19	5
1.4	256QAM	1	3	17.02	17.17	17.11		
1.4	256QAM	1	5	17.11	17.11	17.24		
1.4	256QAM	3	0	17.38	17.26	17.22		
1.4	256QAM	3	1	17.15	17.13	17.29		



1.4	256QAM	3	3	17.27	17.25	17.30		
1.4	256QAM	6	0	17.20	17.18	17.18	19	5

Band 71 Ant1 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133297	133372		
Frequency (MHz)				673	680.5	688		
20	QPSK	1	0	21.96	21.99	21.94	23.5	0
20	QPSK	1	49	21.91	21.96	21.90		
20	QPSK	1	99	21.92	21.93	21.92		
20	QPSK	50	0	21.04	21.12	21.05		
20	QPSK	50	24	20.88	20.86	20.81	22.5	1
20	QPSK	50	50	21.03	21.05	21.00		
20	QPSK	100	0	21.08	21.15	21.10		
20	16QAM	1	0	21.33	21.41	21.42		
20	16QAM	1	49	21.19	21.20	21.23	22.5	1
20	16QAM	1	99	21.22	21.17	21.33		
20	16QAM	50	0	20.13	20.11	20.00		
20	16QAM	50	24	19.85	19.88	19.87		
20	16QAM	50	50	20.05	20.04	19.93	21.5	2
20	16QAM	100	0	19.91	19.96	19.87		
20	64QAM	1	0	20.18	20.05	20.00		
20	64QAM	1	49	20.19	20.15	20.12		
20	64QAM	1	99	19.99	20.01	20.01	21.5	2
20	64QAM	50	0	20.22	20.09	19.99		
20	64QAM	50	24	20.02	20.05	20.10		
20	64QAM	50	50	19.94	19.99	19.97		
20	64QAM	100	0	20.01	20.06	20.10	20.5	3
20	256QAM	1	0	16.89	16.92	16.96		
20	256QAM	1	49	16.83	16.89	16.93		
20	256QAM	1	99	16.87	16.84	16.89		
20	256QAM	50	0	16.99	17.09	16.92	18.5	5
20	256QAM	50	24	16.88	16.92	17.02		
20	256QAM	50	50	17.04	17.05	17.14		
20	256QAM	100	0	16.90	16.91	16.89		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	21.83	21.84	21.85	23.5	0
15	QPSK	1	37	21.82	21.87	21.84		
15	QPSK	1	74	21.83	21.77	21.83		
15	QPSK	36	0	20.89	20.96	20.94		
15	QPSK	36	20	20.76	20.76	20.70	22.5	1
15	QPSK	36	39	20.98	20.96	20.93		
15	QPSK	75	0	20.94	20.99	20.97		
15	16QAM	1	0	21.24	21.36	21.36		
15	16QAM	1	37	21.04	21.15	21.13	22.5	1
15	16QAM	1	74	21.10	21.07	21.20		
15	16QAM	36	0	20.03	20.02	19.93		
15	16QAM	36	20	19.77	19.79	19.79		
15	16QAM	36	39	19.95	19.94	19.87	21.5	2
15	16QAM	75	0	19.86	19.92	19.77		
15	64QAM	1	0	20.09	19.89	19.94		
15	64QAM	1	37	20.13	20.08	19.99		
15	64QAM	1	74	19.84	19.93	19.93	21.5	2
15	64QAM	36	0	20.09	19.97	19.89		
15	64QAM	36	0	20.09	19.97	19.89	20.5	3



Rate	Modulation	Symbol Rate	BER	Tx Power (dBm)			Tune-up limit (dBm)	MPR (dB)
				1	2	3		
15	64QAM	36	20	19.96	19.95	20.00	18.5	5
15	64QAM	36	39	19.81	19.87	19.87		
15	64QAM	75	0	19.90	19.96	19.96		
15	256QAM	1	0	16.80	16.84	16.89		
15	256QAM	1	37	16.71	16.75	16.84		
15	256QAM	1	74	16.81	16.73	16.81		
15	256QAM	36	0	16.89	17.03	16.78		
15	256QAM	36	20	16.84	16.83	16.97		
15	256QAM	36	39	16.91	16.94	17.02		
15	256QAM	75	0	16.78	16.82	16.78		
Channel				133172	133297	133422		
Frequency (MHz)				668	680.5	693	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	21.91	21.93	21.88		
10	QPSK	1	25	21.79	21.91	21.79		
10	QPSK	1	49	21.83	21.85	21.83		
10	QPSK	25	0	20.88	20.98	20.98		
10	QPSK	25	12	20.74	20.78	20.71		
10	QPSK	25	25	20.87	20.99	20.93		
10	QPSK	50	0	20.93	20.99	21.06		
10	16QAM	1	0	21.21	21.31	21.28		
10	16QAM	1	25	21.15	21.14	21.19		
10	16QAM	1	49	21.17	21.08	21.28		
10	16QAM	25	0	20.02	20.00	19.85	Tune-up limit (dBm)	MPR (dB)
10	16QAM	25	12	19.70	19.84	19.77		
10	16QAM	25	25	19.97	19.92	19.81		
10	16QAM	50	0	19.77	19.90	19.72		
10	64QAM	1	0	20.02	19.99	19.91		
10	64QAM	1	25	20.06	20.01	19.96		
10	64QAM	1	49	19.88	19.87	19.88		
10	64QAM	25	0	20.16	20.04	19.87		
10	64QAM	25	12	19.97	19.90	20.06		
10	64QAM	25	25	19.86	19.89	19.91		
10	64QAM	50	0	19.88	19.94	20.05		
10	256QAM	1	0	16.84	16.79	16.92	Tune-up limit (dBm)	MPR (dB)
10	256QAM	1	25	16.77	16.83	16.86		
10	256QAM	1	49	16.76	16.68	16.74		
10	256QAM	25	0	16.90	16.93	16.86		
10	256QAM	25	12	16.75	16.82	16.87		
10	256QAM	25	25	16.92	16.89	17.00		
10	256QAM	50	0	16.86	16.84	16.74		
Channel				133147	133297	133447		
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	0	21.81	21.92	21.83	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	12	21.81	21.84	21.82		
5	QPSK	1	24	21.81	21.82	21.76		
5	QPSK	12	0	20.91	21.07	20.96		
5	QPSK	12	7	20.73	20.78	20.68		
5	QPSK	12	13	20.93	20.99	20.90		
5	QPSK	25	0	21.03	21.09	20.96		
5	16QAM	1	0	21.26	21.26	21.34		
5	16QAM	1	12	21.08	21.12	21.15		
5	16QAM	1	24	21.07	21.09	21.22		
5	16QAM	12	0	20.09	19.97	19.85	Tune-up limit (dBm)	MPR (dB)
5	16QAM	12	7	19.73	19.79	19.75		
5	16QAM	12	13	19.91	19.88	19.85		
5	16QAM	25	0	19.84	19.91	19.73		



5	64QAM	1	0	20.12	19.91	19.87	21.5	2
5	64QAM	1	12	20.10	20.00	20.05		
5	64QAM	1	24	19.85	19.92	19.94		
5	64QAM	12	0	20.06	20.00	19.86	20.5	3
5	64QAM	12	7	19.86	20.00	20.02		
5	64QAM	12	13	19.80	19.87	19.88		
5	64QAM	25	0	19.88	19.93	19.96	18.5	5
5	256QAM	1	0	16.83	16.83	16.85		
5	256QAM	1	12	16.73	16.83	16.88		
5	256QAM	1	24	16.74	16.73	16.78	18.5	5
5	256QAM	12	0	16.90	17.01	16.78		
5	256QAM	12	7	16.81	16.81	16.91		
5	256QAM	12	13	16.90	16.89	17.06	18.5	5
5	256QAM	25	0	16.77	16.76	16.82		

Band 2 Ant2 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100	25	0
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.52	23.66	23.59		
20	QPSK	1	49	23.57	23.59	23.63	24	1
20	QPSK	1	99	23.56	23.60	23.54		
20	QPSK	50	0	22.69	22.77	22.63		
20	QPSK	50	24	22.72	22.63	22.60	24	1
20	QPSK	50	50	22.73	22.67	22.61		
20	QPSK	100	0	22.64	22.74	22.67		
20	16QAM	1	0	23.00	23.05	23.07	24	1
20	16QAM	1	49	22.95	22.97	23.06		
20	16QAM	1	99	23.04	23.06	23.14		
20	16QAM	50	0	21.75	21.71	21.68	23	2
20	16QAM	50	24	21.67	21.72	21.73		
20	16QAM	50	50	21.67	21.69	21.73		
20	16QAM	100	0	21.58	21.62	21.56	23	2
20	64QAM	1	0	21.64	21.73	21.70		
20	64QAM	1	49	21.68	21.62	21.68		
20	64QAM	1	99	21.57	21.63	21.66		
20	64QAM	50	0	20.80	20.72	20.66	22	3
20	64QAM	50	24	20.79	20.69	20.70		
20	64QAM	50	50	20.84	20.77	20.74		
20	64QAM	100	0	20.64	20.73	20.78	20	5
20	256QAM	1	0	18.63	18.54	18.59		
20	256QAM	1	49	18.64	18.59	18.60		
20	256QAM	1	99	18.57	18.56	18.63		
20	256QAM	50	0	18.68	18.58	18.63	20	5
20	256QAM	50	24	18.57	18.51	18.51		
20	256QAM	50	50	18.55	18.57	18.64		
20	256QAM	100	0	18.69	18.69	18.66	Tune-up limit (dBm)	MPR (dB)
Channel				18675	18900	19125		
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.47	23.55	23.49	25	0
15	QPSK	1	37	23.46	23.55	23.46		
15	QPSK	1	74	23.42	23.43	23.47		
15	QPSK	36	0	22.38	22.49	22.48	24	1
15	QPSK	36	20	22.60	22.60	22.48		
15	QPSK	36	39	22.69	22.74	22.69		



15	QPSK	75	0	22.46	22.55	22.62		
15	16QAM	1	0	22.93	22.90	23.05		
15	16QAM	1	37	22.87	22.89	22.96		
15	16QAM	1	74	22.95	22.91	23.06		
15	16QAM	36	0	21.57	21.66	21.62		
15	16QAM	36	20	21.65	21.57	21.61		
15	16QAM	36	39	21.53	21.63	21.58		
15	16QAM	75	0	21.43	21.44	21.49		
15	64QAM	1	0	21.95	21.92	21.93		
15	64QAM	1	37	21.83	21.84	21.83		
15	64QAM	1	74	21.79	21.79	21.76		
15	64QAM	36	0	20.32	20.49	20.50		
15	64QAM	36	20	20.62	20.63	20.58		
15	64QAM	36	39	20.43	20.52	20.38		
15	64QAM	75	0	20.43	20.49	20.44		
15	256QAM	1	0	18.57	18.38	18.42		
15	256QAM	1	37	18.57	18.41	18.42		
15	256QAM	1	74	18.46	18.53	18.60		
15	256QAM	36	0	18.53	18.45	18.58		
15	256QAM	36	20	18.54	18.35	18.45		
15	256QAM	36	39	18.45	18.44	18.46		
15	256QAM	75	0	18.58	18.55	18.56		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.41	23.58	23.45	25	0
10	QPSK	1	25	23.51	23.41	23.49		
10	QPSK	1	49	23.53	23.48	23.49		
10	QPSK	25	0	22.44	22.44	22.46	24	1
10	QPSK	25	12	22.69	22.46	22.52		
10	QPSK	25	25	22.80	22.72	22.75		
10	QPSK	50	0	22.44	22.48	22.57		
10	16QAM	1	0	22.88	22.96	22.99	24	1
10	16QAM	1	25	22.86	22.88	22.93		
10	16QAM	1	49	22.99	22.96	23.02		
10	16QAM	25	0	21.64	21.63	21.61	23	2
10	16QAM	25	12	21.60	21.67	21.69		
10	16QAM	25	25	21.63	21.55	21.60		
10	16QAM	50	0	21.55	21.48	21.53		
10	64QAM	1	0	21.96	22.01	21.88	23	2
10	64QAM	1	25	21.84	21.87	21.81		
10	64QAM	1	49	21.74	21.78	21.87		
10	64QAM	25	0	20.33	20.46	20.55	22	3
10	64QAM	25	12	20.51	20.60	20.57		
10	64QAM	25	25	20.45	20.45	20.37		
10	64QAM	50	0	20.49	20.41	20.44		
10	256QAM	1	0	18.47	18.49	18.43	20	5
10	256QAM	1	25	18.62	18.47	18.57		
10	256QAM	1	49	18.48	18.47	18.56		
10	256QAM	25	0	18.61	18.50	18.61	20	5
10	256QAM	25	12	18.51	18.45	18.48		
10	256QAM	25	25	18.38	18.51	18.55		
10	256QAM	50	0	18.58	18.53	18.49		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.41	23.50	23.43	25	0
5	QPSK	1	12	23.55	23.50	23.61		



5	QPSK	1	24	23.43	23.44	23.41		
5	QPSK	12	0	22.42	22.53	22.56		
5	QPSK	12	7	22.59	22.52	22.51		
5	QPSK	12	13	22.79	22.67	22.79		
5	QPSK	25	0	22.33	22.55	22.64		
5	16QAM	1	0	22.85	23.00	22.94		
5	16QAM	1	12	22.78	22.95	22.98		
5	16QAM	1	24	22.87	23.03	23.04		
5	16QAM	12	0	21.62	21.56	21.59		
5	16QAM	12	7	21.64	21.57	21.57		
5	16QAM	12	13	21.50	21.51	21.62		
5	16QAM	25	0	21.47	21.49	21.43		
5	64QAM	1	0	21.96	22.02	21.99		
5	64QAM	1	12	21.73	21.83	21.76		
5	64QAM	1	24	21.85	21.83	21.87		
5	64QAM	12	0	20.37	20.43	20.45		
5	64QAM	12	7	20.56	20.61	20.58		
5	64QAM	12	13	20.53	20.54	20.48		
5	64QAM	25	0	20.34	20.39	20.38		
5	256QAM	1	0	18.48	18.44	18.51		
5	256QAM	1	12	18.51	18.44	18.54		
5	256QAM	1	24	18.50	18.47	18.50		
5	256QAM	12	0	18.65	18.49	18.51		
5	256QAM	12	7	18.49	18.40	18.41		
5	256QAM	12	13	18.48	18.50	18.50		
5	256QAM	25	0	18.58	18.59	18.52		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.37	23.50	23.45	25	0
3	QPSK	1	8	23.50	23.48	23.59		
3	QPSK	1	14	23.51	23.57	23.42		
3	QPSK	8	0	22.43	22.45	22.54	24	1
3	QPSK	8	4	22.64	22.52	22.52		
3	QPSK	8	7	22.74	22.60	22.65		
3	QPSK	15	0	22.39	22.52	22.65	24	1
3	16QAM	1	0	22.85	22.87	22.94		
3	16QAM	1	8	22.90	22.86	23.02		
3	16QAM	1	14	22.99	23.02	22.99	24	1
3	16QAM	8	0	21.59	21.68	21.66		
3	16QAM	8	4	21.54	21.62	21.55		
3	16QAM	8	7	21.54	21.66	21.67	23	2
3	16QAM	15	0	21.42	21.45	21.48		
3	64QAM	1	0	21.98	21.96	21.94		
3	64QAM	1	8	21.84	21.76	21.77	23	2
3	64QAM	1	14	21.83	21.79	21.74		
3	64QAM	8	0	20.31	20.40	20.55		
3	64QAM	8	4	20.60	20.67	20.59	22	3
3	64QAM	8	7	20.54	20.41	20.44		
3	64QAM	15	0	20.43	20.40	20.51		
3	256QAM	1	0	18.49	18.44	18.43	20	5
3	256QAM	1	8	18.49	18.55	18.51		
3	256QAM	1	14	18.48	18.53	18.50		
3	256QAM	8	0	18.62	18.42	18.57	20	5
3	256QAM	8	4	18.46	18.49	18.35		
3	256QAM	8	7	18.51	18.51	18.51		
3	256QAM	15	0	18.62	18.64	18.54		



Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.43	23.61	23.42	25	0
1.4	QPSK	1	3	23.50	23.49	23.45		
1.4	QPSK	1	5	23.51	23.47	23.50		
1.4	QPSK	3	0	23.42	23.63	23.43		
1.4	QPSK	3	1	23.42	23.42	23.54		
1.4	QPSK	3	3	23.49	23.46	23.38		
1.4	QPSK	6	0	22.37	22.44	22.45		
1.4	16QAM	1	0	22.59	22.47	22.48	24	1
1.4	16QAM	1	3	22.68	22.63	22.69		
1.4	16QAM	1	5	22.38	22.51	22.60		
1.4	16QAM	3	0	22.96	23.02	23.05		
1.4	16QAM	3	1	22.92	22.85	23.03		
1.4	16QAM	3	3	22.90	23.00	23.06		
1.4	16QAM	6	0	21.64	21.62	21.55		
1.4	64QAM	1	0	21.58	21.57	21.65	23	2
1.4	64QAM	1	3	21.60	21.55	21.58		
1.4	64QAM	1	5	21.45	21.46	21.39		
1.4	64QAM	3	0	22.88	22.98	22.94		
1.4	64QAM	3	1	22.81	22.74	22.82		
1.4	64QAM	3	3	22.84	22.72	22.74		
1.4	64QAM	6	0	21.33	21.43	21.46		
1.4	256QAM	1	0	18.60	18.47	18.48	20	5
1.4	256QAM	1	3	18.56	18.41	18.46		
1.4	256QAM	1	5	18.52	18.48	18.48		
1.4	256QAM	3	0	18.62	18.42	18.50		
1.4	256QAM	3	1	18.42	18.39	18.37		
1.4	256QAM	3	3	18.51	18.52	18.51		
1.4	256QAM	6	0	18.55	18.58	18.60		

Band 4 Ant2 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	23.52	23.56	23.51	25	0
20	QPSK	1	49	23.53	23.47	23.40		
20	QPSK	1	99	23.45	23.51	23.55		
20	QPSK	50	0	22.59	22.62	22.54		
20	QPSK	50	24	22.56	22.55	22.47		
20	QPSK	50	50	22.57	22.54	22.56		
20	QPSK	100	0	22.54	22.58	22.51		
20	16QAM	1	0	23.07	23.14	23.16	24	1
20	16QAM	1	49	23.04	23.03	23.08		
20	16QAM	1	99	23.05	23.00	23.04		
20	16QAM	50	0	22.72	22.64	22.64		
20	16QAM	50	24	22.66	22.58	22.53		
20	16QAM	50	50	22.50	22.57	22.48		
20	16QAM	100	0	22.64	22.56	22.62		
20	64QAM	1	0	21.34	21.34	21.40	23	2
20	64QAM	1	49	21.44	21.40	21.37		
20	64QAM	1	99	21.42	21.41	21.31		
20	64QAM	50	0	20.68	20.59	20.51		
20	64QAM	50	24	20.64	20.63	20.62		
20	64QAM	50	50	20.46	20.55	20.64		



20	64QAM	100	0	20.75	20.71	20.75		
20	256QAM	1	0	18.73	18.73	18.75	20	5
20	256QAM	1	49	18.54	18.55	18.54		
20	256QAM	1	99	18.69	18.73	18.81		
20	256QAM	50	0	18.59	18.49	18.51		
20	256QAM	50	24	18.52	18.51	18.61	20	5
20	256QAM	50	50	18.80	18.70	18.60		
20	256QAM	100	0	18.54	18.52	18.54		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	23.46	23.41	23.44	25	0
15	QPSK	1	37	23.46	23.40	23.25		
15	QPSK	1	74	23.36	23.47	23.46		
15	QPSK	36	0	22.32	22.34	22.38	24	1
15	QPSK	36	20	22.58	22.41	22.35		
15	QPSK	36	39	22.44	22.44	22.50		
15	QPSK	75	0	22.34	22.51	22.38		
15	16QAM	1	0	22.97	23.07	23.02	24	1
15	16QAM	1	37	22.86	22.89	22.93		
15	16QAM	1	74	23.01	22.86	22.90		
15	16QAM	36	0	22.63	22.51	22.50	23	2
15	16QAM	36	20	22.53	22.41	22.50		
15	16QAM	36	39	22.40	22.52	22.42		
15	16QAM	75	0	22.49	22.53	22.59		
15	64QAM	1	0	21.21	21.21	21.36	23	2
15	64QAM	1	37	21.39	21.31	21.30		
15	64QAM	1	74	21.29	21.27	21.18		
15	64QAM	36	0	20.52	20.52	20.48	22	3
15	64QAM	36	20	20.55	20.56	20.54		
15	64QAM	36	39	20.39	20.41	20.61		
15	64QAM	75	0	20.64	20.57	20.64		
15	256QAM	1	0	18.65	18.56	18.69	20	5
15	256QAM	1	37	18.52	18.52	18.47		
15	256QAM	1	74	18.59	18.57	18.71		
15	256QAM	36	0	18.53	18.36	18.35	20	5
15	256QAM	36	20	18.38	18.44	18.53		
15	256QAM	36	39	18.69	18.54	18.42		
15	256QAM	75	0	18.37	18.43	18.43		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	23.49	23.44	23.43	25	0
10	QPSK	1	25	23.37	23.32	23.33		
10	QPSK	1	49	23.27	23.46	23.49		
10	QPSK	25	0	22.35	22.43	22.34	24	1
10	QPSK	25	12	22.54	22.49	22.45		
10	QPSK	25	25	22.46	22.43	22.41		
10	QPSK	50	0	22.42	22.54	22.42		
10	16QAM	1	0	22.91	23.06	23.01	24	1
10	16QAM	1	25	22.99	22.97	23.04		
10	16QAM	1	49	22.91	22.82	22.96		
10	16QAM	25	0	22.68	22.53	22.58	23	2
10	16QAM	25	12	22.57	22.56	22.47		
10	16QAM	25	25	22.34	22.40	22.36		
10	16QAM	50	0	22.53	22.42	22.57		
10	64QAM	1	0	21.21	21.23	21.34	23	2
10	64QAM	1	25	21.40	21.37	21.35		



10	64QAM	1	49	21.26	21.28	21.21		
10	64QAM	25	0	20.52	20.48	20.41	22	3
10	64QAM	25	12	20.53	20.60	20.45		
10	64QAM	25	25	20.29	20.49	20.46		
10	64QAM	50	0	20.72	20.54	20.69		
10	256QAM	1	0	18.69	18.58	18.59	20	5
10	256QAM	1	25	18.51	18.51	18.42		
10	256QAM	1	49	18.54	18.65	18.63		
10	256QAM	25	0	18.45	18.35	18.38		
10	256QAM	25	12	18.36	18.43	18.58	20	5
10	256QAM	25	25	18.68	18.54	18.54		
10	256QAM	50	0	18.50	18.47	18.38		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	23.37	23.41	23.36	25	0
5	QPSK	1	12	23.35	23.39	23.23		
5	QPSK	1	24	23.41	23.42	23.49		
5	QPSK	12	0	22.22	22.44	22.33		
5	QPSK	12	7	22.46	22.53	22.34	24	1
5	QPSK	12	13	22.50	22.47	22.48		
5	QPSK	25	0	22.33	22.44	22.45		
5	16QAM	1	0	23.02	23.00	23.06	24	1
5	16QAM	1	12	22.95	22.99	23.02		
5	16QAM	1	24	22.93	22.88	22.92		
5	16QAM	12	0	22.59	22.46	22.47		
5	16QAM	12	7	22.48	22.51	22.40	23	2
5	16QAM	12	13	22.36	22.39	22.42		
5	16QAM	25	0	22.60	22.48	22.44		
5	64QAM	1	0	21.30	21.16	21.24	23	2
5	64QAM	1	12	21.38	21.36	21.34		
5	64QAM	1	24	21.29	21.34	21.26		
5	64QAM	12	0	20.61	20.41	20.42		
5	64QAM	12	7	20.46	20.48	20.52	22	3
5	64QAM	12	13	20.29	20.53	20.51		
5	64QAM	25	0	20.57	20.55	20.65		
5	256QAM	1	0	18.68	18.61	18.59	20	5
5	256QAM	1	12	18.49	18.45	18.47		
5	256QAM	1	24	18.57	18.67	18.64		
5	256QAM	12	0	18.54	18.44	18.40		
5	256QAM	12	7	18.40	18.41	18.58	20	5
5	256QAM	12	13	18.62	18.63	18.44		
5	256QAM	25	0	18.37	18.48	18.48		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	23.39	23.47	23.35	25	0
3	QPSK	1	8	23.37	23.41	23.36		
3	QPSK	1	14	23.29	23.35	23.49		
3	QPSK	8	0	22.26	22.41	22.37		
3	QPSK	8	4	22.56	22.42	22.35	24	1
3	QPSK	8	7	22.44	22.39	22.41		
3	QPSK	15	0	22.38	22.53	22.44		
3	16QAM	1	0	22.97	23.04	23.11	24	1
3	16QAM	1	8	22.96	22.91	22.96		
3	16QAM	1	14	23.02	22.89	22.94		
3	16QAM	8	0	22.60	22.56	22.53		
3	16QAM	8	4	22.53	22.46	22.40	23	2



3	16QAM	8	7	22.36	22.51	22.43		
3	16QAM	15	0	22.51	22.45	22.49		
3	64QAM	1	0	21.21	21.20	21.35		
3	64QAM	1	8	21.42	21.35	21.22		
3	64QAM	1	14	21.38	21.33	21.18		
3	64QAM	8	0	20.55	20.45	20.45		
3	64QAM	8	4	20.55	20.46	20.58		
3	64QAM	8	7	20.41	20.53	20.57		
3	64QAM	15	0	20.68	20.58	20.68		
3	256QAM	1	0	18.68	18.64	18.57		
3	256QAM	1	8	18.40	18.51	18.37		
3	256QAM	1	14	18.62	18.67	18.74		
3	256QAM	8	0	18.44	18.42	18.34		
3	256QAM	8	4	18.43	18.42	18.46		
3	256QAM	8	7	18.65	18.61	18.53		
3	256QAM	15	0	18.42	18.47	18.37		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.48	23.46	23.35	25	0
1.4	QPSK	1	3	23.46	23.44	23.24		
1.4	QPSK	1	5	23.33	23.49	23.49		
1.4	QPSK	3	0	23.37	23.42	23.40		
1.4	QPSK	3	1	23.48	23.45	23.22		
1.4	QPSK	3	3	23.39	23.43	23.45		
1.4	QPSK	6	0	22.22	22.38	22.32		
1.4	16QAM	1	0	22.56	22.47	22.31	24	1
1.4	16QAM	1	3	22.46	22.39	22.39		
1.4	16QAM	1	5	22.37	22.45	22.47		
1.4	16QAM	3	0	22.95	23.08	23.04		
1.4	16QAM	3	1	22.98	22.87	22.95		
1.4	16QAM	3	3	23.02	22.94	23.01		
1.4	16QAM	6	0	22.63	22.52	22.55		
1.4	64QAM	1	0	22.53	22.54	22.41	23	2
1.4	64QAM	1	3	22.47	22.45	22.45		
1.4	64QAM	1	5	22.57	22.41	22.57		
1.4	64QAM	3	0	21.25	21.19	21.23		
1.4	64QAM	3	1	21.42	21.30	21.27		
1.4	64QAM	3	3	21.29	21.28	21.17		
1.4	64QAM	6	0	20.54	20.42	20.48		
1.4	256QAM	1	0	18.70	18.63	18.58	20	5
1.4	256QAM	1	3	18.45	18.46	18.49		
1.4	256QAM	1	5	18.64	18.59	18.64		
1.4	256QAM	3	0	18.48	18.43	18.35		
1.4	256QAM	3	1	18.38	18.38	18.43		
1.4	256QAM	3	3	18.74	18.62	18.43		
1.4	256QAM	6	0	18.47	18.44	18.49		



Band 25 Ant2 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	23.49	23.60	23.58	25	0
20	QPSK	1	49	23.49	23.56	23.56		
20	QPSK	1	99	23.51	23.55	23.59		
20	QPSK	50	0	22.68	22.69	22.63		
20	QPSK	50	24	22.42	22.46	22.46		
20	QPSK	50	50	22.59	22.54	22.50		
20	QPSK	100	0	22.69	22.77	22.73		
20	16QAM	1	0	22.95	23.03	22.97		
20	16QAM	1	49	23.13	23.23	23.32		
20	16QAM	1	99	23.04	23.01	22.95		
20	16QAM	50	0	21.67	21.71	21.71	23	2
20	16QAM	50	24	21.76	21.68	21.61		
20	16QAM	50	50	21.63	21.64	21.61		
20	16QAM	100	0	21.53	21.59	21.54		
20	64QAM	1	0	21.64	21.73	21.70		
20	64QAM	1	49	21.68	21.62	21.68	23	2
20	64QAM	1	99	21.57	21.63	21.66		
20	64QAM	50	0	20.80	20.72	20.66		
20	64QAM	50	24	20.79	20.69	20.70		
20	64QAM	50	50	20.84	20.77	20.74	22	3
20	64QAM	100	0	20.64	20.73	20.78		
20	256QAM	1	0	18.79	18.87	18.82		
20	256QAM	1	49	18.71	18.74	18.78		
20	256QAM	1	99	18.61	18.68	18.77		
20	256QAM	50	0	18.64	18.63	18.61	20	5
20	256QAM	50	24	18.60	18.67	18.76		
20	256QAM	50	50	18.56	18.53	18.43		
20	256QAM	100	0	18.70	18.70	18.79		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	23.45	23.45	23.45	25	0
15	QPSK	1	37	23.34	23.46	23.50		
15	QPSK	1	74	23.36	23.44	23.42		
15	QPSK	36	0	22.64	22.46	22.60		
15	QPSK	36	20	22.28	22.30	22.37	24	1
15	QPSK	36	39	22.56	22.50	22.33		
15	QPSK	75	0	22.57	22.70	22.81		
15	16QAM	1	0	22.91	22.92	22.83		
15	16QAM	1	37	23.02	23.14	23.15		
15	16QAM	1	74	22.89	22.97	22.90	24	1
15	16QAM	36	0	21.50	21.60	21.54		
15	16QAM	36	20	21.68	21.56	21.52		
15	16QAM	36	39	21.48	21.51	21.53		
15	16QAM	75	0	21.40	21.44	21.49		
15	64QAM	1	0	21.50	21.68	21.64	23	2
15	64QAM	1	37	21.51	21.53	21.66		
15	64QAM	1	74	21.52	21.54	21.59		
15	64QAM	36	0	20.64	20.58	20.58		
15	64QAM	36	20	20.66	20.65	20.64		
15	64QAM	36	39	20.70	20.73	20.59	22	3



15	64QAM	75	0	20.58	20.57	20.75		
15	256QAM	1	0	18.65	18.78	18.79	20	5
15	256QAM	1	37	18.67	18.60	18.66		
15	256QAM	1	74	18.49	18.56	18.70		
15	256QAM	36	0	18.59	18.58	18.54		
15	256QAM	36	20	18.53	18.57	18.65	20	5
15	256QAM	36	39	18.40	18.40	18.32		
15	256QAM	75	0	18.57	18.67	18.70		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	23.44	23.45	23.51	25	0
10	QPSK	1	25	23.31	23.47	23.38		
10	QPSK	1	49	23.47	23.41	23.51		
10	QPSK	25	0	22.59	22.46	22.67	24	1
10	QPSK	25	12	22.29	22.34	22.39		
10	QPSK	25	25	22.47	22.49	22.39		
10	QPSK	50	0	22.67	22.65	22.70		
10	16QAM	1	0	22.80	22.96	22.87	24	1
10	16QAM	1	25	23.05	23.14	23.24		
10	16QAM	1	49	22.99	22.90	22.87		
10	16QAM	25	0	21.51	21.54	21.64	23	2
10	16QAM	25	12	21.72	21.51	21.52		
10	16QAM	25	25	21.58	21.50	21.46		
10	16QAM	50	0	21.43	21.51	21.46		
10	64QAM	1	0	21.59	21.60	21.66	23	2
10	64QAM	1	25	21.56	21.45	21.54		
10	64QAM	1	49	21.43	21.60	21.51		
10	64QAM	25	0	20.78	20.58	20.63	22	3
10	64QAM	25	12	20.68	20.52	20.61		
10	64QAM	25	25	20.74	20.60	20.69		
10	64QAM	50	0	20.59	20.60	20.63		
10	256QAM	1	0	18.69	18.81	18.76	20	5
10	256QAM	1	25	18.66	18.58	18.74		
10	256QAM	1	49	18.45	18.63	18.69		
10	256QAM	25	0	18.61	18.59	18.52	20	5
10	256QAM	25	12	18.54	18.59	18.65		
10	256QAM	25	25	18.45	18.40	18.38		
10	256QAM	50	0	18.61	18.57	18.71		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	23.39	23.50	23.46	25	0
5	QPSK	1	12	23.32	23.46	23.42		
5	QPSK	1	24	23.39	23.39	23.55		
5	QPSK	12	0	22.53	22.51	22.65	24	1
5	QPSK	12	7	22.33	22.38	22.35		
5	QPSK	12	13	22.56	22.37	22.34		
5	QPSK	25	0	22.53	22.67	22.66		
5	16QAM	1	0	22.89	22.92	22.90	24	1
5	16QAM	1	12	22.97	23.08	23.23		
5	16QAM	1	24	22.90	22.83	22.84		
5	16QAM	12	0	21.59	21.59	21.69	23	2
5	16QAM	12	7	21.72	21.60	21.43		
5	16QAM	12	13	21.47	21.52	21.54		
5	16QAM	25	0	21.44	21.44	21.44		
5	64QAM	1	0	21.48	21.61	21.57	23	2
5	64QAM	1	12	21.54	21.57	21.56		



5	64QAM	1	24	21.40	21.47	21.59	22	3
5	64QAM	12	0	20.71	20.59	20.51		
5	64QAM	12	7	20.64	20.64	20.63		
5	64QAM	12	13	20.68	20.75	20.68		
5	64QAM	25	0	20.53	20.68	20.70		
5	256QAM	1	0	18.67	18.83	18.68		20
5	256QAM	1	12	18.65	18.69	18.63		
5	256QAM	1	24	18.49	18.53	18.67		
5	256QAM	12	0	18.47	18.46	18.52	20	5
5	256QAM	12	7	18.46	18.61	18.66		
5	256QAM	12	13	18.53	18.35	18.26		
5	256QAM	25	0	18.62	18.52	18.62		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	23.35	23.46	23.45	25	0
3	QPSK	1	8	23.40	23.40	23.44		
3	QPSK	1	14	23.48	23.42	23.49		
3	QPSK	8	0	22.52	22.45	22.55		
3	QPSK	8	4	22.40	22.36	22.37	24	1
3	QPSK	8	7	22.56	22.46	22.44		
3	QPSK	15	0	22.51	22.73	22.69		
3	16QAM	1	0	22.85	22.99	22.80		
3	16QAM	1	8	23.05	23.08	23.14	24	1
3	16QAM	1	14	22.92	22.92	22.91		
3	16QAM	8	0	21.51	21.55	21.57		
3	16QAM	8	4	21.62	21.66	21.56	23	2
3	16QAM	8	7	21.59	21.48	21.52		
3	16QAM	15	0	21.41	21.56	21.39		
3	64QAM	1	0	21.51	21.61	21.52		
3	64QAM	1	8	21.59	21.45	21.58	23	2
3	64QAM	1	14	21.43	21.55	21.57		
3	64QAM	8	0	20.64	20.55	20.55		
3	64QAM	8	4	20.74	20.64	20.66	22	3
3	64QAM	8	7	20.74	20.67	20.58		
3	64QAM	15	0	20.51	20.67	20.62		
3	256QAM	1	0	18.65	18.81	18.69	20	5
3	256QAM	1	8	18.60	18.56	18.64		
3	256QAM	1	14	18.51	18.53	18.70		
3	256QAM	8	0	18.49	18.49	18.52		
3	256QAM	8	4	18.52	18.50	18.72	20	5
3	256QAM	8	7	18.46	18.50	18.25		
3	256QAM	15	0	18.58	18.57	18.63		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	23.42	23.57	23.41	25	0
1.4	QPSK	1	3	23.46	23.40	23.46		
1.4	QPSK	1	5	23.47	23.42	23.47		
1.4	QPSK	3	0	23.38	23.56	23.54		
1.4	QPSK	3	1	23.41	23.53	23.46		
1.4	QPSK	3	3	23.44	23.48	23.53		
1.4	QPSK	6	0	22.53	22.48	22.57		
1.4	16QAM	1	0	22.30	22.40	22.36	24	1
1.4	16QAM	1	3	22.54	22.38	22.41		
1.4	16QAM	1	5	22.52	22.67	22.76		
1.4	16QAM	3	0	22.93	22.86	22.94		
1.4	16QAM	3	1	23.11	23.12	23.19		



1.4	16QAM	3	3	22.97	22.86	22.81		
1.4	16QAM	6	0	21.64	21.53	21.59	23	2
1.4	64QAM	1	0	21.64	21.58	21.51		
1.4	64QAM	1	3	21.55	21.60	21.54		
1.4	64QAM	1	5	21.36	21.42	21.37		
1.4	64QAM	3	0	21.57	21.67	21.64		
1.4	64QAM	3	1	21.58	21.44	21.52		
1.4	64QAM	3	3	21.48	21.52	21.52		
1.4	64QAM	6	0	20.62	20.58	20.48	22	3
1.4	256QAM	1	0	18.67	18.85	18.79		
1.4	256QAM	1	3	18.67	18.60	18.74		
1.4	256QAM	1	5	18.50	18.55	18.72		
1.4	256QAM	3	0	18.51	18.46	18.47		
1.4	256QAM	3	1	18.54	18.58	18.73		
1.4	256QAM	3	3	18.50	18.41	18.26		
1.4	256QAM	6	0	18.53	18.55	18.75	20	5

Band 66 Ant2 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	23.44	23.60	23.42		
20	QPSK	1	49	23.49	23.49	23.53		
20	QPSK	1	99	23.57	23.58	23.49		
20	QPSK	50	0	22.56	22.65	22.57		
20	QPSK	50	24	22.57	22.64	22.64		
20	QPSK	50	50	22.53	22.50	22.56		
20	QPSK	100	0	22.52	22.61	22.50		
20	16QAM	1	0	23.03	23.06	23.01		
20	16QAM	1	49	23.07	23.08	23.12		
20	16QAM	1	99	23.30	23.28	23.21		
20	16QAM	50	0	21.41	21.50	21.50		
20	16QAM	50	24	21.57	21.50	21.54		
20	16QAM	50	50	21.62	21.67	21.66		
20	16QAM	100	0	21.48	21.50	21.57		
20	64QAM	1	0	21.62	21.55	21.61		
20	64QAM	1	49	21.57	21.64	21.59		
20	64QAM	1	99	21.69	21.68	21.68		
20	64QAM	50	0	20.78	20.72	20.66		
20	64QAM	50	24	20.79	20.74	20.66		
20	64QAM	50	50	20.42	20.52	20.59		
20	64QAM	100	0	20.62	20.68	20.66		
20	256QAM	1	0	18.49	18.54	18.46		
20	256QAM	1	49	18.69	18.61	18.61		
20	256QAM	1	99	18.52	18.44	18.35		
20	256QAM	50	0	18.60	18.53	18.48		
20	256QAM	50	24	18.65	18.62	18.70		
20	256QAM	50	50	18.53	18.62	18.64		
20	256QAM	100	0	18.53	18.58	18.54		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	23.41	23.47	23.38		
15	QPSK	1	37	23.31	23.33	23.44		
15	QPSK	1	74	23.49	23.48	23.38		
15	QPSK	36	0	22.37	22.39	22.50	24	1



15	QPSK	36	20	22.45	22.54	22.47		
15	QPSK	36	39	22.38	22.40	22.53		
15	QPSK	75	0	22.40	22.35	22.42	24	1
15	16QAM	1	0	22.86	22.96	22.92		
15	16QAM	1	37	22.89	23.04	22.94	23	2
15	16QAM	1	74	23.26	23.17	23.08		
15	16QAM	36	0	21.35	21.43	21.45	23	2
15	16QAM	36	20	21.39	21.45	21.38		
15	16QAM	36	39	21.47	21.57	21.49	23	2
15	16QAM	75	0	21.44	21.33	21.50		
15	64QAM	1	0	21.56	21.45	21.53	23	2
15	64QAM	1	37	21.49	21.48	21.49		
15	64QAM	1	74	21.61	21.54	21.57	22	3
15	64QAM	36	0	20.71	20.69	20.60		
15	64QAM	36	20	20.74	20.68	20.63	22	3
15	64QAM	36	39	20.24	20.39	20.54		
15	64QAM	75	0	20.45	20.59	20.64	20	5
15	256QAM	1	0	18.45	18.45	18.41		
15	256QAM	1	37	18.63	18.52	18.47	20	5
15	256QAM	1	74	18.45	18.37	18.27		
15	256QAM	36	0	18.57	18.39	18.40	20	5
15	256QAM	36	20	18.54	18.59	18.58		
15	256QAM	36	39	18.39	18.53	18.57	20	5
15	256QAM	75	0	18.43	18.55	18.43		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	23.40	23.50	23.24	25	0
10	QPSK	1	25	23.42	23.33	23.47		
10	QPSK	1	49	23.42	23.47	23.37	24	1
10	QPSK	25	0	22.42	22.41	22.43		
10	QPSK	25	12	22.55	22.52	22.60	24	1
10	QPSK	25	25	22.36	22.46	22.43		
10	QPSK	50	0	22.41	22.30	22.34	24	1
10	16QAM	1	0	22.97	22.92	22.93		
10	16QAM	1	25	22.95	23.04	23.07	24	1
10	16QAM	1	49	23.18	23.23	23.08		
10	16QAM	25	0	21.38	21.45	21.45	23	2
10	16QAM	25	12	21.39	21.44	21.41		
10	16QAM	25	25	21.60	21.65	21.52	23	2
10	16QAM	50	0	21.31	21.34	21.47		
10	64QAM	1	0	21.58	21.48	21.51	23	2
10	64QAM	1	25	21.40	21.55	21.56		
10	64QAM	1	49	21.62	21.51	21.55	22	3
10	64QAM	25	0	20.62	20.61	20.51		
10	64QAM	25	12	20.76	20.58	20.53	22	3
10	64QAM	25	25	20.38	20.47	20.49		
10	64QAM	50	0	20.51	20.62	20.55	20	5
10	256QAM	1	0	18.41	18.46	18.43		
10	256QAM	1	25	18.59	18.53	18.47	20	5
10	256QAM	1	49	18.38	18.32	18.31		
10	256QAM	25	0	18.50	18.50	18.37	20	5
10	256QAM	25	12	18.58	18.49	18.56		
10	256QAM	25	25	18.44	18.55	18.55	20	5
10	256QAM	50	0	18.49	18.49	18.37		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		



5	QPSK	1	0	23.34	23.47	23.37		
5	QPSK	1	12	23.37	23.39	23.50		
5	QPSK	1	24	23.54	23.54	23.34		
5	QPSK	12	0	22.38	22.49	22.45		
5	QPSK	12	7	22.42	22.57	22.53		
5	QPSK	12	13	22.39	22.32	22.48		
5	QPSK	25	0	22.41	22.29	22.44		
5	16QAM	1	0	22.90	23.02	22.98		
5	16QAM	1	12	22.99	22.95	23.09		
5	16QAM	1	24	23.26	23.25	23.04		
5	16QAM	12	0	21.29	21.35	21.47		
5	16QAM	12	7	21.50	21.33	21.46		
5	16QAM	12	13	21.49	21.60	21.61		
5	16QAM	25	0	21.36	21.37	21.50		
5	64QAM	1	0	21.58	21.48	21.55		
5	64QAM	1	12	21.42	21.60	21.44		
5	64QAM	1	24	21.56	21.55	21.55		
5	64QAM	12	0	20.64	20.66	20.60		
5	64QAM	12	7	20.63	20.66	20.64		
5	64QAM	12	13	20.40	20.47	20.50		
5	64QAM	25	0	20.59	20.60	20.62		
5	256QAM	1	0	18.33	18.40	18.36		
5	256QAM	1	12	18.52	18.45	18.45		
5	256QAM	1	24	18.36	18.30	18.20		
5	256QAM	12	0	18.51	18.36	18.42		
5	256QAM	12	7	18.53	18.54	18.63		
5	256QAM	12	13	18.48	18.59	18.60		
5	256QAM	25	0	18.50	18.42	18.48		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	23.36	23.54	23.25		
3	QPSK	1	8	23.35	23.46	23.39		
3	QPSK	1	14	23.53	23.55	23.40		
3	QPSK	8	0	22.41	22.40	22.52		
3	QPSK	8	4	22.53	22.47	22.53		
3	QPSK	8	7	22.49	22.39	22.47		
3	QPSK	15	0	22.36	22.36	22.38		
3	16QAM	1	0	22.87	22.97	22.90		
3	16QAM	1	8	22.93	22.96	22.99		
3	16QAM	1	14	23.20	23.16	23.07		
3	16QAM	8	0	21.29	21.46	21.42		
3	16QAM	8	4	21.44	21.40	21.51		
3	16QAM	8	7	21.59	21.59	21.62		
3	16QAM	15	0	21.41	21.47	21.45		
3	64QAM	1	0	21.50	21.50	21.55		
3	64QAM	1	8	21.49	21.49	21.50		
3	64QAM	1	14	21.64	21.53	21.52		
3	64QAM	8	0	20.69	20.54	20.48		
3	64QAM	8	4	20.66	20.63	20.57		
3	64QAM	8	7	20.37	20.47	20.56		
3	64QAM	15	0	20.49	20.62	20.64		
3	256QAM	1	0	18.44	18.50	18.32		
3	256QAM	1	8	18.66	18.50	18.45		
3	256QAM	1	14	18.39	18.28	18.19		
3	256QAM	8	0	18.56	18.45	18.38		
3	256QAM	8	4	18.57	18.57	18.56		



3	256QAM	8	7	18.42	18.46	18.61		
3	256QAM	15	0	18.50	18.52	18.41		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	23.29	23.53	23.35		
1.4	QPSK	1	3	23.39	23.38	23.35		
1.4	QPSK	1	5	23.55	23.50	23.43		
1.4	QPSK	3	0	23.27	23.46	23.37		
1.4	QPSK	3	1	23.43	23.39	23.36		
1.4	QPSK	3	3	23.51	23.53	23.35		
1.4	QPSK	6	0	22.39	22.39	22.48	24	1
1.4	16QAM	1	0	22.41	22.55	22.50	24	1
1.4	16QAM	1	3	22.36	22.44	22.48		
1.4	16QAM	1	5	22.41	22.28	22.47		
1.4	16QAM	3	0	22.96	22.95	22.86		
1.4	16QAM	3	1	22.92	23.01	23.06		
1.4	16QAM	3	3	23.14	23.13	23.10		
1.4	16QAM	6	0	21.33	21.39	21.48		
1.4	64QAM	1	0	21.50	21.43	21.38		
1.4	64QAM	1	3	21.54	21.59	21.58		
1.4	64QAM	1	5	21.43	21.39	21.54		
1.4	64QAM	3	0	21.44	21.47	21.43	23	2
1.4	64QAM	3	1	21.49	21.60	21.44		
1.4	64QAM	3	3	21.66	21.57	21.65		
1.4	64QAM	6	0	20.63	20.57	20.62		
1.4	256QAM	1	0	18.41	18.49	18.40		
1.4	256QAM	1	3	18.53	18.49	18.47		
1.4	256QAM	1	5	18.36	18.35	18.19		
1.4	256QAM	3	0	18.43	18.39	18.34		
1.4	256QAM	3	1	18.56	18.45	18.56		
1.4	256QAM	3	3	18.47	18.54	18.56		
1.4	256QAM	6	0	18.42	18.51	18.48	20	5

Band 7 Ant3 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350	20	5
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.52	22.80	22.71		
20	QPSK	1	49	22.74	22.77	22.65		
20	QPSK	1	99	22.76	22.72	22.79		
20	QPSK	50	0	21.99	22.03	21.95		
20	QPSK	50	24	21.93	22.02	21.98		
20	QPSK	50	50	21.77	21.86	21.96		
20	QPSK	100	0	21.77	21.82	21.79		
20	16QAM	1	0	22.18	22.21	22.28	23	1
20	16QAM	1	49	22.26	22.23	22.25		
20	16QAM	1	99	22.28	22.26	22.20		
20	16QAM	50	0	21.00	20.99	21.08		
20	16QAM	50	24	21.04	21.01	20.94		
20	16QAM	50	50	20.88	20.85	20.83		
20	16QAM	100	0	20.91	21.00	20.92		
20	64QAM	1	0	21.05	21.06	21.02		
20	64QAM	1	49	21.01	21.06	21.06		
20	64QAM	1	99	20.95	20.96	20.87		
20	64QAM	50	0	19.97	19.88	19.87	21	3



20	64QAM	50	24	19.87	19.85	19.76		
20	64QAM	50	50	20.16	20.06	20.14		
20	64QAM	100	0	19.97	20.01	19.93		
20	256QAM	1	0	17.89	17.93	17.95		
20	256QAM	1	49	17.78	17.86	17.77		
20	256QAM	1	99	17.97	17.90	17.96		
20	256QAM	50	0	17.85	17.92	17.96		
20	256QAM	50	24	17.78	17.84	17.75		
20	256QAM	50	50	17.93	17.91	17.90		
20	256QAM	100	0	17.82	17.92	17.93		
	Channel			20825	21100	21375		
	Frequency (MHz)			2507.5	2535	2562.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	22.37	22.64	22.61		
15	QPSK	1	37	22.58	22.64	22.55		
15	QPSK	1	74	22.64	22.65	22.70		
15	QPSK	36	0	21.97	21.85	21.80		
15	QPSK	36	20	21.76	21.99	21.95		
15	QPSK	36	39	21.69	21.73	21.80		
15	QPSK	75	0	21.74	21.58	21.70		
15	16QAM	1	0	22.02	22.10	22.24		
15	16QAM	1	37	22.10	22.18	22.08		
15	16QAM	1	74	22.23	22.21	22.10		
15	16QAM	36	0	20.94	20.88	20.90		
15	16QAM	36	20	20.90	20.97	20.90		
15	16QAM	36	39	20.79	20.71	20.68		
15	16QAM	75	0	20.88	20.93	20.86		
15	64QAM	1	0	20.93	20.89	20.91		
15	64QAM	1	37	20.94	20.94	20.89		
15	64QAM	1	74	20.88	20.82	20.76		
15	64QAM	36	0	19.91	19.79	19.84		
15	64QAM	36	20	19.83	19.72	19.73		
15	64QAM	36	39	19.98	19.91	20.10		
15	64QAM	75	0	19.86	19.86	19.77		
15	256QAM	1	0	17.84	17.86	17.84		
15	256QAM	1	37	17.75	17.79	17.65		
15	256QAM	1	74	17.79	17.77	17.79		
15	256QAM	36	0	17.74	17.90	17.86		
15	256QAM	36	20	17.62	17.74	17.66		
15	256QAM	36	39	17.75	17.74	17.73		
15	256QAM	75	0	17.75	17.81	17.83		
	Channel			20800	21100	21400		
	Frequency (MHz)			2505	2535	2565	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	22.48	22.70	22.56		
10	QPSK	1	25	22.71	22.67	22.57		
10	QPSK	1	49	22.71	22.56	22.67		
10	QPSK	25	0	21.92	21.71	21.81		
10	QPSK	25	12	21.90	21.85	21.83		
10	QPSK	25	25	21.69	21.80	21.86		
10	QPSK	50	0	21.73	21.68	21.77		
10	16QAM	1	0	22.11	22.09	22.22		
10	16QAM	1	25	22.18	22.16	22.10		
10	16QAM	1	49	22.22	22.10	22.08		
10	16QAM	25	0	20.95	20.82	20.98		
10	16QAM	25	12	21.02	20.87	20.81		
10	16QAM	25	25	20.84	20.76	20.66		
10	16QAM	50	0	20.86	20.89	20.85		



10	64QAM	1	0	21.00	20.94	20.98		
10	64QAM	1	25	20.87	21.03	21.03		
10	64QAM	1	49	20.85	20.89	20.80		
10	64QAM	25	0	19.87	19.77	19.74		
10	64QAM	25	12	19.71	19.78	19.71		
10	64QAM	25	25	20.01	19.94	20.12		
10	64QAM	50	0	19.88	19.87	19.89		
10	256QAM	1	0	17.82	17.77	17.86		
10	256QAM	1	25	17.67	17.77	17.71		
10	256QAM	1	49	17.90	17.72	17.85		
10	256QAM	25	0	17.69	17.79	17.81		
10	256QAM	25	12	17.70	17.70	17.57		
10	256QAM	25	25	17.89	17.88	17.77		
10	256QAM	50	0	17.71	17.89	17.78		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.37	22.76	22.62	24	0
5	QPSK	1	12	22.70	22.71	22.53		
5	QPSK	1	24	22.68	22.70	22.67		
5	QPSK	12	0	21.91	21.80	21.78	23	1
5	QPSK	12	7	21.80	21.84	21.86		
5	QPSK	12	13	21.74	21.74	21.81		
5	QPSK	25	0	21.65	21.67	21.66		
5	16QAM	1	0	22.02	22.13	22.12	23	1
5	16QAM	1	12	22.12	22.08	22.15		
5	16QAM	1	24	22.18	22.19	22.12		
5	16QAM	12	0	20.82	20.88	21.03	22	2
5	16QAM	12	7	20.91	20.99	20.82		
5	16QAM	12	13	20.74	20.73	20.76		
5	16QAM	25	0	20.81	20.93	20.79		
5	64QAM	1	0	20.89	21.02	20.93	22	2
5	64QAM	1	12	20.95	21.02	21.04		
5	64QAM	1	24	20.92	20.89	20.70		
5	64QAM	12	0	19.90	19.70	19.82	21	3
5	64QAM	12	7	19.77	19.78	19.73		
5	64QAM	12	13	20.09	19.99	20.02		
5	64QAM	25	0	19.90	19.88	19.78		
5	256QAM	1	0	17.81	17.90	17.92	19	5
5	256QAM	1	12	17.69	17.80	17.65		
5	256QAM	1	24	17.79	17.82	17.81		
5	256QAM	12	0	17.79	17.88	17.81		
5	256QAM	12	7	17.64	17.70	17.65	19	5
5	256QAM	12	13	17.86	17.83	17.83		
5	256QAM	25	0	17.70	17.83	17.85		



Band 30 Ant3 Default									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				27710				25	
Frequency (MHz)				2310					
10	QPSK	1	0		23.69				
10	QPSK	1	25		23.51			24	
10	QPSK	1	49		23.57				
10	QPSK	25	0		22.66				
10	QPSK	25	12		22.65				
10	QPSK	25	25		22.61				
10	QPSK	50	0		22.56			24	
10	16QAM	1	0		22.90				
10	16QAM	1	25		23.01				
10	16QAM	1	49		23.01				
10	16QAM	25	0		21.72				
10	16QAM	25	12		21.57			23	
10	16QAM	25	25		21.58				
10	16QAM	50	0		21.63				
10	64QAM	1	0		22.67				
10	64QAM	1	25		22.84			23	
10	64QAM	1	49		22.82				
10	64QAM	25	0		21.72				
10	64QAM	25	12		21.56				
10	64QAM	25	25		21.56				
10	64QAM	50	0		21.63			22	
10	256QAM	1	0		18.56				
10	256QAM	1	25		18.56				
10	256QAM	1	49		18.58				
10	256QAM	25	0		18.50				
10	256QAM	25	12		18.49			20	
10	256QAM	25	25		18.40				
10	256QAM	50	0		18.55				
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2307.5	2310	2312.5			
5	QPSK	1	0	23.48	23.61	23.37	25	0	
5	QPSK	1	12	23.27	23.47	23.33			
5	QPSK	1	24	23.31	23.49	23.46			
5	QPSK	12	0	22.43	22.44	22.43			
5	QPSK	12	7	22.50	22.48	22.49	24	1	
5	QPSK	12	13	22.35	22.47	22.49			
5	QPSK	25	0	22.37	22.48	22.32			
5	16QAM	1	0	22.73	22.83	22.66			
5	16QAM	1	12	22.78	22.98	22.80	24	1	
5	16QAM	1	24	22.88	22.85	22.78			
5	16QAM	12	0	21.50	21.64	21.52			
5	16QAM	12	7	21.29	21.40	21.39			
5	16QAM	12	13	21.36	21.54	21.37	23	2	
5	16QAM	25	0	21.51	21.47	21.41			
5	64QAM	1	0	22.43	22.64	22.43			
5	64QAM	1	12	22.64	22.70	22.69			
5	64QAM	1	24	22.57	22.69	22.63	23	2	
5	64QAM	12	0	21.49	21.56	21.63			
5	64QAM	12	7	21.28	21.41	21.38			
5	64QAM	12	13	21.28	21.47	21.38			



5	64QAM	25	0	21.32	21.51	21.45		
5	256QAM	1	0	18.38	18.43	18.41	20	5
5	256QAM	1	12	18.44	18.39	18.46		
5	256QAM	1	24	18.34	18.49	18.38		
5	256QAM	12	0	18.24	18.37	18.36		
5	256QAM	12	7	18.18	18.34	18.25	20	5
5	256QAM	12	13	18.25	18.29	18.23		
5	256QAM	25	0	18.27	18.51	18.24		

Band 2 Ant5 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.46	23.62	23.50	25	0
20	QPSK	1	49	23.49	23.57	23.43		
20	QPSK	1	99	23.40	23.52	23.46		
20	QPSK	50	0	22.46	22.51	22.46		
20	QPSK	50	24	22.31	22.45	22.37	24	1
20	QPSK	50	50	22.36	22.41	22.30		
20	QPSK	100	0	22.46	22.54	22.39		
20	16QAM	1	0	22.28	22.40	22.27	24	1
20	16QAM	1	49	22.18	22.33	22.26		
20	16QAM	1	99	22.24	22.31	22.25		
20	16QAM	50	0	21.60	21.65	21.52		
20	16QAM	50	24	21.43	21.56	21.44	23	2
20	16QAM	50	50	21.46	21.54	21.44		
20	16QAM	100	0	21.47	21.54	21.43		
20	64QAM	1	0	21.61	21.77	21.68	23	2
20	64QAM	1	49	21.66	21.75	21.60		
20	64QAM	1	99	21.61	21.71	21.58		
20	64QAM	50	0	20.40	20.54	20.40		
20	64QAM	50	24	20.37	20.51	20.39	22	3
20	64QAM	50	50	20.42	20.52	20.42		
20	64QAM	100	0	20.45	20.55	20.48		
20	256QAM	1	0	18.48	18.64	18.52	20	5
20	256QAM	1	49	18.50	18.57	18.51		
20	256QAM	1	99	18.43	18.56	18.44		
20	256QAM	50	0	18.52	18.58	18.53		
20	256QAM	50	24	18.42	18.54	18.39	20	5
20	256QAM	50	50	18.42	18.51	18.41		
20	256QAM	100	0	18.46	18.61	18.49		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.31	23.53	23.43	25	0
15	QPSK	1	37	23.43	23.42	23.33		
15	QPSK	1	74	23.34	23.45	23.36		
15	QPSK	36	0	22.34	22.40	22.31		
15	QPSK	36	20	22.18	22.32	22.29	24	1
15	QPSK	36	39	22.22	22.26	22.24		
15	QPSK	75	0	22.38	22.45	22.29		
15	16QAM	1	0	22.20	22.28	22.21		
15	16QAM	1	37	22.05	22.25	22.17	24	1
15	16QAM	1	74	22.19	22.18	22.12		
15	16QAM	36	0	21.50	21.53	21.40		
15	16QAM	36	20	21.38	21.47	21.31		



15	16QAM	36	39	21.30	21.48	21.36		
15	16QAM	75	0	21.33	21.47	21.33		
15	64QAM	1	0	21.52	21.62	21.54		
15	64QAM	1	37	21.59	21.69	21.55		
15	64QAM	1	74	21.54	21.65	21.42		
15	64QAM	36	0	20.25	20.47	20.33		
15	64QAM	36	20	20.33	20.45	20.24		
15	64QAM	36	39	20.27	20.48	20.34		
15	64QAM	75	0	20.38	20.46	20.36		
15	256QAM	1	0	18.35	18.56	18.37		
15	256QAM	1	37	18.35	18.53	18.36		
15	256QAM	1	74	18.31	18.42	18.31		
15	256QAM	36	0	18.41	18.47	18.41		
15	256QAM	36	20	18.37	18.42	18.23		
15	256QAM	36	39	18.30	18.42	18.26		
15	256QAM	75	0	18.39	18.46	18.35		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.42	23.49	23.37	25	0
10	QPSK	1	25	23.34	23.45	23.36		
10	QPSK	1	49	23.36	23.43	23.40		
10	QPSK	25	0	22.35	22.36	22.40	24	1
10	QPSK	25	12	22.25	22.29	22.29		
10	QPSK	25	25	22.26	22.32	22.23		
10	QPSK	50	0	22.32	22.39	22.31		
10	16QAM	1	0	22.17	22.25	22.22		
10	16QAM	1	25	22.05	22.28	22.17	24	1
10	16QAM	1	49	22.19	22.25	22.21		
10	16QAM	25	0	21.50	21.59	21.37		
10	16QAM	25	12	21.28	21.47	21.31	23	2
10	16QAM	25	25	21.35	21.42	21.32		
10	16QAM	50	0	21.36	21.45	21.28		
10	64QAM	1	0	21.53	21.73	21.54		
10	64QAM	1	25	21.62	21.63	21.49		
10	64QAM	1	49	21.45	21.59	21.46	22	3
10	64QAM	25	0	20.30	20.39	20.36		
10	64QAM	25	12	20.33	20.46	20.32		
10	64QAM	25	25	20.27	20.39	20.34		
10	64QAM	50	0	20.38	20.50	20.40		
10	256QAM	1	0	18.38	18.59	18.41	20	5
10	256QAM	1	25	18.45	18.44	18.38		
10	256QAM	1	49	18.36	18.44	18.30		
10	256QAM	25	0	18.46	18.53	18.41	20	5
10	256QAM	25	12	18.37	18.45	18.32		
10	256QAM	25	25	18.30	18.40	18.37		
10	256QAM	50	0	18.30	18.48	18.41		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.34	23.54	23.35	25	0
5	QPSK	1	12	23.44	23.45	23.32		
5	QPSK	1	24	23.33	23.43	23.32		
5	QPSK	12	0	22.32	22.43	22.40	24	1
5	QPSK	12	7	22.16	22.40	22.30		
5	QPSK	12	13	22.23	22.37	22.22		
5	QPSK	25	0	22.41	22.42	22.35		
5	16QAM	1	0	22.12	22.28	22.15	24	1



5	16QAM	1	12	22.11	22.29	22.19		
5	16QAM	1	24	22.09	22.27	22.12		
5	16QAM	12	0	21.47	21.53	21.47		
5	16QAM	12	7	21.39	21.44	21.34		
5	16QAM	12	13	21.37	21.43	21.36		
5	16QAM	25	0	21.36	21.44	21.37		
5	64QAM	1	0	21.49	21.70	21.53		
5	64QAM	1	12	21.55	21.60	21.45		
5	64QAM	1	24	21.53	21.58	21.48		
5	64QAM	12	0	20.31	20.39	20.34		
5	64QAM	12	7	20.28	20.37	20.27		
5	64QAM	12	13	20.36	20.40	20.29		
5	64QAM	25	0	20.38	20.44	20.41		
5	256QAM	1	0	18.44	18.60	18.36		
5	256QAM	1	12	18.42	18.44	18.43		
5	256QAM	1	24	18.28	18.51	18.33		
5	256QAM	12	0	18.37	18.47	18.43		
5	256QAM	12	7	18.28	18.43	18.25		
5	256QAM	12	13	18.31	18.41	18.35		
5	256QAM	25	0	18.38	18.52	18.33		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.36	23.49	23.39	25	0
3	QPSK	1	8	23.37	23.49	23.29		
3	QPSK	1	14	23.28	23.38	23.37		
3	QPSK	8	0	22.41	22.45	22.37	24	1
3	QPSK	8	4	22.26	22.31	22.31		
3	QPSK	8	7	22.27	22.29	22.25		
3	QPSK	15	0	22.41	22.44	22.28		
3	16QAM	1	0	22.15	22.30	22.13	24	1
3	16QAM	1	8	22.08	22.18	22.15		
3	16QAM	1	14	22.09	22.16	22.14		
3	16QAM	8	0	21.52	21.59	21.47	23	2
3	16QAM	8	4	21.30	21.40	21.37		
3	16QAM	8	7	21.32	21.46	21.37		
3	16QAM	15	0	21.36	21.48	21.37		
3	64QAM	1	0	21.47	21.66	21.63	23	2
3	64QAM	1	8	21.51	21.69	21.54		
3	64QAM	1	14	21.54	21.63	21.53		
3	64QAM	8	0	20.28	20.39	20.34	22	3
3	64QAM	8	4	20.31	20.46	20.28		
3	64QAM	8	7	20.37	20.46	20.30		
3	64QAM	15	0	20.33	20.47	20.33		
3	256QAM	1	0	18.39	18.50	18.45	20	5
3	256QAM	1	8	18.40	18.46	18.43		
3	256QAM	1	14	18.33	18.46	18.36		
3	256QAM	8	0	18.43	18.50	18.45	20	5
3	256QAM	8	4	18.32	18.41	18.30		
3	256QAM	8	7	18.30	18.37	18.35		
3	256QAM	15	0	18.36	18.53	18.42		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.39	23.58	23.45	25	0
1.4	QPSK	1	3	23.36	23.43	23.29		
1.4	QPSK	1	5	23.27	23.46	23.31		
1.4	QPSK	3	0	23.39	23.58	23.45		



1.4	QPSK	3	1	23.36	23.43	23.29	24	1
1.4	QPSK	3	3	23.27	23.46	23.31		
1.4	QPSK	6	0	22.39	22.39	22.37		
1.4	16QAM	1	0	22.39	22.39	22.37		
1.4	16QAM	1	3	22.17	22.32	22.23		
1.4	16QAM	1	5	22.31	22.25	22.15		
1.4	16QAM	3	0	22.39	22.39	22.37		
1.4	16QAM	3	1	22.17	22.32	22.23		
1.4	16QAM	3	3	22.31	22.25	22.15		
1.4	16QAM	6	0	21.45	21.55	21.43		
1.4	64QAM	1	0	21.34	21.42	21.39	23	2
1.4	64QAM	1	3	21.38	21.39	21.29		
1.4	64QAM	1	5	21.33	21.43	21.29		
1.4	64QAM	3	0	21.52	21.63	21.58		
1.4	64QAM	3	1	21.59	21.61	21.46		
1.4	64QAM	3	3	21.49	21.65	21.44		
1.4	64QAM	6	0	20.25	20.50	20.29		
1.4	256QAM	1	0	18.32	18.46	18.29	20	5
1.4	256QAM	1	3	18.38	18.43	18.37		
1.4	256QAM	1	5	18.40	18.45	18.43		
1.4	256QAM	3	0	18.26	18.44	18.24		
1.4	256QAM	3	1	18.37	18.44	18.37		
1.4	256QAM	3	3	18.41	18.48	18.33		
1.4	256QAM	6	0	18.31	18.51	18.42		

Band 4 Ant5 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300	25	0
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	23.33	23.51	23.39		
20	QPSK	1	49	23.42	23.49	23.31		
20	QPSK	1	99	23.27	23.38	23.31		
20	QPSK	50	0	22.38	22.47	22.40		
20	QPSK	50	24	22.26	22.40	22.32		
20	QPSK	50	50	22.28	22.37	22.23		
20	QPSK	100	0	22.38	22.41	22.28		
20	16QAM	1	0	22.23	22.30	22.14	24	1
20	16QAM	1	49	22.14	22.22	22.11		
20	16QAM	1	99	22.16	22.17	22.19		
20	16QAM	50	0	21.49	21.53	21.45		
20	16QAM	50	24	21.37	21.43	21.35		
20	16QAM	50	50	21.32	21.43	21.35	23	2
20	16QAM	100	0	21.39	21.45	21.38		
20	64QAM	1	0	21.50	21.69	21.61		
20	64QAM	1	49	21.50	21.60	21.56		
20	64QAM	1	99	21.53	21.65	21.43		
20	64QAM	50	0	20.29	20.46	20.27	22	3
20	64QAM	50	24	20.24	20.42	20.29		
20	64QAM	50	50	20.34	20.41	20.35		
20	64QAM	100	0	20.40	20.47	20.42		
20	256QAM	1	0	18.43	18.58	18.36	20	5
20	256QAM	1	49	18.45	18.49	18.41		
20	256QAM	1	99	18.37	18.44	18.38		
20	256QAM	50	0	18.47	18.47	18.39		
20	256QAM	50	24	18.26	18.40	18.25		



20	256QAM	50	50	18.29	18.39	18.28		
20	256QAM	100	0	18.42	18.50	18.41		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	23.23	23.39	23.29	25	0
15	QPSK	1	37	23.39	23.34	23.22		
15	QPSK	1	74	23.22	23.32	23.26		
15	QPSK	36	0	22.26	22.27	22.15	24	1
15	QPSK	36	20	22.13	22.27	22.18		
15	QPSK	36	39	22.09	22.10	22.08		
15	QPSK	75	0	22.34	22.34	22.22		
15	16QAM	1	0	22.08	22.13	22.11	24	1
15	16QAM	1	37	22.11	22.15	22.02		
15	16QAM	1	74	22.10	22.10	22.01		
15	16QAM	36	0	21.35	21.39	21.29	23	2
15	16QAM	36	20	21.29	21.37	21.20		
15	16QAM	36	39	21.22	21.34	21.27		
15	16QAM	75	0	21.20	21.41	21.17		
15	64QAM	1	0	21.37	21.49	21.46	23	2
15	64QAM	1	37	21.48	21.62	21.45		
15	64QAM	1	74	21.45	21.58	21.37		
15	64QAM	36	0	20.10	20.38	20.26	22	3
15	64QAM	36	20	20.20	20.31	20.13		
15	64QAM	36	39	20.21	20.33	20.18		
15	64QAM	75	0	20.27	20.34	20.27		
15	256QAM	1	0	18.25	18.41	18.22	20	5
15	256QAM	1	37	18.22	18.45	18.30		
15	256QAM	1	74	18.21	18.38	18.19		
15	256QAM	36	0	18.35	18.41	18.34	20	5
15	256QAM	36	20	18.26	18.36	18.09		
15	256QAM	36	39	18.15	18.30	18.21		
15	256QAM	75	0	18.24	18.37	18.31		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	23.27	23.35	23.28	25	0
10	QPSK	1	25	23.27	23.35	23.32		
10	QPSK	1	49	23.28	23.29	23.31		
10	QPSK	25	0	22.27	22.28	22.28	24	1
10	QPSK	25	12	22.13	22.16	22.21		
10	QPSK	25	25	22.22	22.22	22.16		
10	QPSK	50	0	22.16	22.32	22.23		
10	16QAM	1	0	22.04	22.19	22.16	24	1
10	16QAM	1	25	22.19	22.17	22.03		
10	16QAM	1	49	22.15	22.15	22.08		
10	16QAM	25	0	21.44	21.50	21.22	23	2
10	16QAM	25	12	21.15	21.37	21.26		
10	16QAM	25	25	21.22	21.33	21.26		
10	16QAM	50	0	21.28	21.37	21.19		
10	64QAM	1	0	21.39	21.58	21.46	23	2
10	64QAM	1	25	21.57	21.54	21.34		
10	64QAM	1	49	21.36	21.48	21.40		
10	64QAM	25	0	20.16	20.24	20.22	22	3
10	64QAM	25	12	20.21	20.30	20.22		
10	64QAM	25	25	20.14	20.24	20.25		
10	64QAM	50	0	20.29	20.34	20.29		
10	256QAM	1	0	18.29	18.44	18.26	20	5



Symbol	Modulation	Channel	Frequency (MHz)	Tone-up limit (dBm)			MPR (dB)
				19975	20175	20375	
10	256QAM	1	25	18.40	18.31	18.23	
10	256QAM	1	49	18.31	18.37	18.19	
10	256QAM	25	0	18.34	18.46	18.32	
10	256QAM	25	12	18.29	18.34	18.19	
10	256QAM	25	25	18.22	18.32	18.22	
10	256QAM	50	0	18.24	18.37	18.34	
Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5	MPR (dB)
5	QPSK	1	0	23.27	23.48	23.25	
5	QPSK	1	12	23.36	23.30	23.21	
5	QPSK	1	24	23.21	23.27	23.28	
5	QPSK	12	0	22.25	22.38	22.25	
5	QPSK	12	7	22.04	22.33	22.20	
5	QPSK	12	13	22.10	22.25	22.10	
5	QPSK	25	0	22.36	22.36	22.21	
5	16QAM	1	0	22.21	22.23	22.02	
5	16QAM	1	12	22.04	22.23	22.09	
5	16QAM	1	24	22.00	22.22	22.01	
5	16QAM	12	0	21.36	21.48	21.35	
5	16QAM	12	7	21.26	21.36	21.28	
5	16QAM	12	13	21.32	21.37	21.25	
5	16QAM	25	0	21.23	21.32	21.24	
5	64QAM	1	0	21.41	21.55	21.40	
5	64QAM	1	12	21.45	21.54	21.40	
5	64QAM	1	24	21.39	21.42	21.34	
5	64QAM	12	0	20.16	20.27	20.25	
5	64QAM	12	7	20.22	20.30	20.21	
5	64QAM	12	13	20.28	20.26	20.13	
5	64QAM	25	0	20.29	20.38	20.35	
5	256QAM	1	0	18.34	18.55	18.25	
5	256QAM	1	12	18.34	18.29	18.29	
5	256QAM	1	24	18.24	18.45	18.21	
5	256QAM	12	0	18.28	18.32	18.32	
5	256QAM	12	7	18.22	18.32	18.12	
5	256QAM	12	13	18.24	18.27	18.20	
5	256QAM	25	0	18.23	18.46	18.17	
Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5	MPR (dB)
3	QPSK	1	0	23.25	23.43	23.30	
3	QPSK	1	8	23.22	23.37	23.19	
3	QPSK	1	14	23.13	23.25	23.22	
3	QPSK	8	0	22.28	22.36	22.24	
3	QPSK	8	4	22.18	22.21	22.26	
3	QPSK	8	7	22.14	22.21	22.16	
3	QPSK	15	0	22.29	22.36	22.17	
3	16QAM	1	0	22.05	22.22	22.08	
3	16QAM	1	8	22.25	22.06	22.07	
3	16QAM	1	14	22.16	22.03	22.03	
3	16QAM	8	0	21.46	21.43	21.43	
3	16QAM	8	4	21.19	21.26	21.25	
3	16QAM	8	7	21.23	21.40	21.28	
3	16QAM	15	0	21.21	21.34	21.32	
3	64QAM	1	0	21.40	21.59	21.55	
3	64QAM	1	8	21.39	21.56	21.48	
3	64QAM	1	14	21.43	21.53	21.46	
3	64QAM	8	0	20.15	20.32	20.22	3



3	64QAM	8	4	20.22	20.32	20.15		
3	64QAM	8	7	20.27	20.38	20.19		
3	64QAM	15	0	20.23	20.33	20.23		
3	256QAM	1	0	18.33	18.35	18.33		
3	256QAM	1	8	18.27	18.36	18.33	20	5
3	256QAM	1	14	18.25	18.34	18.24		
3	256QAM	8	0	18.38	18.41	18.35		
3	256QAM	8	4	18.25	18.36	18.25	20	5
3	256QAM	8	7	18.23	18.24	18.31		
3	256QAM	15	0	18.23	18.48	18.31		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.32	23.47	23.32	25	0
1.4	QPSK	1	3	23.27	23.37	23.17		
1.4	QPSK	1	5	23.16	23.31	23.15		
1.4	QPSK	3	0	23.34	23.44	23.31		
1.4	QPSK	3	1	23.22	23.28	23.14		
1.4	QPSK	3	3	23.13	23.41	23.23		
1.4	QPSK	6	0	22.24	22.28	22.33	24	1
1.4	16QAM	1	0	22.35	22.33	22.33	24	1
1.4	16QAM	1	3	22.09	22.17	22.18		
1.4	16QAM	1	5	22.20	22.09	22.03		
1.4	16QAM	3	0	22.23	22.32	22.31		
1.4	16QAM	3	1	22.01	22.19	22.13		
1.4	16QAM	3	3	22.19	22.12	22.03		
1.4	16QAM	6	0	21.41	21.44	21.39	23	2
1.4	64QAM	1	0	21.23	21.30	21.31	23	2
1.4	64QAM	1	3	21.33	21.24	21.21		
1.4	64QAM	1	5	21.26	21.33	21.16		
1.4	64QAM	3	0	21.45	21.54	21.51		
1.4	64QAM	3	1	21.46	21.47	21.41		
1.4	64QAM	3	3	21.37	21.58	21.32		
1.4	64QAM	6	0	20.18	20.44	20.25	22	3
1.4	256QAM	1	0	18.27	18.35	18.18	20	5
1.4	256QAM	1	3	18.23	18.35	18.26		
1.4	256QAM	1	5	18.32	18.34	18.37		
1.4	256QAM	3	0	18.14	18.32	18.15		
1.4	256QAM	3	1	18.30	18.36	18.26		
1.4	256QAM	3	3	18.32	18.38	18.20		
1.4	256QAM	6	0	18.19	18.40	18.37	20	5



Band 66 Ant5 Default								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572	25	0
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	23.19	23.45	23.24		
20	QPSK	1	49	23.34	23.43	23.22	24	1
20	QPSK	1	99	23.22	23.33	23.20		
20	QPSK	50	0	22.24	22.36	22.27		
20	QPSK	50	24	22.10	22.24	22.19		
20	QPSK	50	50	22.18	22.32	22.09		
20	QPSK	100	0	22.22	22.28	22.14	24	1
20	16QAM	1	0	22.14	22.23	22.03		
20	16QAM	1	49	22.06	22.09	22.05		
20	16QAM	1	99	22.08	22.07	22.12		
20	16QAM	50	0	21.38	21.38	21.37		
20	16QAM	50	24	21.28	21.36	21.24	23	2
20	16QAM	50	50	21.18	21.31	21.20		
20	16QAM	100	0	21.29	21.38	21.26		
20	64QAM	1	0	21.43	21.54	21.50		
20	64QAM	1	49	21.46	21.49	21.41		
20	64QAM	1	99	21.43	21.61	21.29	23	2
20	64QAM	50	0	20.19	20.33	20.17		
20	64QAM	50	24	20.10	20.31	20.25		
20	64QAM	50	50	20.29	20.33	20.21		
20	64QAM	100	0	20.32	20.42	20.37		
20	256QAM	1	0	18.38	18.42	18.30	20	5
20	256QAM	1	49	18.39	18.43	18.34		
20	256QAM	1	99	18.30	18.31	18.23		
20	256QAM	50	0	18.34	18.32	18.27		
20	256QAM	50	24	18.14	18.35	18.14		
20	256QAM	50	50	18.19	18.26	18.21	20	5
20	256QAM	100	0	18.37	18.36	18.29		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	23.17	23.34	23.17	25	0
15	QPSK	1	37	23.32	23.21	23.09		
15	QPSK	1	74	23.14	23.19	23.16		
15	QPSK	36	0	22.22	22.11	22.04		
15	QPSK	36	20	22.01	22.13	22.05		
15	QPSK	36	39	22.01	22.11	22.09	24	1
15	QPSK	75	0	22.29	22.21	22.11		
15	16QAM	1	0	22.16	22.04	22.04		
15	16QAM	1	37	22.11	22.06	22.08		
15	16QAM	1	74	22.00	22.00	22.18		
15	16QAM	36	0	21.22	21.33	21.24	23	2
15	16QAM	36	20	21.20	21.33	21.14		
15	16QAM	36	39	21.11	21.21	21.17		
15	16QAM	75	0	21.14	21.28	21.02		
15	64QAM	1	0	21.24	21.34	21.35	23	2
15	64QAM	1	37	21.32	21.51	21.37		
15	64QAM	1	74	21.36	21.51	21.22		
15	64QAM	36	0	20.15	20.22	20.18		
15	64QAM	36	20	20.14	20.21	20.03		
15	64QAM	36	39	20.09	20.28	20.14	22	3



15	64QAM	75	0	20.15	20.20	20.15		
15	256QAM	1	0	18.12	18.35	18.11		
15	256QAM	1	37	18.14	18.33	18.21		
15	256QAM	1	74	18.15	18.30	18.04		
15	256QAM	36	0	18.28	18.28	18.21		
15	256QAM	36	20	18.15	18.29	18.29		
15	256QAM	36	39	18.06	18.25	18.07		
15	256QAM	75	0	18.19	18.32	18.26		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	23.13	23.28	23.19		
10	QPSK	1	25	23.12	23.29	23.18		
10	QPSK	1	49	23.16	23.21	23.20		
10	QPSK	25	0	22.15	22.15	22.15		
10	QPSK	25	12	22.02	22.04	22.12		
10	QPSK	25	25	22.09	22.14	22.07		
10	QPSK	50	0	22.03	22.25	22.08		
10	16QAM	1	0	22.13	22.15	22.08		
10	16QAM	1	25	22.15	22.10	22.14		
10	16QAM	1	49	22.03	22.00	22.02		
10	16QAM	25	0	21.34	21.34	21.08		
10	16QAM	25	12	21.00	21.27	21.20		
10	16QAM	25	25	21.11	21.20	21.17		
10	16QAM	50	0	21.21	21.33	21.05		
10	64QAM	1	0	21.26	21.53	21.38		
10	64QAM	1	25	21.51	21.41	21.21		
10	64QAM	1	49	21.29	21.36	21.26		
10	64QAM	25	0	20.03	20.09	20.07		
10	64QAM	25	12	20.11	20.17	20.14		
10	64QAM	25	25	20.00	20.20	20.17		
10	64QAM	50	0	20.17	20.22	20.18		
10	256QAM	1	0	18.18	18.40	18.13		
10	256QAM	1	25	18.30	18.18	18.10		
10	256QAM	1	49	18.18	18.28	18.07		
10	256QAM	25	0	18.24	18.34	18.22		
10	256QAM	25	12	18.14	18.27	18.04		
10	256QAM	25	25	18.14	18.25	18.11		
10	256QAM	50	0	18.14	18.21	18.26		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	23.20	23.41	23.21		
5	QPSK	1	12	23.22	23.25	23.06		
5	QPSK	1	24	23.16	23.14	23.19		
5	QPSK	12	0	22.30	22.49	22.38		
5	QPSK	12	7	22.14	22.47	22.30		
5	QPSK	12	13	22.22	22.37	22.19		
5	QPSK	25	0	22.41	22.43	22.36		
5	16QAM	1	0	22.05	22.37	22.10		
5	16QAM	1	12	22.10	22.32	22.15		
5	16QAM	1	24	22.15	22.33	22.11		
5	16QAM	12	0	21.26	21.34	21.23		
5	16QAM	12	7	21.14	21.28	21.18		
5	16QAM	12	13	21.18	21.31	21.10		
5	16QAM	25	0	21.17	21.23	21.14		
5	64QAM	1	0	21.37	21.51	21.34		
5	64QAM	1	12	21.35	21.46	21.30		



5	64QAM	1	24	21.30	21.26	21.30	22	3
5	64QAM	12	0	20.07	20.16	20.21		
5	64QAM	12	7	20.12	20.23	20.07		
5	64QAM	12	13	20.17	20.14	20.05		
5	64QAM	25	0	20.17	20.22	20.25		
5	256QAM	1	0	18.22	18.40	18.19		20
5	256QAM	1	12	18.26	18.21	18.19		
5	256QAM	1	24	18.17	18.41	18.08		
5	256QAM	12	0	18.18	18.17	18.25		
5	256QAM	12	7	18.14	18.28	18.01	20	5
5	256QAM	12	13	18.14	18.18	18.07		
5	256QAM	25	0	18.11	18.41	18.11		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	23.18	23.28	23.25	25	0
3	QPSK	1	8	23.17	23.27	23.10		
3	QPSK	1	14	23.09	23.13	23.10		
3	QPSK	8	0	22.23	22.23	22.12		
3	QPSK	8	4	22.13	22.09	22.15	24	1
3	QPSK	8	7	22.02	22.08	22.04		
3	QPSK	15	0	22.22	22.29	22.10		
3	16QAM	1	0	22.38	22.48	22.39		
3	16QAM	1	8	22.30	22.40	22.35	24	1
3	16QAM	1	14	22.23	22.36	22.27		
3	16QAM	8	0	21.36	21.30	21.38		
3	16QAM	8	4	21.03	21.21	21.12	23	2
3	16QAM	8	7	21.18	21.29	21.24		
3	16QAM	15	0	21.12	21.28	21.26		
3	64QAM	1	0	21.36	21.45	21.43	23	2
3	64QAM	1	8	21.25	21.45	21.36		
3	64QAM	1	14	21.36	21.43	21.30		
3	64QAM	8	0	20.01	20.23	20.10		
3	64QAM	8	4	20.16	20.24	20.06	22	3
3	64QAM	8	7	20.19	20.25	20.13		
3	64QAM	15	0	20.08	20.19	20.17		
3	256QAM	1	0	18.20	18.28	18.25	20	5
3	256QAM	1	8	18.11	18.22	18.22		
3	256QAM	1	14	18.18	18.24	18.12		
3	256QAM	8	0	18.27	18.29	18.20		
3	256QAM	8	4	18.15	18.22	18.12	20	5
3	256QAM	8	7	18.15	18.09	18.24		
3	256QAM	15	0	18.12	18.36	18.16		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	23.20	23.37	23.20	25	0
1.4	QPSK	1	3	23.14	23.32	23.12		
1.4	QPSK	1	5	23.05	23.21	23.08		
1.4	QPSK	3	0	23.24	23.30	23.18		
1.4	QPSK	3	1	23.13	23.13	23.04		
1.4	QPSK	3	3	23.07	23.26	23.11		
1.4	QPSK	6	0	22.20	22.18	22.19		
1.4	16QAM	1	0	22.48	22.38	22.43	24	1
1.4	16QAM	1	3	22.16	22.29	22.34		
1.4	16QAM	1	5	22.32	22.14	22.10		
1.4	16QAM	3	0	22.37	22.46	22.41		
1.4	16QAM	3	1	22.11	22.35	22.25		



1.4	16QAM	3	3	22.34	22.20	22.11		
1.4	16QAM	6	0	21.55	21.51	21.46	23	2
1.4	64QAM	1	0	21.12	21.15	21.25		
1.4	64QAM	1	3	21.18	21.09	21.10		
1.4	64QAM	1	5	21.14	21.19	21.01		
1.4	64QAM	3	0	21.30	21.40	21.38		
1.4	64QAM	3	1	21.36	21.42	21.35		
1.4	64QAM	3	3	21.33	21.46	21.22		
1.4	64QAM	6	0	20.08	20.39	20.18	22	3
1.4	256QAM	1	0	18.11	18.19	18.08		
1.4	256QAM	1	3	18.11	18.23	18.19		
1.4	256QAM	1	5	18.25	18.19	18.26		
1.4	256QAM	3	0	18.00	18.25	18.01		
1.4	256QAM	3	1	18.21	18.24	18.18		
1.4	256QAM	3	3	18.24	18.29	18.08		
1.4	256QAM	6	0	18.14	18.28	18.22	20	5

**Reduced Power Mode for DS10**

Band 5 Ant0 DS10								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	23.69	23.70	23.59	25	0
10	QPSK	1	25	23.61	23.64	23.65		
10	QPSK	1	49	23.61	23.59	23.64		
10	QPSK	25	0	22.78	22.83	22.81		
10	QPSK	25	12	22.62	22.61	22.51	24	1
10	QPSK	25	25	22.73	22.71	22.71		
10	QPSK	50	0	22.75	22.81	22.80		
10	16QAM	1	0	23.05	23.07	23.08		
10	16QAM	1	25	22.87	22.94	22.89	24	1
10	16QAM	1	49	22.97	22.91	23.01		
10	16QAM	25	0	21.81	21.78	21.71		
10	16QAM	25	12	21.58	21.61	21.63		
10	16QAM	25	25	21.77	21.72	21.65	23	2
10	16QAM	50	0	21.65	21.65	21.62		
10	64QAM	1	0	21.84	21.80	21.73		
10	64QAM	1	25	21.90	21.81	21.83		
10	64QAM	1	49	21.76	21.76	21.75	23	2
10	64QAM	25	0	21.91	21.82	21.72		
10	64QAM	25	12	21.79	21.76	21.78		
10	64QAM	25	25	21.70	21.69	21.70		
10	64QAM	50	0	21.71	21.74	21.76	22	3
10	256QAM	1	0	18.64	18.67	18.64		
10	256QAM	1	25	18.51	18.61	18.65		
10	256QAM	1	49	18.52	18.54	18.62		
10	256QAM	25	0	18.74	18.76	18.66	20	5
10	256QAM	25	12	18.61	18.69	18.76		
10	256QAM	25	25	18.71	18.71	18.80		
10	256QAM	50	0	18.62	18.65	18.61		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.62	23.63	23.53	25	0
5	QPSK	1	12	23.43	23.58	23.55		
5	QPSK	1	24	23.50	23.57	23.55		
5	QPSK	12	0	22.79	22.64	22.73		
5	QPSK	12	7	22.57	22.49	22.35	24	1
5	QPSK	12	13	22.61	22.60	22.61		
5	QPSK	25	0	22.59	22.68	22.68		
5	16QAM	1	0	22.95	23.02	22.95		
5	16QAM	1	12	22.76	22.87	22.76	24	1
5	16QAM	1	24	22.94	22.88	22.89		
5	16QAM	12	0	21.67	21.62	21.69		
5	16QAM	12	7	21.43	21.53	21.45		
5	16QAM	12	13	21.60	21.60	21.61	23	2
5	16QAM	25	0	21.61	21.47	21.56		
5	64QAM	1	0	21.79	21.67	21.63		
5	64QAM	1	12	21.80	21.70	21.67		
5	64QAM	1	24	21.66	21.65	21.63	23	2
5	64QAM	12	0	21.81	21.68	21.59		
5	64QAM	12	7	21.65	21.63	21.66		
5	64QAM	12	13	21.52	21.65	21.66		



5	64QAM	25	0	21.61	21.61	21.61		
5	256QAM	1	0	18.50	18.65	18.47	20	5
5	256QAM	1	12	18.41	18.56	18.56		
5	256QAM	1	24	18.48	18.40	18.56		
5	256QAM	12	0	18.70	18.67	18.53		
5	256QAM	12	7	18.56	18.63	18.62	20	5
5	256QAM	12	13	18.69	18.56	18.66		
5	256QAM	25	0	18.53	18.49	18.54		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.55	23.64	23.44	25	0
3	QPSK	1	8	23.50	23.58	23.51		
3	QPSK	1	14	23.49	23.45	23.56		
3	QPSK	8	0	22.80	22.72	22.72	24	1
3	QPSK	8	4	22.59	22.47	22.40		
3	QPSK	8	7	22.63	22.62	22.59		
3	QPSK	15	0	22.67	22.68	22.64		
3	16QAM	1	0	23.01	22.95	22.92	24	1
3	16QAM	1	8	22.69	22.80	22.76		
3	16QAM	1	14	22.92	22.81	22.96		
3	16QAM	8	0	21.63	21.68	21.60	23	2
3	16QAM	8	4	21.42	21.55	21.50		
3	16QAM	8	7	21.63	21.66	21.57		
3	16QAM	15	0	21.53	21.49	21.58		
3	64QAM	1	0	21.79	21.71	21.57	23	2
3	64QAM	1	8	21.87	21.73	21.69		
3	64QAM	1	14	21.65	21.64	21.68		
3	64QAM	8	0	21.88	21.74	21.57	22	3
3	64QAM	8	4	21.61	21.67	21.63		
3	64QAM	8	7	21.55	21.66	21.58		
3	64QAM	15	0	21.62	21.67	21.72		
3	256QAM	1	0	18.58	18.60	18.57	20	5
3	256QAM	1	8	18.37	18.57	18.53		
3	256QAM	1	14	18.36	18.37	18.52		
3	256QAM	8	0	18.65	18.66	18.49	20	5
3	256QAM	8	4	18.46	18.52	18.62		
3	256QAM	8	7	18.59	18.62	18.71		
3	256QAM	15	0	18.56	18.53	18.49		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.56	23.60	23.45	25	0
1.4	QPSK	1	3	23.43	23.48	23.59		
1.4	QPSK	1	5	23.50	23.46	23.59		
1.4	QPSK	3	0	23.66	23.66	23.45		
1.4	QPSK	3	1	23.50	23.54	23.53		
1.4	QPSK	3	3	23.54	23.41	23.62		
1.4	QPSK	6	0	22.71	22.68	22.69	24	1
1.4	16QAM	1	0	22.48	22.54	22.46	24	1
1.4	16QAM	1	3	22.64	22.60	22.60		
1.4	16QAM	1	5	22.60	22.59	22.68		
1.4	16QAM	3	0	22.99	22.90	23.06		
1.4	16QAM	3	1	22.81	22.92	22.73		
1.4	16QAM	3	3	22.82	22.87	22.91		
1.4	16QAM	6	0	21.64	21.62	21.66	23	2
1.4	64QAM	1	0	21.52	21.53	21.52	23	2
1.4	64QAM	1	3	21.62	21.69	21.56		



1.4	64QAM	1	5	21.61	21.62	21.50		
1.4	64QAM	3	0	21.81	21.72	21.56		
1.4	64QAM	3	1	21.87	21.68	21.67		
1.4	64QAM	3	3	21.65	21.69	21.62		
1.4	64QAM	6	0	21.82	21.73	21.66		
1.4	256QAM	1	0	18.44	18.59	18.67		
1.4	256QAM	1	3	18.55	18.59	18.76		
1.4	256QAM	1	5	18.51	18.59	18.56		
1.4	256QAM	3	0	18.52	18.58	18.51		
1.4	256QAM	3	1	18.45	18.52	18.61		
1.4	256QAM	3	3	18.61	18.58	18.68		
1.4	256QAM	6	0	18.47	18.51	18.54		

Band 12 Ant0 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.65	23.89	23.76		
10	QPSK	1	25	23.79	23.84	23.84		
10	QPSK	1	49	23.85	23.79	23.76		
10	QPSK	25	0	22.77	22.85	22.83		
10	QPSK	25	12	22.73	22.80	22.80		
10	QPSK	25	25	22.69	22.73	22.75		
10	QPSK	50	0	22.64	22.81	22.73		
10	16QAM	1	0	23.28	23.22	23.14		
10	16QAM	1	25	23.03	23.04	23.01		
10	16QAM	1	49	23.15	23.13	23.07		
10	16QAM	25	0	21.72	21.70	21.72		
10	16QAM	25	12	21.50	21.56	21.53		
10	16QAM	25	25	21.59	21.69	21.71		
10	16QAM	50	0	21.45	21.53	21.43		
10	64QAM	1	0	22.11	22.16	22.25		
10	64QAM	1	25	22.16	22.12	22.22		
10	64QAM	1	49	22.15	22.09	22.04		
10	64QAM	25	0	20.72	20.74	20.83		
10	64QAM	25	12	20.78	20.73	20.66		
10	64QAM	25	25	20.84	20.85	20.91		
10	64QAM	50	0	20.80	20.79	20.79		
10	256QAM	1	0	19.41	19.34	19.38		
10	256QAM	1	25	19.20	19.29	19.32		
10	256QAM	1	49	19.41	19.40	19.31		
10	256QAM	25	0	18.88	18.94	19.00		
10	256QAM	25	12	18.90	18.85	18.75		
10	256QAM	25	25	18.97	18.87	18.94		
10	256QAM	50	0	18.82	18.87	18.95		
Channel				23035	23095	23155		
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.60	23.76	23.67		
5	QPSK	1	12	23.64	23.75	23.70		
5	QPSK	1	24	23.79	23.71	23.59		
5	QPSK	12	0	22.69	22.63	22.80		
5	QPSK	12	7	22.70	22.70	22.71		
5	QPSK	12	13	22.64	22.60	22.63		
5	QPSK	25	0	22.59	22.60	22.71		
5	16QAM	1	0	23.24	23.08	23.04	24	1



5	16QAM	1	12	22.87	22.86	22.99		
5	16QAM	1	24	23.05	23.07	22.94		
5	16QAM	12	0	21.61	21.61	21.55		
5	16QAM	12	7	21.41	21.54	21.45		
5	16QAM	12	13	21.55	21.58	21.59		
5	16QAM	25	0	21.40	21.49	21.40		
5	64QAM	1	0	22.03	22.01	22.15		
5	64QAM	1	12	22.07	21.98	22.14		
5	64QAM	1	24	22.12	22.05	21.99		
5	64QAM	12	0	20.66	20.58	20.68		
5	64QAM	12	7	20.66	20.57	20.61		
5	64QAM	12	13	20.66	20.82	20.75		
5	64QAM	25	0	20.65	20.76	20.66		
5	256QAM	1	0	19.31	19.19	19.21		
5	256QAM	1	12	19.13	19.15	19.27		
5	256QAM	1	24	19.32	19.24	19.24		
5	256QAM	12	0	18.82	18.84	18.96		
5	256QAM	12	7	18.77	18.78	18.59		
5	256QAM	12	13	18.92	18.81	18.86		
5	256QAM	25	0	18.66	18.73	18.77		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.48	23.71	23.70	25	0
3	QPSK	1	8	23.74	23.68	23.66		
3	QPSK	1	14	23.73	23.63	23.61		
3	QPSK	8	0	22.71	22.65	22.72	24	1
3	QPSK	8	4	22.62	22.74	22.76		
3	QPSK	8	7	22.52	22.70	22.58		
3	QPSK	15	0	22.56	22.55	22.61		
3	16QAM	1	0	23.16	23.04	23.09	24	1
3	16QAM	1	8	22.86	22.96	22.99		
3	16QAM	1	14	23.13	22.95	22.96		
3	16QAM	8	0	21.66	21.55	21.56	23	2
3	16QAM	8	4	21.36	21.45	21.46		
3	16QAM	8	7	21.46	21.56	21.57		
3	16QAM	15	0	21.37	21.48	21.36		
3	64QAM	1	0	21.98	22.10	22.18	23	2
3	64QAM	1	8	22.08	22.10	22.19		
3	64QAM	1	14	21.97	22.01	21.99		
3	64QAM	8	0	20.67	20.61	20.66	22	3
3	64QAM	8	4	20.62	20.58	20.55		
3	64QAM	8	7	20.75	20.79	20.76		
3	64QAM	15	0	20.76	20.68	20.63		
3	256QAM	1	0	19.31	19.29	19.34	20	5
3	256QAM	1	8	19.10	19.17	19.16		
3	256QAM	1	14	19.38	19.23	19.13		
3	256QAM	8	0	18.80	18.90	18.95	20	5
3	256QAM	8	4	18.88	18.69	18.71		
3	256QAM	8	7	18.82	18.84	18.87		
3	256QAM	15	0	18.77	18.76	18.85		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	23.60	23.73	23.63	25	0
1.4	QPSK	1	3	23.72	23.74	23.73		
1.4	QPSK	1	5	23.76	23.71	23.69		
1.4	QPSK	3	0	23.49	23.79	23.58		



1.4	QPSK	3	1	23.71	23.81	23.75		
1.4	QPSK	3	3	23.76	23.69	23.69		
1.4	QPSK	6	0	22.62	22.59	22.72	24	1
1.4	16QAM	1	0	22.60	22.68	22.65		
1.4	16QAM	1	3	22.52	22.65	22.61		
1.4	16QAM	1	5	22.51	22.58	22.55		
1.4	16QAM	3	0	23.25	23.10	22.99		
1.4	16QAM	3	1	22.99	22.94	22.99		
1.4	16QAM	3	3	23.03	22.98	23.01		
1.4	16QAM	6	0	21.68	21.66	21.55	23	2
1.4	64QAM	1	0	21.46	21.40	21.42		
1.4	64QAM	1	3	21.48	21.52	21.63		
1.4	64QAM	1	5	21.42	21.45	21.36		
1.4	64QAM	3	0	22.03	22.06	22.08		
1.4	64QAM	3	1	22.02	21.99	22.06		
1.4	64QAM	3	3	22.06	21.92	21.96		
1.4	64QAM	6	0	20.57	20.58	20.77	22	3
1.4	256QAM	1	0	19.31	19.21	19.21		
1.4	256QAM	1	3	19.11	19.18	19.27		
1.4	256QAM	1	5	19.23	19.33	19.18		
1.4	256QAM	3	0	18.70	18.85	18.97		
1.4	256QAM	3	1	18.81	18.67	18.73		
1.4	256QAM	3	3	18.82	18.84	18.88		
1.4	256QAM	6	0	18.65	18.73	18.77	20	5

Band 13 Ant0 DSIO										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel				23230						
Frequency (MHz)				782						
10	QPSK	1	0		23.71					
10	QPSK	1	25		23.67					
10	QPSK	1	49		23.57					
10	QPSK	25	0	22.71						
10	QPSK	25	12		22.63					
10	QPSK	25	25		22.58					
10	QPSK	50	0	22.59						
10	16QAM	1	0		22.89					
10	16QAM	1	25		23.06					
10	16QAM	1	49		23.07					
10	16QAM	25	0		21.64					
10	16QAM	25	12		21.80					
10	16QAM	25	25		21.82					
10	16QAM	50	0		21.78					
10	64QAM	1	0		22.05					
10	64QAM	1	25		22.12					
10	64QAM	1	49		22.08					
10	64QAM	25	0		20.66					
10	64QAM	25	12		20.89					
10	64QAM	25	25		20.87					
10	64QAM	50	0		20.68					
10	256QAM	1	0		18.75					
10	256QAM	1	25		18.61					
10	256QAM	1	49		18.57					
10	256QAM	25	0		18.75					
10	256QAM	25	12		18.88					



10	256QAM	25	25		18.85			
10	256QAM	50	0		18.87			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.52	23.65	23.39		
5	QPSK	1	12	23.35	23.59	23.49		
5	QPSK	1	24	23.25	23.44	23.40		
5	QPSK	12	0	22.52	22.63	22.36		
5	QPSK	12	7	22.52	22.49	22.45		
5	QPSK	12	13	22.38	22.42	22.33		
5	QPSK	25	0	22.47	22.44	22.36		
5	16QAM	1	0	22.66	22.80	22.69		
5	16QAM	1	12	22.93	23.03	22.99		
5	16QAM	1	24	22.96	23.05	22.74		
5	16QAM	12	0	21.31	21.61	21.44		
5	16QAM	12	7	21.61	21.68	21.55		
5	16QAM	12	13	21.71	21.75	21.61		
5	16QAM	25	0	21.56	21.68	21.64		
5	64QAM	1	0	21.74	21.94	21.92		
5	64QAM	1	12	21.88	22.06	21.93		
5	64QAM	1	24	21.79	21.98	21.86		
5	64QAM	12	0	20.41	20.59	20.38		
5	64QAM	12	7	20.60	20.81	20.83		
5	64QAM	12	13	20.55	20.80	20.68		
5	64QAM	25	0	20.45	20.53	20.46		
5	256QAM	1	0	18.49	18.70	18.55		
5	256QAM	1	12	18.39	18.54	18.53		
5	256QAM	1	24	18.38	18.42	18.35		
5	256QAM	12	0	18.44	18.62	18.62		
5	256QAM	12	7	18.67	18.78	18.80		
5	256QAM	12	13	18.60	18.78	18.55		
5	256QAM	25	0	18.52	18.78	18.56		

Band 14 Ant0 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23330				
Frequency (MHz)				793				
10	QPSK	1	0		23.83			
10	QPSK	1	25		23.76			
10	QPSK	1	49		23.79			
10	QPSK	25	0		22.82			
10	QPSK	25	12		22.67			
10	QPSK	25	25		22.78			
10	QPSK	50	0		22.80			
10	16QAM	1	0		23.12			
10	16QAM	1	25		23.24			
10	16QAM	1	49		23.04			
10	16QAM	25	0		21.80			
10	16QAM	25	12		21.90			
10	16QAM	25	25		21.82			
10	16QAM	50	0		21.86			
10	64QAM	1	0		21.73			
10	64QAM	1	25		21.72			
10	64QAM	1	49		21.69			
10	64QAM	25	0		20.79		22	3



10	64QAM	25	12		20.78			
10	64QAM	25	25		20.78			
10	64QAM	50	0		20.79			
10	256QAM	1	0		18.76			
10	256QAM	1	25		18.90		20	5
10	256QAM	1	49		18.84			
10	256QAM	25	0		18.71			
10	256QAM	25	12		18.83			
10	256QAM	25	25		18.76		20	5
10	256QAM	50	0		18.62			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	23.63	23.81	23.63	25	0
5	QPSK	1	12	23.66	23.66	23.63		
5	QPSK	1	24	23.68	23.70	23.53		
5	QPSK	12	0	22.38	22.52	22.37		
5	QPSK	12	7	22.39	22.59	22.48	24	1
5	QPSK	12	13	22.73	22.74	22.48		
5	QPSK	25	0	22.57	22.68	22.70		
5	16QAM	1	0	22.85	22.97	23.03	24	1
5	16QAM	1	12	22.97	23.20	23.07		
5	16QAM	1	24	22.77	22.92	22.79		
5	16QAM	12	0	21.56	21.64	21.66		
5	16QAM	12	7	21.85	21.78	21.68	23	2
5	16QAM	12	13	21.68	21.74	21.68		
5	16QAM	25	0	21.75	21.73	21.81		
5	64QAM	1	0	21.59	21.57	21.42	23	2
5	64QAM	1	12	21.54	21.65	21.50		
5	64QAM	1	24	21.49	21.67	21.47		
5	64QAM	12	0	20.63	20.64	20.62		
5	64QAM	12	7	20.59	20.71	20.43	22	3
5	64QAM	12	13	20.45	20.65	20.67		
5	64QAM	25	0	20.58	20.62	20.63		
5	256QAM	1	0	18.52	18.62	18.59	20	5
5	256QAM	1	12	18.66	18.76	18.67		
5	256QAM	1	24	18.60	18.82	18.70		
5	256QAM	12	0	18.46	18.61	18.51		
5	256QAM	12	7	18.63	18.67	18.60	20	5
5	256QAM	12	13	18.61	18.70	18.56		
5	256QAM	25	0	18.46	18.49	18.42		



Band 17 Ant0 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800	25	0
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.77	23.82	23.74		
10	QPSK	1	25	23.77	23.81	23.73		
10	QPSK	1	49	23.71	23.79	23.58		
10	QPSK	25	0	22.71	22.78	22.72		
10	QPSK	25	12	22.76	22.72	22.70		
10	QPSK	25	25	22.70	22.72	22.66		
10	QPSK	50	0	22.65	22.69	22.58		
10	16QAM	1	0	22.86	22.91	22.98	24	1
10	16QAM	1	25	23.05	23.04	23.13		
10	16QAM	1	49	22.83	22.92	22.90		
10	16QAM	25	0	21.63	21.71	21.76		
10	16QAM	25	12	21.67	21.76	21.72	23	2
10	16QAM	25	25	21.70	21.69	21.75		
10	16QAM	50	0	21.94	21.90	21.85		
10	64QAM	1	0	21.95	21.89	21.84	23	2
10	64QAM	1	25	21.74	21.73	21.68		
10	64QAM	1	49	21.88	21.79	21.70		
10	64QAM	25	0	20.72	20.72	20.76		
10	64QAM	25	12	20.79	20.75	20.77	22	3
10	64QAM	25	25	20.93	20.85	20.90		
10	64QAM	50	0	20.65	20.73	20.67		
10	256QAM	1	0	19.21	19.22	19.29	20	5
10	256QAM	1	25	19.21	19.24	19.32		
10	256QAM	1	49	19.31	19.33	19.39		
10	256QAM	25	0	19.25	19.19	19.17		
10	256QAM	25	12	19.33	19.25	19.18	20	5
10	256QAM	25	25	19.31	19.21	19.29		
10	256QAM	50	0	19.10	19.14	19.12		
Channel				23755	23790	23825	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.69	23.76	23.72	25	0
5	QPSK	1	12	23.70	23.66	23.68		
5	QPSK	1	24	23.58	23.62	23.53		
5	QPSK	12	0	22.53	22.52	22.57		
5	QPSK	12	7	22.63	22.60	22.60	24	1
5	QPSK	12	13	22.56	22.57	22.50		
5	QPSK	25	0	22.55	22.44	22.43		
5	16QAM	1	0	22.72	22.84	22.88		
5	16QAM	1	12	23.02	22.99	23.10	24	1
5	16QAM	1	24	22.77	22.83	22.84		
5	16QAM	12	0	21.51	21.56	21.59		
5	16QAM	12	7	21.59	21.72	21.61		
5	16QAM	12	13	21.56	21.61	21.59	23	2
5	16QAM	25	0	21.81	21.84	21.72		
5	64QAM	1	0	21.86	21.80	21.73		
5	64QAM	1	12	21.64	21.62	21.64		
5	64QAM	1	24	21.83	21.68	21.61	23	2
5	64QAM	12	0	20.64	20.55	20.60		
5	64QAM	12	7	20.64	20.62	20.68		
5	64QAM	12	13	20.84	20.71	20.75		



5	64QAM	25	0	20.59	20.62	20.51		
5	256QAM	1	0	19.11	19.16	19.26	20	5
5	256QAM	1	12	19.05	19.14	19.18		
5	256QAM	1	24	19.25	19.24	19.23		
5	256QAM	12	0	19.22	19.10	19.00		
5	256QAM	12	7	19.22	19.14	19.05	20	5
5	256QAM	12	13	19.16	19.06	19.12		
5	256QAM	25	0	19.07	19.09	19.04		

Band 26 Ant0 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	23.58	23.62	23.50	25	0
15	QPSK	1	37	23.51	23.57	23.55		
15	QPSK	1	74	23.49	23.53	23.58		
15	QPSK	36	0	22.73	22.75	22.65		
15	QPSK	36	20	22.65	22.63	22.56	24	1
15	QPSK	36	39	22.72	22.67	22.67		
15	QPSK	75	0	22.59	22.63	22.60		
15	16QAM	1	0	22.89	22.80	22.83		
15	16QAM	1	37	22.70	22.76	22.79	24	1
15	16QAM	1	74	22.70	22.69	22.69		
15	16QAM	36	0	21.75	21.70	21.62		
15	16QAM	36	20	21.53	21.49	21.51		
15	16QAM	36	39	21.69	21.61	21.60	23	2
15	16QAM	75	0	21.61	21.56	21.46		
15	64QAM	1	0	21.59	21.59	21.56		
15	64QAM	1	37	21.72	21.72	21.80		
15	64QAM	1	74	21.59	21.64	21.56	23	2
15	64QAM	36	0	20.57	20.61	20.62		
15	64QAM	36	20	20.60	20.51	20.42		
15	64QAM	36	39	20.59	20.61	20.54		
15	64QAM	75	0	20.58	20.58	20.65	22	3
15	256QAM	1	0	18.82	18.74	18.80		
15	256QAM	1	37	18.92	18.83	18.86		
15	256QAM	1	74	18.82	18.83	18.84		
15	256QAM	36	0	18.60	18.65	18.67	20	5
15	256QAM	36	20	18.70	18.70	18.73		
15	256QAM	36	39	18.70	18.70	18.75		
15	256QAM	75	0	18.86	18.79	18.73		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	23.47	23.53	23.37	25	0
10	QPSK	1	25	23.41	23.49	23.41		
10	QPSK	1	49	23.42	23.38	23.46		
10	QPSK	25	0	22.58	22.65	22.60		
10	QPSK	25	12	22.57	22.60	22.43	24	1
10	QPSK	25	25	22.60	22.67	22.62		
10	QPSK	50	0	22.44	22.47	22.54		
10	16QAM	1	0	22.74	22.77	22.67		
10	16QAM	1	25	22.65	22.74	22.76	24	1
10	16QAM	1	49	22.60	22.63	22.67		
10	16QAM	25	0	21.64	21.66	21.54		
10	16QAM	25	12	21.50	21.34	21.37		



10	16QAM	25	25	21.56	21.47	21.49		
10	16QAM	50	0	21.52	21.45	21.30		
10	64QAM	1	0	21.55	21.56	21.49	23	2
10	64QAM	1	25	21.64	21.66	21.73		
10	64QAM	1	49	21.49	21.47	21.43	22	3
10	64QAM	25	0	20.41	20.51	20.45		
10	64QAM	25	12	20.50	20.45	20.32	20	5
10	64QAM	25	25	20.50	20.47	20.39		
10	64QAM	50	0	20.55	20.42	20.52	20	5
10	256QAM	1	0	18.66	18.58	18.70		
10	256QAM	1	25	18.89	18.80	18.82	20	5
10	256QAM	1	49	18.64	18.72	18.74		
10	256QAM	25	0	18.54	18.58	18.63	20	5
10	256QAM	25	12	18.65	18.60	18.59		
10	256QAM	25	25	18.57	18.62	18.70	20	5
10	256QAM	50	0	18.81	18.65	18.70		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	23.41	23.49	23.35	25	0
5	QPSK	1	12	23.39	23.52	23.38		
5	QPSK	1	24	23.39	23.50	23.47	24	1
5	QPSK	12	0	22.67	22.64	22.47		
5	QPSK	12	7	22.51	22.52	22.53	24	1
5	QPSK	12	13	22.62	22.66	22.63		
5	QPSK	25	0	22.53	22.52	22.48	24	1
5	16QAM	1	0	22.84	22.67	22.75		
5	16QAM	1	12	22.53	22.72	22.74	24	1
5	16QAM	1	24	22.67	22.57	22.57		
5	16QAM	12	0	21.57	21.60	21.58	23	2
5	16QAM	12	7	21.44	21.38	21.42		
5	16QAM	12	13	21.54	21.51	21.51	23	2
5	16QAM	25	0	21.44	21.39	21.28		
5	64QAM	1	0	21.45	21.53	21.40	23	2
5	64QAM	1	12	21.57	21.58	21.63		
5	64QAM	1	24	21.56	21.49	21.45	22	3
5	64QAM	12	0	20.47	20.58	20.55		
5	64QAM	12	7	20.46	20.48	20.40	22	3
5	64QAM	12	13	20.41	20.54	20.48		
5	64QAM	25	0	20.44	20.51	20.54	22	3
5	256QAM	1	0	18.70	18.66	18.76		
5	256QAM	1	12	18.76	18.65	18.75	20	5
5	256QAM	1	24	18.71	18.71	18.78		
5	256QAM	12	0	18.48	18.49	18.56	20	5
5	256QAM	12	7	18.59	18.66	18.56		
5	256QAM	12	13	18.58	18.67	18.65	20	5
5	256QAM	25	0	18.76	18.67	18.69		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	23.51	23.57	23.37	25	0
3	QPSK	1	8	23.37	23.52	23.49		
3	QPSK	1	14	23.33	23.37	23.56	24	1
3	QPSK	8	0	22.64	22.57	22.61		
3	QPSK	8	4	22.62	22.58	22.53	24	1
3	QPSK	8	7	22.63	22.58	22.50		
3	QPSK	15	0	22.45	22.52	22.55	24	1
3	16QAM	1	0	22.72	22.65	22.80		



3	16QAM	1	8	22.67	22.62	22.76		
3	16QAM	1	14	22.60	22.66	22.58		
3	16QAM	8	0	21.70	21.64	21.56		
3	16QAM	8	4	21.47	21.39	21.39		
3	16QAM	8	7	21.54	21.54	21.45		
3	16QAM	15	0	21.47	21.53	21.36		
3	64QAM	1	0	21.51	21.48	21.53		
3	64QAM	1	8	21.64	21.62	21.69		
3	64QAM	1	14	21.49	21.59	21.40		
3	64QAM	8	0	20.49	20.45	20.48		
3	64QAM	8	4	20.53	20.46	20.25		
3	64QAM	8	7	20.50	20.57	20.39		
3	64QAM	15	0	20.48	20.46	20.55		
3	256QAM	1	0	18.65	18.66	18.66		
3	256QAM	1	8	18.79	18.72	18.78		
3	256QAM	1	14	18.66	18.75	18.76		
3	256QAM	8	0	18.43	18.52	18.52		
3	256QAM	8	4	18.54	18.57	18.60		
3	256QAM	8	7	18.63	18.65	18.59		
3	256QAM	15	0	18.81	18.72	18.65		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	23.45	23.56	23.45	25	0
1.4	QPSK	1	3	23.38	23.42	23.37		
1.4	QPSK	1	5	23.35	23.37	23.54		
1.4	QPSK	3	0	23.43	23.53	23.35		
1.4	QPSK	3	1	23.38	23.54	23.39		
1.4	QPSK	3	3	23.36	23.36	23.42		
1.4	QPSK	6	0	22.61	22.63	22.49	24	1
1.4	16QAM	1	0	22.53	22.52	22.53	24	1
1.4	16QAM	1	3	22.68	22.58	22.63		
1.4	16QAM	1	5	22.57	22.50	22.51		
1.4	16QAM	3	0	22.84	22.66	22.79		
1.4	16QAM	3	1	22.66	22.58	22.61		
1.4	16QAM	3	3	22.57	22.53	22.58		
1.4	16QAM	6	0	21.58	21.62	21.55	23	2
1.4	64QAM	1	0	21.48	21.41	21.36	23	2
1.4	64QAM	1	3	21.63	21.46	21.47		
1.4	64QAM	1	5	21.51	21.45	21.30		
1.4	64QAM	3	0	21.57	21.43	21.53		
1.4	64QAM	3	1	21.55	21.70	21.66		
1.4	64QAM	3	3	21.55	21.58	21.45		
1.4	64QAM	6	0	20.46	20.48	20.52	22	3
1.4	256QAM	1	0	18.78	18.64	18.74	20	5
1.4	256QAM	1	3	18.88	18.77	18.75		
1.4	256QAM	1	5	18.69	18.74	18.82		
1.4	256QAM	3	0	18.43	18.62	18.56		
1.4	256QAM	3	1	18.57	18.53	18.60		
1.4	256QAM	3	3	18.65	18.61	18.60		
1.4	256QAM	6	0	18.81	18.75	18.60	20	5



Band 71 Ant0 DSIO									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel			133222			133297	133372		
Frequency (MHz)			673			680.5	688		
20	QPSK	1	0	22.67	22.76	22.63	24	0	
20	QPSK	1	49	22.66	22.73	22.69			
20	QPSK	1	99	22.66	22.65	22.62			
20	QPSK	50	0	21.65	21.68	21.63	23	1	
20	QPSK	50	24	21.64	21.60	21.64			
20	QPSK	50	50	21.55	21.52	21.62			
20	QPSK	100	0	21.59	21.62	21.60			
20	16QAM	1	0	21.82	21.87	21.93	23	1	
20	16QAM	1	49	21.82	21.83	21.82			
20	16QAM	1	99	21.98	21.91	21.88			
20	16QAM	50	0	20.67	20.65	20.64	22	2	
20	16QAM	50	24	20.58	20.58	20.53			
20	16QAM	50	50	20.79	20.78	20.70			
20	16QAM	100	0	20.67	20.66	20.70			
20	64QAM	1	0	20.91	20.95	21.04	22	2	
20	64QAM	1	49	21.06	21.01	21.07			
20	64QAM	1	99	20.96	20.97	20.94			
20	64QAM	50	0	19.72	19.67	19.66	21	3	
20	64QAM	50	24	19.47	19.55	19.54			
20	64QAM	50	50	19.66	19.64	19.57			
20	64QAM	100	0	19.60	19.62	19.55			
20	256QAM	1	0	17.68	17.60	17.65	19	5	
20	256QAM	1	49	17.62	17.61	17.71			
20	256QAM	1	99	17.71	17.70	17.71			
20	256QAM	50	0	17.63	17.55	17.58			
20	256QAM	50	24	17.56	17.59	17.57	19	5	
20	256QAM	50	50	17.52	17.61	17.71			
20	256QAM	100	0	17.64	17.70	17.79			
Channel			133197			133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)			670.5			680.5	690.5		
15	QPSK	1	0	22.65	22.70	22.52	24	0	
15	QPSK	1	37	22.63	22.60	22.53			
15	QPSK	1	74	22.51	22.61	22.51			
15	QPSK	36	0	21.44	21.49	21.57	23	1	
15	QPSK	36	20	21.50	21.48	21.57			
15	QPSK	36	39	21.52	21.37	21.56			
15	QPSK	75	0	21.40	21.40	21.47			
15	16QAM	1	0	21.64	21.80	21.89	23	1	
15	16QAM	1	37	21.79	21.77	21.77			
15	16QAM	1	74	21.92	21.88	21.71			
15	16QAM	36	0	20.50	20.61	20.61			
15	16QAM	36	20	20.47	20.47	20.43	22	2	
15	16QAM	36	39	20.73	20.69	20.61			
15	16QAM	75	0	20.57	20.57	20.58			
15	64QAM	1	0	20.81	20.90	21.00	22	2	
15	64QAM	1	37	20.91	20.96	20.99			
15	64QAM	1	74	20.86	20.84	20.77			
15	64QAM	36	0	19.63	19.59	19.48	21	3	
15	64QAM	36	20	19.30	19.50	19.52			
15	64QAM	36	39	19.56	19.47	19.53			



15	64QAM	75	0	19.49	19.52	19.51		
15	256QAM	1	0	17.53	17.52	17.55	19	5
15	256QAM	1	37	17.45	17.53	17.55		
15	256QAM	1	74	17.67	17.62	17.57		
15	256QAM	36	0	17.59	17.38	17.40		
15	256QAM	36	20	17.53	17.57	17.40	19	5
15	256QAM	36	39	17.35	17.58	17.67		
15	256QAM	75	0	17.57	17.65	17.70		
Channel				133172	133297	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	680.5	693		
10	QPSK	1	0	22.64	22.70	22.52	24	0
10	QPSK	1	25	22.62	22.63	22.55		
10	QPSK	1	49	22.56	22.49	22.50		
10	QPSK	25	0	21.38	21.59	21.55	23	1
10	QPSK	25	12	21.61	21.46	21.59		
10	QPSK	25	25	21.46	21.39	21.47		
10	QPSK	50	0	21.35	21.47	21.44		
10	16QAM	1	0	21.75	21.70	21.88	23	1
10	16QAM	1	25	21.64	21.75	21.68		
10	16QAM	1	49	21.81	21.87	21.86		
10	16QAM	25	0	20.53	20.56	20.55	22	2
10	16QAM	25	12	20.43	20.45	20.44		
10	16QAM	25	25	20.63	20.73	20.53		
10	16QAM	50	0	20.52	20.51	20.59		
10	64QAM	1	0	20.74	20.86	20.93	22	2
10	64QAM	1	25	20.99	20.88	20.95		
10	64QAM	1	49	20.80	20.86	20.86		
10	64QAM	25	0	19.69	19.64	19.56	21	3
10	64QAM	25	12	19.37	19.40	19.44		
10	64QAM	25	25	19.55	19.53	19.48		
10	64QAM	50	0	19.46	19.45	19.46		
10	256QAM	1	0	17.62	17.51	17.48	19	5
10	256QAM	1	25	17.54	17.55	17.59		
10	256QAM	1	49	17.54	17.67	17.54		
10	256QAM	25	0	17.56	17.41	17.52	19	5
10	256QAM	25	12	17.46	17.55	17.48		
10	256QAM	25	25	17.35	17.54	17.65		
10	256QAM	50	0	17.47	17.66	17.72		
Channel				133147	133297	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	0	22.61	22.68	22.52	24	0
5	QPSK	1	12	22.63	22.62	22.60		
5	QPSK	1	24	22.60	22.59	22.49		
5	QPSK	12	0	21.51	21.61	21.53	23	1
5	QPSK	12	7	21.58	21.49	21.49		
5	QPSK	12	13	21.52	21.41	21.52		
5	QPSK	25	0	21.40	21.46	21.58		
5	16QAM	1	0	21.77	21.72	21.81	23	1
5	16QAM	1	12	21.78	21.79	21.71		
5	16QAM	1	24	21.90	21.78	21.76		
5	16QAM	12	0	20.62	20.54	20.54	22	2
5	16QAM	12	7	20.41	20.43	20.40		
5	16QAM	12	13	20.68	20.63	20.58		
5	16QAM	25	0	20.63	20.61	20.56		
5	64QAM	1	0	20.74	20.90	21.00	22	2
5	64QAM	1	12	21.02	20.93	20.98		



5	64QAM	1	24	20.81	20.85	20.85		
5	64QAM	12	0	19.57	19.58	19.58	21	3
5	64QAM	12	7	19.41	19.45	19.47		
5	64QAM	12	13	19.52	19.47	19.50		
5	64QAM	25	0	19.57	19.58	19.39		
5	256QAM	1	0	17.57	17.43	17.55		
5	256QAM	1	12	17.52	17.53	17.59	19	5
5	256QAM	1	24	17.61	17.60	17.66		
5	256QAM	12	0	17.54	17.44	17.45		
5	256QAM	12	7	17.42	17.48	17.43		
5	256QAM	12	13	17.41	17.53	17.66	19	5
5	256QAM	25	0	17.51	17.61	17.76		

Band 2 Ant2 DSIO									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				18700	18900	19100	23.2	0	
Frequency (MHz)				1860	1880	1900			
20	QPSK	1	0	22.33	22.44	22.35			
20	QPSK	1	49	22.31	22.43	22.43			
20	QPSK	1	99	22.38	22.40	22.34			
20	QPSK	50	0	22.30	22.38	22.30			
20	QPSK	50	24	22.22	22.36	22.34			
20	QPSK	50	50	22.30	22.26	22.26			
20	QPSK	100	0	22.30	22.33	22.30			
20	16QAM	1	0	22.30	22.35	22.24	23.2	0	
20	16QAM	1	49	22.28	22.35	22.37			
20	16QAM	1	99	22.28	22.34	22.30			
20	16QAM	50	0	21.75	21.71	21.68			
20	16QAM	50	24	21.67	21.72	21.73	23	0.2	
20	16QAM	50	50	21.67	21.69	21.73			
20	16QAM	100	0	21.58	21.62	21.56			
20	64QAM	1	0	21.64	21.73	21.70	23	0.2	
20	64QAM	1	49	21.68	21.62	21.68			
20	64QAM	1	99	21.57	21.63	21.66			
20	64QAM	50	0	20.80	20.72	20.66			
20	64QAM	50	24	20.79	20.69	20.70	22	1.2	
20	64QAM	50	50	20.84	20.77	20.74			
20	64QAM	100	0	20.64	20.73	20.78			
20	256QAM	1	0	18.63	18.54	18.59	20	3.2	
20	256QAM	1	49	18.64	18.59	18.60			
20	256QAM	1	99	18.57	18.56	18.63			
20	256QAM	50	0	18.68	18.58	18.63			
20	256QAM	50	24	18.57	18.51	18.51	20	3.2	
20	256QAM	50	50	18.55	18.57	18.64			
20	256QAM	100	0	18.69	18.69	18.66			
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	22.28	22.40	22.25		23.2	0
15	QPSK	1	37	22.26	22.37	22.39			
15	QPSK	1	74	22.34	22.34	22.26	23.2	0	
15	QPSK	36	0	22.20	22.28	22.20			
15	QPSK	36	20	22.10	22.26	22.31	23.2	0	
15	QPSK	36	39	22.16	22.21	22.17			
15	QPSK	75	0	22.23	22.26	22.22			



15	16QAM	1	0	22.19	22.31	22.17	23.2	0
15	16QAM	1	37	22.14	22.28	22.33		
15	16QAM	1	74	22.14	22.29	22.25		
15	16QAM	36	0	21.57	21.66	21.62		
15	16QAM	36	20	21.65	21.57	21.61	23	0.2
15	16QAM	36	39	21.53	21.63	21.58		
15	16QAM	75	0	21.43	21.44	21.49		
15	64QAM	1	0	21.95	21.92	21.93		
15	64QAM	1	37	21.83	21.84	21.83	23	0.2
15	64QAM	1	74	21.79	21.79	21.76		
15	64QAM	36	0	20.32	20.49	20.50		
15	64QAM	36	20	20.62	20.63	20.58		
15	64QAM	36	39	20.43	20.52	20.38	22	1.2
15	64QAM	75	0	20.43	20.49	20.44		
15	256QAM	1	0	18.57	18.38	18.42		
15	256QAM	1	37	18.57	18.41	18.42		
15	256QAM	1	74	18.46	18.53	18.60	20	3.2
15	256QAM	36	0	18.53	18.45	18.58		
15	256QAM	36	20	18.54	18.35	18.45		
15	256QAM	36	39	18.45	18.44	18.46		
15	256QAM	75	0	18.58	18.55	18.56	20	3.2
Channel				18650	18900	19150		
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	22.22	22.42	22.26	23.2	0
10	QPSK	1	25	22.23	22.38	22.29		
10	QPSK	1	49	22.30	22.34	22.23		
10	QPSK	25	0	22.20	22.21	22.23		
10	QPSK	25	12	22.13	22.33	22.27	23.2	0
10	QPSK	25	25	22.19	22.16	22.22		
10	QPSK	50	0	22.23	22.22	22.24		
10	16QAM	1	0	22.18	22.25	22.11	23.2	0
10	16QAM	1	25	22.19	22.31	22.31		
10	16QAM	1	49	22.15	22.26	22.17		
10	16QAM	25	0	21.64	21.63	21.61		
10	16QAM	25	12	21.60	21.67	21.69	23	0.2
10	16QAM	25	25	21.63	21.55	21.60		
10	16QAM	50	0	21.55	21.48	21.53		
10	64QAM	1	0	21.96	22.01	21.88	23	0.2
10	64QAM	1	25	21.84	21.87	21.81		
10	64QAM	1	49	21.74	21.78	21.87		
10	64QAM	25	0	20.33	20.46	20.55		
10	64QAM	25	12	20.51	20.60	20.57	22	1.2
10	64QAM	25	25	20.45	20.45	20.37		
10	64QAM	50	0	20.49	20.41	20.44		
10	256QAM	1	0	18.47	18.49	18.43	20	3.2
10	256QAM	1	25	18.62	18.47	18.57		
10	256QAM	1	49	18.48	18.47	18.56		
10	256QAM	25	0	18.58	18.53	18.49		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	22.30	22.31	22.25		0
5	QPSK	1	12	22.19	22.36	22.34		
5	QPSK	1	24	22.25	22.35	22.20		



5	QPSK	12	0	22.25	22.23	22.26	23.2	0
5	QPSK	12	7	22.12	22.30	22.22		
5	QPSK	12	13	22.28	22.22	22.16		
5	QPSK	25	0	22.18	22.31	22.24		
5	16QAM	1	0	22.24	22.25	22.15	23.2	0
5	16QAM	1	12	22.16	22.22	22.32		
5	16QAM	1	24	22.14	22.28	22.21		
5	16QAM	12	0	21.62	21.56	21.59		
5	16QAM	12	7	21.64	21.57	21.57	23	0.2
5	16QAM	12	13	21.50	21.51	21.62		
5	16QAM	25	0	21.47	21.49	21.43		
5	64QAM	1	0	21.96	22.02	21.99		
5	64QAM	1	12	21.73	21.83	21.76	23	0.2
5	64QAM	1	24	21.85	21.83	21.87		
5	64QAM	12	0	20.37	20.43	20.45		
5	64QAM	12	7	20.56	20.61	20.58		
5	64QAM	12	13	20.53	20.54	20.48	22	1.2
5	64QAM	25	0	20.34	20.39	20.38		
5	256QAM	1	0	18.48	18.44	18.51		
5	256QAM	1	12	18.51	18.44	18.54		
5	256QAM	1	24	18.50	18.47	18.50	20	3.2
5	256QAM	12	0	18.65	18.49	18.51		
5	256QAM	12	7	18.49	18.40	18.41		
5	256QAM	12	13	18.48	18.50	18.50		
5	256QAM	25	0	18.58	18.59	18.52	20	3.2
Channel				18615	18900	19185		
Frequency (MHz)				1851.5	1880	1908.5	Tune-up limit (dBm)	MPR (dB)
3	QPSK	1	0	22.19	22.39	22.28	23.2	0
3	QPSK	1	8	22.19	22.41	22.39		
3	QPSK	1	14	22.31	22.28	22.27		
3	QPSK	8	0	22.17	22.20	22.26		
3	QPSK	8	4	22.12	22.29	22.30	23.2	0
3	QPSK	8	7	22.24	22.21	22.21		
3	QPSK	15	0	22.28	22.23	22.24		
3	16QAM	1	0	22.17	22.29	22.19	23.2	0
3	16QAM	1	8	22.19	22.29	22.31		
3	16QAM	1	14	22.22	22.32	22.19		
3	16QAM	8	0	21.59	21.68	21.66		
3	16QAM	8	4	21.54	21.62	21.55	23	0.2
3	16QAM	8	7	21.54	21.66	21.67		
3	16QAM	15	0	21.42	21.45	21.48		
3	64QAM	1	0	21.98	21.96	21.94		
3	64QAM	1	8	21.84	21.76	21.77	23	0.2
3	64QAM	1	14	21.83	21.79	21.74		
3	64QAM	8	0	20.31	20.40	20.55		
3	64QAM	8	4	20.60	20.67	20.59		
3	64QAM	8	7	20.54	20.41	20.44	22	1.2
3	64QAM	15	0	20.43	20.40	20.51		
3	256QAM	1	0	18.49	18.44	18.43	20	3.2
3	256QAM	1	8	18.49	18.55	18.51		
3	256QAM	1	14	18.48	18.53	18.50		
3	256QAM	8	0	18.62	18.42	18.57		
3	256QAM	8	4	18.46	18.49	18.35	20	3.2
3	256QAM	8	7	18.51	18.51	18.51		
3	256QAM	15	0	18.62	18.64	18.54		
Channel				18607	18900	19193	Tune-up limit	MPR



Frequency (MHz)				1850.7	1880	1909.3	(dBm)	(dB)
1.4	QPSK	1	0	22.23	22.35	22.22	23.2	0
1.4	QPSK	1	3	22.20	22.31	22.32		
1.4	QPSK	1	5	22.30	22.38	22.21		
1.4	QPSK	3	0	22.20	22.39	22.33		
1.4	QPSK	3	1	22.18	22.36	22.38		
1.4	QPSK	3	3	22.36	22.32	22.28		
1.4	QPSK	6	0	22.18	22.23	22.21		
1.4	16QAM	1	0	22.12	22.23	22.24	23.2	0
1.4	16QAM	1	3	22.24	22.21	22.17		
1.4	16QAM	1	5	22.21	22.23	22.24		
1.4	16QAM	3	0	22.20	22.27	22.16		
1.4	16QAM	3	1	22.15	22.26	22.35		
1.4	16QAM	3	3	22.15	22.22	22.18		
1.4	16QAM	6	0	21.64	21.62	21.55	23	0.2
1.4	64QAM	1	0	21.58	21.57	21.65	23	0.2
1.4	64QAM	1	3	21.60	21.55	21.58		
1.4	64QAM	1	5	21.45	21.46	21.39		
1.4	64QAM	3	0	22.08	22.08	22.04		
1.4	64QAM	3	1	22.11	22.14	22.12		
1.4	64QAM	3	3	22.14	22.12	22.14		
1.4	64QAM	6	0	21.33	21.43	21.46	22	1.2
1.4	256QAM	1	0	18.60	18.47	18.48	20	3.2
1.4	256QAM	1	3	18.56	18.41	18.46		
1.4	256QAM	1	5	18.52	18.48	18.48		
1.4	256QAM	3	0	18.62	18.42	18.50		
1.4	256QAM	3	1	18.42	18.39	18.37		
1.4	256QAM	3	3	18.51	18.52	18.51		
1.4	256QAM	6	0	18.55	18.58	18.60	20	3.2

Band 4 Ant2 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.70	22.91	22.72	23.6	0
20	QPSK	1	49	22.69	22.74	22.79		
20	QPSK	1	99	22.79	22.86	22.68		
20	QPSK	50	0	22.50	22.63	22.54		
20	QPSK	50	24	22.49	22.58	22.56		
20	QPSK	50	50	22.49	22.44	22.54		
20	QPSK	100	0	22.45	22.51	22.41		
20	16QAM	1	0	22.02	22.14	21.91	23.6	0
20	16QAM	1	49	22.06	22.00	21.93		
20	16QAM	1	99	21.82	22.03	21.79		
20	16QAM	50	0	22.72	22.64	22.64		
20	16QAM	50	24	22.66	22.58	22.53		
20	16QAM	50	50	22.50	22.57	22.48		
20	16QAM	100	0	22.64	22.56	22.62		
20	64QAM	1	0	21.34	21.34	21.40	23	0.6
20	64QAM	1	49	21.44	21.40	21.37		
20	64QAM	1	99	21.42	21.41	21.31		
20	64QAM	50	0	20.68	20.59	20.51		
20	64QAM	50	24	20.64	20.63	20.62		
20	64QAM	50	50	20.46	20.55	20.64		
20	64QAM	100	0	20.75	20.71	20.75	22	1.6



20	256QAM	1	0	18.73	18.73	18.75	20	3.6
20	256QAM	1	49	18.54	18.55	18.54		
20	256QAM	1	99	18.69	18.73	18.81		
20	256QAM	50	0	18.59	18.49	18.51		
20	256QAM	50	24	18.52	18.51	18.61	20	3.6
20	256QAM	50	50	18.80	18.70	18.60		
20	256QAM	100	0	18.54	18.52	18.54		
Channel				20025	20175	20325		
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	22.61	22.87	22.64	23.6	0
15	QPSK	1	37	22.64	22.70	22.74		
15	QPSK	1	74	22.75	22.83	22.62		
15	QPSK	36	0	22.42	22.60	22.45		
15	QPSK	36	20	22.42	22.51	22.53	23.6	0
15	QPSK	36	39	22.44	22.36	22.51		
15	QPSK	75	0	22.37	22.45	22.35		
15	16QAM	1	0	22.00	22.06	21.87		
15	16QAM	1	37	22.03	21.97	21.87	23.6	0
15	16QAM	1	74	21.73	21.97	21.74		
15	16QAM	36	0	22.63	22.51	22.50		
15	16QAM	36	20	22.53	22.41	22.50		
15	16QAM	36	39	22.40	22.52	22.42	23	0.6
15	16QAM	75	0	22.49	22.53	22.59		
15	64QAM	1	0	21.21	21.21	21.36		
15	64QAM	1	37	21.39	21.31	21.30		
15	64QAM	1	74	21.29	21.27	21.18	23	0.6
15	64QAM	36	0	20.52	20.52	20.48		
15	64QAM	36	20	20.55	20.56	20.54		
15	64QAM	36	39	20.39	20.41	20.61		
15	64QAM	75	0	20.64	20.57	20.64	22	1.6
15	256QAM	1	0	18.65	18.56	18.69		
15	256QAM	1	37	18.52	18.52	18.47		
15	256QAM	1	74	18.59	18.57	18.71		
15	256QAM	36	0	18.53	18.36	18.35	20	3.6
15	256QAM	36	20	18.38	18.44	18.53		
15	256QAM	36	39	18.69	18.54	18.42		
15	256QAM	75	0	18.37	18.43	18.43		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.67	22.89	22.65	23.6	0
10	QPSK	1	25	22.60	22.65	22.71		
10	QPSK	1	49	22.72	22.81	22.59		
10	QPSK	25	0	22.45	22.54	22.46		
10	QPSK	25	12	22.44	22.50	22.52	23.6	0
10	QPSK	25	25	22.39	22.35	22.45		
10	QPSK	50	0	22.42	22.44	22.33		
10	16QAM	1	0	21.93	22.07	21.84		
10	16QAM	1	25	22.03	21.94	21.87	23.6	0
10	16QAM	1	49	21.73	21.96	21.70		
10	16QAM	25	0	22.68	22.53	22.58		
10	16QAM	25	12	22.57	22.56	22.47		
10	16QAM	25	25	22.34	22.40	22.36	23	0.6
10	16QAM	50	0	22.53	22.42	22.57		
10	64QAM	1	0	21.21	21.23	21.34		
10	64QAM	1	25	21.40	21.37	21.35		
10	64QAM	1	49	21.26	21.28	21.21	23	0.6



10	64QAM	25	0	20.52	20.48	20.41	22	1.6
10	64QAM	25	12	20.53	20.60	20.45		
10	64QAM	25	25	20.29	20.49	20.46		
10	64QAM	50	0	20.72	20.54	20.69		
10	256QAM	1	0	18.69	18.58	18.59	20	3.6
10	256QAM	1	25	18.51	18.51	18.42		
10	256QAM	1	49	18.54	18.65	18.63		
10	256QAM	25	0	18.45	18.35	18.38		
10	256QAM	25	12	18.36	18.43	18.58	20	3.6
10	256QAM	25	25	18.68	18.54	18.54		
10	256QAM	50	0	18.50	18.47	18.38		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.64	22.85	22.62	23.6	0
5	QPSK	1	12	22.60	22.71	22.74		
5	QPSK	1	24	22.70	22.81	22.60		
5	QPSK	12	0	22.45	22.58	22.50		
5	QPSK	12	7	22.41	22.51	22.54	23.6	0
5	QPSK	12	13	22.42	22.40	22.50		
5	QPSK	25	0	22.37	22.45	22.33		
5	16QAM	1	0	21.95	22.04	21.85	23.6	0
5	16QAM	1	12	22.03	21.94	21.83		
5	16QAM	1	24	21.75	21.97	21.73		
5	16QAM	12	0	22.59	22.46	22.47		
5	16QAM	12	7	22.48	22.51	22.40	23	0.6
5	16QAM	12	13	22.36	22.39	22.42		
5	16QAM	25	0	22.60	22.48	22.44		
5	64QAM	1	0	21.30	21.16	21.24	23	0.6
5	64QAM	1	12	21.38	21.36	21.34		
5	64QAM	1	24	21.29	21.34	21.26		
5	64QAM	12	0	20.61	20.41	20.42		
5	64QAM	12	7	20.46	20.48	20.52	22	1.6
5	64QAM	12	13	20.29	20.53	20.51		
5	64QAM	25	0	20.57	20.55	20.65		
5	256QAM	1	0	18.68	18.61	18.59	20	3.6
5	256QAM	1	12	18.49	18.45	18.47		
5	256QAM	1	24	18.57	18.67	18.64		
5	256QAM	12	0	18.54	18.44	18.40		
5	256QAM	12	7	18.40	18.41	18.58	20	3.6
5	256QAM	12	13	18.62	18.63	18.44		
5	256QAM	25	0	18.37	18.48	18.48		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.61	22.88	22.68	23.6	0
3	QPSK	1	8	22.64	22.69	22.74		
3	QPSK	1	14	22.71	22.79	22.64		
3	QPSK	8	0	22.44	22.60	22.51		
3	QPSK	8	4	22.40	22.55	22.50	23.6	0
3	QPSK	8	7	22.45	22.39	22.47		
3	QPSK	15	0	22.39	22.42	22.36		
3	16QAM	1	0	21.94	22.09	21.84	23.6	0
3	16QAM	1	8	22.04	21.96	21.84		
3	16QAM	1	14	21.77	22.00	21.72		
3	16QAM	8	0	22.60	22.56	22.53		
3	16QAM	8	4	22.53	22.46	22.40	23	0.6
3	16QAM	8	7	22.36	22.51	22.43		



3	16QAM	15	0	22.51	22.45	22.49		
3	64QAM	1	0	21.21	21.20	21.35	23	0.6
3	64QAM	1	8	21.42	21.35	21.22		
3	64QAM	1	14	21.38	21.33	21.18		
3	64QAM	8	0	20.55	20.45	20.45		
3	64QAM	8	4	20.55	20.46	20.58	22	1.6
3	64QAM	8	7	20.41	20.53	20.57		
3	64QAM	15	0	20.68	20.58	20.68		
3	256QAM	1	0	18.68	18.64	18.57		
3	256QAM	1	8	18.40	18.51	18.37	20	3.6
3	256QAM	1	14	18.62	18.67	18.74		
3	256QAM	8	0	18.44	18.42	18.34		
3	256QAM	8	4	18.43	18.42	18.46		
3	256QAM	8	7	18.65	18.61	18.53	20	3.6
3	256QAM	15	0	18.42	18.47	18.37		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.62	22.86	22.65	23.6	0
1.4	QPSK	1	3	22.63	22.68	22.69		
1.4	QPSK	1	5	22.77	22.84	22.63		
1.4	QPSK	3	0	22.42	22.57	22.52		
1.4	QPSK	3	1	22.47	22.52	22.51		
1.4	QPSK	3	3	22.43	22.39	22.46		
1.4	QPSK	6	0	22.40	22.45	22.33		
1.4	16QAM	1	0	21.97	22.08	21.82	23.6	0
1.4	16QAM	1	3	22.00	21.93	21.87		
1.4	16QAM	1	5	21.74	21.94	21.73		
1.4	16QAM	3	0	22.85	22.85	22.81		
1.4	16QAM	3	1	22.88	22.87	22.85		
1.4	16QAM	3	3	22.82	22.74	22.81		
1.4	16QAM	6	0	22.63	22.52	22.55		
1.4	64QAM	1	0	22.53	22.54	22.41	23	0.6
1.4	64QAM	1	3	22.47	22.45	22.45		
1.4	64QAM	1	5	22.57	22.41	22.57		
1.4	64QAM	3	0	21.25	21.19	21.23		
1.4	64QAM	3	1	21.42	21.30	21.27		
1.4	64QAM	3	3	21.29	21.28	21.17		
1.4	64QAM	6	0	20.54	20.42	20.48		
1.4	256QAM	1	0	18.70	18.63	18.58	20	3.6
1.4	256QAM	1	3	18.45	18.46	18.49		
1.4	256QAM	1	5	18.64	18.59	18.64		
1.4	256QAM	3	0	18.48	18.43	18.35		
1.4	256QAM	3	1	18.38	18.38	18.43		
1.4	256QAM	3	3	18.74	18.62	18.43		
1.4	256QAM	6	0	18.47	18.44	18.49		



Band 25 Ant2 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590	23.2	0
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	22.37	22.53	22.48		
20	QPSK	1	49	22.37	22.41	22.47		
20	QPSK	1	99	22.38	22.41	22.44		
20	QPSK	50	0	22.23	22.46	22.41		
20	QPSK	50	24	22.31	22.29	22.35		
20	QPSK	50	50	22.29	22.37	22.39		
20	QPSK	100	0	22.27	22.48	22.40		
20	16QAM	1	0	22.28	22.44	22.37	23.2	0
20	16QAM	1	49	22.31	22.38	22.45		
20	16QAM	1	99	22.35	22.31	22.34		
20	16QAM	50	0	21.67	21.71	21.71		
20	16QAM	50	24	21.76	21.68	21.61	23	0.2
20	16QAM	50	50	21.63	21.64	21.61		
20	16QAM	100	0	21.53	21.59	21.54		
20	64QAM	1	0	21.64	21.73	21.70	23	0.2
20	64QAM	1	49	21.68	21.62	21.68		
20	64QAM	1	99	21.57	21.63	21.66		
20	64QAM	50	0	20.80	20.72	20.66		
20	64QAM	50	24	20.79	20.69	20.70	22	1.2
20	64QAM	50	50	20.84	20.77	20.74		
20	64QAM	100	0	20.64	20.73	20.78		
20	256QAM	1	0	18.79	18.87	18.82	20	3.2
20	256QAM	1	49	18.71	18.74	18.78		
20	256QAM	1	99	18.61	18.68	18.77		
20	256QAM	50	0	18.64	18.63	18.61		
20	256QAM	50	24	18.60	18.67	18.76	20	3.2
20	256QAM	50	50	18.56	18.53	18.43		
20	256QAM	100	0	18.70	18.70	18.79		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	22.26	22.45	22.46	23.2	0
15	QPSK	1	37	22.27	22.31	22.43		
15	QPSK	1	74	22.27	22.32	22.34		
15	QPSK	36	0	22.11	22.38	22.28		
15	QPSK	36	20	22.27	22.24	22.26	23.2	0
15	QPSK	36	39	22.22	22.23	22.31		
15	QPSK	75	0	22.17	22.42	22.34		
15	16QAM	1	0	22.20	22.39	22.26		
15	16QAM	1	37	22.29	22.25	22.32	23.2	0
15	16QAM	1	74	22.28	22.19	22.30		
15	16QAM	36	0	21.50	21.60	21.54		
15	16QAM	36	20	21.68	21.56	21.52		
15	16QAM	36	39	21.48	21.51	21.53	23	0.2
15	16QAM	75	0	21.40	21.44	21.49		
15	64QAM	1	0	21.50	21.68	21.64		
15	64QAM	1	37	21.51	21.53	21.66		
15	64QAM	1	74	21.52	21.54	21.59	23	0.2
15	64QAM	36	0	20.64	20.58	20.58		
15	64QAM	36	20	20.66	20.65	20.64		
15	64QAM	36	39	20.70	20.73	20.59		



15	64QAM	75	0	20.58	20.57	20.75		
15	256QAM	1	0	18.65	18.78	18.79	20	3.2
15	256QAM	1	37	18.67	18.60	18.66		
15	256QAM	1	74	18.49	18.56	18.70		
15	256QAM	36	0	18.59	18.58	18.54		
15	256QAM	36	20	18.53	18.57	18.65	20	3.2
15	256QAM	36	39	18.40	18.40	18.32		
15	256QAM	75	0	18.57	18.67	18.70		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	22.30	22.47	22.45	23.2	0
10	QPSK	1	25	22.24	22.29	22.36		
10	QPSK	1	49	22.29	22.32	22.41		
10	QPSK	25	0	22.09	22.37	22.32	23.2	0
10	QPSK	25	12	22.24	22.22	22.23		
10	QPSK	25	25	22.26	22.26	22.27		
10	QPSK	50	0	22.24	22.38	22.38		
10	16QAM	1	0	22.22	22.40	22.28	23.2	0
10	16QAM	1	25	22.25	22.25	22.42		
10	16QAM	1	49	22.33	22.29	22.28		
10	16QAM	25	0	21.51	21.54	21.64	23	0.2
10	16QAM	25	12	21.72	21.51	21.52		
10	16QAM	25	25	21.58	21.50	21.46		
10	16QAM	50	0	21.43	21.51	21.46		
10	64QAM	1	0	21.59	21.60	21.66	23	0.2
10	64QAM	1	25	21.56	21.45	21.54		
10	64QAM	1	49	21.43	21.60	21.51		
10	64QAM	25	0	20.78	20.58	20.63	22	1.2
10	64QAM	25	12	20.68	20.52	20.61		
10	64QAM	25	25	20.74	20.60	20.69		
10	64QAM	50	0	20.59	20.60	20.63		
10	256QAM	1	0	18.69	18.81	18.76	20	3.2
10	256QAM	1	25	18.66	18.58	18.74		
10	256QAM	1	49	18.45	18.63	18.69		
10	256QAM	25	0	18.61	18.59	18.52	20	3.2
10	256QAM	25	12	18.54	18.59	18.65		
10	256QAM	25	25	18.45	18.40	18.38		
10	256QAM	50	0	18.61	18.57	18.71		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	22.29	22.48	22.39	23.2	0
5	QPSK	1	12	22.30	22.28	22.38		
5	QPSK	1	24	22.33	22.37	22.35		
5	QPSK	12	0	22.15	22.37	22.38	23.2	0
5	QPSK	12	7	22.28	22.27	22.23		
5	QPSK	12	13	22.16	22.35	22.33		
5	QPSK	25	0	22.16	22.44	22.35		
5	16QAM	1	0	22.22	22.39	22.29	23.2	0
5	16QAM	1	12	22.19	22.25	22.34		
5	16QAM	1	24	22.28	22.21	22.25		
5	16QAM	12	0	21.59	21.59	21.69	23	0.2
5	16QAM	12	7	21.72	21.60	21.43		
5	16QAM	12	13	21.47	21.52	21.54		
5	16QAM	25	0	21.44	21.44	21.44		
5	64QAM	1	0	21.48	21.61	21.57	23	0.2
5	64QAM	1	12	21.54	21.57	21.56		



5	64QAM	1	24	21.40	21.47	21.59		
5	64QAM	12	0	20.71	20.59	20.51		
5	64QAM	12	7	20.64	20.64	20.63		
5	64QAM	12	13	20.68	20.75	20.68		
5	64QAM	25	0	20.53	20.68	20.70		
5	256QAM	1	0	18.67	18.83	18.68		
5	256QAM	1	12	18.65	18.69	18.63		
5	256QAM	1	24	18.49	18.53	18.67		
5	256QAM	12	0	18.47	18.46	18.52		
5	256QAM	12	7	18.46	18.61	18.66		
5	256QAM	12	13	18.53	18.35	18.26		
5	256QAM	25	0	18.62	18.52	18.62		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	22.25	22.44	22.36	23.2	0
3	QPSK	1	8	22.26	22.39	22.38		
3	QPSK	1	14	22.35	22.36	22.32		
3	QPSK	8	0	22.19	22.37	22.33		
3	QPSK	8	4	22.24	22.21	22.24	23.2	0
3	QPSK	8	7	22.25	22.25	22.30		
3	QPSK	15	0	22.15	22.39	22.35		
3	16QAM	1	0	22.22	22.33	22.27		
3	16QAM	1	8	22.23	22.29	22.36	23.2	0
3	16QAM	1	14	22.21	22.27	22.27		
3	16QAM	8	0	21.51	21.55	21.57		
3	16QAM	8	4	21.62	21.66	21.56		
3	16QAM	8	7	21.59	21.48	21.52	23	0.2
3	16QAM	15	0	21.41	21.56	21.39		
3	64QAM	1	0	21.51	21.61	21.52		
3	64QAM	1	8	21.59	21.45	21.58		
3	64QAM	1	14	21.43	21.55	21.57	23	0.2
3	64QAM	8	0	20.64	20.55	20.55		
3	64QAM	8	4	20.74	20.64	20.66		
3	64QAM	8	7	20.74	20.67	20.58		
3	64QAM	15	0	20.51	20.67	20.62	22	1.2
3	256QAM	1	0	18.65	18.81	18.69		
3	256QAM	1	8	18.60	18.56	18.64		
3	256QAM	1	14	18.51	18.53	18.70		
3	256QAM	8	0	18.49	18.49	18.52	20	3.2
3	256QAM	8	4	18.52	18.50	18.72		
3	256QAM	8	7	18.46	18.50	18.25		
3	256QAM	15	0	18.58	18.57	18.63		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	22.35	22.44	22.37	23.2	0
1.4	QPSK	1	3	22.32	22.38	22.40		
1.4	QPSK	1	5	22.36	22.31	22.37		
1.4	QPSK	3	0	22.19	22.41	22.32		
1.4	QPSK	3	1	22.27	22.22	22.27		
1.4	QPSK	3	3	22.21	22.34	22.33		
1.4	QPSK	6	0	22.21	22.40	22.32		
1.4	16QAM	1	0	22.22	22.31	22.33	23.2	0
1.4	16QAM	1	3	22.18	22.25	22.40		
1.4	16QAM	1	5	22.28	22.27	22.31		
1.4	16QAM	3	0	22.35	22.51	22.43		
1.4	16QAM	3	1	22.32	22.32	22.41		



1.4	16QAM	3	3	22.26	22.32	22.36		
1.4	16QAM	6	0	21.64	21.53	21.59	23	0.2
1.4	64QAM	1	0	21.64	21.58	21.51		
1.4	64QAM	1	3	21.55	21.60	21.54		
1.4	64QAM	1	5	21.36	21.42	21.37		
1.4	64QAM	3	0	21.57	21.67	21.64		
1.4	64QAM	3	1	21.58	21.44	21.52		
1.4	64QAM	3	3	21.48	21.52	21.52		
1.4	64QAM	6	0	20.62	20.58	20.48	22	1.2
1.4	256QAM	1	0	18.67	18.85	18.79		
1.4	256QAM	1	3	18.67	18.60	18.74		
1.4	256QAM	1	5	18.50	18.55	18.72		
1.4	256QAM	3	0	18.51	18.46	18.47		
1.4	256QAM	3	1	18.54	18.58	18.73		
1.4	256QAM	3	3	18.50	18.41	18.26		
1.4	256QAM	6	0	18.53	18.55	18.75	20	3.2

Band 66 Ant2 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	22.79	22.95	22.78		
20	QPSK	1	49	22.73	22.78	22.84	23.6	0
20	QPSK	1	99	22.86	22.93	22.76		
20	QPSK	50	0	22.56	22.65	22.57		
20	QPSK	50	24	22.57	22.64	22.64	23.6	0
20	QPSK	50	50	22.53	22.50	22.56		
20	QPSK	100	0	22.52	22.61	22.50		
20	16QAM	1	0	22.08	22.23	21.94		
20	16QAM	1	49	22.13	22.09	21.98	23.6	0
20	16QAM	1	99	21.87	22.07	21.86		
20	16QAM	50	0	21.41	21.50	21.50		
20	16QAM	50	24	21.57	21.50	21.54	23	0.6
20	16QAM	50	50	21.62	21.67	21.66		
20	16QAM	100	0	21.48	21.50	21.57		
20	64QAM	1	0	21.62	21.55	21.61		
20	64QAM	1	49	21.57	21.64	21.59	23	0.6
20	64QAM	1	99	21.69	21.68	21.68		
20	64QAM	50	0	20.78	20.72	20.66		
20	64QAM	50	24	20.79	20.74	20.66	22	1.6
20	64QAM	50	50	20.42	20.52	20.59		
20	64QAM	100	0	20.62	20.68	20.66		
20	256QAM	1	0	18.49	18.54	18.46		
20	256QAM	1	49	18.69	18.61	18.61	20	3.6
20	256QAM	1	99	18.52	18.44	18.35		
20	256QAM	50	0	18.60	18.53	18.48		
20	256QAM	50	24	18.65	18.62	18.70	20	3.6
20	256QAM	50	50	18.53	18.62	18.64		
20	256QAM	100	0	18.53	18.58	18.54		
Channel				132047	132322	132597		
Frequency (MHz)				1717.5	1745	1772.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	22.65	22.88	22.74		
15	QPSK	1	37	22.64	22.68	22.80	23.6	0
15	QPSK	1	74	22.81	22.81	22.71		
15	QPSK	36	0	22.37	22.39	22.50	23.6	0



15	QPSK	36	20	22.45	22.54	22.47		
15	QPSK	36	39	22.38	22.40	22.53		
15	QPSK	75	0	22.40	22.35	22.42	23.6	0
15	16QAM	1	0	22.05	22.31	21.86		
15	16QAM	1	37	22.10	22.14	22.01	23.6	0
15	16QAM	1	74	21.85	22.13	21.92		
15	16QAM	36	0	21.35	21.43	21.45	23	0.6
15	16QAM	36	20	21.39	21.45	21.38		
15	16QAM	36	39	21.47	21.57	21.49	23	0.6
15	16QAM	75	0	21.44	21.33	21.50		
15	64QAM	1	0	21.56	21.45	21.53	23	0.6
15	64QAM	1	37	21.49	21.48	21.49		
15	64QAM	1	74	21.61	21.54	21.57	23	0.6
15	64QAM	36	0	20.71	20.69	20.60		
15	64QAM	36	20	20.74	20.68	20.63	22	1.6
15	64QAM	36	39	20.24	20.39	20.54		
15	64QAM	75	0	20.45	20.59	20.64	20	3.6
15	256QAM	1	0	18.45	18.45	18.41		
15	256QAM	1	37	18.63	18.52	18.47	20	3.6
15	256QAM	1	74	18.45	18.37	18.27		
15	256QAM	36	0	18.57	18.39	18.40	20	3.6
15	256QAM	36	20	18.54	18.59	18.58		
15	256QAM	36	39	18.39	18.53	18.57	20	3.6
15	256QAM	75	0	18.43	18.55	18.43		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	22.75	22.85	22.74	23.6	0
10	QPSK	1	25	22.69	22.71	22.81		
10	QPSK	1	49	22.75	22.85	22.70	23.6	0
10	QPSK	25	0	22.42	22.41	22.43		
10	QPSK	25	12	22.55	22.52	22.60	23.6	0
10	QPSK	25	25	22.36	22.46	22.43		
10	QPSK	50	0	22.41	22.30	22.34	23.6	0
10	16QAM	1	0	22.00	22.28	21.90		
10	16QAM	1	25	22.05	22.21	21.97	23.6	0
10	16QAM	1	49	21.90	22.12	21.90		
10	16QAM	25	0	21.38	21.45	21.45	23	0.6
10	16QAM	25	12	21.39	21.44	21.41		
10	16QAM	25	25	21.60	21.65	21.52	23	0.6
10	16QAM	50	0	21.31	21.34	21.47		
10	64QAM	1	0	21.58	21.48	21.51	23	0.6
10	64QAM	1	25	21.40	21.55	21.56		
10	64QAM	1	49	21.62	21.51	21.55	22	1.6
10	64QAM	25	0	20.62	20.61	20.51		
10	64QAM	25	12	20.76	20.58	20.53	22	1.6
10	64QAM	25	25	20.38	20.47	20.49		
10	64QAM	50	0	20.51	20.62	20.55	20	3.6
10	256QAM	1	0	18.41	18.46	18.43		
10	256QAM	1	25	18.59	18.53	18.47	20	3.6
10	256QAM	1	49	18.38	18.32	18.31		
10	256QAM	25	0	18.50	18.50	18.37	20	3.6
10	256QAM	25	12	18.58	18.49	18.56		
10	256QAM	25	25	18.44	18.55	18.55	20	3.6
10	256QAM	50	0	18.49	18.49	18.37		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		



5	QPSK	1	0	22.74	22.87	22.71		
5	QPSK	1	12	22.69	22.69	22.77		
5	QPSK	1	24	22.76	22.90	22.74		
5	QPSK	12	0	22.38	22.49	22.45		
5	QPSK	12	7	22.42	22.57	22.53		
5	QPSK	12	13	22.39	22.32	22.48		
5	QPSK	25	0	22.41	22.29	22.44		
5	16QAM	1	0	22.05	22.25	21.91		
5	16QAM	1	12	22.12	22.19	21.94		
5	16QAM	1	24	21.89	22.06	21.88		
5	16QAM	12	0	21.29	21.35	21.47		
5	16QAM	12	7	21.50	21.33	21.46		
5	16QAM	12	13	21.49	21.60	21.61		
5	16QAM	25	0	21.36	21.37	21.50		
5	64QAM	1	0	21.58	21.48	21.55		
5	64QAM	1	12	21.42	21.60	21.44		
5	64QAM	1	24	21.56	21.55	21.55		
5	64QAM	12	0	20.64	20.66	20.60		
5	64QAM	12	7	20.63	20.66	20.64		
5	64QAM	12	13	20.40	20.47	20.50		
5	64QAM	25	0	20.59	20.60	20.62		
5	256QAM	1	0	18.33	18.40	18.36		
5	256QAM	1	12	18.52	18.45	18.45		
5	256QAM	1	24	18.36	18.30	18.20		
5	256QAM	12	0	18.51	18.36	18.42		
5	256QAM	12	7	18.53	18.54	18.63		
5	256QAM	12	13	18.48	18.59	18.60		
5	256QAM	25	0	18.50	18.42	18.48		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	22.73	22.89	22.74		
3	QPSK	1	8	22.70	22.66	22.80		
3	QPSK	1	14	22.78	22.82	22.64		
3	QPSK	8	0	22.41	22.40	22.52		
3	QPSK	8	4	22.53	22.47	22.53		
3	QPSK	8	7	22.49	22.39	22.47		
3	QPSK	15	0	22.36	22.36	22.38		
3	16QAM	1	0	22.03	22.30	21.89		
3	16QAM	1	8	22.06	22.19	21.95		
3	16QAM	1	14	21.86	22.05	21.91		
3	16QAM	8	0	21.29	21.46	21.42		
3	16QAM	8	4	21.44	21.40	21.51		
3	16QAM	8	7	21.59	21.59	21.62		
3	16QAM	15	0	21.41	21.47	21.45		
3	64QAM	1	0	21.50	21.50	21.55		
3	64QAM	1	8	21.49	21.49	21.50		
3	64QAM	1	14	21.64	21.53	21.52		
3	64QAM	8	0	20.69	20.54	20.48		
3	64QAM	8	4	20.66	20.63	20.57		
3	64QAM	8	7	20.37	20.47	20.56		
3	64QAM	15	0	20.49	20.62	20.64		
3	256QAM	1	0	18.44	18.50	18.32		
3	256QAM	1	8	18.66	18.50	18.45		
3	256QAM	1	14	18.39	18.28	18.19		
3	256QAM	8	0	18.56	18.45	18.38		
3	256QAM	8	4	18.57	18.57	18.56		



3	256QAM	8	7	18.42	18.46	18.61		
3	256QAM	15	0	18.50	18.52	18.41		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	22.69	22.86	22.64	23.6	0
1.4	QPSK	1	3	22.67	22.73	22.79		
1.4	QPSK	1	5	22.83	22.91	22.64		
1.4	QPSK	3	0	22.03	22.25	21.84		
1.4	QPSK	3	1	22.08	22.14	21.99		
1.4	QPSK	3	3	21.86	22.07	21.86		
1.4	QPSK	6	0	22.39	22.39	22.48		
1.4	16QAM	1	0	22.41	22.55	22.50	23.6	0
1.4	16QAM	1	3	22.36	22.44	22.48		
1.4	16QAM	1	5	22.41	22.28	22.47		
1.4	16QAM	3	0	22.04	22.29	21.82		
1.4	16QAM	3	1	22.11	22.21	21.96		
1.4	16QAM	3	3	21.91	22.03	21.93		
1.4	16QAM	6	0	21.33	21.39	21.48		
1.4	64QAM	1	0	21.50	21.43	21.38	23.4	0.2
1.4	64QAM	1	3	21.54	21.59	21.58		
1.4	64QAM	1	5	21.43	21.39	21.54		
1.4	64QAM	3	0	21.44	21.47	21.43		
1.4	64QAM	3	1	21.49	21.60	21.44		
1.4	64QAM	3	3	21.66	21.57	21.65		
1.4	64QAM	6	0	20.63	20.57	20.62		
1.4	256QAM	1	0	18.46	18.63	18.52	20.4	3.2
1.4	256QAM	1	3	18.69	18.55	18.53		
1.4	256QAM	1	5	18.47	18.45	18.51		
1.4	256QAM	3	0	18.51	18.55	18.41		
1.4	256QAM	3	1	18.66	18.55	18.60		
1.4	256QAM	3	3	18.55	18.65	18.66		
1.4	256QAM	6	0	18.50	18.59	18.64		

Band 7 Ant3 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	20.28	20.36	20.27	20.9	0
20	QPSK	1	49	20.27	20.35	20.30		
20	QPSK	1	99	20.25	20.27	20.13		
20	QPSK	50	0	20.18	20.29	20.21	20.9	0
20	QPSK	50	24	20.22	20.28	20.20		
20	QPSK	50	50	20.13	20.14	20.07		
20	QPSK	100	0	20.17	20.26	20.14		
20	16QAM	1	0	20.19	20.25	20.21	20.9	0
20	16QAM	1	49	20.22	20.27	20.19		
20	16QAM	1	99	20.20	20.15	20.08		
20	16QAM	50	0	20.06	20.27	20.19		
20	16QAM	50	24	20.14	20.26	20.10	20.9	0
20	16QAM	50	50	20.02	20.08	19.98		
20	16QAM	100	0	20.14	20.17	20.04		
20	64QAM	1	0	20.25	20.33	20.20	20.9	0
20	64QAM	1	49	20.21	20.30	20.19		
20	64QAM	1	99	20.20	20.14	20.03		
20	64QAM	50	0	19.97	19.88	19.87		



Channel	Frequency (MHz)	Tx Power (dBm)			Rx Power (dBm)		Tune-up limit (dBm)	MPR (dB)
		20	20	20	19.87	19.85		
20	64QAM	50	24	19.87	19.85	19.76		
20	64QAM	50	50	20.16	20.06	20.14		
20	64QAM	100	0	19.97	20.01	19.93		
20	256QAM	1	0	17.89	17.93	17.95	19	1.9
20	256QAM	1	49	17.78	17.86	17.77		
20	256QAM	1	99	17.97	17.90	17.96		
20	256QAM	50	0	17.85	17.92	17.96		
20	256QAM	50	24	17.78	17.84	17.75	19	1.9
20	256QAM	50	50	17.93	17.91	17.90		
20	256QAM	100	0	17.82	17.92	17.93		
Channel				20825	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5	20.9	0
15	QPSK	1	0	20.18	20.29	20.17		
15	QPSK	1	37	20.18	20.33	20.16		
15	QPSK	1	74	20.13	20.15	20.06		
15	QPSK	36	0	20.16	20.19	20.14	20.9	0
15	QPSK	36	20	20.13	20.24	20.16		
15	QPSK	36	39	20.11	20.05	20.02		
15	QPSK	75	0	20.11	20.13	20.05		
15	16QAM	1	0	20.14	20.20	20.16	20.9	0
15	16QAM	1	37	20.11	20.16	20.17		
15	16QAM	1	74	20.11	20.10	20.02		
15	16QAM	36	0	19.93	20.14	20.14		
15	16QAM	36	20	20.01	20.20	20.00	20.9	0
15	16QAM	36	39	19.97	19.99	19.86		
15	16QAM	75	0	20.10	20.07	19.92		
15	64QAM	1	0	20.14	20.19	20.11	20.9	0
15	64QAM	1	37	20.11	20.28	20.08		
15	64QAM	1	74	20.11	20.09	19.95		
15	64QAM	36	0	19.91	19.79	19.84		
15	64QAM	36	20	19.83	19.72	19.73	20.9	0
15	64QAM	36	39	19.98	19.91	20.10		
15	64QAM	75	0	19.86	19.86	19.77		
15	256QAM	1	0	17.84	17.86	17.84	19	1.9
15	256QAM	1	37	17.75	17.79	17.65		
15	256QAM	1	74	17.79	17.77	17.79		
15	256QAM	36	0	17.74	17.90	17.86		
15	256QAM	36	20	17.62	17.74	17.66	19	1.9
15	256QAM	36	39	17.75	17.74	17.73		
15	256QAM	75	0	17.75	17.81	17.83		
Channel				20800	21100	21400	20.9	0
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	20.21	20.29	20.15		
10	QPSK	1	25	20.22	20.22	20.21		
10	QPSK	1	49	20.22	20.16	20.11	20.9	0
10	QPSK	25	0	20.09	20.19	20.15		
10	QPSK	25	12	20.09	20.22	20.11		
10	QPSK	25	25	19.99	20.04	19.94		
10	QPSK	50	0	20.13	20.14	20.07	20.9	0
10	16QAM	1	0	20.15	20.13	20.18		
10	16QAM	1	25	20.15	20.24	20.11		
10	16QAM	1	49	20.11	20.12	20.05		
10	16QAM	25	0	19.94	20.22	20.17	20.9	0
10	16QAM	25	12	20.07	20.18	20.04		
10	16QAM	25	25	19.92	20.00	19.89		
10	16QAM	50	0	20.07	20.11	19.94		



10	64QAM	1	0	20.14	20.26	20.16	20.9	0
10	64QAM	1	25	20.17	20.24	20.13		
10	64QAM	1	49	20.14	20.08	19.94		
10	64QAM	25	0	19.87	19.77	19.74		
10	64QAM	25	12	19.71	19.78	19.71	20.9	0
10	64QAM	25	25	20.01	19.94	20.12		
10	64QAM	50	0	19.88	19.87	19.89		
10	256QAM	1	0	17.82	17.77	17.86		
10	256QAM	1	25	17.67	17.77	17.71	19	1.9
10	256QAM	1	49	17.90	17.72	17.85		
10	256QAM	25	0	17.69	17.79	17.81		
10	256QAM	25	12	17.70	17.70	17.57		
10	256QAM	25	25	17.89	17.88	17.77	19	1.9
10	256QAM	50	0	17.71	17.89	17.78		
Channel				20775	21100	21425		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	20.14	20.31	20.18	20.9	0
5	QPSK	1	12	20.23	20.29	20.24		
5	QPSK	1	24	20.15	20.25	20.00		
5	QPSK	12	0	20.12	20.27	20.15		
5	QPSK	12	7	20.18	20.21	20.07	20.9	0
5	QPSK	12	13	20.01	20.11	19.97		
5	QPSK	25	0	20.13	20.15	20.04		
5	16QAM	1	0	20.10	20.11	20.15		
5	16QAM	1	12	20.16	20.17	20.06	20.9	0
5	16QAM	1	24	20.16	20.01	19.97		
5	16QAM	12	0	19.97	20.23	20.15		
5	16QAM	12	7	20.03	20.13	19.98		
5	16QAM	12	13	19.96	19.95	19.93	20.9	0
5	16QAM	25	0	20.05	20.11	19.97		
5	64QAM	1	0	20.16	20.25	20.18		
5	64QAM	1	12	20.19	20.22	20.07		
5	64QAM	1	24	20.13	20.03	19.99	20.9	0
5	64QAM	12	0	19.90	19.70	19.82		
5	64QAM	12	7	19.77	19.78	19.73		
5	64QAM	12	13	20.09	19.99	20.02		
5	64QAM	25	0	19.90	19.88	19.78	19	1.9
5	256QAM	1	0	17.81	17.90	17.92		
5	256QAM	1	12	17.69	17.80	17.65		
5	256QAM	1	24	17.79	17.82	17.81		
5	256QAM	12	0	17.79	17.88	17.81	19	1.9
5	256QAM	12	7	17.64	17.70	17.65		
5	256QAM	12	13	17.86	17.83	17.83		
5	256QAM	25	0	17.70	17.83	17.85		



Band 30 Ant3 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				27710				
Frequency (MHz)				2310				
10	QPSK	1	0		19.51		20.4	0
10	QPSK	1	25		19.38			
10	QPSK	1	49		19.46			
10	QPSK	25	0		19.46		20.4	0
10	QPSK	25	12		19.22			
10	QPSK	25	25		19.34			
10	QPSK	50	0		19.17		20.4	0
10	16QAM	1	0		19.07			
10	16QAM	1	25		19.25			
10	16QAM	1	49		18.87			
10	16QAM	25	0		18.94		20.4	0
10	16QAM	25	12		19.02			
10	16QAM	25	25		19.20			
10	16QAM	50	0		19.01		20.4	0
10	64QAM	1	0		19.16			
10	64QAM	1	25		18.94			
10	64QAM	1	49		19.00			
10	64QAM	25	0		19.02		20.4	0
10	64QAM	25	12		19.01			
10	64QAM	25	25		18.97			
10	64QAM	50	0		19.03		20.4	0
10	256QAM	1	0		18.56			
10	256QAM	1	25		18.56			
10	256QAM	1	49		18.58			
10	256QAM	25	0		18.50		20	0.4
10	256QAM	25	12		18.49			
10	256QAM	25	25		18.40			
10	256QAM	50	0		18.55		20	0.4
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	19.28	19.35	19.12	20.4	0
5	QPSK	1	12	19.28	19.37	19.08		
5	QPSK	1	24	19.33	19.39	19.08		
5	QPSK	12	0	19.29	19.31	19.20	20.4	0
5	QPSK	12	7	18.98	19.09	18.92		
5	QPSK	12	13	19.12	19.33	19.17		
5	QPSK	25	0	19.08	19.08	18.93	20.4	0
5	16QAM	1	0	19.05	18.99	18.89		
5	16QAM	1	12	19.00	19.07	19.04		
5	16QAM	1	24	18.63	18.84	18.62		
5	16QAM	12	0	18.61	18.75	18.73	20.4	0
5	16QAM	12	7	18.70	18.97	18.93		
5	16QAM	12	13	18.94	19.05	18.86		
5	16QAM	25	0	18.73	18.84	18.83	20.4	0
5	64QAM	1	0	18.85	19.13	19.06		
5	64QAM	1	12	18.86	18.79	18.68		
5	64QAM	1	24	18.91	18.96	18.84		
5	64QAM	12	0	18.92	18.92	18.78	20.4	0
5	64QAM	12	7	18.87	18.85	18.81		
5	64QAM	12	13	18.82	18.81	18.90		



5	64QAM	25	0	18.91	19.02	18.72		
5	256QAM	1	0	18.38	18.43	18.41	20	0.4
5	256QAM	1	12	18.44	18.39	18.46		
5	256QAM	1	24	18.34	18.49	18.38		
5	256QAM	12	0	18.24	18.37	18.36		
5	256QAM	12	7	18.18	18.34	18.25	20	0.4
5	256QAM	12	13	18.25	18.29	18.23		
5	256QAM	25	0	18.27	18.51	18.24		

Band 2 Ant5 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.46	23.62	23.50	24.4	0
20	QPSK	1	49	23.49	23.57	23.43		
20	QPSK	1	99	23.40	23.52	23.46		
20	QPSK	50	0	22.46	22.51	22.46		
20	QPSK	50	24	22.31	22.45	22.37		
20	QPSK	50	50	22.36	22.41	22.30		
20	QPSK	100	0	22.46	22.54	22.39		
20	16QAM	1	0	22.28	22.40	22.27		
20	16QAM	1	49	22.18	22.33	22.26	24	0.4
20	16QAM	1	99	22.24	22.31	22.25		
20	16QAM	50	0	21.60	21.65	21.52		
20	16QAM	50	24	21.43	21.56	21.44		
20	16QAM	50	50	21.46	21.54	21.44	23	1.4
20	16QAM	100	0	21.47	21.54	21.43		
20	64QAM	1	0	21.61	21.77	21.68		
20	64QAM	1	49	21.66	21.75	21.60		
20	64QAM	1	99	21.61	21.71	21.58	23	1.4
20	64QAM	50	0	20.40	20.54	20.40		
20	64QAM	50	24	20.37	20.51	20.39		
20	64QAM	50	50	20.42	20.52	20.42		
20	64QAM	100	0	20.45	20.55	20.48	22	2.4
20	256QAM	1	0	18.48	18.64	18.52		
20	256QAM	1	49	18.50	18.57	18.51		
20	256QAM	1	99	18.43	18.56	18.44		
20	256QAM	50	0	18.52	18.58	18.53	20	4.4
20	256QAM	50	24	18.42	18.54	18.39		
20	256QAM	50	50	18.42	18.51	18.41		
20	256QAM	100	0	18.46	18.61	18.49		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.31	23.53	23.43	24.4	0
15	QPSK	1	37	23.43	23.42	23.33		
15	QPSK	1	74	23.34	23.45	23.36		
15	QPSK	36	0	22.34	22.40	22.31	24	0.4
15	QPSK	36	20	22.18	22.32	22.29		
15	QPSK	36	39	22.22	22.26	22.24		
15	QPSK	75	0	22.38	22.45	22.29		
15	16QAM	1	0	22.20	22.28	22.21	24	0.4
15	16QAM	1	37	22.05	22.25	22.17		



15	16QAM	1	74	22.19	22.18	22.12		
15	16QAM	36	0	21.50	21.53	21.40		
15	16QAM	36	20	21.38	21.47	21.31		
15	16QAM	36	39	21.30	21.48	21.36		
15	16QAM	75	0	21.33	21.47	21.33		
15	64QAM	1	0	21.52	21.62	21.54		
15	64QAM	1	37	21.59	21.69	21.55		
15	64QAM	1	74	21.54	21.65	21.42		
15	64QAM	36	0	20.25	20.47	20.33		
15	64QAM	36	20	20.33	20.45	20.24		
15	64QAM	36	39	20.27	20.48	20.34		
15	64QAM	75	0	20.38	20.46	20.36		
15	256QAM	1	0	18.35	18.56	18.37		
15	256QAM	1	37	18.35	18.53	18.36		
15	256QAM	1	74	18.31	18.42	18.31		
15	256QAM	36	0	18.41	18.47	18.41		
15	256QAM	36	20	18.37	18.42	18.23		
15	256QAM	36	39	18.30	18.42	18.26		
15	256QAM	75	0	18.39	18.46	18.35		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.42	23.49	23.37	24.4	0
10	QPSK	1	25	23.34	23.45	23.36		
10	QPSK	1	49	23.36	23.43	23.40		
10	QPSK	25	0	22.35	22.36	22.40	24	0.4
10	QPSK	25	12	22.25	22.29	22.29		
10	QPSK	25	25	22.26	22.32	22.23		
10	QPSK	50	0	22.32	22.39	22.31		
10	16QAM	1	0	22.17	22.25	22.22	24	0.4
10	16QAM	1	25	22.05	22.28	22.17		
10	16QAM	1	49	22.19	22.25	22.21		
10	16QAM	25	0	21.50	21.59	21.37	23	1.4
10	16QAM	25	12	21.28	21.47	21.31		
10	16QAM	25	25	21.35	21.42	21.32		
10	16QAM	50	0	21.36	21.45	21.28		
10	64QAM	1	0	21.53	21.73	21.54	23	1.4
10	64QAM	1	25	21.62	21.63	21.49		
10	64QAM	1	49	21.45	21.59	21.46		
10	64QAM	25	0	20.30	20.39	20.36	22	2.4
10	64QAM	25	12	20.33	20.46	20.32		
10	64QAM	25	25	20.27	20.39	20.34		
10	64QAM	50	0	20.38	20.50	20.40		
10	256QAM	1	0	18.38	18.59	18.41	20	4.4
10	256QAM	1	25	18.45	18.44	18.38		
10	256QAM	1	49	18.36	18.44	18.30		
10	256QAM	25	0	18.46	18.53	18.41		
10	256QAM	25	12	18.37	18.45	18.32	20	4.4
10	256QAM	25	25	18.30	18.40	18.37		
10	256QAM	50	0	18.30	18.48	18.41		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.34	23.54	23.35	24.4	0
5	QPSK	1	12	23.44	23.45	23.32		



5	QPSK	1	24	23.33	23.43	23.32		
5	QPSK	12	0	22.32	22.43	22.40		
5	QPSK	12	7	22.16	22.40	22.30		
5	QPSK	12	13	22.23	22.37	22.22		
5	QPSK	25	0	22.41	22.42	22.35		
5	16QAM	1	0	22.12	22.28	22.15		
5	16QAM	1	12	22.11	22.29	22.19		
5	16QAM	1	24	22.09	22.27	22.12		
5	16QAM	12	0	21.47	21.53	21.47		
5	16QAM	12	7	21.39	21.44	21.34		
5	16QAM	12	13	21.37	21.43	21.36		
5	16QAM	25	0	21.36	21.44	21.37		
5	64QAM	1	0	21.49	21.70	21.53		
5	64QAM	1	12	21.55	21.60	21.45		
5	64QAM	1	24	21.53	21.58	21.48		
5	64QAM	12	0	20.31	20.39	20.34		
5	64QAM	12	7	20.28	20.37	20.27		
5	64QAM	12	13	20.36	20.40	20.29		
5	64QAM	25	0	20.38	20.44	20.41		
5	256QAM	1	0	18.44	18.60	18.36		
5	256QAM	1	12	18.42	18.44	18.43		
5	256QAM	1	24	18.28	18.51	18.33		
5	256QAM	12	0	18.37	18.47	18.43		
5	256QAM	12	7	18.28	18.43	18.25		
5	256QAM	12	13	18.31	18.41	18.35		
5	256QAM	25	0	18.38	18.52	18.33		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.36	23.49	23.39	24.4	0
3	QPSK	1	8	23.37	23.49	23.29		
3	QPSK	1	14	23.28	23.38	23.37		
3	QPSK	8	0	22.41	22.45	22.37		
3	QPSK	8	4	22.26	22.31	22.31	24	0.4
3	QPSK	8	7	22.27	22.29	22.25		
3	QPSK	15	0	22.41	22.44	22.28		
3	16QAM	1	0	22.15	22.30	22.13		
3	16QAM	1	8	22.08	22.18	22.15	24	0.4
3	16QAM	1	14	22.09	22.16	22.14		
3	16QAM	8	0	21.52	21.59	21.47		
3	16QAM	8	4	21.30	21.40	21.37		
3	16QAM	8	7	21.32	21.46	21.37	23	1.4
3	16QAM	15	0	21.36	21.48	21.37		
3	64QAM	1	0	21.47	21.66	21.63		
3	64QAM	1	8	21.51	21.69	21.54		
3	64QAM	1	14	21.54	21.63	21.53	23	1.4
3	64QAM	8	0	20.28	20.39	20.34		
3	64QAM	8	4	20.31	20.46	20.28		
3	64QAM	8	7	20.37	20.46	20.30		
3	64QAM	15	0	20.33	20.47	20.33	22	2.4
3	256QAM	1	0	18.39	18.50	18.45		
3	256QAM	1	8	18.40	18.46	18.43		
3	256QAM	1	14	18.33	18.46	18.36		
3	256QAM	8	0	18.43	18.50	18.45	20	4.4



3	256QAM	8	4	18.32	18.41	18.30		
3	256QAM	8	7	18.30	18.37	18.35		
3	256QAM	15	0	18.36	18.53	18.42		
Channel				188607	188900	191913	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.39	23.58	23.45	24.4	0
1.4	QPSK	1	3	23.36	23.43	23.29		
1.4	QPSK	1	5	23.27	23.46	23.31		
1.4	QPSK	3	0	23.39	23.58	23.45		
1.4	QPSK	3	1	23.36	23.43	23.29		
1.4	QPSK	3	3	23.27	23.46	23.31		
1.4	QPSK	6	0	22.39	22.39	22.37	24	0.4
1.4	16QAM	1	0	22.39	22.39	22.37	24	0.4
1.4	16QAM	1	3	22.17	22.32	22.23		
1.4	16QAM	1	5	22.31	22.25	22.15		
1.4	16QAM	3	0	22.39	22.39	22.37		
1.4	16QAM	3	1	22.17	22.32	22.23		
1.4	16QAM	3	3	22.31	22.25	22.15		
1.4	16QAM	6	0	21.45	21.55	21.43	23	1.4
1.4	64QAM	1	0	21.34	21.42	21.39	23	1.4
1.4	64QAM	1	3	21.38	21.39	21.29		
1.4	64QAM	1	5	21.33	21.43	21.29		
1.4	64QAM	3	0	21.52	21.63	21.58		
1.4	64QAM	3	1	21.59	21.61	21.46		
1.4	64QAM	3	3	21.49	21.65	21.44		
1.4	64QAM	6	0	20.25	20.50	20.29	22	2.4
1.4	256QAM	1	0	18.32	18.46	18.29	20	4.4
1.4	256QAM	1	3	18.38	18.43	18.37		
1.4	256QAM	1	5	18.40	18.45	18.43		
1.4	256QAM	3	0	18.26	18.44	18.24		
1.4	256QAM	3	1	18.37	18.44	18.37		
1.4	256QAM	3	3	18.41	18.48	18.33		
1.4	256QAM	6	0	18.31	18.51	18.42	20	4.4

Band 4 Ant5 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	23.33	23.51	23.39	25	0
20	QPSK	1	49	23.42	23.49	23.31		
20	QPSK	1	99	23.27	23.38	23.31		
20	QPSK	50	0	22.38	22.47	22.40	24	1
20	QPSK	50	24	22.26	22.40	22.32		
20	QPSK	50	50	22.28	22.37	22.23		
20	QPSK	100	0	22.38	22.41	22.28		
20	16QAM	1	0	22.23	22.30	22.14	24	1
20	16QAM	1	49	22.14	22.22	22.11		
20	16QAM	1	99	22.16	22.17	22.19		
20	16QAM	50	0	21.49	21.53	21.45	23	2
20	16QAM	50	24	21.37	21.43	21.35		
20	16QAM	50	50	21.32	21.43	21.35		
20	16QAM	100	0	21.39	21.45	21.38		
20	64QAM	1	0	21.50	21.69	21.61	23	2



20	64QAM	1	49	21.50	21.60	21.56		
20	64QAM	1	99	21.53	21.65	21.43		
20	64QAM	50	0	20.29	20.46	20.27		
20	64QAM	50	24	20.24	20.42	20.29		
20	64QAM	50	50	20.34	20.41	20.35		
20	64QAM	100	0	20.40	20.47	20.42		
20	256QAM	1	0	18.43	18.58	18.36		
20	256QAM	1	49	18.45	18.49	18.41		
20	256QAM	1	99	18.37	18.44	18.38		
20	256QAM	50	0	18.47	18.47	18.39		
20	256QAM	50	24	18.26	18.40	18.25		
20	256QAM	50	50	18.29	18.39	18.28		
20	256QAM	100	0	18.42	18.50	18.41		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	23.23	23.39	23.29	25	0
15	QPSK	1	37	23.39	23.34	23.22		
15	QPSK	1	74	23.22	23.32	23.26		
15	QPSK	36	0	22.26	22.27	22.15	24	1
15	QPSK	36	20	22.13	22.27	22.18		
15	QPSK	36	39	22.09	22.10	22.08		
15	QPSK	75	0	22.34	22.34	22.22		
15	16QAM	1	0	22.08	22.13	22.11		
15	16QAM	1	37	22.11	22.15	22.02	24	1
15	16QAM	1	74	22.10	22.10	22.01		
15	16QAM	36	0	21.35	21.39	21.29		
15	16QAM	36	20	21.29	21.37	21.20	23	2
15	16QAM	36	39	21.22	21.34	21.27		
15	16QAM	75	0	21.20	21.41	21.17		
15	64QAM	1	0	21.37	21.49	21.46		
15	64QAM	1	37	21.48	21.62	21.45	23	2
15	64QAM	1	74	21.45	21.58	21.37		
15	64QAM	36	0	20.10	20.38	20.26		
15	64QAM	36	20	20.20	20.31	20.13	22	3
15	64QAM	36	39	20.21	20.33	20.18		
15	64QAM	75	0	20.27	20.34	20.27		
15	256QAM	1	0	18.25	18.41	18.22	20	5
15	256QAM	1	37	18.22	18.45	18.30		
15	256QAM	1	74	18.21	18.38	18.19		
15	256QAM	36	0	18.35	18.41	18.34		
15	256QAM	36	20	18.26	18.36	18.09	20	5
15	256QAM	36	39	18.15	18.30	18.21		
15	256QAM	75	0	18.24	18.37	18.31		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	23.27	23.35	23.28	25	0
10	QPSK	1	25	23.27	23.35	23.32		
10	QPSK	1	49	23.28	23.29	23.31		
10	QPSK	25	0	22.27	22.28	22.28	24	1
10	QPSK	25	12	22.13	22.16	22.21		
10	QPSK	25	25	22.22	22.22	22.16		
10	QPSK	50	0	22.16	22.32	22.23		
10	16QAM	1	0	22.04	22.19	22.16	24	1
10	16QAM	1	25	22.19	22.17	22.03		
10	16QAM	1	49	22.15	22.15	22.08		
10	16QAM	25	0	21.44	21.50	21.22		



Symbol	Modulation	Channel	Frequency (MHz)	Tone 1			Tune-up limit (dBm)	MPR (dB)
				Power 1	Power 2	Power 3		
10	16QAM	25	12	21.15	21.37	21.26		
10	16QAM	25	25	21.22	21.33	21.26		
10	16QAM	50	0	21.28	21.37	21.19		
10	64QAM	1	0	21.39	21.58	21.46	23	2
10	64QAM	1	25	21.57	21.54	21.34		
10	64QAM	1	49	21.36	21.48	21.40		
10	64QAM	25	0	20.16	20.24	20.22	22	3
10	64QAM	25	12	20.21	20.30	20.22		
10	64QAM	25	25	20.14	20.24	20.25		
10	64QAM	50	0	20.29	20.34	20.29		
10	256QAM	1	0	18.29	18.44	18.26	20	5
10	256QAM	1	25	18.40	18.31	18.23		
10	256QAM	1	49	18.31	18.37	18.19		
10	256QAM	25	0	18.34	18.46	18.32	20	5
10	256QAM	25	12	18.29	18.34	18.19		
10	256QAM	25	25	18.22	18.32	18.22		
10	256QAM	50	0	18.24	18.37	18.34		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	23.27	23.48	23.25	25	0
5	QPSK	1	12	23.36	23.30	23.21		
5	QPSK	1	24	23.21	23.27	23.28		
5	QPSK	12	0	22.25	22.38	22.25	24	1
5	QPSK	12	7	22.04	22.33	22.20		
5	QPSK	12	13	22.10	22.25	22.10		
5	QPSK	25	0	22.36	22.36	22.21		
5	16QAM	1	0	22.21	22.23	22.02	24	1
5	16QAM	1	12	22.04	22.23	22.09		
5	16QAM	1	24	22.00	22.22	22.01		
5	16QAM	12	0	21.36	21.48	21.35	23	2
5	16QAM	12	7	21.26	21.36	21.28		
5	16QAM	12	13	21.32	21.37	21.25		
5	16QAM	25	0	21.23	21.32	21.24		
5	64QAM	1	0	21.41	21.55	21.40	23	2
5	64QAM	1	12	21.45	21.54	21.40		
5	64QAM	1	24	21.39	21.42	21.34		
5	64QAM	12	0	20.16	20.27	20.25	22	3
5	64QAM	12	7	20.22	20.30	20.21		
5	64QAM	12	13	20.28	20.26	20.13		
5	64QAM	25	0	20.29	20.38	20.35		
5	256QAM	1	0	18.34	18.55	18.25	20	5
5	256QAM	1	12	18.34	18.29	18.29		
5	256QAM	1	24	18.24	18.45	18.21		
5	256QAM	12	0	18.28	18.32	18.32	20	5
5	256QAM	12	7	18.22	18.32	18.12		
5	256QAM	12	13	18.24	18.27	18.20		
5	256QAM	25	0	18.23	18.46	18.17		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	23.25	23.43	23.30	25	0
3	QPSK	1	8	23.22	23.37	23.19		
3	QPSK	1	14	23.13	23.25	23.22		
3	QPSK	8	0	22.28	22.36	22.24	24	1
3	QPSK	8	4	22.18	22.21	22.26		
3	QPSK	8	7	22.14	22.21	22.16		
3	QPSK	15	0	22.29	22.36	22.17		



3	16QAM	1	0	22.05	22.22	22.08	24	1
3	16QAM	1	8	22.25	22.06	22.07		
3	16QAM	1	14	22.16	22.03	22.03		
3	16QAM	8	0	21.46	21.43	21.43	23	2
3	16QAM	8	4	21.19	21.26	21.25		
3	16QAM	8	7	21.23	21.40	21.28		
3	16QAM	15	0	21.21	21.34	21.32		2
3	64QAM	1	0	21.40	21.59	21.55		
3	64QAM	1	8	21.39	21.56	21.48		
3	64QAM	1	14	21.43	21.53	21.46		
3	64QAM	8	0	20.15	20.32	20.22	22	3
3	64QAM	8	4	20.22	20.32	20.15		
3	64QAM	8	7	20.27	20.38	20.19		
3	64QAM	15	0	20.23	20.33	20.23		3
3	256QAM	1	0	18.33	18.35	18.33		
3	256QAM	1	8	18.27	18.36	18.33		
3	256QAM	1	14	18.25	18.34	18.24		
3	256QAM	8	0	18.38	18.41	18.35	20	5
3	256QAM	8	4	18.25	18.36	18.25		
3	256QAM	8	7	18.23	18.24	18.31		
3	256QAM	15	0	18.23	18.48	18.31		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.32	23.47	23.32	25	0
1.4	QPSK	1	3	23.27	23.37	23.17		
1.4	QPSK	1	5	23.16	23.31	23.15		
1.4	QPSK	3	0	23.34	23.44	23.31		
1.4	QPSK	3	1	23.22	23.28	23.14		
1.4	QPSK	3	3	23.13	23.41	23.23		
1.4	QPSK	6	0	22.24	22.28	22.33	24	1
1.4	16QAM	1	0	22.35	22.33	22.33	24	1
1.4	16QAM	1	3	22.09	22.17	22.18		
1.4	16QAM	1	5	22.20	22.09	22.03		
1.4	16QAM	3	0	22.23	22.32	22.31		
1.4	16QAM	3	1	22.01	22.19	22.13		
1.4	16QAM	3	3	22.19	22.12	22.03		
1.4	16QAM	6	0	21.41	21.44	21.39	23	2
1.4	64QAM	1	0	21.23	21.30	21.31	23	2
1.4	64QAM	1	3	21.33	21.24	21.21		
1.4	64QAM	1	5	21.26	21.33	21.16		
1.4	64QAM	3	0	21.45	21.54	21.51		
1.4	64QAM	3	1	21.46	21.47	21.41		
1.4	64QAM	3	3	21.37	21.58	21.32		
1.4	64QAM	6	0	20.18	20.44	20.25	22	3
1.4	256QAM	1	0	18.27	18.35	18.18	20	5
1.4	256QAM	1	3	18.23	18.35	18.26		
1.4	256QAM	1	5	18.32	18.34	18.37		
1.4	256QAM	3	0	18.14	18.32	18.15		
1.4	256QAM	3	1	18.30	18.36	18.26		
1.4	256QAM	3	3	18.32	18.38	18.20		
1.4	256QAM	6	0	18.19	18.40	18.37	20	5



Band 66 Ant5 DSIO								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	23.19	23.45	23.24	25	0
20	QPSK	1	49	23.34	23.43	23.22		
20	QPSK	1	99	23.22	23.33	23.20		
20	QPSK	50	0	22.24	22.36	22.27		
20	QPSK	50	24	22.10	22.24	22.19	24	1
20	QPSK	50	50	22.18	22.32	22.09		
20	QPSK	100	0	22.22	22.28	22.14		
20	16QAM	1	0	22.14	22.23	22.03		
20	16QAM	1	49	22.06	22.09	22.05	24	1
20	16QAM	1	99	22.08	22.07	22.12		
20	16QAM	50	0	21.38	21.38	21.37		
20	16QAM	50	24	21.28	21.36	21.24		
20	16QAM	50	50	21.18	21.31	21.20	23	2
20	16QAM	100	0	21.29	21.38	21.26		
20	64QAM	1	0	21.43	21.54	21.50		
20	64QAM	1	49	21.46	21.49	21.41		
20	64QAM	1	99	21.43	21.61	21.29	23	2
20	64QAM	50	0	20.19	20.33	20.17		
20	64QAM	50	24	20.10	20.31	20.25		
20	64QAM	50	50	20.29	20.33	20.21		
20	64QAM	100	0	20.32	20.42	20.37	22	3
20	256QAM	1	0	18.38	18.42	18.30		
20	256QAM	1	49	18.39	18.43	18.34		
20	256QAM	1	99	18.30	18.31	18.23		
20	256QAM	50	0	18.34	18.32	18.27	20	5
20	256QAM	50	24	18.14	18.35	18.14		
20	256QAM	50	50	18.19	18.26	18.21		
20	256QAM	100	0	18.37	18.36	18.29		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	23.17	23.34	23.17		
15	QPSK	1	37	23.32	23.21	23.09	25	0
15	QPSK	1	74	23.14	23.19	23.16		
15	QPSK	36	0	22.22	22.11	22.04		
15	QPSK	36	20	22.01	22.13	22.05		
15	QPSK	36	39	22.01	22.11	22.09	24	1
15	QPSK	75	0	22.29	22.21	22.11		
15	16QAM	1	0	22.16	22.04	22.04		
15	16QAM	1	37	22.11	22.06	22.08		
15	16QAM	1	74	22.00	22.00	22.18	24	1
15	16QAM	36	0	21.22	21.33	21.24		
15	16QAM	36	20	21.20	21.33	21.14		
15	16QAM	36	39	21.11	21.21	21.17		
15	16QAM	75	0	21.14	21.28	21.02	23	2
15	64QAM	1	0	21.24	21.34	21.35		
15	64QAM	1	37	21.32	21.51	21.37		
15	64QAM	1	74	21.36	21.51	21.22		



15	64QAM	36	0	20.15	20.22	20.18	22	3
15	64QAM	36	20	20.14	20.21	20.03		
15	64QAM	36	39	20.09	20.28	20.14		
15	64QAM	75	0	20.15	20.20	20.15		
15	256QAM	1	0	18.12	18.35	18.11	20	5
15	256QAM	1	37	18.14	18.33	18.21		
15	256QAM	1	74	18.15	18.30	18.04		
15	256QAM	36	0	18.28	18.28	18.21		
15	256QAM	36	20	18.15	18.29	18.29	20	5
15	256QAM	36	39	18.06	18.25	18.07		
15	256QAM	75	0	18.19	18.32	18.26		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	23.13	23.28	23.19	25	0
10	QPSK	1	25	23.12	23.29	23.18		
10	QPSK	1	49	23.16	23.21	23.20		
10	QPSK	25	0	22.15	22.15	22.15		
10	QPSK	25	12	22.02	22.04	22.12	24	1
10	QPSK	25	25	22.09	22.14	22.07		
10	QPSK	50	0	22.03	22.25	22.08		
10	16QAM	1	0	22.13	22.15	22.08	24	1
10	16QAM	1	25	22.15	22.10	22.14		
10	16QAM	1	49	22.03	22.00	22.02		
10	16QAM	25	0	21.34	21.34	21.08		
10	16QAM	25	12	21.00	21.27	21.20	23	2
10	16QAM	25	25	21.11	21.20	21.17		
10	16QAM	50	0	21.21	21.33	21.05		
10	64QAM	1	0	21.26	21.53	21.38	23	2
10	64QAM	1	25	21.51	21.41	21.21		
10	64QAM	1	49	21.29	21.36	21.26		
10	64QAM	25	0	20.03	20.09	20.07	22	3
10	64QAM	25	12	20.11	20.17	20.14		
10	64QAM	25	25	20.00	20.20	20.17		
10	64QAM	50	0	20.17	20.22	20.18		
10	256QAM	1	0	18.18	18.40	18.13	20	5
10	256QAM	1	25	18.30	18.18	18.10		
10	256QAM	1	49	18.18	18.28	18.07		
10	256QAM	25	0	18.24	18.34	18.22	20	5
10	256QAM	25	12	18.14	18.27	18.04		
10	256QAM	25	25	18.14	18.25	18.11		
10	256QAM	50	0	18.14	18.21	18.26		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	23.20	23.41	23.21	25	0
5	QPSK	1	12	23.22	23.25	23.06		
5	QPSK	1	24	23.16	23.14	23.19		
5	QPSK	12	0	22.30	22.49	22.38		
5	QPSK	12	7	22.14	22.47	22.30	24	1
5	QPSK	12	13	22.22	22.37	22.19		
5	QPSK	25	0	22.41	22.43	22.36		
5	16QAM	1	0	22.05	22.37	22.10	24	1
5	16QAM	1	12	22.10	22.32	22.15		
5	16QAM	1	24	22.15	22.33	22.11		



5	16QAM	12	0	21.26	21.34	21.23	23	2
5	16QAM	12	7	21.14	21.28	21.18		
5	16QAM	12	13	21.18	21.31	21.10		
5	16QAM	25	0	21.17	21.23	21.14		
5	64QAM	1	0	21.37	21.51	21.34	23	2
5	64QAM	1	12	21.35	21.46	21.30		
5	64QAM	1	24	21.30	21.26	21.30		
5	64QAM	12	0	20.07	20.16	20.21		
5	64QAM	12	7	20.12	20.23	20.07	22	3
5	64QAM	12	13	20.17	20.14	20.05		
5	64QAM	25	0	20.17	20.22	20.25		
5	256QAM	1	0	18.22	18.40	18.19	20	5
5	256QAM	1	12	18.26	18.21	18.19		
5	256QAM	1	24	18.17	18.41	18.08		
5	256QAM	12	0	18.18	18.17	18.25		
5	256QAM	12	7	18.14	18.28	18.01	20	5
5	256QAM	12	13	18.14	18.18	18.07		
5	256QAM	25	0	18.11	18.41	18.11		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	23.18	23.28	23.25	25	0
3	QPSK	1	8	23.17	23.27	23.10		
3	QPSK	1	14	23.09	23.13	23.10		
3	QPSK	8	0	22.23	22.23	22.12		
3	QPSK	8	4	22.13	22.09	22.15	24	1
3	QPSK	8	7	22.02	22.08	22.04		
3	QPSK	15	0	22.22	22.29	22.10		
3	16QAM	1	0	22.38	22.48	22.39		
3	16QAM	1	8	22.30	22.40	22.35	24	1
3	16QAM	1	14	22.23	22.36	22.27		
3	16QAM	8	0	21.36	21.30	21.38		
3	16QAM	8	4	21.03	21.21	21.12	23	2
3	16QAM	8	7	21.18	21.29	21.24		
3	16QAM	15	0	21.12	21.28	21.26		
3	64QAM	1	0	21.36	21.45	21.43	23	2
3	64QAM	1	8	21.25	21.45	21.36		
3	64QAM	1	14	21.36	21.43	21.30		
3	64QAM	8	0	20.01	20.23	20.10		
3	64QAM	8	4	20.16	20.24	20.06	22	3
3	64QAM	8	7	20.19	20.25	20.13		
3	64QAM	15	0	20.08	20.19	20.17		
3	256QAM	1	0	18.20	18.28	18.25	20	5
3	256QAM	1	8	18.11	18.22	18.22		
3	256QAM	1	14	18.18	18.24	18.12		
3	256QAM	8	0	18.27	18.29	18.20		
3	256QAM	8	4	18.15	18.22	18.12	20	5
3	256QAM	8	7	18.15	18.09	18.24		
3	256QAM	15	0	18.12	18.36	18.16		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	23.20	23.37	23.20	25	0
1.4	QPSK	1	3	23.14	23.32	23.12		
1.4	QPSK	1	5	23.05	23.21	23.08		



1.4	QPSK	3	0	23.24	23.30	23.18		
1.4	QPSK	3	1	23.13	23.13	23.04		
1.4	QPSK	3	3	23.07	23.26	23.11		
1.4	QPSK	6	0	22.20	22.18	22.19	24	1
1.4	16QAM	1	0	22.48	22.38	22.43		
1.4	16QAM	1	3	22.16	22.29	22.34		
1.4	16QAM	1	5	22.32	22.14	22.10		
1.4	16QAM	3	0	22.37	22.46	22.41		
1.4	16QAM	3	1	22.11	22.35	22.25		
1.4	16QAM	3	3	22.34	22.20	22.11		
1.4	16QAM	6	0	21.55	21.51	21.46	23	2
1.4	64QAM	1	0	21.12	21.15	21.25		
1.4	64QAM	1	3	21.18	21.09	21.10		
1.4	64QAM	1	5	21.14	21.19	21.01		
1.4	64QAM	3	0	21.30	21.40	21.38		
1.4	64QAM	3	1	21.36	21.42	21.35		
1.4	64QAM	3	3	21.33	21.46	21.22		
1.4	64QAM	6	0	20.08	20.39	20.18	22	3
1.4	256QAM	1	0	18.11	18.19	18.08		
1.4	256QAM	1	3	18.11	18.23	18.19		
1.4	256QAM	1	5	18.25	18.19	18.26		
1.4	256QAM	3	0	18.00	18.25	18.01		
1.4	256QAM	3	1	18.21	18.24	18.18		
1.4	256QAM	3	3	18.24	18.29	18.08		
1.4	256QAM	6	0	18.14	18.28	18.22	20	5

**Reduced Power Mode for DS1 1**

Band 5 Ant0 DS11								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	23.69	23.70	23.59	25	0
10	QPSK	1	25	23.61	23.64	23.65		
10	QPSK	1	49	23.61	23.59	23.64		
10	QPSK	25	0	22.78	22.83	22.81		
10	QPSK	25	12	22.62	22.61	22.51	24	1
10	QPSK	25	25	22.73	22.71	22.71		
10	QPSK	50	0	22.75	22.81	22.80		
10	16QAM	1	0	23.05	23.07	23.08		
10	16QAM	1	25	22.87	22.94	22.89	24	1
10	16QAM	1	49	22.97	22.91	23.01		
10	16QAM	25	0	21.81	21.78	21.71		
10	16QAM	25	12	21.58	21.61	21.63		
10	16QAM	25	25	21.77	21.72	21.65	23	2
10	16QAM	50	0	21.65	21.65	21.62		
10	64QAM	1	0	21.84	21.80	21.73		
10	64QAM	1	25	21.90	21.81	21.83		
10	64QAM	1	49	21.76	21.76	21.75	23	2
10	64QAM	25	0	21.91	21.82	21.72		
10	64QAM	25	12	21.79	21.76	21.78		
10	64QAM	25	25	21.70	21.69	21.70		
10	64QAM	50	0	21.71	21.74	21.76	22	3
10	256QAM	1	0	18.64	18.67	18.64		
10	256QAM	1	25	18.51	18.61	18.65		
10	256QAM	1	49	18.52	18.54	18.62		
10	256QAM	25	0	18.74	18.76	18.66	20	5
10	256QAM	25	12	18.61	18.69	18.76		
10	256QAM	25	25	18.71	18.71	18.80		
10	256QAM	50	0	18.62	18.65	18.61		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.62	23.63	23.53	25	0
5	QPSK	1	12	23.43	23.58	23.55		
5	QPSK	1	24	23.50	23.57	23.55		
5	QPSK	12	0	22.79	22.64	22.73		
5	QPSK	12	7	22.57	22.49	22.35	24	1
5	QPSK	12	13	22.61	22.60	22.61		
5	QPSK	25	0	22.59	22.68	22.68		
5	16QAM	1	0	22.95	23.02	22.95		
5	16QAM	1	12	22.76	22.87	22.76	24	1
5	16QAM	1	24	22.94	22.88	22.89		
5	16QAM	12	0	21.67	21.62	21.69		
5	16QAM	12	7	21.43	21.53	21.45		
5	16QAM	12	13	21.60	21.60	21.61	23	2
5	16QAM	25	0	21.61	21.47	21.56		
5	64QAM	1	0	21.79	21.67	21.63		
5	64QAM	1	12	21.80	21.70	21.67		
5	64QAM	1	24	21.66	21.65	21.63	23	2
5	64QAM	12	0	21.81	21.68	21.59		
5	64QAM	12	7	21.65	21.63	21.66		
5	64QAM	12	13	21.52	21.65	21.66		



5	64QAM	25	0	21.61	21.61	21.61		
5	256QAM	1	0	18.50	18.65	18.47	20	5
5	256QAM	1	12	18.41	18.56	18.56		
5	256QAM	1	24	18.48	18.40	18.56		
5	256QAM	12	0	18.70	18.67	18.53		
5	256QAM	12	7	18.56	18.63	18.62	20	5
5	256QAM	12	13	18.69	18.56	18.66		
5	256QAM	25	0	18.53	18.49	18.54		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.55	23.64	23.44	25	0
3	QPSK	1	8	23.50	23.58	23.51		
3	QPSK	1	14	23.49	23.45	23.56		
3	QPSK	8	0	22.80	22.72	22.72	24	1
3	QPSK	8	4	22.59	22.47	22.40		
3	QPSK	8	7	22.63	22.62	22.59		
3	QPSK	15	0	22.67	22.68	22.64		
3	16QAM	1	0	23.01	22.95	22.92	24	1
3	16QAM	1	8	22.69	22.80	22.76		
3	16QAM	1	14	22.92	22.81	22.96		
3	16QAM	8	0	21.63	21.68	21.60	23	2
3	16QAM	8	4	21.42	21.55	21.50		
3	16QAM	8	7	21.63	21.66	21.57		
3	16QAM	15	0	21.53	21.49	21.58		
3	64QAM	1	0	21.79	21.71	21.57	23	2
3	64QAM	1	8	21.87	21.73	21.69		
3	64QAM	1	14	21.65	21.64	21.68		
3	64QAM	8	0	21.88	21.74	21.57	22	3
3	64QAM	8	4	21.61	21.67	21.63		
3	64QAM	8	7	21.55	21.66	21.58		
3	64QAM	15	0	21.62	21.67	21.72		
3	256QAM	1	0	18.58	18.60	18.57	20	5
3	256QAM	1	8	18.37	18.57	18.53		
3	256QAM	1	14	18.36	18.37	18.52		
3	256QAM	8	0	18.65	18.66	18.49	20	5
3	256QAM	8	4	18.46	18.52	18.62		
3	256QAM	8	7	18.59	18.62	18.71		
3	256QAM	15	0	18.56	18.53	18.49		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.56	23.60	23.45	25	0
1.4	QPSK	1	3	23.43	23.48	23.59		
1.4	QPSK	1	5	23.50	23.46	23.59		
1.4	QPSK	3	0	23.66	23.66	23.45		
1.4	QPSK	3	1	23.50	23.54	23.53		
1.4	QPSK	3	3	23.54	23.41	23.62		
1.4	QPSK	6	0	22.71	22.68	22.69	24	1
1.4	16QAM	1	0	22.48	22.54	22.46	24	1
1.4	16QAM	1	3	22.64	22.60	22.60		
1.4	16QAM	1	5	22.60	22.59	22.68		
1.4	16QAM	3	0	22.99	22.90	23.06		
1.4	16QAM	3	1	22.81	22.92	22.73		
1.4	16QAM	3	3	22.82	22.87	22.91		
1.4	16QAM	6	0	21.64	21.62	21.66	23	2
1.4	64QAM	1	0	21.52	21.53	21.52	23	2
1.4	64QAM	1	3	21.62	21.69	21.56		



1.4	64QAM	1	5	21.61	21.62	21.50		
1.4	64QAM	3	0	21.81	21.72	21.56		
1.4	64QAM	3	1	21.87	21.68	21.67		
1.4	64QAM	3	3	21.65	21.69	21.62		
1.4	64QAM	6	0	21.82	21.73	21.66		
1.4	256QAM	1	0	18.44	18.59	18.67		
1.4	256QAM	1	3	18.55	18.59	18.76		
1.4	256QAM	1	5	18.51	18.59	18.56		
1.4	256QAM	3	0	18.52	18.58	18.51		
1.4	256QAM	3	1	18.45	18.52	18.61		
1.4	256QAM	3	3	18.61	18.58	18.68		
1.4	256QAM	6	0	18.47	18.51	18.54		

Band 12 Ant0 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.65	23.89	23.76	25	0
10	QPSK	1	25	23.79	23.84	23.84		
10	QPSK	1	49	23.85	23.79	23.76		
10	QPSK	25	0	22.77	22.85	22.83	24	1
10	QPSK	25	12	22.73	22.80	22.80		
10	QPSK	25	25	22.69	22.73	22.75		
10	QPSK	50	0	22.64	22.81	22.73		
10	16QAM	1	0	23.28	23.22	23.14		
10	16QAM	1	25	23.03	23.04	23.01	24	1
10	16QAM	1	49	23.15	23.13	23.07		
10	16QAM	25	0	21.72	21.70	21.72		
10	16QAM	25	12	21.50	21.56	21.53	23	2
10	16QAM	25	25	21.59	21.69	21.71		
10	16QAM	50	0	21.45	21.53	21.43		
10	64QAM	1	0	22.11	22.16	22.25		
10	64QAM	1	25	22.16	22.12	22.22	23	2
10	64QAM	1	49	22.15	22.09	22.04		
10	64QAM	25	0	20.72	20.74	20.83		
10	64QAM	25	12	20.78	20.73	20.66	22	3
10	64QAM	25	25	20.84	20.85	20.91		
10	64QAM	50	0	20.80	20.79	20.79		
10	256QAM	1	0	19.41	19.34	19.38		
10	256QAM	1	25	19.20	19.29	19.32	20	5
10	256QAM	1	49	19.41	19.40	19.31		
10	256QAM	25	0	18.88	18.94	19.00		
10	256QAM	25	12	18.90	18.85	18.75	20	5
10	256QAM	25	25	18.97	18.87	18.94		
10	256QAM	50	0	18.82	18.87	18.95		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.60	23.76	23.67	25	0
5	QPSK	1	12	23.64	23.75	23.70		
5	QPSK	1	24	23.79	23.71	23.59		
5	QPSK	12	0	22.69	22.63	22.80	24	1
5	QPSK	12	7	22.70	22.70	22.71		
5	QPSK	12	13	22.64	22.60	22.63		
5	QPSK	25	0	22.59	22.60	22.71		
5	16QAM	1	0	23.24	23.08	23.04	24	1



5	16QAM	1	12	22.87	22.86	22.99		
5	16QAM	1	24	23.05	23.07	22.94		
5	16QAM	12	0	21.61	21.61	21.55		
5	16QAM	12	7	21.41	21.54	21.45		
5	16QAM	12	13	21.55	21.58	21.59		
5	16QAM	25	0	21.40	21.49	21.40		
5	64QAM	1	0	22.03	22.01	22.15		
5	64QAM	1	12	22.07	21.98	22.14		
5	64QAM	1	24	22.12	22.05	21.99		
5	64QAM	12	0	20.66	20.58	20.68		
5	64QAM	12	7	20.66	20.57	20.61		
5	64QAM	12	13	20.66	20.82	20.75		
5	64QAM	25	0	20.65	20.76	20.66		
5	256QAM	1	0	19.31	19.19	19.21		
5	256QAM	1	12	19.13	19.15	19.27		
5	256QAM	1	24	19.32	19.24	19.24		
5	256QAM	12	0	18.82	18.84	18.96		
5	256QAM	12	7	18.77	18.78	18.59		
5	256QAM	12	13	18.92	18.81	18.86		
5	256QAM	25	0	18.66	18.73	18.77		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.48	23.71	23.70	25	0
3	QPSK	1	8	23.74	23.68	23.66		
3	QPSK	1	14	23.73	23.63	23.61		
3	QPSK	8	0	22.71	22.65	22.72	24	1
3	QPSK	8	4	22.62	22.74	22.76		
3	QPSK	8	7	22.52	22.70	22.58		
3	QPSK	15	0	22.56	22.55	22.61		
3	16QAM	1	0	23.16	23.04	23.09	24	1
3	16QAM	1	8	22.86	22.96	22.99		
3	16QAM	1	14	23.13	22.95	22.96		
3	16QAM	8	0	21.66	21.55	21.56	23	2
3	16QAM	8	4	21.36	21.45	21.46		
3	16QAM	8	7	21.46	21.56	21.57		
3	16QAM	15	0	21.37	21.48	21.36		
3	64QAM	1	0	21.98	22.10	22.18	23	2
3	64QAM	1	8	22.08	22.10	22.19		
3	64QAM	1	14	21.97	22.01	21.99		
3	64QAM	8	0	20.67	20.61	20.66	22	3
3	64QAM	8	4	20.62	20.58	20.55		
3	64QAM	8	7	20.75	20.79	20.76		
3	64QAM	15	0	20.76	20.68	20.63		
3	256QAM	1	0	19.31	19.29	19.34	20	5
3	256QAM	1	8	19.10	19.17	19.16		
3	256QAM	1	14	19.38	19.23	19.13		
3	256QAM	8	0	18.80	18.90	18.95	20	5
3	256QAM	8	4	18.88	18.69	18.71		
3	256QAM	8	7	18.82	18.84	18.87		
3	256QAM	15	0	18.77	18.76	18.85		
Channel				23017	23095	23173	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				699.7	707.5	715.3		
1.4	QPSK	1	0	23.60	23.73	23.63	25	0
1.4	QPSK	1	3	23.72	23.74	23.73		
1.4	QPSK	1	5	23.76	23.71	23.69		
1.4	QPSK	3	0	23.49	23.79	23.58		



1.4	QPSK	3	1	23.71	23.81	23.75	24	1
1.4	QPSK	3	3	23.76	23.69	23.69		
1.4	QPSK	6	0	22.62	22.59	22.72		
1.4	16QAM	1	0	22.60	22.68	22.65		
1.4	16QAM	1	3	22.52	22.65	22.61		
1.4	16QAM	1	5	22.51	22.58	22.55		
1.4	16QAM	3	0	23.25	23.10	22.99		
1.4	16QAM	3	1	22.99	22.94	22.99		
1.4	16QAM	3	3	23.03	22.98	23.01		
1.4	16QAM	6	0	21.68	21.66	21.55		
1.4	64QAM	1	0	21.46	21.40	21.42	23	2
1.4	64QAM	1	3	21.48	21.52	21.63		
1.4	64QAM	1	5	21.42	21.45	21.36		
1.4	64QAM	3	0	22.03	22.06	22.08		
1.4	64QAM	3	1	22.02	21.99	22.06		
1.4	64QAM	3	3	22.06	21.92	21.96		
1.4	64QAM	6	0	20.57	20.58	20.77		
1.4	256QAM	1	0	19.31	19.21	19.21	20	5
1.4	256QAM	1	3	19.11	19.18	19.27		
1.4	256QAM	1	5	19.23	19.33	19.18		
1.4	256QAM	3	0	18.70	18.85	18.97		
1.4	256QAM	3	1	18.81	18.67	18.73		
1.4	256QAM	3	3	18.82	18.84	18.88		
1.4	256QAM	6	0	18.65	18.73	18.77		

Band 13 Ant0 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23230				
Frequency (MHz)				782				
10	QPSK	1	0		23.71		25	0
10	QPSK	1	25		23.67			
10	QPSK	1	49		23.57			
10	QPSK	25	0		22.71		24	1
10	QPSK	25	12		22.63			
10	QPSK	25	25		22.58			
10	QPSK	50	0		22.59			
10	16QAM	1	0		22.89		24	1
10	16QAM	1	25		23.06			
10	16QAM	1	49		23.07			
10	16QAM	25	0		21.64			
10	16QAM	25	12		21.80		23	2
10	16QAM	25	25		21.82			
10	16QAM	50	0		21.78			
10	64QAM	1	0		22.05		23	2
10	64QAM	1	25		22.12			
10	64QAM	1	49		22.08			
10	64QAM	25	0		20.66		22	3
10	64QAM	25	12		20.89			
10	64QAM	25	25		20.87			
10	64QAM	50	0		20.68			
10	256QAM	1	0		18.75		20	5
10	256QAM	1	25		18.61			
10	256QAM	1	49		18.57			
10	256QAM	25	0		18.75		20	5
10	256QAM	25	12		18.88			



10	256QAM	25	25		18.85			
10	256QAM	50	0		18.87			
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.52	23.65	23.39	25	0
5	QPSK	1	12	23.35	23.59	23.49		
5	QPSK	1	24	23.25	23.44	23.40		
5	QPSK	12	0	22.52	22.63	22.36	24	1
5	QPSK	12	7	22.52	22.49	22.45		
5	QPSK	12	13	22.38	22.42	22.33		
5	QPSK	25	0	22.47	22.44	22.36	24	1
5	16QAM	1	0	22.66	22.80	22.69		
5	16QAM	1	12	22.93	23.03	22.99	24	1
5	16QAM	1	24	22.96	23.05	22.74		
5	16QAM	12	0	21.31	21.61	21.44	23	2
5	16QAM	12	7	21.61	21.68	21.55		
5	16QAM	12	13	21.71	21.75	21.61		
5	16QAM	25	0	21.56	21.68	21.64	23	2
5	64QAM	1	0	21.74	21.94	21.92		
5	64QAM	1	12	21.88	22.06	21.93	23	2
5	64QAM	1	24	21.79	21.98	21.86		
5	64QAM	12	0	20.41	20.59	20.38	22	3
5	64QAM	12	7	20.60	20.81	20.83		
5	64QAM	12	13	20.55	20.80	20.68		
5	64QAM	25	0	20.45	20.53	20.46	20	5
5	256QAM	1	0	18.49	18.70	18.55		
5	256QAM	1	12	18.39	18.54	18.53	20	5
5	256QAM	1	24	18.38	18.42	18.35		
5	256QAM	12	0	18.44	18.62	18.62	20	5
5	256QAM	12	7	18.67	18.78	18.80		
5	256QAM	12	13	18.60	18.78	18.55		
5	256QAM	25	0	18.52	18.78	18.56		

Band 14 Ant0 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23330				
Frequency (MHz)				793				
10	QPSK	1	0		23.83		25	0
10	QPSK	1	25		23.76			
10	QPSK	1	49		23.79			
10	QPSK	25	0		22.82		24	1
10	QPSK	25	12		22.67			
10	QPSK	25	25		22.78			
10	QPSK	50	0		22.80		24	1
10	16QAM	1	0		23.12			
10	16QAM	1	25		23.24		24	1
10	16QAM	1	49		23.04			
10	16QAM	25	0		21.80		23	2
10	16QAM	25	12		21.90			
10	16QAM	25	25		21.82			
10	16QAM	50	0		21.86		23	2
10	64QAM	1	0		21.73			
10	64QAM	1	25		21.72		23	2
10	64QAM	1	49		21.69			
10	64QAM	25	0		20.79		22	3



10	64QAM	25	12		20.78			
10	64QAM	25	25		20.78			
10	64QAM	50	0		20.79			
10	256QAM	1	0		18.76			
10	256QAM	1	25		18.90		20	5
10	256QAM	1	49		18.84			
10	256QAM	25	0		18.71			
10	256QAM	25	12		18.83			
10	256QAM	25	25		18.76		20	5
10	256QAM	50	0		18.62			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	23.63	23.81	23.63	25	0
5	QPSK	1	12	23.66	23.66	23.63		
5	QPSK	1	24	23.68	23.70	23.53		
5	QPSK	12	0	22.38	22.52	22.37		
5	QPSK	12	7	22.39	22.59	22.48	24	1
5	QPSK	12	13	22.73	22.74	22.48		
5	QPSK	25	0	22.57	22.68	22.70		
5	16QAM	1	0	22.85	22.97	23.03	24	1
5	16QAM	1	12	22.97	23.20	23.07		
5	16QAM	1	24	22.77	22.92	22.79		
5	16QAM	12	0	21.56	21.64	21.66		
5	16QAM	12	7	21.85	21.78	21.68	23	2
5	16QAM	12	13	21.68	21.74	21.68		
5	16QAM	25	0	21.75	21.73	21.81		
5	64QAM	1	0	21.59	21.57	21.42	23	2
5	64QAM	1	12	21.54	21.65	21.50		
5	64QAM	1	24	21.49	21.67	21.47		
5	64QAM	12	0	20.63	20.64	20.62		
5	64QAM	12	7	20.59	20.71	20.43	22	3
5	64QAM	12	13	20.45	20.65	20.67		
5	64QAM	25	0	20.58	20.62	20.63		
5	256QAM	1	0	18.52	18.62	18.59	20	5
5	256QAM	1	12	18.66	18.76	18.67		
5	256QAM	1	24	18.60	18.82	18.70		
5	256QAM	12	0	18.46	18.61	18.51		
5	256QAM	12	7	18.63	18.67	18.60	20	5
5	256QAM	12	13	18.61	18.70	18.56		
5	256QAM	25	0	18.46	18.49	18.42		



Band 17 Ant0 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel						23780	23790	23800
Frequency (MHz)						709	710	711
10	QPSK	1	0	23.77	23.82	23.74		
10	QPSK	1	25	23.77	23.81	23.73	25	0
10	QPSK	1	49	23.71	23.79	23.58		
10	QPSK	25	0	22.71	22.78	22.72		
10	QPSK	25	12	22.76	22.72	22.70		
10	QPSK	25	25	22.70	22.72	22.66		
10	QPSK	50	0	22.65	22.69	22.58	24	1
10	16QAM	1	0	22.86	22.91	22.98		
10	16QAM	1	25	23.05	23.04	23.13		
10	16QAM	1	49	22.83	22.92	22.90		
10	16QAM	25	0	21.63	21.71	21.76		
10	16QAM	25	12	21.67	21.76	21.72	23	2
10	16QAM	25	25	21.70	21.69	21.75		
10	16QAM	50	0	21.94	21.90	21.85		
10	64QAM	1	0	21.95	21.89	21.84		
10	64QAM	1	25	21.74	21.73	21.68		
10	64QAM	1	49	21.88	21.79	21.70	23	2
10	64QAM	25	0	20.72	20.72	20.76		
10	64QAM	25	12	20.79	20.75	20.77		
10	64QAM	25	25	20.93	20.85	20.90		
10	64QAM	50	0	20.65	20.73	20.67		
10	256QAM	1	0	19.21	19.22	19.29	20	5
10	256QAM	1	25	19.21	19.24	19.32		
10	256QAM	1	49	19.31	19.33	19.39		
10	256QAM	25	0	19.25	19.19	19.17		
10	256QAM	25	12	19.33	19.25	19.18		
10	256QAM	25	25	19.31	19.21	19.29	20	5
10	256QAM	50	0	19.10	19.14	19.12		
Channel						23755	23790	23825
Frequency (MHz)						706.5	710	713.5
5	QPSK	1	0	23.69	23.76	23.72	25	0
5	QPSK	1	12	23.70	23.66	23.68		
5	QPSK	1	24	23.58	23.62	23.53		
5	QPSK	12	0	22.53	22.52	22.57		
5	QPSK	12	7	22.63	22.60	22.60		
5	QPSK	12	13	22.56	22.57	22.50	24	1
5	QPSK	25	0	22.55	22.44	22.43		
5	16QAM	1	0	22.72	22.84	22.88		
5	16QAM	1	12	23.02	22.99	23.10		
5	16QAM	1	24	22.77	22.83	22.84		
5	16QAM	12	0	21.51	21.56	21.59	23	2
5	16QAM	12	7	21.59	21.72	21.61		
5	16QAM	12	13	21.56	21.61	21.59		
5	16QAM	25	0	21.81	21.84	21.72		
5	64QAM	1	0	21.86	21.80	21.73	23	2
5	64QAM	1	12	21.64	21.62	21.64		
5	64QAM	1	24	21.83	21.68	21.61		
5	64QAM	12	0	20.64	20.55	20.60		
5	64QAM	12	7	20.64	20.62	20.68		
5	64QAM	12	13	20.84	20.71	20.75	22	3



5	64QAM	25	0	20.59	20.62	20.51		
5	256QAM	1	0	19.11	19.16	19.26	20	5
5	256QAM	1	12	19.05	19.14	19.18		
5	256QAM	1	24	19.25	19.24	19.23		
5	256QAM	12	0	19.22	19.10	19.00		
5	256QAM	12	7	19.22	19.14	19.05	20	5
5	256QAM	12	13	19.16	19.06	19.12		
5	256QAM	25	0	19.07	19.09	19.04		

Band 26 Ant0 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	23.58	23.62	23.50	25	0
15	QPSK	1	37	23.51	23.57	23.55		
15	QPSK	1	74	23.49	23.53	23.58		
15	QPSK	36	0	22.73	22.75	22.65	24	1
15	QPSK	36	20	22.65	22.63	22.56		
15	QPSK	36	39	22.72	22.67	22.67		
15	QPSK	75	0	22.59	22.63	22.60		
15	16QAM	1	0	22.89	22.80	22.83	24	1
15	16QAM	1	37	22.70	22.76	22.79		
15	16QAM	1	74	22.70	22.69	22.69		
15	16QAM	36	0	21.75	21.70	21.62	23	2
15	16QAM	36	20	21.53	21.49	21.51		
15	16QAM	36	39	21.69	21.61	21.60		
15	16QAM	75	0	21.61	21.56	21.46		
15	64QAM	1	0	21.59	21.59	21.56	23	2
15	64QAM	1	37	21.72	21.72	21.80		
15	64QAM	1	74	21.59	21.64	21.56		
15	64QAM	36	0	20.57	20.61	20.62	22	3
15	64QAM	36	20	20.60	20.51	20.42		
15	64QAM	36	39	20.59	20.61	20.54		
15	64QAM	75	0	20.58	20.58	20.65		
15	256QAM	1	0	18.82	18.74	18.80	20	5
15	256QAM	1	37	18.92	18.83	18.86		
15	256QAM	1	74	18.82	18.83	18.84		
15	256QAM	36	0	18.60	18.65	18.67	20	5
15	256QAM	36	20	18.70	18.70	18.73		
15	256QAM	36	39	18.70	18.70	18.75		
15	256QAM	75	0	18.86	18.79	18.73		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	23.47	23.53	23.37	25	0
10	QPSK	1	25	23.41	23.49	23.41		
10	QPSK	1	49	23.42	23.38	23.46		
10	QPSK	25	0	22.58	22.65	22.60	24	1



10	QPSK	25	12	22.57	22.60	22.43		
10	QPSK	25	25	22.60	22.67	22.62		
10	QPSK	50	0	22.44	22.47	22.54		
10	16QAM	1	0	22.74	22.77	22.67		
10	16QAM	1	25	22.65	22.74	22.76		
10	16QAM	1	49	22.60	22.63	22.67		
10	16QAM	25	0	21.64	21.66	21.54		
10	16QAM	25	12	21.50	21.34	21.37		
10	16QAM	25	25	21.56	21.47	21.49		
10	16QAM	50	0	21.52	21.45	21.30		
10	64QAM	1	0	21.55	21.56	21.49		
10	64QAM	1	25	21.64	21.66	21.73		
10	64QAM	1	49	21.49	21.47	21.43		
10	64QAM	25	0	20.41	20.51	20.45		
10	64QAM	25	12	20.50	20.45	20.32		
10	64QAM	25	25	20.50	20.47	20.39		
10	64QAM	50	0	20.55	20.42	20.52		
10	256QAM	1	0	18.66	18.58	18.70		
10	256QAM	1	25	18.89	18.80	18.82		
10	256QAM	1	49	18.64	18.72	18.74		
10	256QAM	25	0	18.54	18.58	18.63		
10	256QAM	25	12	18.65	18.60	18.59		
10	256QAM	25	25	18.57	18.62	18.70		
10	256QAM	50	0	18.81	18.65	18.70		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	23.41	23.49	23.35	25	0
5	QPSK	1	12	23.39	23.52	23.38		
5	QPSK	1	24	23.39	23.50	23.47		
5	QPSK	12	0	22.67	22.64	22.47	24	1
5	QPSK	12	7	22.51	22.52	22.53		
5	QPSK	12	13	22.62	22.66	22.63		
5	QPSK	25	0	22.53	22.52	22.48		
5	16QAM	1	0	22.84	22.67	22.75		
5	16QAM	1	12	22.53	22.72	22.74	24	1
5	16QAM	1	24	22.67	22.57	22.57		
5	16QAM	12	0	21.57	21.60	21.58		
5	16QAM	12	7	21.44	21.38	21.42	23	2
5	16QAM	12	13	21.54	21.51	21.51		
5	16QAM	25	0	21.44	21.39	21.28		
5	64QAM	1	0	21.45	21.53	21.40		
5	64QAM	1	12	21.57	21.58	21.63	23	2
5	64QAM	1	24	21.56	21.49	21.45		
5	64QAM	12	0	20.47	20.58	20.55		
5	64QAM	12	7	20.46	20.48	20.40	22	3
5	64QAM	12	13	20.41	20.54	20.48		
5	64QAM	25	0	20.44	20.51	20.54		



5	256QAM	1	0	18.70	18.66	18.76	20	5
5	256QAM	1	12	18.76	18.65	18.75		
5	256QAM	1	24	18.71	18.71	18.78	20	5
5	256QAM	12	0	18.48	18.49	18.56		
5	256QAM	12	7	18.59	18.66	18.56	20	5
5	256QAM	12	13	18.58	18.67	18.65		
5	256QAM	25	0	18.76	18.67	18.69		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	23.51	23.57	23.37	25	0
3	QPSK	1	8	23.37	23.52	23.49		
3	QPSK	1	14	23.33	23.37	23.56		
3	QPSK	8	0	22.64	22.57	22.61	24	1
3	QPSK	8	4	22.62	22.58	22.53		
3	QPSK	8	7	22.63	22.58	22.50		
3	QPSK	15	0	22.45	22.52	22.55		
3	16QAM	1	0	22.72	22.65	22.80	24	1
3	16QAM	1	8	22.67	22.62	22.76		
3	16QAM	1	14	22.60	22.66	22.58		
3	16QAM	8	0	21.70	21.64	21.56	23	2
3	16QAM	8	4	21.47	21.39	21.39		
3	16QAM	8	7	21.54	21.54	21.45		
3	16QAM	15	0	21.47	21.53	21.36		
3	64QAM	1	0	21.51	21.48	21.53	23	2
3	64QAM	1	8	21.64	21.62	21.69		
3	64QAM	1	14	21.49	21.59	21.40		
3	64QAM	8	0	20.49	20.45	20.48	22	3
3	64QAM	8	4	20.53	20.46	20.25		
3	64QAM	8	7	20.50	20.57	20.39		
3	64QAM	15	0	20.48	20.46	20.55		
3	256QAM	1	0	18.65	18.66	18.66	20	5
3	256QAM	1	8	18.79	18.72	18.78		
3	256QAM	1	14	18.66	18.75	18.76		
3	256QAM	8	0	18.43	18.52	18.52	20	5
3	256QAM	8	4	18.54	18.57	18.60		
3	256QAM	8	7	18.63	18.65	18.59		
3	256QAM	15	0	18.81	18.72	18.65		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	23.45	23.56	23.45	25	0
1.4	QPSK	1	3	23.38	23.42	23.37		
1.4	QPSK	1	5	23.35	23.37	23.54		
1.4	QPSK	3	0	23.43	23.53	23.35		
1.4	QPSK	3	1	23.38	23.54	23.39		
1.4	QPSK	3	3	23.36	23.36	23.42		
1.4	QPSK	6	0	22.61	22.63	22.49	24	1
1.4	16QAM	1	0	22.53	22.52	22.53	24	1



1.4	16QAM	1	3	22.68	22.58	22.63		
1.4	16QAM	1	5	22.57	22.50	22.51		
1.4	16QAM	3	0	22.84	22.66	22.79		
1.4	16QAM	3	1	22.66	22.58	22.61		
1.4	16QAM	3	3	22.57	22.53	22.58		
1.4	16QAM	6	0	21.58	21.62	21.55		
1.4	64QAM	1	0	21.48	21.41	21.36		
1.4	64QAM	1	3	21.63	21.46	21.47		
1.4	64QAM	1	5	21.51	21.45	21.30		
1.4	64QAM	3	0	21.57	21.43	21.53		
1.4	64QAM	3	1	21.55	21.70	21.66		
1.4	64QAM	3	3	21.55	21.58	21.45		
1.4	64QAM	6	0	20.46	20.48	20.52	22	3
1.4	256QAM	1	0	18.78	18.64	18.74		
1.4	256QAM	1	3	18.88	18.77	18.75		
1.4	256QAM	1	5	18.69	18.74	18.82		
1.4	256QAM	3	0	18.43	18.62	18.56		
1.4	256QAM	3	1	18.57	18.53	18.60		
1.4	256QAM	3	3	18.65	18.61	18.60		
1.4	256QAM	6	0	18.81	18.75	18.60	20	5

Band 71 Ant0 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133297	133372		
Frequency (MHz)				673	680.5	688		
20	QPSK	1	0	22.67	22.76	22.63		0
20	QPSK	1	49	22.66	22.73	22.69		
20	QPSK	1	99	22.66	22.65	22.62		
20	QPSK	50	0	21.65	21.68	21.63	23	1
20	QPSK	50	24	21.64	21.60	21.64		
20	QPSK	50	50	21.55	21.52	21.62		
20	QPSK	100	0	21.59	21.62	21.60		
20	16QAM	1	0	21.82	21.87	21.93	23	1
20	16QAM	1	49	21.82	21.83	21.82		
20	16QAM	1	99	21.98	21.91	21.88		
20	16QAM	50	0	20.67	20.65	20.64		
20	16QAM	50	24	20.58	20.58	20.53	22	2
20	16QAM	50	50	20.79	20.78	20.70		
20	16QAM	100	0	20.67	20.66	20.70		
20	64QAM	1	0	20.91	20.95	21.04	22	2
20	64QAM	1	49	21.06	21.01	21.07		
20	64QAM	1	99	20.96	20.97	20.94		
20	64QAM	50	0	19.72	19.67	19.66		
20	64QAM	50	24	19.47	19.55	19.54	21	3
20	64QAM	50	50	19.66	19.64	19.57		
20	64QAM	100	0	19.60	19.62	19.55		
20	256QAM	1	0	17.68	17.60	17.65	19	5
20	256QAM	1	49	17.62	17.61	17.71		
20	256QAM	1	99	17.71	17.70	17.71		
20	256QAM	50	0	17.63	17.55	17.58		
20	256QAM	50	24	17.56	17.59	17.57	19	5



20	256QAM	50	50	17.52	17.61	17.71		
20	256QAM	100	0	17.64	17.70	17.79		
Channel				133197	133297	133397	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	0	22.65	22.70	22.52	24	0
15	QPSK	1	37	22.63	22.60	22.53		
15	QPSK	1	74	22.51	22.61	22.51		
15	QPSK	36	0	21.44	21.49	21.57		
15	QPSK	36	20	21.50	21.48	21.57		
15	QPSK	36	39	21.52	21.37	21.56		
15	QPSK	75	0	21.40	21.40	21.47		
15	16QAM	1	0	21.64	21.80	21.89	23	1
15	16QAM	1	37	21.79	21.77	21.77		
15	16QAM	1	74	21.92	21.88	21.71		
15	16QAM	36	0	20.50	20.61	20.61		
15	16QAM	36	20	20.47	20.47	20.43		
15	16QAM	36	39	20.73	20.69	20.61	22	2
15	16QAM	75	0	20.57	20.57	20.58		
15	64QAM	1	0	20.81	20.90	21.00		
15	64QAM	1	37	20.91	20.96	20.99		
15	64QAM	1	74	20.86	20.84	20.77		
15	64QAM	36	0	19.63	19.59	19.48	21	3
15	64QAM	36	20	19.30	19.50	19.52		
15	64QAM	36	39	19.56	19.47	19.53		
15	64QAM	75	0	19.49	19.52	19.51		
15	256QAM	1	0	17.53	17.52	17.55		
15	256QAM	1	37	17.45	17.53	17.55	19	5
15	256QAM	1	74	17.67	17.62	17.57		
15	256QAM	36	0	17.59	17.38	17.40		
15	256QAM	36	20	17.53	17.57	17.40		
15	256QAM	36	39	17.35	17.58	17.67		
15	256QAM	75	0	17.57	17.65	17.70	19	5
Channel				133172	133297	133422		
Frequency (MHz)				668	680.5	693		
10	QPSK	1	0	22.64	22.70	22.52	24	0
10	QPSK	1	25	22.62	22.63	22.55		
10	QPSK	1	49	22.56	22.49	22.50		
10	QPSK	25	0	21.38	21.59	21.55		
10	QPSK	25	12	21.61	21.46	21.59		
10	QPSK	25	25	21.46	21.39	21.47	23	1
10	QPSK	50	0	21.35	21.47	21.44		
10	16QAM	1	0	21.75	21.70	21.88		
10	16QAM	1	25	21.64	21.75	21.68		
10	16QAM	1	49	21.81	21.87	21.86		
10	16QAM	25	0	20.53	20.56	20.55	22	2
10	16QAM	25	12	20.43	20.45	20.44		
10	16QAM	25	25	20.63	20.73	20.53		
10	16QAM	50	0	20.52	20.51	20.59		
10	64QAM	1	0	20.74	20.86	20.93	22	2
10	64QAM	1	25	20.99	20.88	20.95		
10	64QAM	1	49	20.80	20.86	20.86		
10	64QAM	25	0	19.69	19.64	19.56		
10	64QAM	25	12	19.37	19.40	19.44		
10	64QAM	25	25	19.55	19.53	19.48	21	3
10	64QAM	50	0	19.46	19.45	19.46		
10	256QAM	1	0	17.62	17.51	17.48		



10	256QAM	1	25	17.54	17.55	17.59	19	5
10	256QAM	1	49	17.54	17.67	17.54		
10	256QAM	25	0	17.56	17.41	17.52		
10	256QAM	25	12	17.46	17.55	17.48		
10	256QAM	25	25	17.35	17.54	17.65		
10	256QAM	50	0	17.47	17.66	17.72		
Channel				133147	133297	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	0	22.61	22.68	22.52	24	0
5	QPSK	1	12	22.63	22.62	22.60		
5	QPSK	1	24	22.60	22.59	22.49		
5	QPSK	12	0	21.51	21.61	21.53		
5	QPSK	12	7	21.58	21.49	21.49		
5	QPSK	12	13	21.52	21.41	21.52		
5	QPSK	25	0	21.40	21.46	21.58	23	1
5	16QAM	1	0	21.77	21.72	21.81		
5	16QAM	1	12	21.78	21.79	21.71		
5	16QAM	1	24	21.90	21.78	21.76		
5	16QAM	12	0	20.62	20.54	20.54		
5	16QAM	12	7	20.41	20.43	20.40		
5	16QAM	12	13	20.68	20.63	20.58	22	2
5	16QAM	25	0	20.63	20.61	20.56		
5	64QAM	1	0	20.74	20.90	21.00		
5	64QAM	1	12	21.02	20.93	20.98		
5	64QAM	1	24	20.81	20.85	20.85		
5	64QAM	12	0	19.57	19.58	19.58		
5	64QAM	12	7	19.41	19.45	19.47	21	3
5	64QAM	12	13	19.52	19.47	19.50		
5	64QAM	25	0	19.57	19.58	19.39		
5	256QAM	1	0	17.57	17.43	17.55		
5	256QAM	1	12	17.52	17.53	17.59		
5	256QAM	1	24	17.61	17.60	17.66		
5	256QAM	12	0	17.54	17.44	17.45	19	5
5	256QAM	12	7	17.42	17.48	17.43		
5	256QAM	12	13	17.41	17.53	17.66		
5	256QAM	25	0	17.51	17.61	17.76		

Band 2 Ant2 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100	21.7	0
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	20.66	21.02	20.76		
20	QPSK	1	49	20.74	20.79	20.99		
20	QPSK	1	99	20.87	20.99	20.82		
20	QPSK	50	0	20.54	20.99	20.77		
20	QPSK	50	24	20.85	20.63	20.88	21.7	0
20	QPSK	50	50	20.74	20.66	20.79		
20	QPSK	100	0	20.54	20.66	20.51		
20	16QAM	1	0	20.58	20.55	20.50		
20	16QAM	1	49	20.76	20.52	20.56		
20	16QAM	1	99	20.42	20.44	20.37		
20	16QAM	50	0	20.59	20.44	20.55	21.7	0
20	16QAM	50	24	20.24	20.43	20.40		
20	16QAM	50	50	20.59	20.67	20.50		
20	16QAM	100	0	20.38	20.38	20.52		



20	64QAM	1	0	20.61	20.54	20.33	21.7	0	
20	64QAM	1	49	20.56	20.40	20.64			
20	64QAM	1	99	20.60	20.27	20.56			
20	64QAM	50	0	20.62	20.54	20.61			
20	64QAM	50	24	20.73	20.51	20.55	21.7	0	
20	64QAM	50	50	20.74	20.76	20.68			
20	64QAM	100	0	20.58	20.64	20.70			
20	256QAM	1	0	18.77	18.80	18.80			
20	256QAM	1	49	18.54	18.57	18.65	20	1.7	
20	256QAM	1	99	18.45	18.60	18.66			
20	256QAM	50	0	18.45	18.54	18.46			
20	256QAM	50	24	18.55	18.67	18.64			
20	256QAM	50	50	18.44	18.35	18.39	20	1.7	
20	256QAM	100	0	18.67	18.63	18.59			
Channel				188675	18900	19125			
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	0	20.60	20.82	20.75	21.7	0	
15	QPSK	1	37	20.57	20.78	20.85			
15	QPSK	1	74	20.77	20.81	20.63			
15	QPSK	36	0	20.44	20.87	20.62			
15	QPSK	36	20	20.78	20.52	20.87	21.7	0	
15	QPSK	36	39	20.72	20.48	20.71			
15	QPSK	75	0	20.38	20.52	20.34			
15	16QAM	1	0	20.56	20.54	20.33			
15	16QAM	1	37	20.57	20.40	20.45	21.7	0	
15	16QAM	1	74	20.24	20.24	20.27			
15	16QAM	36	0	20.47	20.38	20.40			
15	16QAM	36	20	20.21	20.26	20.37			
15	16QAM	36	39	20.48	20.47	20.32	21.7	0	
15	16QAM	75	0	20.24	20.36	20.45			
15	64QAM	1	0	20.58	20.41	20.16			
15	64QAM	1	37	20.50	20.26	20.61			
15	64QAM	1	74	20.58	20.24	20.53	21.7	0	
15	64QAM	36	0	20.53	20.35	20.44			
15	64QAM	36	20	20.66	20.47	20.46			
15	64QAM	36	39	20.67	20.61	20.68			
15	64QAM	75	0	20.41	20.63	20.64	21.7	0	
15	256QAM	1	0	18.60	18.78	18.64			
15	256QAM	1	37	18.51	18.42	18.51			
15	256QAM	1	74	18.37	18.44	18.47			
15	256QAM	36	0	18.36	18.51	18.29	20	1.7	
15	256QAM	36	20	18.42	18.54	18.47			
15	256QAM	36	39	18.29	18.34	18.25			
15	256QAM	75	0	18.48	18.53	18.39			
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1855	1880	1905			
10	QPSK	1	0	20.55	20.90	20.74		21.7	0
10	QPSK	1	25	20.60	20.77	20.89			
10	QPSK	1	49	20.82	20.83	20.77	21.7	0	
10	QPSK	25	0	20.42	20.85	20.67			
10	QPSK	25	12	20.83	20.43	20.76	21.7	0	
10	QPSK	25	25	20.68	20.63	20.61			
10	QPSK	50	0	20.41	20.66	20.49	21.7	0	
10	16QAM	1	0	20.39	20.45	20.49			
10	16QAM	1	25	20.68	20.52	20.51			
10	16QAM	1	49	20.23	20.39	20.23			



10	16QAM	25	0	20.51	20.37	20.38	21.7	0
10	16QAM	25	12	20.29	20.32	20.38		
10	16QAM	25	25	20.58	20.63	20.39		
10	16QAM	50	0	20.20	20.27	20.48		
10	64QAM	1	0	20.59	20.36	20.22	21.7	0
10	64QAM	1	25	20.48	20.23	20.57		
10	64QAM	1	49	20.52	20.20	20.43		
10	64QAM	25	0	20.49	20.53	20.58		
10	64QAM	25	12	20.61	20.32	20.53	21.7	0
10	64QAM	25	25	20.65	20.68	20.61		
10	64QAM	50	0	20.39	20.54	20.64		
10	256QAM	1	0	18.57	18.71	18.70	20	1.7
10	256QAM	1	25	18.35	18.50	18.48		
10	256QAM	1	49	18.31	18.49	18.64		
10	256QAM	25	0	18.30	18.34	18.28		
10	256QAM	25	12	18.50	18.59	18.53	20	1.7
10	256QAM	25	25	18.33	18.20	18.30		
10	256QAM	50	0	18.55	18.44	18.44		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.61	20.78	20.64	21.7	0
5	QPSK	1	12	20.58	20.65	20.83		
5	QPSK	1	24	20.72	20.83	20.66		
5	QPSK	12	0	20.49	20.95	20.63		
5	QPSK	12	7	20.79	20.51	20.71	21.7	0
5	QPSK	12	13	20.61	20.64	20.73		
5	QPSK	25	0	20.53	20.64	20.49		
5	16QAM	1	0	20.54	20.35	20.41	21.7	0
5	16QAM	1	12	20.71	20.38	20.45		
5	16QAM	1	24	20.39	20.35	20.29		
5	16QAM	12	0	20.46	20.36	20.36		
5	16QAM	12	7	20.18	20.37	20.33	21.7	0
5	16QAM	12	13	20.57	20.66	20.50		
5	16QAM	25	0	20.18	20.30	20.45		
5	64QAM	1	0	20.57	20.38	20.24	21.7	0
5	64QAM	1	12	20.41	20.28	20.56		
5	64QAM	1	24	20.43	20.19	20.50		
5	64QAM	12	0	20.44	20.52	20.56		
5	64QAM	12	7	20.69	20.43	20.55	21.7	0
5	64QAM	12	13	20.68	20.71	20.48		
5	64QAM	25	0	20.46	20.53	20.60		
5	256QAM	1	0	18.59	18.75	18.60	20	1.7
5	256QAM	1	12	18.47	18.53	18.62		
5	256QAM	1	24	18.33	18.58	18.52		
5	256QAM	12	0	18.41	18.54	18.43		
5	256QAM	12	7	18.49	18.57	18.55	20	1.7
5	256QAM	12	13	18.38	18.27	18.28		
5	256QAM	25	0	18.53	18.50	18.53		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.63	20.77	20.72	21.7	0
3	QPSK	1	8	20.65	20.70	20.93		
3	QPSK	1	14	20.67	20.87	20.67		
3	QPSK	8	0	20.38	20.83	20.68		
3	QPSK	8	4	20.70	20.52	20.72	21.7	0
3	QPSK	8	7	20.58	20.62	20.70		



3	QPSK	15	0	20.44	20.49	20.49		
3	16QAM	1	0	20.52	20.47	20.36		
3	16QAM	1	8	20.57	20.50	20.43		
3	16QAM	1	14	20.37	20.29	20.36		
3	16QAM	8	0	20.51	20.33	20.46		
3	16QAM	8	4	20.15	20.33	20.40		
3	16QAM	8	7	20.43	20.61	20.32		
3	16QAM	15	0	20.30	20.36	20.35		
3	64QAM	1	0	20.54	20.45	20.17		
3	64QAM	1	8	20.46	20.24	20.56		
3	64QAM	1	14	20.41	20.25	20.42		
3	64QAM	8	0	20.56	20.44	20.56		
3	64QAM	8	4	20.61	20.37	20.51		
3	64QAM	8	7	20.61	20.63	20.54		
3	64QAM	15	0	20.57	20.56	20.65		
3	256QAM	1	0	18.69	18.65	18.74		
3	256QAM	1	8	18.43	18.39	18.45		
3	256QAM	1	14	18.36	18.53	18.63		
3	256QAM	8	0	18.36	18.38	18.34		
3	256QAM	8	4	18.36	18.54	18.50		
3	256QAM	8	7	18.38	18.28	18.24		
3	256QAM	15	0	18.52	18.61	18.39		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.55	20.89	20.61	21.7	0
1.4	QPSK	1	3	20.57	20.79	20.97		
1.4	QPSK	1	5	20.80	20.82	20.70		
1.4	QPSK	3	0	20.47	20.97	20.69		
1.4	QPSK	3	1	20.82	20.53	20.85		
1.4	QPSK	3	3	20.62	20.60	20.69		
1.4	QPSK	6	0	20.46	20.54	20.36	21.7	0
1.4	16QAM	1	0	20.44	20.53	20.45	21.7	0
1.4	16QAM	1	3	20.67	20.33	20.46		
1.4	16QAM	1	5	20.39	20.31	20.31		
1.4	16QAM	3	0	20.52	20.37	20.50		
1.4	16QAM	3	1	20.06	20.40	20.37		
1.4	16QAM	3	3	20.45	20.51	20.44		
1.4	16QAM	6	0	20.38	20.19	20.49	21.7	0
1.4	64QAM	1	0	20.43	20.41	20.27	21.7	0
1.4	64QAM	1	3	20.49	20.21	20.55		
1.4	64QAM	1	5	20.44	20.24	20.41		
1.4	64QAM	3	0	20.57	20.52	20.51		
1.4	64QAM	3	1	20.57	20.34	20.47		
1.4	64QAM	3	3	20.56	20.64	20.50		
1.4	64QAM	6	0	20.57	20.46	20.63	21.7	0
1.4	256QAM	1	0	18.77	18.68	18.63	20	1.7
1.4	256QAM	1	3	18.41	18.52	18.53		
1.4	256QAM	1	5	18.36	18.49	18.62		
1.4	256QAM	3	0	18.42	18.40	18.30		
1.4	256QAM	3	1	18.44	18.54	18.57		
1.4	256QAM	3	3	18.37	18.24	18.25		
1.4	256QAM	6	0	18.65	18.48	18.56	20	1.7



Band 4 Ant2 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.31	21.53	21.26	22.1	0
20	QPSK	1	49	21.48	21.45	21.50		
20	QPSK	1	99	21.30	21.27	21.28		
20	QPSK	50	0	21.05	21.51	21.19		
20	QPSK	50	24	21.28	21.26	21.37		
20	QPSK	50	50	21.27	21.16	21.37		
20	QPSK	100	0	21.06	21.15	20.90		
20	16QAM	1	0	21.09	21.18	21.14	22.1	0
20	16QAM	1	49	21.38	21.13	20.97		
20	16QAM	1	99	21.03	20.96	21.11		
20	16QAM	50	0	21.20	21.00	21.12		
20	16QAM	50	24	20.90	20.96	20.94		
20	16QAM	50	50	21.06	21.18	21.24	22.1	0
20	16QAM	100	0	20.90	21.11	20.96		
20	64QAM	1	0	21.14	21.18	20.98		
20	64QAM	1	49	21.09	21.00	21.23		
20	64QAM	1	99	21.06	21.03	21.09		
20	64QAM	50	0	20.77	20.62	20.48	22	0.1
20	64QAM	50	24	20.68	20.73	20.50		
20	64QAM	50	50	20.28	20.51	20.58		
20	64QAM	100	0	20.59	20.65	20.59		
20	256QAM	1	0	18.48	18.46	18.35	20	2.1
20	256QAM	1	49	18.66	18.43	18.54		
20	256QAM	1	99	18.45	18.44	18.27		
20	256QAM	50	0	18.49	18.52	18.31		
20	256QAM	50	24	18.45	18.59	18.51		
20	256QAM	50	50	18.49	18.56	18.47	20	2.1
20	256QAM	100	0	18.46	18.56	18.46		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.27	21.30	21.06	22.1	0
15	QPSK	1	37	21.38	21.49	21.47		
15	QPSK	1	74	21.14	21.20	21.24		
15	QPSK	36	0	20.90	21.35	21.06		
15	QPSK	36	20	21.22	21.14	21.19		
15	QPSK	36	39	21.26	21.00	21.17	22.1	0
15	QPSK	75	0	21.02	20.96	20.73		
15	16QAM	1	0	20.97	21.18	21.08		
15	16QAM	1	37	21.27	21.08	20.94		
15	16QAM	1	74	21.02	20.87	21.03		
15	16QAM	36	0	21.06	20.82	21.10	22.1	0
15	16QAM	36	20	20.90	20.87	20.85		
15	16QAM	36	39	21.01	21.13	21.17		
15	16QAM	75	0	20.87	20.92	20.80		
15	64QAM	1	0	21.12	21.12	20.80	22.1	0
15	64QAM	1	37	20.99	21.00	21.14		
15	64QAM	1	74	20.96	20.88	21.00		
15	64QAM	36	0	20.65	20.60	20.34		
15	64QAM	36	20	20.51	20.56	20.49		
15	64QAM	36	39	20.43	20.48	20.46	22	0.1



15	64QAM	75	0	20.51	20.59	20.54		
15	256QAM	1	0	18.34	18.38	18.20		
15	256QAM	1	37	18.58	18.40	18.42		
15	256QAM	1	74	18.29	18.32	18.26		
15	256QAM	36	0	18.36	18.48	18.27		
15	256QAM	36	20	18.31	18.58	18.43		
15	256QAM	36	39	18.42	18.37	18.32		
15	256QAM	75	0	18.35	18.54	18.45		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.30	21.29	21.10		
10	QPSK	1	25	21.38	21.36	21.37	22.1	0
10	QPSK	1	49	21.28	21.13	21.27		
10	QPSK	25	0	20.94	21.33	21.10		
10	QPSK	25	12	21.23	21.25	21.35	22.1	0
10	QPSK	25	25	21.19	21.13	21.19		
10	QPSK	50	0	20.92	20.96	20.73		
10	16QAM	1	0	20.97	21.10	21.13		
10	16QAM	1	25	21.33	20.94	20.94	22.1	0
10	16QAM	1	49	20.83	20.94	20.92		
10	16QAM	25	0	21.13	20.84	21.08		
10	16QAM	25	12	20.83	20.88	20.75	22.1	0
10	16QAM	25	25	20.91	21.16	21.11		
10	16QAM	50	0	20.82	21.08	20.91		
10	64QAM	1	0	21.02	21.01	20.98		
10	64QAM	1	25	20.90	20.81	21.14	22.1	0
10	64QAM	1	49	21.04	20.84	21.01		
10	64QAM	25	0	20.74	20.54	20.31		
10	64QAM	25	12	20.53	20.54	20.31	22	0.1
10	64QAM	25	25	20.44	20.34	20.43		
10	64QAM	50	0	20.49	20.54	20.45		
10	256QAM	1	0	18.42	18.34	18.33		
10	256QAM	1	25	18.50	18.25	18.38	20	2.1
10	256QAM	1	49	18.34	18.27	18.21		
10	256QAM	25	0	18.31	18.41	18.29		
10	256QAM	25	12	18.28	18.57	18.49	20	2.1
10	256QAM	25	25	18.38	18.47	18.47		
10	256QAM	50	0	18.44	18.43	18.28		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.15	21.33	21.11		
5	QPSK	1	12	21.37	21.43	21.47	22.1	0
5	QPSK	1	24	21.12	21.12	21.23		
5	QPSK	12	0	21.01	21.43	21.12		
5	QPSK	12	7	21.26	21.14	21.26	22.1	0
5	QPSK	12	13	21.14	21.04	21.33		
5	QPSK	25	0	20.89	20.98	20.81		
5	16QAM	1	0	20.98	21.17	21.09		
5	16QAM	1	12	21.31	20.95	20.96	22.1	0
5	16QAM	1	24	20.91	20.90	20.98		
5	16QAM	12	0	21.03	20.89	21.08		
5	16QAM	12	7	20.85	20.77	20.89	22.1	0
5	16QAM	12	13	20.89	21.10	21.19		
5	16QAM	25	0	20.84	20.98	20.86		
5	64QAM	1	0	20.98	21.08	20.81	22.1	0
5	64QAM	1	12	21.01	20.97	21.18		



5	64QAM	1	24	20.87	20.88	21.05		
5	64QAM	12	0	20.58	20.54	20.36	22	0.1
5	64QAM	12	7	20.61	20.67	20.43		
5	64QAM	12	13	20.35	20.44	20.48		
5	64QAM	25	0	20.50	20.45	20.46		
5	256QAM	1	0	18.37	18.34	18.19		
5	256QAM	1	12	18.57	18.31	18.39	20	2.1
5	256QAM	1	24	18.40	18.32	18.09		
5	256QAM	12	0	18.44	18.39	18.17		
5	256QAM	12	7	18.33	18.51	18.48	20	2.1
5	256QAM	12	13	18.44	18.44	18.46		
5	256QAM	25	0	18.29	18.56	18.44		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.29	21.33	21.19	22.1	0
3	QPSK	1	8	21.42	21.38	21.31		
3	QPSK	1	14	21.13	21.26	21.08		
3	QPSK	8	0	20.93	21.35	21.13		
3	QPSK	8	4	21.12	21.13	21.34		
3	QPSK	8	7	21.09	21.07	21.18		
3	QPSK	15	0	20.88	21.11	20.78	22.1	0
3	16QAM	1	0	20.94	21.09	21.00		
3	16QAM	1	8	21.20	21.03	20.83		
3	16QAM	1	14	21.03	20.92	21.07		
3	16QAM	8	0	21.09	20.91	20.97		
3	16QAM	8	4	20.84	20.90	20.85		
3	16QAM	8	7	20.90	20.98	21.19	22.1	0
3	16QAM	15	0	20.89	21.01	20.84		
3	64QAM	1	0	21.03	21.11	20.87		
3	64QAM	1	8	20.92	21.00	21.15		
3	64QAM	1	14	20.90	20.87	21.05		
3	64QAM	8	0	20.75	20.57	20.34		
3	64QAM	8	4	20.53	20.65	20.32	22	0.1
3	64QAM	8	7	20.34	20.31	20.51		
3	64QAM	15	0	20.43	20.49	20.47		
3	256QAM	1	0	18.34	18.31	18.22		
3	256QAM	1	8	18.49	18.42	18.48		
3	256QAM	1	14	18.37	18.38	18.17		
3	256QAM	8	0	18.34	18.38	18.29	20	2.1
3	256QAM	8	4	18.34	18.40	18.33		
3	256QAM	8	7	18.44	18.55	18.27		
3	256QAM	15	0	18.29	18.53	18.36		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.25	21.44	21.19	22.1	0
1.4	QPSK	1	3	21.31	21.52	21.49		
1.4	QPSK	1	5	21.17	21.13	21.17		
1.4	QPSK	3	0	20.99	21.42	21.08		
1.4	QPSK	3	1	21.18	21.24	21.33		
1.4	QPSK	3	3	21.14	21.09	21.17		
1.4	QPSK	6	0	20.99	20.99	20.75	22.1	0
1.4	16QAM	1	0	21.03	21.00	20.96		
1.4	16QAM	1	3	21.28	21.06	20.79		
1.4	16QAM	1	5	20.95	20.93	21.04		
1.4	16QAM	3	0	21.20	20.90	21.05		
1.4	16QAM	3	1	20.81	20.87	20.80		



1.4	16QAM	3	3	20.89	21.07	21.24		
1.4	16QAM	6	0	20.87	20.93	20.81	22.1	0
1.4	64QAM	1	0	20.97	21.10	20.91		
1.4	64QAM	1	3	21.04	20.88	21.08		
1.4	64QAM	1	5	21.05	20.98	20.93		
1.4	64QAM	3	0	20.60	20.49	20.31		
1.4	64QAM	3	1	20.61	20.55	20.41		
1.4	64QAM	3	3	20.17	20.47	20.42		
1.4	64QAM	6	0	20.52	20.62	20.58	22	0.1
1.4	256QAM	1	0	18.44	18.48	18.49		
1.4	256QAM	1	3	18.68	18.41	18.46		
1.4	256QAM	1	5	18.49	18.49	18.45		
1.4	256QAM	3	0	18.48	18.44	18.43		
1.4	256QAM	3	1	18.45	18.68	18.51		
1.4	256QAM	3	3	18.55	18.48	18.50		
1.4	256QAM	6	0	18.47	18.51	18.58	20	2.1

Band 25 Ant2 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	20.84	21.06	20.91		
20	QPSK	1	49	20.91	20.90	21.04	21.7	0
20	QPSK	1	99	21.01	21.01	20.95		
20	QPSK	50	0	20.72	21.01	20.85		
20	QPSK	50	24	20.85	20.70	20.90	21.7	0
20	QPSK	50	50	20.90	20.74	20.86		
20	QPSK	100	0	20.67	20.77	20.51		
20	16QAM	1	0	20.72	20.68	20.70		
20	16QAM	1	49	20.88	20.70	20.67	21.7	0
20	16QAM	1	99	20.55	20.57	20.53		
20	16QAM	50	0	20.74	20.47	20.58		
20	16QAM	50	24	20.43	20.46	20.52	21.7	0
20	16QAM	50	50	20.68	20.69	20.57		
20	16QAM	100	0	20.55	20.51	20.56		
20	64QAM	1	0	20.64	20.70	20.40		
20	64QAM	1	49	20.74	20.50	20.70	21.7	0
20	64QAM	1	99	20.64	20.46	20.63		
20	64QAM	50	0	20.80	20.72	20.66		
20	64QAM	50	24	20.79	20.69	20.70	21.7	0
20	64QAM	50	50	20.84	20.77	20.74		
20	64QAM	100	0	20.64	20.73	20.78		
20	256QAM	1	0	18.79	18.87	18.82		
20	256QAM	1	49	18.71	18.74	18.78	20	1.7
20	256QAM	1	99	18.61	18.68	18.77		
20	256QAM	50	0	18.64	18.63	18.61		
20	256QAM	50	24	18.60	18.67	18.76	20	1.7
20	256QAM	50	50	18.56	18.53	18.43		
20	256QAM	100	0	18.70	18.70	18.79		
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	20.73	20.89	20.79		
15	QPSK	1	37	20.71	20.82	20.91	21.7	0
15	QPSK	1	74	20.86	20.94	20.92		
15	QPSK	36	0	20.54	21.00	20.80	21.7	0



15	QPSK	36	20	20.82	20.60	20.70		
15	QPSK	36	39	20.89	20.66	20.79		
15	QPSK	75	0	20.66	20.58	20.43	21.7	0
15	16QAM	1	0	20.69	20.54	20.50		
15	16QAM	1	37	20.82	20.54	20.65	21.7	0
15	16QAM	1	74	20.52	20.38	20.49		
15	16QAM	36	0	20.71	20.39	20.56	21.7	0
15	16QAM	36	20	20.26	20.42	20.41		
15	16QAM	36	39	20.65	20.56	20.54	21.7	0
15	16QAM	75	0	20.43	20.32	20.39		
15	64QAM	1	0	20.60	20.61	20.39	21.7	0
15	64QAM	1	37	20.60	20.48	20.57		
15	64QAM	1	74	20.58	20.37	20.52	21.7	0
15	64QAM	36	0	20.61	20.65	20.52		
15	64QAM	36	20	20.64	20.57	20.52	21.7	0
15	64QAM	36	39	20.72	20.63	20.60		
15	64QAM	75	0	20.47	20.65	20.65	20	1.7
15	256QAM	1	0	18.68	18.77	18.73		
15	256QAM	1	37	18.64	18.56	18.60	20	1.7
15	256QAM	1	74	18.55	18.67	18.71		
15	256QAM	36	0	18.45	18.57	18.56	20	1.7
15	256QAM	36	20	18.55	18.47	18.59		
15	256QAM	36	39	18.40	18.41	18.28	20	1.7
15	256QAM	75	0	18.53	18.69	18.64		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	20.73	20.75	20.71	21.7	0
10	QPSK	1	25	20.84	20.79	20.87		
10	QPSK	1	49	20.98	20.84	20.85	21.7	0
10	QPSK	25	0	20.69	20.92	20.82		
10	QPSK	25	12	20.77	20.61	20.78	21.7	0
10	QPSK	25	25	20.74	20.68	20.84		
10	QPSK	50	0	20.54	20.75	20.49	21.7	0
10	16QAM	1	0	20.58	20.66	20.69		
10	16QAM	1	25	20.69	20.67	20.63	21.7	0
10	16QAM	1	49	20.54	20.53	20.53		
10	16QAM	25	0	20.73	20.28	20.40	21.7	0
10	16QAM	25	12	20.35	20.30	20.49		
10	16QAM	25	25	20.61	20.54	20.49	21.7	0
10	16QAM	50	0	20.37	20.48	20.38		
10	64QAM	1	0	20.63	20.65	20.26	21.7	0
10	64QAM	1	25	20.66	20.34	20.51		
10	64QAM	1	49	20.57	20.33	20.54	21.7	0
10	64QAM	25	0	20.61	20.61	20.58		
10	64QAM	25	12	20.62	20.60	20.69	21.7	0
10	64QAM	25	25	20.71	20.68	20.62		
10	64QAM	50	0	20.51	20.53	20.64	20	1.7
10	256QAM	1	0	18.60	18.76	18.67		
10	256QAM	1	25	18.54	18.64	18.59	20	1.7
10	256QAM	1	49	18.56	18.55	18.60		
10	256QAM	25	0	18.48	18.58	18.60	20	1.7
10	256QAM	25	12	18.51	18.58	18.73		
10	256QAM	25	25	18.54	18.42	18.41	20	1.7
10	256QAM	50	0	18.60	18.56	18.74		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		



5	QPSK	1	0	20.67	20.83	20.77		
5	QPSK	1	12	20.79	20.81	21.02		
5	QPSK	1	24	20.97	20.96	20.83		
5	QPSK	12	0	20.60	20.84	20.73		
5	QPSK	12	7	20.78	20.55	20.77		
5	QPSK	12	13	20.75	20.62	20.77		
5	QPSK	25	0	20.65	20.62	20.45		
5	16QAM	1	0	20.65	20.54	20.53		
5	16QAM	1	12	20.73	20.66	20.57		
5	16QAM	1	24	20.44	20.42	20.33		
5	16QAM	12	0	20.54	20.28	20.45		
5	16QAM	12	7	20.30	20.29	20.48		
5	16QAM	12	13	20.53	20.67	20.46		
5	16QAM	25	0	20.43	20.41	20.45		
5	64QAM	1	0	20.44	20.67	20.21		
5	64QAM	1	12	20.61	20.35	20.58		
5	64QAM	1	24	20.46	20.27	20.58		
5	64QAM	12	0	20.80	20.63	20.63		
5	64QAM	12	7	20.70	20.69	20.60		
5	64QAM	12	13	20.84	20.64	20.58		
5	64QAM	25	0	20.54	20.61	20.74		
5	256QAM	1	0	18.59	18.79	18.75		
5	256QAM	1	12	18.53	18.69	18.71		
5	256QAM	1	24	18.58	18.58	18.66		
5	256QAM	12	0	18.54	18.50	18.41		
5	256QAM	12	7	18.43	18.61	18.70		
5	256QAM	12	13	18.50	18.52	18.33		
5	256QAM	25	0	18.65	18.67	18.73		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	20.82	20.79	20.75		
3	QPSK	1	8	20.77	20.87	20.99		
3	QPSK	1	14	20.88	20.88	20.88		
3	QPSK	8	0	20.54	21.01	20.81		
3	QPSK	8	4	20.83	20.60	20.86		
3	QPSK	8	7	20.79	20.69	20.75		
3	QPSK	15	0	20.49	20.60	20.32		
3	16QAM	1	0	20.53	20.56	20.61		
3	16QAM	1	8	20.72	20.65	20.61		
3	16QAM	1	14	20.43	20.49	20.44		
3	16QAM	8	0	20.63	20.35	20.57		
3	16QAM	8	4	20.37	20.39	20.34		
3	16QAM	8	7	20.63	20.57	20.45		
3	16QAM	15	0	20.53	20.41	20.56		
3	64QAM	1	0	20.51	20.53	20.32		
3	64QAM	1	8	20.65	20.48	20.60		
3	64QAM	1	14	20.47	20.28	20.51		
3	64QAM	8	0	20.61	20.64	20.64		
3	64QAM	8	4	20.67	20.57	20.51		
3	64QAM	8	7	20.74	20.70	20.65		
3	64QAM	15	0	20.46	20.62	20.63		
3	256QAM	1	0	18.60	18.77	18.77		
3	256QAM	1	8	18.60	18.59	18.69		
3	256QAM	1	14	18.56	18.51	18.58		
3	256QAM	8	0	18.55	18.53	18.54		
3	256QAM	8	4	18.40	18.56	18.65		



3	256QAM	8	7	18.41	18.40	18.35		
3	256QAM	15	0	18.63	18.50	18.77		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	20.82	20.78	20.81		21.7
1.4	QPSK	1	3	20.72	20.89	21.03		
1.4	QPSK	1	5	20.97	20.91	20.85		
1.4	QPSK	3	0	20.61	20.94	20.83		
1.4	QPSK	3	1	20.69	20.55	20.86		
1.4	QPSK	3	3	20.71	20.67	20.74		
1.4	QPSK	6	0	20.66	20.60	20.43	21.7	0
1.4	16QAM	1	0	20.68	20.59	20.60		
1.4	16QAM	1	3	20.69	20.55	20.62		
1.4	16QAM	1	5	20.42	20.54	20.45		
1.4	16QAM	3	0	20.68	20.31	20.41		
1.4	16QAM	3	1	20.34	20.35	20.39		
1.4	16QAM	3	3	20.56	20.51	20.56		
1.4	16QAM	6	0	20.46	20.43	20.49	21.7	0
1.4	64QAM	1	0	20.58	20.53	20.21		
1.4	64QAM	1	3	20.66	20.37	20.61		
1.4	64QAM	1	5	20.60	20.41	20.54		
1.4	64QAM	3	0	20.65	20.70	20.48		
1.4	64QAM	3	1	20.62	20.60	20.53		
1.4	64QAM	3	3	20.80	20.72	20.60		
1.4	64QAM	6	0	20.64	20.72	20.60	21.7	0
1.4	256QAM	1	0	18.73	18.77	18.65		
1.4	256QAM	1	3	18.51	18.54	18.63		
1.4	256QAM	1	5	18.46	18.54	18.75		
1.4	256QAM	3	0	18.63	18.59	18.42		
1.4	256QAM	3	1	18.45	18.50	18.70		
1.4	256QAM	3	3	18.48	18.37	18.38		
1.4	256QAM	6	0	18.70	18.64	18.67	20	1.7

Band 66 Ant2 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572	22.1	0
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	21.38	21.59	21.32		
20	QPSK	1	49	21.50	21.54	21.52		
20	QPSK	1	99	21.47	21.40	21.45		
20	QPSK	50	0	21.18	21.51	21.33		
20	QPSK	50	24	21.35	21.42	21.42		
20	QPSK	50	50	21.37	21.33	21.38	22.1	0
20	QPSK	100	0	21.12	21.24	21.10		
20	16QAM	1	0	21.23	21.25	21.26		
20	16QAM	1	49	21.42	21.28	21.15	22.1	0
20	16QAM	1	99	21.03	20.99	21.16		
20	16QAM	50	0	21.22	21.08	21.21		
20	16QAM	50	24	21.03	21.01	21.07		
20	16QAM	50	50	21.25	21.28	21.27		
20	16QAM	100	0	21.01	21.11	21.16		
20	64QAM	1	0	21.30	21.21	21.10		
20	64QAM	1	49	21.14	21.10	21.26	22.1	0
20	64QAM	1	99	21.16	21.09	21.15		
20	64QAM	50	0	20.78	20.72	20.66	22	0.1



20	64QAM	50	24	20.79	20.74	20.66		
20	64QAM	50	50	20.42	20.52	20.59		
20	64QAM	100	0	20.62	20.68	20.66		
20	256QAM	1	0	18.49	18.54	18.46	20	2.1
20	256QAM	1	49	18.69	18.61	18.61		
20	256QAM	1	99	18.52	18.44	18.35		
20	256QAM	50	0	18.60	18.53	18.48	20	2.1
20	256QAM	50	24	18.65	18.62	18.70		
20	256QAM	50	50	18.53	18.62	18.64		
20	256QAM	100	0	18.53	18.58	18.54		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.27	21.56	21.30	22.1	0
15	QPSK	1	37	21.41	21.40	21.55		
15	QPSK	1	74	21.44	21.36	21.29		
15	QPSK	36	0	21.06	21.46	21.13	22.1	0
15	QPSK	36	20	21.23	21.22	21.26		
15	QPSK	36	39	21.35	21.16	21.27		
15	QPSK	75	0	20.93	21.12	20.95		
15	16QAM	1	0	21.26	21.16	21.21	22.1	0
15	16QAM	1	37	21.38	21.24	21.15		
15	16QAM	1	74	20.96	20.99	20.98		
15	16QAM	36	0	21.08	20.99	21.04	22.1	0
15	16QAM	36	20	20.97	20.94	20.88		
15	16QAM	36	39	21.22	21.13	21.07		
15	16QAM	75	0	20.83	20.92	21.16		
15	64QAM	1	0	21.15	21.05	20.98	22.1	0
15	64QAM	1	37	21.06	21.06	21.09		
15	64QAM	1	74	21.11	20.98	20.98		
15	64QAM	36	0	20.58	20.67	20.54	22	0.1
15	64QAM	36	20	20.70	20.74	20.47		
15	64QAM	36	39	20.30	20.48	20.59		
15	64QAM	75	0	20.50	20.49	20.53		
15	256QAM	1	0	18.40	18.48	18.29	20	2.1
15	256QAM	1	37	18.57	18.43	18.42		
15	256QAM	1	74	18.35	18.25	18.20		
15	256QAM	36	0	18.56	18.50	18.35	20	2.1
15	256QAM	36	20	18.54	18.47	18.58		
15	256QAM	36	39	18.47	18.60	18.59		
15	256QAM	75	0	18.47	18.41	18.47		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	21.37	21.45	21.39	22.1	0
10	QPSK	1	25	21.34	21.36	21.44		
10	QPSK	1	49	21.31	21.24	21.41		
10	QPSK	25	0	21.06	21.37	21.19	22.1	0
10	QPSK	25	12	21.23	21.40	21.37		
10	QPSK	25	25	21.29	21.31	21.36		
10	QPSK	50	0	21.01	21.21	21.00		
10	16QAM	1	0	21.03	21.17	21.09	22.1	0
10	16QAM	1	25	21.25	21.18	21.08		
10	16QAM	1	49	20.99	20.80	21.10		
10	16QAM	25	0	21.04	20.89	21.06	22.1	0
10	16QAM	25	12	20.97	20.90	20.93		
10	16QAM	25	25	21.06	21.21	21.13		
10	16QAM	50	0	20.97	21.01	21.05		



10	64QAM	1	0	21.28	21.05	21.06	22.1	0
10	64QAM	1	25	21.13	20.92	21.16		
10	64QAM	1	49	21.01	21.05	21.10		
10	64QAM	25	0	20.75	20.70	20.66		
10	64QAM	25	12	20.64	20.63	20.47	22	0.1
10	64QAM	25	25	20.33	20.49	20.46		
10	64QAM	50	0	20.60	20.53	20.54		
10	256QAM	1	0	18.30	18.40	18.27		
10	256QAM	1	25	18.51	18.56	18.56	20	2.1
10	256QAM	1	49	18.36	18.42	18.29		
10	256QAM	25	0	18.41	18.42	18.42		
10	256QAM	25	12	18.54	18.50	18.61		
10	256QAM	25	25	18.42	18.54	18.57	20	2.1
10	256QAM	50	0	18.41	18.53	18.42		
Channel				131997	132322	132647		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	21.20	21.46	21.45	22.1	0
5	QPSK	1	12	21.33	21.42	21.49		
5	QPSK	1	24	21.38	21.35	21.42		
5	QPSK	12	0	21.11	21.48	21.15		
5	QPSK	12	7	21.25	21.34	21.27	22.1	0
5	QPSK	12	13	21.36	21.18	21.33		
5	QPSK	25	0	21.02	21.04	20.97		
5	16QAM	1	0	21.12	21.23	21.22		
5	16QAM	1	12	21.30	21.22	21.11	22.1	0
5	16QAM	1	24	21.02	20.91	20.96		
5	16QAM	12	0	21.18	21.08	21.04		
5	16QAM	12	7	20.89	20.94	20.91		
5	16QAM	12	13	21.16	21.13	21.13	22.1	0
5	16QAM	25	0	20.83	21.09	21.09		
5	64QAM	1	0	21.21	21.15	20.96		
5	64QAM	1	12	21.07	21.05	21.19		
5	64QAM	1	24	21.14	21.00	21.15	22.1	0
5	64QAM	12	0	20.69	20.54	20.56		
5	64QAM	12	7	20.74	20.55	20.63		
5	64QAM	12	13	20.40	20.37	20.46		
5	64QAM	25	0	20.54	20.60	20.54	22.1	0.1
5	256QAM	1	0	18.46	18.37	18.26		
5	256QAM	1	12	18.50	18.46	18.57		
5	256QAM	1	24	18.45	18.32	18.24		
5	256QAM	12	0	18.42	18.35	18.43	20	2.1
5	256QAM	12	7	18.61	18.56	18.59		
5	256QAM	12	13	18.45	18.59	18.58		
5	256QAM	25	0	18.41	18.40	18.53		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	21.26	21.53	21.35	22.1	0
3	QPSK	1	8	21.36	21.47	21.43		
3	QPSK	1	14	21.37	21.24	21.41		
3	QPSK	8	0	21.07	21.41	21.23		
3	QPSK	8	4	21.26	21.31	21.31	22.1	0
3	QPSK	8	7	21.30	21.14	21.29		
3	QPSK	15	0	21.01	21.20	21.06		
3	16QAM	1	0	21.15	21.08	21.07		
3	16QAM	1	8	21.35	21.28	21.01	22.1	0
3	16QAM	1	14	20.98	20.87	21.14		



3	16QAM	8	0	21.15	21.00	21.15	22.1	0
3	16QAM	8	4	20.88	20.83	21.05		
3	16QAM	8	7	21.14	21.16	21.18		
3	16QAM	15	0	20.82	21.03	21.06		
3	64QAM	1	0	21.27	21.06	20.99	22.1	0
3	64QAM	1	8	21.05	21.01	21.16		
3	64QAM	1	14	21.12	21.01	20.98		
3	64QAM	8	0	20.60	20.54	20.56		
3	64QAM	8	4	20.77	20.54	20.47	22	0.1
3	64QAM	8	7	20.34	20.39	20.48		
3	64QAM	15	0	20.57	20.56	20.63		
3	256QAM	1	0	18.41	18.40	18.41		
3	256QAM	1	8	18.55	18.42	18.46	20	2.1
3	256QAM	1	14	18.33	18.24	18.26		
3	256QAM	8	0	18.53	18.53	18.44		
3	256QAM	8	4	18.51	18.59	18.53		
3	256QAM	8	7	18.39	18.55	18.46	20	2.1
3	256QAM	15	0	18.51	18.58	18.47		
Channel				131979	132322	132665		
Frequency (MHz)				1710.7	1745	1779.3	Tune-up limit (dBm)	MPR (dB)
1.4	QPSK	1	0	21.23	21.54	21.47	22.1	0
1.4	QPSK	1	3	21.49	21.38	21.51		
1.4	QPSK	1	5	21.41	21.26	21.36		
1.4	QPSK	3	0	21.00	21.34	21.20		
1.4	QPSK	3	1	21.35	21.25	21.41		
1.4	QPSK	3	3	21.26	21.32	21.19		
1.4	QPSK	6	0	21.01	21.08	21.04		
1.4	16QAM	1	0	21.17	21.23	21.13		
1.4	16QAM	1	3	21.24	21.24	21.04	22.1	0
1.4	16QAM	1	5	20.88	20.97	21.00		
1.4	16QAM	3	0	21.17	21.02	21.21		
1.4	16QAM	3	1	20.99	20.95	20.99		
1.4	16QAM	3	3	21.11	21.20	21.17		
1.4	16QAM	6	0	20.93	21.06	20.98		
1.4	64QAM	1	0	21.12	21.14	21.07	22.1	0
1.4	64QAM	1	3	21.01	20.93	21.22		
1.4	64QAM	1	5	21.02	20.91	20.99		
1.4	64QAM	3	0	20.74	20.54	20.56		
1.4	64QAM	3	1	20.75	20.70	20.59		
1.4	64QAM	3	3	20.34	20.47	20.40		
1.4	64QAM	6	0	20.60	20.65	20.56		
1.4	256QAM	1	0	18.41	18.50	18.52	20	2.1
1.4	256QAM	1	3	18.65	18.49	18.43		
1.4	256QAM	1	5	18.48	18.41	18.49		
1.4	256QAM	3	0	18.50	18.42	18.46		
1.4	256QAM	3	1	18.46	18.50	18.61		
1.4	256QAM	3	3	18.51	18.45	18.52		
1.4	256QAM	6	0	18.41	18.40	18.53		



Band 7 Ant3 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	18.25	18.35	18.27	19.4	0
20	QPSK	1	49	18.31	18.28	18.25		
20	QPSK	1	99	18.27	18.32	18.15		
20	QPSK	50	0	18.16	18.28	18.19		
20	QPSK	50	24	18.20	18.06	18.21		
20	QPSK	50	50	18.22	18.07	18.13		
20	QPSK	100	0	17.89	18.14	17.97		
20	16QAM	1	0	18.07	17.97	18.01		
20	16QAM	1	49	18.03	18.06	18.04		
20	16QAM	1	99	17.80	17.74	17.84		
20	16QAM	50	0	18.03	17.72	17.99	19.4	0
20	16QAM	50	24	17.78	17.81	17.87		
20	16QAM	50	50	18.01	17.92	18.02		
20	16QAM	100	0	17.92	17.85	17.97		
20	64QAM	1	0	18.03	17.89	17.76		
20	64QAM	1	49	17.97	17.81	18.01	19.4	0
20	64QAM	1	99	17.97	17.89	17.94		
20	64QAM	50	0	17.88	17.79	17.80		
20	64QAM	50	24	18.01	18.00	17.94		
20	64QAM	50	50	17.90	17.88	18.01	19.4	0
20	64QAM	100	0	17.87	17.78	17.92		
20	256QAM	1	0	17.89	17.93	17.95		
20	256QAM	1	49	17.78	17.86	17.77		
20	256QAM	1	99	17.97	17.90	17.96		
20	256QAM	50	0	17.85	17.92	17.96	19	0.4
20	256QAM	50	24	17.78	17.84	17.75		
20	256QAM	50	50	17.93	17.91	17.90		
20	256QAM	100	0	17.82	17.92	17.93		
Channel				20825	21100	21375		
Frequency (MHz)				2507.5	2535	2562.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	18.06	18.31	18.21	19.4	0
15	QPSK	1	37	18.17	18.13	18.24		
15	QPSK	1	74	18.11	18.25	18.06		
15	QPSK	36	0	17.97	18.10	17.99		
15	QPSK	36	20	18.12	17.93	18.15		
15	QPSK	36	39	18.19	17.93	17.93	19.4	0
15	QPSK	75	0	17.87	18.12	17.95		
15	16QAM	1	0	18.01	17.78	17.83		
15	16QAM	1	37	18.02	17.91	17.90		
15	16QAM	1	74	17.71	17.56	17.67		
15	16QAM	36	0	17.91	17.52	17.94	19.4	0
15	16QAM	36	20	17.65	17.81	17.73		
15	16QAM	36	39	17.98	17.77	17.98		
15	16QAM	75	0	17.81	17.72	17.80		
15	64QAM	1	0	17.85	17.74	17.58	19.4	0
15	64QAM	1	37	17.92	17.80	17.97		
15	64QAM	1	74	17.87	17.83	17.77		
15	64QAM	36	0	17.80	17.63	17.67		
15	64QAM	36	20	17.81	17.97	17.93		
15	64QAM	36	39	17.71	17.71	17.91	19.4	0



15	64QAM	75	0	17.75	17.70	17.90		
15	256QAM	1	0	17.80	17.91	17.92	19	0.4
15	256QAM	1	37	17.72	17.83	17.67		
15	256QAM	1	74	17.83	17.89	17.92		
15	256QAM	36	0	17.82	17.88	17.79		
15	256QAM	36	20	17.72	17.76	17.75	19	0.4
15	256QAM	36	39	17.80	17.84	17.76		
15	256QAM	75	0	17.67	17.75	17.92		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	18.23	18.31	18.23	19.4	0
10	QPSK	1	25	18.19	18.13	18.26		
10	QPSK	1	49	18.24	18.31	18.08		
10	QPSK	25	0	18.15	18.19	18.05	19.4	0
10	QPSK	25	12	18.13	18.05	18.15		
10	QPSK	25	25	18.10	18.05	17.96		
10	QPSK	50	0	17.70	18.07	17.84		
10	16QAM	1	0	17.98	17.91	17.82	19.4	0
10	16QAM	1	25	17.90	17.88	18.04		
10	16QAM	1	49	17.64	17.62	17.70		
10	16QAM	25	0	17.92	17.63	17.98	19.4	0
10	16QAM	25	12	17.61	17.75	17.72		
10	16QAM	25	25	17.89	17.76	17.96		
10	16QAM	50	0	17.91	17.76	17.93		
10	64QAM	1	0	17.93	17.82	17.62	19.4	0
10	64QAM	1	25	17.96	17.63	17.90		
10	64QAM	1	49	17.93	17.79	17.75		
10	64QAM	25	0	17.81	17.70	17.61	19.4	0
10	64QAM	25	12	17.87	17.89	17.94		
10	64QAM	25	25	17.75	17.84	17.89		
10	64QAM	50	0	17.82	17.71	17.72		
10	256QAM	1	0	17.78	17.89	17.80	19	0.4
10	256QAM	1	25	17.74	17.68	17.58		
10	256QAM	1	49	17.84	17.76	17.78		
10	256QAM	25	0	17.66	17.91	17.77	19	0.4
10	256QAM	25	12	17.66	17.77	17.65		
10	256QAM	25	25	17.80	17.89	17.77		
10	256QAM	50	0	17.70	17.73	17.92		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	18.24	18.26	18.23	19.4	0
5	QPSK	1	12	18.25	18.27	18.25		
5	QPSK	1	24	18.12	18.31	18.04		
5	QPSK	12	0	17.97	18.15	18.06	19.4	0
5	QPSK	12	7	18.12	17.90	18.13		
5	QPSK	12	13	18.03	17.94	18.12		
5	QPSK	25	0	17.86	18.01	17.87		
5	16QAM	1	0	17.95	17.81	17.95	19.4	0
5	16QAM	1	12	17.98	17.95	18.04		
5	16QAM	1	24	17.75	17.64	17.80		
5	16QAM	12	0	17.98	17.71	17.89	19.4	0
5	16QAM	12	7	17.74	17.79	17.72		
5	16QAM	12	13	17.82	17.83	18.00		
5	16QAM	25	0	17.74	17.77	17.91		
5	64QAM	1	0	17.88	17.79	17.73	19.4	0
5	64QAM	1	12	17.97	17.66	17.84		



5	64QAM	1	24	17.96	17.74	17.75		
5	64QAM	12	0	17.87	17.76	17.69		
5	64QAM	12	7	17.85	17.99	17.82		
5	64QAM	12	13	17.81	17.74	17.84		
5	64QAM	25	0	17.79	17.73	17.79		
5	256QAM	1	0	17.79	17.88	17.81		
5	256QAM	1	12	17.63	17.85	17.72		
5	256QAM	1	24	17.97	17.86	17.85		
5	256QAM	12	0	17.73	17.85	17.79		
5	256QAM	12	7	17.77	17.76	17.72		
5	256QAM	12	13	17.93	17.81	17.77		
5	256QAM	25	0	17.68	17.80	17.84		

Band 30 Ant3 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				27710				
Frequency (MHz)				2310				
10	QPSK	1	0		19.51			
10	QPSK	1	25		19.38			
10	QPSK	1	49		19.46			
10	QPSK	25	0		19.46			
10	QPSK	25	12		19.22			
10	QPSK	25	25		19.34			
10	QPSK	50	0		19.17			
10	16QAM	1	0		19.07			
10	16QAM	1	25		19.25			
10	16QAM	1	49		18.87			
10	16QAM	25	0		18.94			
10	16QAM	25	12		19.02			
10	16QAM	25	25		19.20			
10	16QAM	50	0		19.01			
10	64QAM	1	0		19.16			
10	64QAM	1	25		18.94			
10	64QAM	1	49		19.00			
10	64QAM	25	0		19.02			
10	64QAM	25	12		19.01			
10	64QAM	25	25		18.97			
10	64QAM	50	0		19.03			
10	256QAM	1	0		18.56			
10	256QAM	1	25		18.56			
10	256QAM	1	49		18.58			
10	256QAM	25	0		18.50			
10	256QAM	25	12		18.49			
10	256QAM	25	25		18.40			
10	256QAM	50	0		18.55			
Channel				27685	27710	27735	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	0	19.28	19.35	19.12	20.4	0
5	QPSK	1	12	19.28	19.37	19.08		
5	QPSK	1	24	19.33	19.39	19.08		
5	QPSK	12	0	19.29	19.31	19.20	20.4	0
5	QPSK	12	7	18.98	19.09	18.92		
5	QPSK	12	13	19.12	19.33	19.17		
5	QPSK	25	0	19.08	19.08	18.93		
5	16QAM	1	0	19.05	18.99	18.89	20.4	0



5	16QAM	1	12	19.00	19.07	19.04		
5	16QAM	1	24	18.63	18.84	18.62		
5	16QAM	12	0	18.61	18.75	18.73		
5	16QAM	12	7	18.70	18.97	18.93		
5	16QAM	12	13	18.94	19.05	18.86		
5	16QAM	25	0	18.73	18.84	18.83		
5	64QAM	1	0	18.85	19.13	19.06		
5	64QAM	1	12	18.86	18.79	18.68		
5	64QAM	1	24	18.91	18.96	18.84		
5	64QAM	12	0	18.92	18.92	18.78		
5	64QAM	12	7	18.87	18.85	18.81		
5	64QAM	12	13	18.82	18.81	18.90		
5	64QAM	25	0	18.91	19.02	18.72		
5	256QAM	1	0	18.38	18.43	18.41		
5	256QAM	1	12	18.44	18.39	18.46		
5	256QAM	1	24	18.34	18.49	18.38		
5	256QAM	12	0	18.24	18.37	18.36		
5	256QAM	12	7	18.18	18.34	18.25		
5	256QAM	12	13	18.25	18.29	18.23		
5	256QAM	25	0	18.27	18.51	18.24		

Band 2 Ant5 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	22.17	22.35	22.03		
20	QPSK	1	49	22.21	22.30	22.12		
20	QPSK	1	99	22.09	22.19	22.09		
20	QPSK	50	0	21.90	21.93	21.85		
20	QPSK	50	24	21.72	21.84	21.73		
20	QPSK	50	50	21.81	21.84	21.66		
20	QPSK	100	0	21.84	21.90	21.82		
20	16QAM	1	0	21.67	21.82	21.71		
20	16QAM	1	49	21.56	21.73	21.65		
20	16QAM	1	99	21.65	21.68	21.61		
20	16QAM	50	0	21.60	21.65	21.52		
20	16QAM	50	24	21.43	21.56	21.44		
20	16QAM	50	50	21.46	21.54	21.44		
20	16QAM	100	0	21.47	21.54	21.43		
20	64QAM	1	0	21.61	21.77	21.68		
20	64QAM	1	49	21.66	21.75	21.60		
20	64QAM	1	99	21.61	21.71	21.58		
20	64QAM	50	0	20.40	20.54	20.40		
20	64QAM	50	24	20.37	20.51	20.39		
20	64QAM	50	50	20.42	20.52	20.42		
20	64QAM	100	0	20.45	20.55	20.48		
20	256QAM	1	0	18.48	18.64	18.52		
20	256QAM	1	49	18.50	18.57	18.51		
20	256QAM	1	99	18.43	18.56	18.44		
20	256QAM	50	0	18.52	18.58	18.53		
20	256QAM	50	24	18.42	18.54	18.39		
20	256QAM	50	50	18.42	18.51	18.41		
20	256QAM	100	0	18.46	18.61	18.49		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		



Symbol	Modulation	Channel	Frequency (MHz)	Tone			Tune-up limit (dBm)	MPR (dB)
				0	25	50		
15	QPSK	1	0	22.13	22.26	21.97		
15	QPSK	1	37	22.16	22.20	22.00		
15	QPSK	1	74	22.05	22.04	22.03		
15	QPSK	36	0	21.77	21.86	21.72		
15	QPSK	36	20	21.56	21.74	21.69		
15	QPSK	36	39	21.73	21.68	21.59		
15	QPSK	75	0	21.78	21.77	21.70		
15	16QAM	1	0	21.58	21.74	21.58		
15	16QAM	1	37	21.46	21.58	21.54		
15	16QAM	1	74	21.58	21.53	21.47		
15	16QAM	36	0	21.50	21.53	21.40		
15	16QAM	36	20	21.38	21.47	21.31		
15	16QAM	36	39	21.30	21.48	21.36		
15	16QAM	75	0	21.33	21.47	21.33		
15	64QAM	1	0	21.52	21.62	21.54		
15	64QAM	1	37	21.59	21.69	21.55		
15	64QAM	1	74	21.54	21.65	21.42		
15	64QAM	36	0	20.25	20.47	20.33		
15	64QAM	36	20	20.33	20.45	20.24		
15	64QAM	36	39	20.27	20.48	20.34		
15	64QAM	75	0	20.38	20.46	20.36		
15	256QAM	1	0	18.35	18.56	18.37		
15	256QAM	1	37	18.35	18.53	18.36		
15	256QAM	1	74	18.31	18.42	18.31		
15	256QAM	36	0	18.41	18.47	18.41		
15	256QAM	36	20	18.37	18.42	18.23		
15	256QAM	36	39	18.30	18.42	18.26		
15	256QAM	75	0	18.39	18.46	18.35		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	22.06	22.24	21.92		
10	QPSK	1	25	22.12	22.19	22.07		
10	QPSK	1	49	22.00	22.03	21.98		
10	QPSK	25	0	21.82	21.82	21.80		
10	QPSK	25	12	21.64	21.71	21.65		
10	QPSK	25	25	21.67	21.68	21.61		
10	QPSK	50	0	21.72	21.80	21.70		
10	16QAM	1	0	21.61	21.71	21.61		
10	16QAM	1	25	21.47	21.59	21.55		
10	16QAM	1	49	21.52	21.59	21.46		
10	16QAM	25	0	21.50	21.59	21.37		
10	16QAM	25	12	21.28	21.47	21.31		
10	16QAM	25	25	21.35	21.42	21.32		
10	16QAM	50	0	21.36	21.45	21.28		
10	64QAM	1	0	21.53	21.73	21.54		
10	64QAM	1	25	21.62	21.63	21.49		
10	64QAM	1	49	21.45	21.59	21.46		
10	64QAM	25	0	20.30	20.39	20.36		
10	64QAM	25	12	20.33	20.46	20.32		
10	64QAM	25	25	20.27	20.39	20.34		
10	64QAM	50	0	20.38	20.50	20.40		
10	256QAM	1	0	18.38	18.59	18.41		
10	256QAM	1	25	18.45	18.44	18.38		
10	256QAM	1	49	18.36	18.44	18.30		
10	256QAM	25	0	18.46	18.53	18.41		
10	256QAM	25	12	18.37	18.45	18.32		



10	256QAM	25	25	18.30	18.40	18.37		
10	256QAM	50	0	18.30	18.48	18.41		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	22.06	22.23	21.93	23.2	0
5	QPSK	1	12	22.12	22.14	21.99		
5	QPSK	1	24	21.96	22.08	21.98		
5	QPSK	12	0	21.86	21.80	21.75		
5	QPSK	12	7	21.56	21.68	21.64		
5	QPSK	12	13	21.66	21.72	21.53		
5	QPSK	25	0	21.80	21.81	21.72		
5	16QAM	1	0	21.59	21.72	21.56	23.2	0
5	16QAM	1	12	21.49	21.62	21.52		
5	16QAM	1	24	21.58	21.60	21.52		
5	16QAM	12	0	21.47	21.53	21.47		
5	16QAM	12	7	21.39	21.44	21.34		
5	16QAM	12	13	21.37	21.43	21.36	23	0.2
5	16QAM	25	0	21.36	21.44	21.37		
5	64QAM	1	0	21.49	21.70	21.53		
5	64QAM	1	12	21.55	21.60	21.45		
5	64QAM	1	24	21.53	21.58	21.48		
5	64QAM	12	0	20.31	20.39	20.34	22	1.2
5	64QAM	12	7	20.28	20.37	20.27		
5	64QAM	12	13	20.36	20.40	20.29		
5	64QAM	25	0	20.38	20.44	20.41		
5	256QAM	1	0	18.44	18.60	18.36	20	3.2
5	256QAM	1	12	18.42	18.44	18.43		
5	256QAM	1	24	18.28	18.51	18.33		
5	256QAM	12	0	18.37	18.47	18.43		
5	256QAM	12	7	18.28	18.43	18.25		
5	256QAM	12	13	18.31	18.41	18.35	20	3.2
5	256QAM	25	0	18.38	18.52	18.33		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	22.09	22.24	21.94	23.2	0
3	QPSK	1	8	22.15	22.25	21.96		
3	QPSK	1	14	21.94	22.05	21.99		
3	QPSK	8	0	21.77	21.79	21.78		
3	QPSK	8	4	21.56	21.68	21.67		
3	QPSK	8	7	21.73	21.80	21.56		
3	QPSK	15	0	21.72	21.75	21.74		
3	16QAM	1	0	21.52	21.66	21.55	23.2	0
3	16QAM	1	8	21.46	21.61	21.56		
3	16QAM	1	14	21.57	21.54	21.49		
3	16QAM	8	0	21.52	21.59	21.47		
3	16QAM	8	4	21.30	21.40	21.37		
3	16QAM	8	7	21.32	21.46	21.37	23	0.2
3	16QAM	15	0	21.36	21.48	21.37		
3	64QAM	1	0	21.47	21.66	21.63		
3	64QAM	1	8	21.51	21.69	21.54		
3	64QAM	1	14	21.54	21.63	21.53		
3	64QAM	8	0	20.28	20.39	20.34	22	1.2
3	64QAM	8	4	20.31	20.46	20.28		
3	64QAM	8	7	20.37	20.46	20.30		
3	64QAM	15	0	20.33	20.47	20.33		
3	256QAM	1	0	18.39	18.50	18.45	20	3.2



3	256QAM	1	8	18.40	18.46	18.43	20	3.2
3	256QAM	1	14	18.33	18.46	18.36		
3	256QAM	8	0	18.43	18.50	18.45		
3	256QAM	8	4	18.32	18.41	18.30		
3	256QAM	8	7	18.30	18.37	18.35		
3	256QAM	15	0	18.36	18.53	18.42		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	22.03	22.21	21.90	23.2	0
1.4	QPSK	1	3	22.08	22.16	21.99		
1.4	QPSK	1	5	21.96	22.10	22.01		
1.4	QPSK	3	0	22.07	22.30	21.93		
1.4	QPSK	3	1	22.17	22.23	22.01		
1.4	QPSK	3	3	21.95	22.14	21.95		
1.4	QPSK	6	0	21.75	21.81	21.70	23.2	0
1.4	16QAM	1	0	21.53	21.69	21.61	23.2	0
1.4	16QAM	1	3	21.49	21.58	21.56		
1.4	16QAM	1	5	21.52	21.61	21.55		
1.4	16QAM	3	0	22.08	22.22	21.90		
1.4	16QAM	3	1	22.13	22.20	22.03		
1.4	16QAM	3	3	21.98	22.09	22.00		
1.4	16QAM	6	0	21.45	21.55	21.43	23	0.2
1.4	64QAM	1	0	21.34	21.42	21.39	23	0.2
1.4	64QAM	1	3	21.38	21.39	21.29		
1.4	64QAM	1	5	21.33	21.43	21.29		
1.4	64QAM	3	0	21.52	21.63	21.58		
1.4	64QAM	3	1	21.59	21.61	21.46		
1.4	64QAM	3	3	21.49	21.65	21.44		
1.4	64QAM	6	0	20.25	20.50	20.29	22	1.2
1.4	256QAM	1	0	18.32	18.46	18.29	20	3.2
1.4	256QAM	1	3	18.38	18.43	18.37		
1.4	256QAM	1	5	18.40	18.45	18.43		
1.4	256QAM	3	0	18.26	18.44	18.24		
1.4	256QAM	3	1	18.37	18.44	18.37		
1.4	256QAM	3	3	18.41	18.48	18.33		
1.4	256QAM	6	0	18.31	18.51	18.42	20	3.2



Band 4 Ant5 DSI1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.82	22.09	21.64	23	0
20	QPSK	1	49	21.87	21.99	21.73		
20	QPSK	1	99	21.75	21.85	21.70		
20	QPSK	50	0	21.51	21.55	21.54		
20	QPSK	50	24	21.29	21.45	21.30	23	0
20	QPSK	50	50	21.46	21.48	21.34		
20	QPSK	100	0	21.50	21.61	21.45		
20	16QAM	1	0	21.35	21.47	21.30		
20	16QAM	1	49	21.18	21.33	21.35	23	0
20	16QAM	1	99	21.32	21.39	21.28		
20	16QAM	50	0	21.49	21.53	21.45		
20	16QAM	50	24	21.37	21.43	21.35		
20	16QAM	50	50	21.32	21.43	21.35	23	0
20	16QAM	100	0	21.39	21.45	21.38		
20	64QAM	1	0	21.50	21.69	21.61		
20	64QAM	1	49	21.50	21.60	21.56		
20	64QAM	1	99	21.53	21.65	21.43	23	0
20	64QAM	50	0	20.29	20.46	20.27		
20	64QAM	50	24	20.24	20.42	20.29		
20	64QAM	50	50	20.34	20.41	20.35		
20	64QAM	100	0	20.40	20.47	20.42	22	1
20	256QAM	1	0	18.43	18.58	18.36		
20	256QAM	1	49	18.45	18.49	18.41		
20	256QAM	1	99	18.37	18.44	18.38		
20	256QAM	50	0	18.47	18.47	18.39	20	3
20	256QAM	50	24	18.26	18.40	18.25		
20	256QAM	50	50	18.29	18.39	18.28		
20	256QAM	100	0	18.42	18.50	18.41		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.70	21.95	21.49	23	0
15	QPSK	1	37	21.80	21.94	21.68		
15	QPSK	1	74	21.59	21.76	21.64		
15	QPSK	36	0	21.41	21.41	21.40		
15	QPSK	36	20	21.15	21.31	21.16	23	0
15	QPSK	36	39	21.34	21.33	21.28		
15	QPSK	75	0	21.40	21.48	21.37		
15	16QAM	1	0	21.19	21.37	21.16		
15	16QAM	1	37	21.05	21.22	21.29	23	0
15	16QAM	1	74	21.25	21.28	21.17		
15	16QAM	36	0	21.35	21.39	21.29		
15	16QAM	36	20	21.29	21.37	21.20		
15	16QAM	36	39	21.22	21.34	21.27	23	0
15	16QAM	75	0	21.20	21.41	21.17		
15	64QAM	1	0	21.37	21.49	21.46	23	0
15	64QAM	1	37	21.48	21.62	21.45		
15	64QAM	1	74	21.45	21.58	21.37		
15	64QAM	36	0	20.10	20.38	20.26		
15	64QAM	36	20	20.20	20.31	20.13	22	1
15	64QAM	36	39	20.21	20.33	20.18		



15	64QAM	75	0	20.27	20.34	20.27		
15	256QAM	1	0	18.25	18.41	18.22		
15	256QAM	1	37	18.22	18.45	18.30		
15	256QAM	1	74	18.21	18.38	18.19		
15	256QAM	36	0	18.35	18.41	18.34		
15	256QAM	36	20	18.26	18.36	18.09		
15	256QAM	36	39	18.15	18.30	18.21		
15	256QAM	75	0	18.24	18.37	18.31		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.75	21.96	21.52		
10	QPSK	1	25	21.74	21.87	21.69		
10	QPSK	1	49	21.63	21.78	21.61		
10	QPSK	25	0	21.41	21.47	21.42		
10	QPSK	25	12	21.19	21.37	21.22		
10	QPSK	25	25	21.37	21.40	21.19		
10	QPSK	50	0	21.42	21.51	21.36		
10	16QAM	1	0	21.20	21.37	21.24		
10	16QAM	1	25	21.08	21.21	21.26		
10	16QAM	1	49	21.22	21.35	21.16		
10	16QAM	25	0	21.44	21.50	21.22		
10	16QAM	25	12	21.15	21.37	21.26		
10	16QAM	25	25	21.22	21.33	21.26		
10	16QAM	50	0	21.28	21.37	21.19		
10	64QAM	1	0	21.39	21.58	21.46		
10	64QAM	1	25	21.57	21.54	21.34		
10	64QAM	1	49	21.36	21.48	21.40		
10	64QAM	25	0	20.16	20.24	20.22		
10	64QAM	25	12	20.21	20.30	20.22		
10	64QAM	25	25	20.14	20.24	20.25		
10	64QAM	50	0	20.29	20.34	20.29		
10	256QAM	1	0	18.29	18.44	18.26		
10	256QAM	1	25	18.40	18.31	18.23		
10	256QAM	1	49	18.31	18.37	18.19		
10	256QAM	25	0	18.34	18.46	18.32		
10	256QAM	25	12	18.29	18.34	18.19		
10	256QAM	25	25	18.22	18.32	18.22		
10	256QAM	50	0	18.24	18.37	18.34		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.75	21.97	21.52		
5	QPSK	1	12	21.72	21.93	21.64		
5	QPSK	1	24	21.60	21.70	21.56		
5	QPSK	12	0	21.37	21.42	21.43		
5	QPSK	12	7	21.22	21.37	21.22		
5	QPSK	12	13	21.38	21.42	21.29		
5	QPSK	25	0	21.34	21.55	21.41		
5	16QAM	1	0	21.27	21.34	21.21		
5	16QAM	1	12	21.07	21.19	21.25		
5	16QAM	1	24	21.22	21.34	21.16		
5	16QAM	12	0	21.36	21.48	21.35		
5	16QAM	12	7	21.26	21.36	21.28		
5	16QAM	12	13	21.32	21.37	21.25		
5	16QAM	25	0	21.23	21.32	21.24		
5	64QAM	1	0	21.41	21.55	21.40		
5	64QAM	1	12	21.45	21.54	21.40		



5	64QAM	1	24	21.39	21.42	21.34		
5	64QAM	12	0	20.16	20.27	20.25		
5	64QAM	12	7	20.22	20.30	20.21		
5	64QAM	12	13	20.28	20.26	20.13		
5	64QAM	25	0	20.29	20.38	20.35		
5	256QAM	1	0	18.34	18.55	18.25		
5	256QAM	1	12	18.34	18.29	18.29		
5	256QAM	1	24	18.24	18.45	18.21		
5	256QAM	12	0	18.28	18.32	18.32		
5	256QAM	12	7	18.22	18.32	18.12		
5	256QAM	12	13	18.24	18.27	18.20		
5	256QAM	25	0	18.23	18.46	18.17		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.77	22.03	21.55	23	0
3	QPSK	1	8	21.78	21.83	21.68		
3	QPSK	1	14	21.64	21.69	21.59		
3	QPSK	8	0	21.37	21.51	21.44	23	0
3	QPSK	8	4	21.16	21.38	21.18		
3	QPSK	8	7	21.34	21.43	21.26		
3	QPSK	15	0	21.43	21.56	21.37		
3	16QAM	1	0	21.21	21.35	21.20	23	0
3	16QAM	1	8	21.05	21.23	21.24		
3	16QAM	1	14	21.18	21.23	21.18		
3	16QAM	8	0	21.46	21.43	21.43	23	0
3	16QAM	8	4	21.19	21.26	21.25		
3	16QAM	8	7	21.23	21.40	21.28		
3	16QAM	15	0	21.21	21.34	21.32		
3	64QAM	1	0	21.40	21.59	21.55	23	0
3	64QAM	1	8	21.39	21.56	21.48		
3	64QAM	1	14	21.43	21.53	21.46		
3	64QAM	8	0	20.15	20.32	20.22	22	1
3	64QAM	8	4	20.22	20.32	20.15		
3	64QAM	8	7	20.27	20.38	20.19		
3	64QAM	15	0	20.23	20.33	20.23	20	3
3	256QAM	1	0	18.33	18.35	18.33		
3	256QAM	1	8	18.27	18.36	18.33		
3	256QAM	1	14	18.25	18.34	18.24	20	3
3	256QAM	8	0	18.38	18.41	18.35		
3	256QAM	8	4	18.25	18.36	18.25		
3	256QAM	8	7	18.23	18.24	18.31	20	3
3	256QAM	15	0	18.23	18.48	18.31		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.68	22.03	21.60	23	0
1.4	QPSK	1	3	21.72	21.88	21.64		
1.4	QPSK	1	5	21.69	21.81	21.65		
1.4	QPSK	3	0	21.72	21.95	21.53		
1.4	QPSK	3	1	21.73	21.89	21.67		
1.4	QPSK	3	3	21.64	21.71	21.61		
1.4	QPSK	6	0	21.42	21.44	21.43	23	0
1.4	16QAM	1	0	21.22	21.29	21.19	23	0
1.4	16QAM	1	3	21.40	21.42	21.28		
1.4	16QAM	1	5	21.39	21.48	21.31		
1.4	16QAM	3	0	21.27	21.42	21.16		
1.4	16QAM	3	1	21.07	21.24	21.23		



1.4	16QAM	3	3	21.20	21.32	21.16		
1.4	16QAM	6	0	21.41	21.44	21.39	22.8	0.2
1.4	64QAM	1	0	21.23	21.30	21.31		
1.4	64QAM	1	3	21.33	21.24	21.21		
1.4	64QAM	1	5	21.26	21.33	21.16	22.8	0.2
1.4	64QAM	3	0	21.45	21.54	21.51		
1.4	64QAM	3	1	21.46	21.47	21.41		
1.4	64QAM	3	3	21.37	21.58	21.32		
1.4	64QAM	6	0	20.18	20.44	20.25	21.8	1.2
1.4	256QAM	1	0	18.27	18.35	18.18		
1.4	256QAM	1	3	18.23	18.35	18.26		
1.4	256QAM	1	5	18.32	18.34	18.37	19.8	3.2
1.4	256QAM	3	0	18.14	18.32	18.15		
1.4	256QAM	3	1	18.30	18.36	18.26		
1.4	256QAM	3	3	18.32	18.38	18.20		
1.4	256QAM	6	0	18.19	18.40	18.37	19.8	3.2

Band 66 Ant5 DS1								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	21.93	22.15	21.78		
20	QPSK	1	49	21.98	22.05	21.87	23	0
20	QPSK	1	99	21.80	21.97	21.79		
20	QPSK	50	0	21.60	21.65	21.59		
20	QPSK	50	24	21.43	21.57	21.46	23	0
20	QPSK	50	50	21.54	21.55	21.42		
20	QPSK	100	0	21.64	21.67	21.59		
20	16QAM	1	0	21.47	21.55	21.44		
20	16QAM	1	49	21.31	21.47	21.39	23	0
20	16QAM	1	99	21.41	21.45	21.32		
20	16QAM	50	0	21.38	21.38	21.37		
20	16QAM	50	24	21.28	21.36	21.24	23	0
20	16QAM	50	50	21.18	21.31	21.20		
20	16QAM	100	0	21.29	21.38	21.26		
20	64QAM	1	0	21.43	21.54	21.50		
20	64QAM	1	49	21.46	21.49	21.41	23	0
20	64QAM	1	99	21.43	21.61	21.29		
20	64QAM	50	0	20.19	20.33	20.17		
20	64QAM	50	24	20.10	20.31	20.25	22	1
20	64QAM	50	50	20.29	20.33	20.21		
20	64QAM	100	0	20.32	20.42	20.37		
20	256QAM	1	0	18.38	18.42	18.30		
20	256QAM	1	49	18.39	18.43	18.34	20	3
20	256QAM	1	99	18.30	18.31	18.23		
20	256QAM	50	0	18.34	18.32	18.27		
20	256QAM	50	24	18.14	18.35	18.14	20	3
20	256QAM	50	50	18.19	18.26	18.21		
20	256QAM	100	0	18.37	18.36	18.29		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	21.79	22.09	21.70		
15	QPSK	1	37	21.90	21.99	21.78	23	0
15	QPSK	1	74	21.75	21.82	21.69		
15	QPSK	36	0	21.45	21.51	21.43	23	0



15	QPSK	36	20	21.30	21.42	21.35		
15	QPSK	36	39	21.45	21.42	21.34		
15	QPSK	75	0	21.49	21.57	21.44	23	0
15	16QAM	1	0	21.42	21.42	21.40		
15	16QAM	1	37	21.25	21.33	21.28	23	0
15	16QAM	1	74	21.34	21.39	21.21		
15	16QAM	36	0	21.22	21.33	21.24	23	0
15	16QAM	36	20	21.20	21.33	21.14		
15	16QAM	36	39	21.11	21.21	21.17	23	0
15	16QAM	75	0	21.14	21.28	21.02		
15	64QAM	1	0	21.24	21.34	21.35	23	0
15	64QAM	1	37	21.32	21.51	21.37		
15	64QAM	1	74	21.36	21.51	21.22	23	0
15	64QAM	36	0	20.15	20.22	20.18		
15	64QAM	36	20	20.14	20.21	20.03	22	1
15	64QAM	36	39	20.09	20.28	20.14		
15	64QAM	75	0	20.15	20.20	20.15	20	3
15	256QAM	1	0	18.12	18.35	18.11		
15	256QAM	1	37	18.14	18.33	18.21	20	3
15	256QAM	1	74	18.15	18.30	18.04		
15	256QAM	36	0	18.28	18.28	18.21	20	3
15	256QAM	36	20	18.15	18.29	18.29		
15	256QAM	36	39	18.06	18.25	18.07	20	3
15	256QAM	75	0	18.19	18.32	18.26		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	21.83	22.06	21.72	23	0
10	QPSK	1	25	21.91	21.98	21.75		
10	QPSK	1	49	21.75	21.85	21.66	23	0
10	QPSK	25	0	21.53	21.51	21.47		
10	QPSK	25	12	21.31	21.43	21.42	23	0
10	QPSK	25	25	21.42	21.48	21.32		
10	QPSK	50	0	21.50	21.55	21.50	23	0
10	16QAM	1	0	21.38	21.45	21.34		
10	16QAM	1	25	21.18	21.40	21.24	23	0
10	16QAM	1	49	21.34	21.32	21.19		
10	16QAM	25	0	21.34	21.34	21.08	23	0
10	16QAM	25	12	21.00	21.27	21.20		
10	16QAM	25	25	21.11	21.20	21.17	23	0
10	16QAM	50	0	21.21	21.33	21.05		
10	64QAM	1	0	21.26	21.53	21.38	23	0
10	64QAM	1	25	21.51	21.41	21.21		
10	64QAM	1	49	21.29	21.36	21.26	23	0
10	64QAM	25	0	20.03	20.09	20.07		
10	64QAM	25	12	20.11	20.17	20.14	22	1
10	64QAM	25	25	20.00	20.20	20.17		
10	64QAM	50	0	20.17	20.22	20.18	20	3
10	256QAM	1	0	18.18	18.40	18.13		
10	256QAM	1	25	18.30	18.18	18.10	20	3
10	256QAM	1	49	18.18	18.28	18.07		
10	256QAM	25	0	18.24	18.34	18.22	20	3
10	256QAM	25	12	18.14	18.27	18.04		
10	256QAM	25	25	18.14	18.25	18.11	20	3
10	256QAM	50	0	18.14	18.21	18.26		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		



5	QPSK	1	0	21.86	22.09	21.67		
5	QPSK	1	12	21.86	21.92	21.77		
5	QPSK	1	24	21.67	21.89	21.71		
5	QPSK	12	0	21.52	21.57	21.46		
5	QPSK	12	7	21.29	21.47	21.30		
5	QPSK	12	13	21.46	21.42	21.35		
5	QPSK	25	0	21.57	21.55	21.45		
5	16QAM	1	0	21.40	21.50	21.32		
5	16QAM	1	12	21.20	21.43	21.28		
5	16QAM	1	24	21.35	21.34	21.26		
5	16QAM	12	0	21.26	21.34	21.23		
5	16QAM	12	7	21.14	21.28	21.18		
5	16QAM	12	13	21.18	21.31	21.10		
5	16QAM	25	0	21.17	21.23	21.14		
5	64QAM	1	0	21.37	21.51	21.34		
5	64QAM	1	12	21.35	21.46	21.30		
5	64QAM	1	24	21.30	21.26	21.30		
5	64QAM	12	0	20.07	20.16	20.21		
5	64QAM	12	7	20.12	20.23	20.07		
5	64QAM	12	13	20.17	20.14	20.05		
5	64QAM	25	0	20.17	20.22	20.25		
5	256QAM	1	0	18.22	18.40	18.19		
5	256QAM	1	12	18.26	18.21	18.19		
5	256QAM	1	24	18.17	18.41	18.08		
5	256QAM	12	0	18.18	18.17	18.25		
5	256QAM	12	7	18.14	18.28	18.01		
5	256QAM	12	13	18.14	18.18	18.07		
5	256QAM	25	0	18.11	18.41	18.11		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	21.82	22.05	21.70		
3	QPSK	1	8	21.84	21.92	21.76		
3	QPSK	1	14	21.73	21.90	21.66		
3	QPSK	8	0	21.53	21.54	21.50		
3	QPSK	8	4	21.28	21.51	21.30		
3	QPSK	8	7	21.42	21.43	21.31		
3	QPSK	15	0	21.55	21.55	21.48		
3	16QAM	1	0	21.42	21.40	21.30		
3	16QAM	1	8	21.21	21.42	21.23		
3	16QAM	1	14	21.32	21.38	21.21		
3	16QAM	8	0	21.36	21.30	21.38		
3	16QAM	8	4	21.03	21.21	21.12		
3	16QAM	8	7	21.18	21.29	21.24		
3	16QAM	15	0	21.12	21.28	21.26		
3	64QAM	1	0	21.36	21.45	21.43		
3	64QAM	1	8	21.25	21.45	21.36		
3	64QAM	1	14	21.36	21.43	21.30		
3	64QAM	8	0	20.01	20.23	20.10		
3	64QAM	8	4	20.16	20.24	20.06		
3	64QAM	8	7	20.19	20.25	20.13		
3	64QAM	15	0	20.08	20.19	20.17		
3	256QAM	1	0	18.20	18.28	18.25		
3	256QAM	1	8	18.11	18.22	18.22		
3	256QAM	1	14	18.18	18.24	18.12		
3	256QAM	8	0	18.27	18.29	18.20		
3	256QAM	8	4	18.15	18.22	18.12		



3	256QAM	8	7	18.15	18.09	18.24		
3	256QAM	15	0	18.12	18.36	18.16		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	21.81	22.02	21.65	23	0
1.4	QPSK	1	3	21.90	21.90	21.77		
1.4	QPSK	1	5	21.70	21.90	21.66		
1.4	QPSK	3	0	21.45	21.53	21.44		
1.4	QPSK	3	1	21.37	21.42	21.41		
1.4	QPSK	3	3	21.47	21.45	21.36		
1.4	QPSK	6	0	21.59	21.55	21.47		
1.4	16QAM	1	0	21.35	21.47	21.29	23	0
1.4	16QAM	1	3	21.27	21.34	21.31		
1.4	16QAM	1	5	21.33	21.29	21.16		
1.4	16QAM	3	0	21.38	21.42	21.31		
1.4	16QAM	3	1	21.19	21.43	21.35		
1.4	16QAM	3	3	21.27	21.34	21.26		
1.4	16QAM	6	0	21.55	21.51	21.46		
1.4	64QAM	1	0	21.12	21.15	21.25	22.8	0.2
1.4	64QAM	1	3	21.18	21.09	21.10		
1.4	64QAM	1	5	21.14	21.19	21.01		
1.4	64QAM	3	0	21.30	21.40	21.38		
1.4	64QAM	3	1	21.36	21.42	21.35		
1.4	64QAM	3	3	21.33	21.46	21.22		
1.4	64QAM	6	0	20.08	20.39	20.18		
1.4	256QAM	1	0	18.11	18.19	18.08	19.8	3.2
1.4	256QAM	1	3	18.11	18.23	18.19		
1.4	256QAM	1	5	18.25	18.19	18.26		
1.4	256QAM	3	0	18.00	18.25	18.01		
1.4	256QAM	3	1	18.21	18.24	18.18		
1.4	256QAM	3	3	18.24	18.29	18.08		
1.4	256QAM	6	0	18.14	18.28	18.22		

**Reduced Power Mode for DS1 2**

Band 5 Ant0 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600	22.4	0
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	20.90	21.01	20.81		
10	QPSK	1	25	20.90	20.85	20.93	22.4	0
10	QPSK	1	49	20.86	20.84	20.97		
10	QPSK	25	0	20.92	20.96	20.88		
10	QPSK	25	12	20.73	20.73	20.61	22.4	0
10	QPSK	25	25	20.89	20.84	20.78		
10	QPSK	50	0	20.95	21.00	20.85		
10	16QAM	1	0	20.89	20.89	20.99	22.4	0
10	16QAM	1	25	20.89	20.96	20.74		
10	16QAM	1	49	20.93	20.85	20.99		
10	16QAM	25	0	20.89	20.82	20.86	22.4	0
10	16QAM	25	12	20.65	20.72	20.70		
10	16QAM	25	25	20.88	20.84	20.75		
10	16QAM	50	0	20.78	20.71	20.63	22.4	0
10	64QAM	1	0	20.98	20.84	20.85		
10	64QAM	1	25	21.00	20.97	20.99		
10	64QAM	1	49	20.75	20.97	20.83	22.4	0
10	64QAM	25	0	20.87	20.88	20.81		
10	64QAM	25	12	20.85	20.84	20.86		
10	64QAM	25	25	20.78	20.68	20.87	22	0.4
10	64QAM	50	0	20.77	20.75	20.86		
10	256QAM	1	0	18.58	18.60	18.50		
10	256QAM	1	25	18.35	18.52	18.54	20	2.4
10	256QAM	1	49	18.43	18.46	18.51		
10	256QAM	25	0	18.69	18.64	18.59		
10	256QAM	25	12	18.57	18.65	18.66	20	2.4
10	256QAM	25	25	18.55	18.55	18.71		
10	256QAM	50	0	18.50	18.54	18.53		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	20.83	20.90	20.70		
5	QPSK	1	12	20.74	20.77	20.78	22.4	0
5	QPSK	1	24	20.75	20.72	20.88		
5	QPSK	12	0	20.76	20.85	20.73		
5	QPSK	12	7	20.60	20.63	20.54	22.4	0
5	QPSK	12	13	20.77	20.71	20.71		
5	QPSK	25	0	20.87	20.92	20.69		
5	16QAM	1	0	20.78	20.77	20.88	22.4	0
5	16QAM	1	12	20.75	20.86	20.60		
5	16QAM	1	24	20.79	20.75	20.84		
5	16QAM	12	0	20.75	20.68	20.78	22.4	0



5	16QAM	12	7	20.54	20.62	20.63		
5	16QAM	12	13	20.80	20.74	20.59		
5	16QAM	25	0	20.70	20.67	20.56		
5	64QAM	1	0	20.88	20.78	20.71		
5	64QAM	1	12	20.85	20.84	20.87	22.4	0
5	64QAM	1	24	20.67	20.87	20.76		
5	64QAM	12	0	20.72	20.81	20.76		
5	64QAM	12	7	20.72	20.79	20.74	22	0.4
5	64QAM	12	13	20.71	20.61	20.80		
5	64QAM	25	0	20.69	20.61	20.80		
5	256QAM	1	0	18.47	18.46	18.38		
5	256QAM	1	12	18.21	18.36	18.45	20	2.4
5	256QAM	1	24	18.29	18.33	18.42		
5	256QAM	12	0	18.63	18.49	18.50		
5	256QAM	12	7	18.49	18.59	18.55		
5	256QAM	12	13	18.40	18.50	18.60	20	2.4
5	256QAM	25	0	18.43	18.50	18.44		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	20.77	20.87	20.76		
3	QPSK	1	8	20.77	20.76	20.85	22.4	0
3	QPSK	1	14	20.74	20.69	20.92		
3	QPSK	8	0	20.79	20.81	20.76		
3	QPSK	8	4	20.68	20.68	20.49	22.4	0
3	QPSK	8	7	20.80	20.75	20.70		
3	QPSK	15	0	20.81	20.85	20.81		
3	16QAM	1	0	20.82	20.80	20.84		
3	16QAM	1	8	20.85	20.91	20.63	22.4	0
3	16QAM	1	14	20.82	20.70	20.93		
3	16QAM	8	0	20.73	20.75	20.73		
3	16QAM	8	4	20.51	20.63	20.59	22.4	0
3	16QAM	8	7	20.74	20.73	20.62		
3	16QAM	15	0	20.63	20.65	20.59		
3	64QAM	1	0	20.88	20.73	20.70		
3	64QAM	1	8	20.89	20.87	20.90	22.4	0
3	64QAM	1	14	20.71	20.88	20.74		
3	64QAM	8	0	20.81	20.73	20.77		
3	64QAM	8	4	20.70	20.76	20.71	22	0.4
3	64QAM	8	7	20.64	20.53	20.73		
3	64QAM	15	0	20.66	20.68	20.80		
3	256QAM	1	0	18.51	18.52	18.36		
3	256QAM	1	8	18.26	18.44	18.45	20	2.4
3	256QAM	1	14	18.35	18.32	18.42		
3	256QAM	8	0	18.64	18.49	18.45		
3	256QAM	8	4	18.43	18.60	18.54	20	2.4
3	256QAM	8	7	18.45	18.47	18.56		
3	256QAM	15	0	18.37	18.49	18.38		



Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	20.83	20.87	20.68	22.4	0
1.4	QPSK	1	3	20.85	20.78	20.86		
1.4	QPSK	1	5	20.77	20.74	20.91		
1.4	QPSK	3	0	20.81	20.91	20.72		
1.4	QPSK	3	1	20.62	20.59	20.56		
1.4	QPSK	3	3	20.80	20.74	20.62		
1.4	QPSK	6	0	20.80	20.87	20.79		
1.4	16QAM	1	0	20.81	20.75	20.93		
1.4	16QAM	1	3	20.79	20.87	20.66		
1.4	16QAM	1	5	20.88	20.74	20.89		
1.4	16QAM	3	0	20.82	20.75	20.78	22.4	0
1.4	16QAM	3	1	20.54	20.66	20.54		
1.4	16QAM	3	3	20.83	20.79	20.68		
1.4	16QAM	6	0	20.70	20.56	20.52		
1.4	64QAM	1	0	20.89	20.78	20.79		
1.4	64QAM	1	3	20.88	20.84	20.94		
1.4	64QAM	1	5	20.65	20.90	20.68		
1.4	64QAM	3	0	20.79	20.75	20.66		
1.4	64QAM	3	1	20.70	20.78	20.77		
1.4	64QAM	3	3	20.65	20.55	20.73		
1.4	64QAM	6	0	20.64	20.62	20.80	22	0.4
1.4	256QAM	1	0	18.51	18.47	18.40	20	2.4
1.4	256QAM	1	3	18.21	18.48	18.41		
1.4	256QAM	1	5	18.36	18.35	18.38		
1.4	256QAM	3	0	18.59	18.52	18.53		
1.4	256QAM	3	1	18.49	18.49	18.51		
1.4	256QAM	3	3	18.45	18.49	18.61		
1.4	256QAM	6	0	18.45	18.48	18.44		

Band 12 Ant0 DSI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23060	23095	23130		
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	21.70	21.77	21.70	22.7	0
10	QPSK	1	25	21.67	21.65	21.76		
10	QPSK	1	49	21.68	21.70	21.72		
10	QPSK	25	0	21.66	21.72	21.69		
10	QPSK	25	12	21.55	21.55	21.40		
10	QPSK	25	25	21.67	21.57	21.63		
10	QPSK	50	0	21.63	21.74	21.71		
10	16QAM	1	0	21.68	21.73	21.66		
10	16QAM	1	25	21.65	21.66	21.66		
10	16QAM	1	49	21.74	21.65	21.76		
10	16QAM	25	0	21.65	21.61	21.62	22.7	0
10	16QAM	25	12	21.44	21.48	21.48		
10	16QAM	25	25	21.68	21.59	21.56		
10	16QAM	50	0	21.49	21.46	21.47		



10	64QAM	1	0	21.70	21.72	21.63	22.7	0
10	64QAM	1	25	21.75	21.68	21.71		
10	64QAM	1	49	21.58	21.68	21.61		
10	64QAM	25	0	20.72	20.74	20.83		
10	64QAM	25	12	20.78	20.73	20.66	22	0.7
10	64QAM	25	25	20.84	20.85	20.91		
10	64QAM	50	0	20.80	20.79	20.79		
10	256QAM	1	0	19.41	19.34	19.38		
10	256QAM	1	25	19.20	19.29	19.32	20	2.7
10	256QAM	1	49	19.41	19.40	19.31		
10	256QAM	25	0	18.88	18.94	19.00		
10	256QAM	25	12	18.90	18.85	18.75		
10	256QAM	25	25	18.97	18.87	18.94	20	2.7
10	256QAM	50	0	18.82	18.87	18.95		
Channel				23035	23095	23155	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	21.75	21.62	21.58	22.7	0
5	QPSK	1	12	21.59	21.59	21.64		
5	QPSK	1	24	21.62	21.65	21.62	22.7	0
5	QPSK	12	0	21.62	21.61	21.64		
5	QPSK	12	7	21.40	21.39	21.29	22.7	0
5	QPSK	12	13	21.59	21.52	21.47		
5	QPSK	25	0	21.56	21.66	21.60		
5	16QAM	1	0	21.65	21.68	21.69	22.7	0
5	16QAM	1	12	21.57	21.60	21.55		
5	16QAM	1	24	21.59	21.60	21.67		
5	16QAM	12	0	21.59	21.46	21.57		
5	16QAM	12	7	21.38	21.42	21.37	22.7	0
5	16QAM	12	13	21.60	21.54	21.44		
5	16QAM	25	0	21.42	21.31	21.35		
5	64QAM	1	0	21.56	21.60	21.58	22.7	0
5	64QAM	1	12	21.61	21.53	21.64		
5	64QAM	1	24	21.43	21.63	21.56		
5	64QAM	12	0	20.66	20.58	20.68		
5	64QAM	12	7	20.66	20.57	20.61	22	0.7
5	64QAM	12	13	20.66	20.82	20.75		
5	64QAM	25	0	20.65	20.76	20.66		
5	256QAM	1	0	19.31	19.19	19.21	20	2.7
5	256QAM	1	12	19.13	19.15	19.27		
5	256QAM	1	24	19.32	19.24	19.24		
5	256QAM	12	0	18.82	18.84	18.96		
5	256QAM	12	7	18.77	18.78	18.59	20	2.7
5	256QAM	12	13	18.92	18.81	18.86		
5	256QAM	25	0	18.66	18.73	18.77		
Channel				23025	23095	23165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	21.68	21.69	21.57	22.7	0
3	QPSK	1	8	21.61	21.61	21.64		
3	QPSK	1	14	21.53	21.61	21.66	22.7	0
3	QPSK	8	0	21.62	21.59	21.55		
3	QPSK	8	4	21.41	21.48	21.31	22.7	0
3	QPSK	8	7	21.52	21.52	21.47		
3	QPSK	15	0	21.48	21.70	21.63	22.7	0
3	16QAM	1	0	21.71	21.64	21.69		
3	16QAM	1	8	21.61	21.53	21.61		
3	16QAM	1	14	21.65	21.53	21.69		



3	16QAM	8	0	21.60	21.48	21.55	22.7	0
3	16QAM	8	4	21.35	21.37	21.35		
3	16QAM	8	7	21.56	21.54	21.44		
3	16QAM	15	0	21.39	21.41	21.37		
3	64QAM	1	0	21.62	21.62	21.57	22.7	0
3	64QAM	1	8	21.60	21.61	21.59		
3	64QAM	1	14	21.45	21.58	21.56		
3	64QAM	8	0	20.67	20.61	20.66		
3	64QAM	8	4	20.62	20.58	20.55	22	0.7
3	64QAM	8	7	20.75	20.79	20.76		
3	64QAM	15	0	20.76	20.68	20.63		
3	256QAM	1	0	19.31	19.29	19.34		
3	256QAM	1	8	19.10	19.17	19.16	20	2.7
3	256QAM	1	14	19.38	19.23	19.13		
3	256QAM	8	0	18.80	18.90	18.95		
3	256QAM	8	4	18.88	18.69	18.71		
3	256QAM	8	7	18.82	18.84	18.87	20	2.7
3	256QAM	15	0	18.77	18.76	18.85		
Channel				23017	23095	23173		
Frequency (MHz)				699.7	707.5	715.3	Tune-up limit (dBm)	MPR (dB)
1.4	QPSK	1	0	21.74	21.69	21.59	22.7	0
1.4	QPSK	1	3	21.62	21.55	21.62		
1.4	QPSK	1	5	21.58	21.63	21.66		
1.4	QPSK	3	0	21.56	21.68	21.54		
1.4	QPSK	3	1	21.43	21.48	21.31		
1.4	QPSK	3	3	21.52	21.51	21.55		
1.4	QPSK	6	0	21.52	21.59	21.61		
1.4	16QAM	1	0	21.74	21.59	21.70	22.7	0
1.4	16QAM	1	3	21.50	21.58	21.51		
1.4	16QAM	1	5	21.70	21.58	21.64		
1.4	16QAM	3	0	21.49	21.53	21.52		
1.4	16QAM	3	1	21.31	21.37	21.39		
1.4	16QAM	3	3	21.58	21.53	21.48		
1.4	16QAM	6	0	21.39	21.38	21.38		
1.4	64QAM	1	0	21.66	21.61	21.59	22.7	0
1.4	64QAM	1	3	21.69	21.56	21.59		
1.4	64QAM	1	5	21.43	21.59	21.53		
1.4	64QAM	3	0	21.56	21.56	21.52		
1.4	64QAM	3	1	21.61	21.64	21.66		
1.4	64QAM	3	3	21.47	21.60	21.48		
1.4	64QAM	6	0	20.57	20.58	20.77		
1.4	256QAM	1	0	19.31	19.21	19.21	20	2.7
1.4	256QAM	1	3	19.11	19.18	19.27		
1.4	256QAM	1	5	19.23	19.33	19.18		
1.4	256QAM	3	0	18.70	18.85	18.97		
1.4	256QAM	3	1	18.81	18.67	18.73		
1.4	256QAM	3	3	18.82	18.84	18.88		
1.4	256QAM	6	0	18.65	18.73	18.77		



Band 13 Ant0 DS12									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				23230				22.4	
Frequency (MHz)				782					
10	QPSK	1	0		21.20				
10	QPSK	1	25		21.14				
10	QPSK	1	49		21.10				
10	QPSK	25	0		21.09				
10	QPSK	25	12		21.05				
10	QPSK	25	25		20.92				
10	QPSK	50	0		21.05				
10	16QAM	1	0		21.12				
10	16QAM	1	25		21.00		22.4	0	
10	16QAM	1	49		21.13				
10	16QAM	25	0		21.02				
10	16QAM	25	12		20.99				
10	16QAM	25	25		21.13				
10	16QAM	50	0		21.06		22.4	0	
10	64QAM	1	0		20.93				
10	64QAM	1	25		21.11				
10	64QAM	1	49		20.96				
10	64QAM	25	0		20.66				
10	64QAM	25	12		20.89		22	0.4	
10	64QAM	25	25		20.87				
10	64QAM	50	0		20.68				
10	256QAM	1	0		18.75				
10	256QAM	1	25		18.61				
10	256QAM	1	49		18.57		20	2.4	
10	256QAM	25	0		18.75				
10	256QAM	25	12		18.88				
10	256QAM	25	25		18.85				
10	256QAM	50	0		18.87				
Channel				23205	23230	23255	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				779.5	782	784.5			
5	QPSK	1	0	20.99	21.05	21.08	22.4	0	
5	QPSK	1	12	20.95	21.08	21.02			
5	QPSK	1	24	20.87	20.97	20.89			
5	QPSK	12	0	20.85	21.02	20.91			
5	QPSK	12	7	20.84	21.00	20.89			
5	QPSK	12	13	20.73	20.81	20.72	22.4	0	
5	QPSK	25	0	20.89	20.93	20.84			
5	16QAM	1	0	20.88	20.99	20.93			
5	16QAM	1	12	20.87	20.94	20.78			
5	16QAM	1	24	20.96	20.99	21.04			
5	16QAM	12	0	20.74	20.92	20.84	22.4	0	
5	16QAM	12	7	20.80	20.86	20.84			
5	16QAM	12	13	21.00	20.99	20.93			
5	16QAM	25	0	20.82	20.92	20.81			
5	64QAM	1	0	20.82	20.87	20.67			
5	64QAM	1	12	20.96	21.03	20.95	22.4	0	
5	64QAM	1	24	20.73	20.90	20.72			
5	64QAM	12	0	20.41	20.59	20.38			
5	64QAM	12	7	20.60	20.81	20.83			
5	64QAM	12	13	20.55	20.80	20.68			



5	64QAM	25	0	20.45	20.53	20.46		
5	256QAM	1	0	18.49	18.70	18.55	20	2.4
5	256QAM	1	12	18.39	18.54	18.53		
5	256QAM	1	24	18.38	18.42	18.35		
5	256QAM	12	0	18.44	18.62	18.62		
5	256QAM	12	7	18.67	18.78	18.80	20	2.4
5	256QAM	12	13	18.60	18.78	18.55		
5	256QAM	25	0	18.52	18.78	18.56		

Band 14 Ant0 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23330				
Frequency (MHz)				793				
10	QPSK	1	0		21.72		22.4	0
10	QPSK	1	25		21.67			
10	QPSK	1	49		21.65			
10	QPSK	25	0		21.66			
10	QPSK	25	12		21.60		22.4	0
10	QPSK	25	25		21.41			
10	QPSK	50	0		21.62			
10	16QAM	1	0		21.64		22.4	0
10	16QAM	1	25		21.55			
10	16QAM	1	49		21.70			
10	16QAM	25	0		21.51			
10	16QAM	25	12		21.52		22.4	0
10	16QAM	25	25		21.64			
10	16QAM	50	0		21.54			
10	64QAM	1	0		21.49		22.4	0
10	64QAM	1	25		21.69			
10	64QAM	1	49		21.48			
10	64QAM	25	0		20.79		22	0.4
10	64QAM	25	12		20.78			
10	64QAM	25	25		20.78			
10	64QAM	50	0		20.79			
10	256QAM	1	0		18.76		20	2.4
10	256QAM	1	25		18.90			
10	256QAM	1	49		18.84			
10	256QAM	25	0		18.71		20	2.4
10	256QAM	25	12		18.83			
10	256QAM	25	25		18.76			
10	256QAM	50	0		18.62			
Channel				23305	23330	23355	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	0	21.51	21.55	21.64	22.4	0
5	QPSK	1	12	21.48	21.54	21.59		
5	QPSK	1	24	21.40	21.54	21.35		
5	QPSK	12	0	21.32	21.53	21.46		
5	QPSK	12	7	21.31	21.49	21.46	22.4	0
5	QPSK	12	13	21.21	21.31	21.23		
5	QPSK	25	0	21.41	21.47	21.34		
5	16QAM	1	0	21.41	21.55	21.50	22.4	0
5	16QAM	1	12	21.41	21.42	21.33		
5	16QAM	1	24	21.50	21.55	21.53		
5	16QAM	12	0	21.21	21.42	21.30	22.4	0
5	16QAM	12	7	21.32	21.36	21.37		



5	16QAM	12	13	21.58	21.53	21.41		
5	16QAM	25	0	21.40	21.46	21.30		
5	64QAM	1	0	21.33	21.38	21.18		0
5	64QAM	1	12	21.50	21.51	21.41		
5	64QAM	1	24	21.30	21.37	21.29		22.4
5	64QAM	12	0	20.63	20.64	20.62		
5	64QAM	12	7	20.59	20.71	20.43		22
5	64QAM	12	13	20.45	20.65	20.67		
5	64QAM	25	0	20.58	20.62	20.63		0.4
5	256QAM	1	0	18.52	18.62	18.59		
5	256QAM	1	12	18.66	18.76	18.67		2.4
5	256QAM	1	24	18.60	18.82	18.70		
5	256QAM	12	0	18.46	18.61	18.51		20
5	256QAM	12	7	18.63	18.67	18.60		
5	256QAM	12	13	18.61	18.70	18.56		20
5	256QAM	25	0	18.46	18.49	18.42		

Band 17 Ant0 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				23780	23790	23800		
Frequency (MHz)				709	710	711		
10	QPSK	1	0	21.63	21.73	21.56	22.7	0
10	QPSK	1	25	21.54	21.60	21.69		
10	QPSK	1	49	21.57	21.66	21.58		
10	QPSK	25	0	21.52	21.66	21.54	22.7	0
10	QPSK	25	12	21.44	21.41	21.33		
10	QPSK	25	25	21.54	21.42	21.53		
10	QPSK	50	0	21.59	21.64	21.59	22.7	0
10	16QAM	1	0	21.53	21.58	21.57		
10	16QAM	1	25	21.52	21.54	21.58		
10	16QAM	1	49	21.63	21.54	21.65		
10	16QAM	25	0	21.57	21.47	21.54	22.7	0
10	16QAM	25	12	21.35	21.39	21.33		
10	16QAM	25	25	21.63	21.47	21.46		
10	16QAM	50	0	21.41	21.39	21.39	22.7	0
10	64QAM	1	0	21.56	21.61	21.55		
10	64QAM	1	25	21.63	21.53	21.66		
10	64QAM	1	49	21.54	21.63	21.51		
10	64QAM	25	0	20.72	20.72	20.76	22	0.7
10	64QAM	25	12	20.79	20.75	20.77		
10	64QAM	25	25	20.93	20.85	20.90		
10	64QAM	50	0	20.65	20.73	20.67	20	2.7
10	256QAM	1	0	19.21	19.22	19.29		
10	256QAM	1	25	19.21	19.24	19.32		
10	256QAM	1	49	19.31	19.33	19.39		
10	256QAM	25	0	19.25	19.19	19.17	20	2.7
10	256QAM	25	12	19.33	19.25	19.18		
10	256QAM	25	25	19.31	19.21	19.29		
10	256QAM	50	0	19.10	19.14	19.12	22.7	0
Channel				23755	23790	23825		
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	21.60	21.63	21.64		
5	QPSK	1	12	21.60	21.57	21.69	22.7	0
5	QPSK	1	24	21.58	21.66	21.58		
5	QPSK	12	0	21.53	21.61	21.61		



5	QPSK	12	7	21.49	21.43	21.29		
5	QPSK	12	13	21.59	21.53	21.50		
5	QPSK	25	0	21.49	21.63	21.59		0
5	16QAM	1	0	21.58	21.64	21.59		
5	16QAM	1	12	21.58	21.61	21.56		22.7
5	16QAM	1	24	21.68	21.55	21.72		
5	16QAM	12	0	21.57	21.55	21.57		0
5	16QAM	12	7	21.33	21.41	21.33		
5	16QAM	12	13	21.53	21.45	21.50		0
5	16QAM	25	0	21.40	21.33	21.41		
5	64QAM	1	0	21.55	21.62	21.49		0
5	64QAM	1	12	21.60	21.57	21.57		
5	64QAM	1	24	21.54	21.57	21.57		0
5	64QAM	12	0	20.64	20.55	20.60		
5	64QAM	12	7	20.64	20.62	20.68		0.7
5	64QAM	12	13	20.84	20.71	20.75		
5	64QAM	25	0	20.59	20.62	20.51		2.7
5	256QAM	1	0	19.11	19.16	19.26		
5	256QAM	1	12	19.05	19.14	19.18		2.7
5	256QAM	1	24	19.25	19.24	19.23		
5	256QAM	12	0	19.22	19.10	19.00		2.7
5	256QAM	12	7	19.22	19.14	19.05		
5	256QAM	12	13	19.16	19.06	19.12		2.7
5	256QAM	25	0	19.07	19.09	19.04		

Band 26 Ant0 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				26765	26865	26965		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	0	21.02	21.09	20.93		0
15	QPSK	1	37	20.95	20.99	21.04		
15	QPSK	1	74	21.01	20.99	21.04		0
15	QPSK	36	0	20.99	21.08	21.03		
15	QPSK	36	20	20.88	20.84	20.76		0
15	QPSK	36	39	20.96	20.95	20.91		
15	QPSK	75	0	21.00	21.07	21.01		0
15	16QAM	1	0	21.00	21.03	21.07		
15	16QAM	1	37	20.96	21.01	20.90		0
15	16QAM	1	74	21.03	20.90	21.07		
15	16QAM	36	0	21.00	20.92	20.90		0
15	16QAM	36	20	20.72	20.81	20.84		
15	16QAM	36	39	20.97	20.91	20.84		0
15	16QAM	75	0	20.83	20.86	20.75		
15	64QAM	1	0	21.05	21.00	20.91		0
15	64QAM	1	37	21.06	21.01	21.06		
15	64QAM	1	74	20.89	21.01	20.95		0
15	64QAM	36	0	20.57	20.61	20.62		
15	64QAM	36	20	20.60	20.51	20.42		0.5
15	64QAM	36	39	20.59	20.61	20.54		
15	64QAM	75	0	20.58	20.58	20.65		2.5
15	256QAM	1	0	18.82	18.74	18.80		
15	256QAM	1	37	18.92	18.83	18.86		2.5
15	256QAM	1	74	18.82	18.83	18.84		
15	256QAM	36	0	18.60	18.65	18.67		2.5
15	256QAM	36	20	18.70	18.70	18.73		



15	256QAM	36	39	18.70	18.70	18.75		
15	256QAM	75	0	18.86	18.79	18.73		
Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	20.93	20.99	20.80	22.4	0
10	QPSK	1	25	20.81	20.83	20.89		
10	QPSK	1	49	20.96	20.92	20.95		
10	QPSK	25	0	20.85	20.96	20.89	22.4	0
10	QPSK	25	12	20.83	20.77	20.67		
10	QPSK	25	25	20.89	20.85	20.83		
10	QPSK	50	0	20.90	20.98	20.92		
10	16QAM	1	0	20.88	20.98	21.01	22.4	0
10	16QAM	1	25	20.86	20.89	20.86		
10	16QAM	1	49	20.89	20.77	21.02		
10	16QAM	25	0	20.88	20.85	20.85	22.4	0
10	16QAM	25	12	20.59	20.70	20.70		
10	16QAM	25	25	20.85	20.84	20.73		
10	16QAM	50	0	20.70	20.73	20.69		
10	64QAM	1	0	20.94	20.84	20.81	22.4	0
10	64QAM	1	25	20.96	20.89	20.94		
10	64QAM	1	49	20.80	20.86	20.88		
10	64QAM	25	0	20.47	20.52	20.51	21.9	0.5
10	64QAM	25	12	20.47	20.43	20.38		
10	64QAM	25	25	20.55	20.48	20.49		
10	64QAM	50	0	20.43	20.51	20.53		
10	256QAM	1	0	18.78	18.63	18.76	19.9	2.5
10	256QAM	1	25	18.79	18.72	18.76		
10	256QAM	1	49	18.76	18.78	18.72		
10	256QAM	25	0	18.55	18.50	18.59	19.9	2.5
10	256QAM	25	12	18.58	18.65	18.69		
10	256QAM	25	25	18.63	18.58	18.63		
10	256QAM	50	0	18.80	18.66	18.62		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	20.96	21.04	20.80	22.4	0
5	QPSK	1	12	20.89	20.84	20.97		
5	QPSK	1	24	20.96	20.89	20.89		
5	QPSK	12	0	20.93	20.99	20.99	22.4	0
5	QPSK	12	7	20.83	20.74	20.67		
5	QPSK	12	13	20.90	20.80	20.84		
5	QPSK	25	0	20.88	20.97	20.92		
5	16QAM	1	0	20.92	20.88	20.96	22.4	0
5	16QAM	1	12	20.89	20.89	20.76		
5	16QAM	1	24	20.97	20.79	21.02		
5	16QAM	12	0	20.84	20.86	20.84	22.4	0
5	16QAM	12	7	20.61	20.76	20.76		
5	16QAM	12	13	20.92	20.78	20.70		
5	16QAM	25	0	20.72	20.77	20.67		
5	64QAM	1	0	20.91	20.96	20.84	22.4	0
5	64QAM	1	12	21.00	20.88	20.92		
5	64QAM	1	24	20.75	20.92	20.85		
5	64QAM	12	0	20.41	20.49	20.55	21.9	0.5
5	64QAM	12	7	20.50	20.45	20.36		
5	64QAM	12	13	20.53	20.55	20.40		
5	64QAM	25	0	20.46	20.42	20.51		
5	256QAM	1	0	18.66	18.62	18.73	19.9	2.5



5	256QAM	1	12	18.83	18.78	18.77	19.9	2.5
5	256QAM	1	24	18.73	18.72	18.77		
5	256QAM	12	0	18.51	18.52	18.60		
5	256QAM	12	7	18.63	18.63	18.63		
5	256QAM	12	13	18.58	18.54	18.68		
5	256QAM	25	0	18.75	18.74	18.63		
Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	20.96	21.05	20.79	22.4	0
3	QPSK	1	8	20.87	20.95	20.93		
3	QPSK	1	14	20.94	20.90	20.90		
3	QPSK	8	0	20.93	20.95	20.89	22.4	0
3	QPSK	8	4	20.73	20.72	20.60		
3	QPSK	8	7	20.86	20.86	20.84		
3	QPSK	15	0	20.86	20.99	20.85	22.4	0
3	16QAM	1	0	20.89	20.94	21.02		
3	16QAM	1	8	20.92	20.86	20.74		
3	16QAM	1	14	20.98	20.75	20.94		
3	16QAM	8	0	20.87	20.81	20.77	22.4	0
3	16QAM	8	4	20.68	20.68	20.79		
3	16QAM	8	7	20.86	20.78	20.70		
3	16QAM	15	0	20.74	20.82	20.66	22.4	0
3	64QAM	1	0	20.94	20.88	20.81		
3	64QAM	1	8	21.02	20.97	20.91		
3	64QAM	1	14	20.83	20.91	20.84		
3	64QAM	8	0	20.50	20.53	20.48	21.9	0.5
3	64QAM	8	4	20.49	20.36	20.26		
3	64QAM	8	7	20.47	20.46	20.40		
3	64QAM	15	0	20.47	20.48	20.57	21.9	0.5
3	256QAM	1	0	18.69	18.58	18.65		
3	256QAM	1	8	18.78	18.71	18.71		
3	256QAM	1	14	18.77	18.76	18.72		
3	256QAM	8	0	18.49	18.60	18.62	19.9	2.5
3	256QAM	8	4	18.64	18.62	18.58		
3	256QAM	8	7	18.60	18.56	18.59		
3	256QAM	15	0	18.81	18.72	18.65	19.9	2.5
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	20.93	20.98	20.84	22.4	0
1.4	QPSK	1	3	20.87	20.86	20.94		
1.4	QPSK	1	5	20.91	20.93	20.91		
1.4	QPSK	3	0	20.87	20.94	20.91		
1.4	QPSK	3	1	20.79	20.76	20.67		
1.4	QPSK	3	3	20.87	20.91	20.76		
1.4	QPSK	6	0	20.91	20.93	20.94	22.4	0
1.4	16QAM	1	0	20.84	20.94	20.93		
1.4	16QAM	1	3	20.84	20.90	20.86		
1.4	16QAM	1	5	20.95	20.74	20.93	22.4	0
1.4	16QAM	3	0	20.85	20.88	20.86		
1.4	16QAM	3	1	20.61	20.76	20.74		
1.4	16QAM	3	3	20.85	20.79	20.74	22.4	0
1.4	16QAM	6	0	20.71	20.78	20.63		
1.4	64QAM	1	0	20.90	20.94	20.79		
1.4	64QAM	1	3	20.97	20.89	20.91	22.4	0
1.4	64QAM	1	5	20.79	20.88	20.90		
1.4	64QAM	3	0	20.51	20.52	20.50		



1.4	64QAM	3	1	20.46	20.40	20.58	21.9	0.5
1.4	64QAM	3	3	20.47	20.48	20.43		
1.4	64QAM	6	0	20.48	20.54	20.51		
1.4	256QAM	1	0	18.67	18.61	18.67		
1.4	256QAM	1	3	18.87	18.70	18.78		
1.4	256QAM	1	5	18.75	18.75	18.71		
1.4	256QAM	3	0	18.46	18.52	18.59		
1.4	256QAM	3	1	18.66	18.55	18.59		
1.4	256QAM	3	3	18.61	18.57	18.59		
1.4	256QAM	6	0	18.80	18.66	18.65		

Band 71 Ant0 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				133222	133297	133372		
Frequency (MHz)				673	680.5	688		
20	QPSK	1	0	21.64	21.76	21.69	22.9	0
20	QPSK	1	49	21.63	21.74	21.74		
20	QPSK	1	99	21.71	21.63	21.59		
20	QPSK	50	0	21.65	21.68	21.63		
20	QPSK	50	24	21.64	21.60	21.64		
20	QPSK	50	50	21.55	21.52	21.62		
20	QPSK	100	0	21.59	21.62	21.60		
20	16QAM	1	0	21.31	21.41	21.45		
20	16QAM	1	49	21.29	21.38	21.30		
20	16QAM	1	99	21.50	21.40	21.37		
20	16QAM	50	0	20.67	20.65	20.64	22	0.9
20	16QAM	50	24	20.58	20.58	20.53		
20	16QAM	50	50	20.79	20.78	20.70		
20	16QAM	100	0	20.67	20.66	20.70		
20	64QAM	1	0	20.91	20.95	21.04		
20	64QAM	1	49	21.06	21.01	21.07	22	0.9
20	64QAM	1	99	20.96	20.97	20.94		
20	64QAM	50	0	19.72	19.67	19.66		
20	64QAM	50	24	19.47	19.55	19.54		
20	64QAM	50	50	19.66	19.64	19.57		
20	64QAM	100	0	19.60	19.62	19.55		
20	256QAM	1	0	17.68	17.60	17.65	19	3.9
20	256QAM	1	49	17.62	17.61	17.71		
20	256QAM	1	99	17.71	17.70	17.71		
20	256QAM	50	0	17.63	17.55	17.58		
20	256QAM	50	24	17.56	17.59	17.57		
20	256QAM	50	50	17.52	17.61	17.71	19	3.9
20	256QAM	100	0	17.64	17.70	17.79		
Channel				133197	133297	133397		
Frequency (MHz)				670.5	680.5	690.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	21.69	21.74	21.50	22.9	0
15	QPSK	1	37	21.61	21.60	21.57		
15	QPSK	1	74	21.56	21.61	21.54		
15	QPSK	36	0	21.44	21.49	21.57	22.9	0
15	QPSK	36	20	21.50	21.48	21.57		
15	QPSK	36	39	21.52	21.37	21.56		
15	QPSK	75	0	21.40	21.40	21.47		
15	16QAM	1	0	21.35	21.34	21.42	22.9	0
15	16QAM	1	37	21.31	21.29	21.33		



15	16QAM	1	74	21.47	21.43	21.41		
15	16QAM	36	0	20.50	20.61	20.61	22	0.9
15	16QAM	36	20	20.47	20.47	20.43		
15	16QAM	36	39	20.73	20.69	20.61		
15	16QAM	75	0	20.57	20.57	20.58		
15	64QAM	1	0	20.81	20.90	21.00		
15	64QAM	1	37	20.91	20.96	20.99	22	0.9
15	64QAM	1	74	20.86	20.84	20.77		
15	64QAM	36	0	19.63	19.59	19.48		
15	64QAM	36	20	19.30	19.50	19.52	21	1.9
15	64QAM	36	39	19.56	19.47	19.53		
15	64QAM	75	0	19.49	19.52	19.51		
15	256QAM	1	0	17.53	17.52	17.55		
15	256QAM	1	37	17.45	17.53	17.55	19	3.9
15	256QAM	1	74	17.67	17.62	17.57		
15	256QAM	36	0	17.59	17.38	17.40		
15	256QAM	36	20	17.53	17.57	17.40	19	3.9
15	256QAM	36	39	17.35	17.58	17.67		
15	256QAM	75	0	17.57	17.65	17.70		
Channel				133172	133297	133422	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				668	680.5	693		
10	QPSK	1	0	21.68	21.73	21.48	22.9	0
10	QPSK	1	25	21.66	21.56	21.50		
10	QPSK	1	49	21.50	21.66	21.52		
10	QPSK	25	0	21.38	21.59	21.55		
10	QPSK	25	12	21.61	21.46	21.59	22.9	0
10	QPSK	25	25	21.46	21.39	21.47		
10	QPSK	50	0	21.35	21.47	21.44		
10	16QAM	1	0	21.75	21.70	21.68		
10	16QAM	1	25	21.64	21.75	21.68	22.9	0
10	16QAM	1	49	21.61	21.67	21.66		
10	16QAM	25	0	20.53	20.56	20.55		
10	16QAM	25	12	20.43	20.45	20.44		
10	16QAM	25	25	20.63	20.73	20.53	22	0.9
10	16QAM	50	0	20.52	20.51	20.59		
10	64QAM	1	0	20.74	20.86	20.93		
10	64QAM	1	25	20.99	20.88	20.95		
10	64QAM	1	49	20.80	20.86	20.86	22	0.9
10	64QAM	25	0	19.69	19.64	19.56		
10	64QAM	25	12	19.37	19.40	19.44		
10	64QAM	25	25	19.55	19.53	19.48		
10	64QAM	50	0	19.46	19.45	19.46	21	1.9
10	256QAM	1	0	17.62	17.51	17.48		
10	256QAM	1	25	17.54	17.55	17.59		
10	256QAM	1	49	17.54	17.67	17.54		
10	256QAM	25	0	17.56	17.41	17.52	19	3.9
10	256QAM	25	12	17.46	17.55	17.48		
10	256QAM	25	25	17.35	17.54	17.65		
10	256QAM	50	0	17.47	17.66	17.72		
Channel				133147	133297	133447	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	0	21.71	21.67	21.51	22.9	0
5	QPSK	1	12	21.61	21.58	21.55		
5	QPSK	1	24	21.45	21.65	21.53		
5	QPSK	12	0	21.51	21.61	21.53		
5	QPSK	12	7	21.58	21.49	21.49	22.9	0



5	QPSK	12	13	21.52	21.41	21.52		
5	QPSK	25	0	21.40	21.46	21.58		
5	16QAM	1	0	21.35	21.31	21.42		
5	16QAM	1	12	21.32	21.33	21.32		
5	16QAM	1	24	21.43	21.38	21.35		
5	16QAM	12	0	20.62	20.54	20.54		
5	16QAM	12	7	20.41	20.43	20.40		
5	16QAM	12	13	20.68	20.63	20.58		
5	16QAM	25	0	20.63	20.61	20.56		
5	64QAM	1	0	20.74	20.90	21.00		
5	64QAM	1	12	21.02	20.93	20.98		
5	64QAM	1	24	20.81	20.85	20.85		
5	64QAM	12	0	19.57	19.58	19.58		
5	64QAM	12	7	19.41	19.45	19.47		
5	64QAM	12	13	19.52	19.47	19.50		
5	64QAM	25	0	19.57	19.58	19.39		
5	256QAM	1	0	17.57	17.43	17.55		
5	256QAM	1	12	17.52	17.53	17.59		
5	256QAM	1	24	17.61	17.60	17.66		
5	256QAM	12	0	17.54	17.44	17.45		
5	256QAM	12	7	17.42	17.48	17.43		
5	256QAM	12	13	17.41	17.53	17.66		
5	256QAM	25	0	17.51	17.61	17.76		

Band 2 Ant2 DSI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.37	18.47	18.42		
20	QPSK	1	49	18.46	18.45	18.40		
20	QPSK	1	99	18.27	18.36	18.28		
20	QPSK	50	0	18.36	18.42	18.32		
20	QPSK	50	24	18.34	18.41	18.33		
20	QPSK	50	50	18.14	18.24	18.04		
20	QPSK	100	0	18.21	18.33	18.25		
20	16QAM	1	0	18.35	18.40	18.30		
20	16QAM	1	49	18.15	18.30	18.19		
20	16QAM	1	99	18.31	18.44	18.27		
20	16QAM	50	0	18.24	18.36	18.15		
20	16QAM	50	24	18.18	18.35	18.11		
20	16QAM	50	50	18.28	18.39	18.28		
20	16QAM	100	0	18.28	18.35	18.15		
20	64QAM	1	0	18.23	18.27	18.14		
20	64QAM	1	49	18.26	18.37	18.31		
20	64QAM	1	99	18.15	18.22	18.18		
20	64QAM	50	0	18.21	18.37	18.14		
20	64QAM	50	24	18.24	18.22	18.12		
20	64QAM	50	50	18.05	18.19	18.07		
20	64QAM	100	0	18.22	18.33	18.18		
20	256QAM	1	0	18.08	18.17	18.09		
20	256QAM	1	49	18.12	18.17	18.10		
20	256QAM	1	99	18.24	18.35	18.21		
20	256QAM	50	0	18.10	18.24	18.09		
20	256QAM	50	24	18.11	18.15	17.98		
20	256QAM	50	50	18.19	18.30	18.34		



20	256QAM	100	0	18.04	18.16	18.13		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	18.28	18.40	18.42	19.6	0
15	QPSK	1	37	18.39	18.35	18.30		
15	QPSK	1	74	18.17	18.21	18.17		
15	QPSK	36	0	18.25	18.30	18.25		
15	QPSK	36	20	18.22	18.33	18.21	19.6	0
15	QPSK	36	39	18.08	18.11	17.97		
15	QPSK	75	0	18.06	18.27	18.13		
15	16QAM	1	0	18.19	18.36	18.26		
15	16QAM	1	37	18.06	18.20	18.06	19.6	0
15	16QAM	1	74	18.18	18.31	18.15		
15	16QAM	36	0	18.18	18.20	18.05		
15	16QAM	36	20	18.07	18.29	18.03		
15	16QAM	36	39	18.16	18.29	18.14	19.6	0
15	16QAM	75	0	18.16	18.25	18.02		
15	64QAM	1	0	18.17	18.13	18.05		
15	64QAM	1	37	18.11	18.35	18.15		
15	64QAM	1	74	18.04	18.07	18.07	19.6	0
15	64QAM	36	0	18.06	18.26	18.08		
15	64QAM	36	20	18.17	18.11	18.02		
15	64QAM	36	39	17.89	18.06	18.02		
15	64QAM	75	0	18.10	18.23	18.05	19.6	0
15	256QAM	1	0	18.00	18.03	17.98		
15	256QAM	1	37	18.04	18.08	18.00		
15	256QAM	1	74	18.13	18.21	18.11		
15	256QAM	36	0	18.05	18.15	17.99	19.6	0
15	256QAM	36	20	17.95	18.08	17.86		
15	256QAM	36	39	18.06	18.14	18.30		
15	256QAM	75	0	17.98	18.05	18.00		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	18.24	18.39	18.39	19.6	0
10	QPSK	1	25	18.31	18.36	18.31		
10	QPSK	1	49	18.18	18.24	18.19		
10	QPSK	25	0	18.27	18.28	18.24		
10	QPSK	25	12	18.19	18.33	18.21	19.6	0
10	QPSK	25	25	18.05	18.09	17.93		
10	QPSK	50	0	18.14	18.26	18.10		
10	16QAM	1	0	18.30	18.26	18.15		
10	16QAM	1	25	17.99	18.17	18.12	19.6	0
10	16QAM	1	49	18.25	18.32	18.18		
10	16QAM	25	0	18.15	18.27	18.07		
10	16QAM	25	12	18.11	18.27	18.05		
10	16QAM	25	25	18.23	18.27	18.21	19.6	0
10	16QAM	50	0	18.24	18.28	18.01		
10	64QAM	1	0	18.13	18.18	18.09		
10	64QAM	1	25	18.16	18.35	18.22		
10	64QAM	1	49	18.09	18.11	18.13	19.6	0
10	64QAM	25	0	18.16	18.21	18.07		
10	64QAM	25	12	18.12	18.07	18.04		
10	64QAM	25	25	17.89	18.04	17.93		
10	64QAM	50	0	18.07	18.23	18.10	19.6	0
10	256QAM	1	0	18.00	18.13	17.96		
10	256QAM	1	25	18.05	18.11	17.96		



10	256QAM	1	49	18.19	18.28	18.15		
10	256QAM	25	0	17.98	18.15	18.03	19.6	0
10	256QAM	25	12	17.96	18.02	17.90		
10	256QAM	25	25	18.12	18.25	18.25		
10	256QAM	50	0	17.91	18.04	18.06		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	18.28	18.35	18.39	19.6	0
5	QPSK	1	12	18.41	18.39	18.28		
5	QPSK	1	24	18.15	18.31	18.13		
5	QPSK	12	0	18.28	18.26	18.22		
5	QPSK	12	7	18.30	18.30	18.27		
5	QPSK	12	13	18.07	18.12	17.94	19.6	0
5	QPSK	25	0	18.06	18.18	18.15		
5	16QAM	1	0	18.20	18.33	18.19		
5	16QAM	1	12	18.06	18.14	18.13		
5	16QAM	1	24	18.24	18.32	18.21		
5	16QAM	12	0	18.19	18.22	18.04	19.6	0
5	16QAM	12	7	18.03	18.23	18.03		
5	16QAM	12	13	18.21	18.28	18.15		
5	16QAM	25	0	18.23	18.22	18.11		
5	64QAM	1	0	18.10	18.16	18.05		
5	64QAM	1	12	18.11	18.35	18.25	19.6	0
5	64QAM	1	24	18.04	18.15	18.04		
5	64QAM	12	0	18.13	18.28	18.05		
5	64QAM	12	7	18.11	18.09	18.07		
5	64QAM	12	13	17.92	18.07	18.02		
5	64QAM	25	0	18.15	18.22	18.09	19.6	0
5	256QAM	1	0	17.98	18.07	17.97		
5	256QAM	1	12	17.98	18.02	18.03		
5	256QAM	1	24	18.14	18.26	18.15		
5	256QAM	12	0	18.02	18.19	17.96		
5	256QAM	12	7	17.97	18.06	17.85	19.6	0
5	256QAM	12	13	18.09	18.25	18.25		
5	256QAM	25	0	18.00	18.06	18.02		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	18.28	18.39	18.40	19.6	0
3	QPSK	1	8	18.35	18.33	18.25		
3	QPSK	1	14	18.22	18.31	18.24		
3	QPSK	8	0	18.26	18.33	18.23		
3	QPSK	8	4	18.29	18.30	18.19		
3	QPSK	8	7	18.09	18.11	17.92	19.6	0
3	QPSK	15	0	18.07	18.20	18.09		
3	16QAM	1	0	18.22	18.36	18.19		
3	16QAM	1	8	18.08	18.23	18.14		
3	16QAM	1	14	18.19	18.37	18.16		
3	16QAM	8	0	18.14	18.24	18.03	19.6	0
3	16QAM	8	4	18.03	18.26	18.03		
3	16QAM	8	7	18.23	18.31	18.12		
3	16QAM	15	0	18.19	18.28	18.05		
3	64QAM	1	0	18.12	18.20	18.00	19.6	0
3	64QAM	1	8	18.15	18.35	18.21		
3	64QAM	1	14	18.08	18.06	18.05		
3	64QAM	8	0	18.06	18.31	18.01	19.6	0
3	64QAM	8	4	18.17	18.08	18.06		



3	64QAM	8	7	17.99	18.10	17.93		
3	64QAM	15	0	18.14	18.24	18.08		
3	256QAM	1	0	17.98	18.09	17.96	19.6	0
3	256QAM	1	8	17.98	18.10	17.94		
3	256QAM	1	14	18.19	18.29	18.11	19.6	0
3	256QAM	8	0	17.98	18.09	17.99		
3	256QAM	8	4	17.97	18.08	17.87	19.6	0
3	256QAM	8	7	18.06	18.15	18.30		
3	256QAM	15	0	17.91	18.07	18.07		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	18.26	18.30	18.33	19.6	0
1.4	QPSK	1	3	18.34	18.29	18.29		
1.4	QPSK	1	5	18.18	18.22	18.16		
1.4	QPSK	3	0	18.29	18.27	18.28		
1.4	QPSK	3	1	18.29	18.27	18.22		
1.4	QPSK	3	3	18.06	18.14	17.96		
1.4	QPSK	6	0	18.08	18.29	18.09	19.6	0
1.4	16QAM	1	0	18.21	18.29	18.24	19.6	0
1.4	16QAM	1	3	18.09	18.19	18.05		
1.4	16QAM	1	5	18.20	18.34	18.22		
1.4	16QAM	3	0	18.20	18.28	17.99		
1.4	16QAM	3	1	18.03	18.29	18.04		
1.4	16QAM	3	3	18.21	18.31	18.15		
1.4	16QAM	6	0	18.18	18.24	18.03	19.6	0
1.4	64QAM	1	0	18.14	18.21	18.05	19.6	0
1.4	64QAM	1	3	18.12	18.40	18.16		
1.4	64QAM	1	5	18.05	18.07	18.04		
1.4	64QAM	3	0	18.07	18.22	18.09		
1.4	64QAM	3	1	18.18	18.08	18.04		
1.4	64QAM	3	3	17.95	18.13	17.95		
1.4	64QAM	6	0	18.08	18.28	18.08	19.6	0
1.4	256QAM	1	0	17.96	18.10	17.95	19.6	0
1.4	256QAM	1	3	18.04	18.09	18.05		
1.4	256QAM	1	5	18.18	18.20	18.17		
1.4	256QAM	3	0	17.96	18.15	18.04		
1.4	256QAM	3	1	18.05	18.08	17.82		
1.4	256QAM	3	3	18.08	18.23	18.30		
1.4	256QAM	6	0	17.90	18.09	18.01	19.6	0

Band 4 Ant2 DSI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	17.62	17.75	17.64	18.9	0
20	QPSK	1	49	17.64	17.76	17.67		
20	QPSK	1	99	17.53	17.63	17.48		
20	QPSK	50	0	17.60	17.68	17.56	18.9	0
20	QPSK	50	24	17.59	17.64	17.48		
20	QPSK	50	50	17.40	17.46	17.42		
20	QPSK	100	0	17.44	17.63	17.52		
20	16QAM	1	0	17.51	17.59	17.54	18.9	0
20	16QAM	1	49	17.38	17.48	17.39		
20	16QAM	1	99	17.56	17.66	17.48		
20	16QAM	50	0	17.51	17.58	17.44		



20	16QAM	50	24	17.37	17.60	17.48		
20	16QAM	50	50	17.52	17.73	17.50		
20	16QAM	100	0	17.50	17.54	17.46		0
20	64QAM	1	0	17.44	17.44	17.43		
20	64QAM	1	49	17.55	17.70	17.73	18.9	0
20	64QAM	1	99	17.42	17.39	17.50		
20	64QAM	50	0	17.42	17.60	17.50	18.9	0
20	64QAM	50	24	17.45	17.53	17.26		
20	64QAM	50	50	17.25	17.37	17.32	18.9	0
20	64QAM	100	0	17.40	17.59	17.45		
20	256QAM	1	0	17.30	17.34	17.45	18.9	0
20	256QAM	1	49	17.33	17.54	17.27		
20	256QAM	1	99	17.36	17.60	17.36	18.9	0
20	256QAM	50	0	17.35	17.39	17.33		
20	256QAM	50	24	17.34	17.36	17.23	18.9	0
20	256QAM	50	50	17.48	17.53	17.56		
20	256QAM	100	0	17.36	17.53	17.41		
Channel				20025	20175	20325		
Frequency (MHz)				1717.5	1732.5	1747.5	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	17.51	17.64	17.54	18.9	0
15	QPSK	1	37	17.54	17.67	17.58		
15	QPSK	1	74	17.39	17.50	17.32	18.9	0
15	QPSK	36	0	17.52	17.56	17.44		
15	QPSK	36	20	17.48	17.49	17.34	18.9	0
15	QPSK	36	39	17.25	17.39	17.32		
15	QPSK	75	0	17.34	17.48	17.44	18.9	0
15	16QAM	1	0	17.47	17.44	17.49		
15	16QAM	1	37	17.25	17.38	17.32	18.9	0
15	16QAM	1	74	17.44	17.60	17.34		
15	16QAM	36	0	17.45	17.49	17.31	18.9	0
15	16QAM	36	20	17.33	17.55	17.33		
15	16QAM	36	39	17.48	17.68	17.43	18.9	0
15	16QAM	75	0	17.44	17.44	17.32		
15	64QAM	1	0	17.35	17.34	17.32	18.9	0
15	64QAM	1	37	17.45	17.64	17.58		
15	64QAM	1	74	17.34	17.28	17.38	18.9	0
15	64QAM	36	0	17.38	17.48	17.44		
15	64QAM	36	20	17.37	17.45	17.20	18.9	0
15	64QAM	36	39	17.12	17.29	17.28		
15	64QAM	75	0	17.27	17.48	17.30	18.9	0
15	256QAM	1	0	17.25	17.19	17.36		
15	256QAM	1	37	17.19	17.46	17.21	18.9	0
15	256QAM	1	74	17.31	17.47	17.21		
15	256QAM	36	0	17.30	17.26	17.26	18.9	0
15	256QAM	36	20	17.20	17.25	17.17		
15	256QAM	36	39	17.35	17.40	17.41	18.9	0
15	256QAM	75	0	17.23	17.42	17.33		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	17.50	17.65	17.60	18.9	0
10	QPSK	1	25	17.50	17.64	17.55		
10	QPSK	1	49	17.38	17.58	17.37	18.9	0
10	QPSK	25	0	17.46	17.59	17.44		
10	QPSK	25	12	17.43	17.50	17.37	18.9	0
10	QPSK	25	25	17.26	17.40	17.28		
10	QPSK	50	0	17.36	17.51	17.45		



10	16QAM	1	0	17.39	17.46	17.47	18.9	0
10	16QAM	1	25	17.33	17.35	17.29		
10	16QAM	1	49	17.50	17.53	17.33		
10	16QAM	25	0	17.36	17.53	17.39		
10	16QAM	25	12	17.33	17.52	17.36	18.9	0
10	16QAM	25	25	17.38	17.63	17.45		
10	16QAM	50	0	17.46	17.40	17.32		
10	64QAM	1	0	17.32	17.38	17.32		
10	64QAM	1	25	17.44	17.60	17.68	18.9	0
10	64QAM	1	49	17.28	17.29	17.39		
10	64QAM	25	0	17.32	17.50	17.38		
10	64QAM	25	12	17.41	17.45	17.11		
10	64QAM	25	25	17.17	17.27	17.20	18.9	0
10	64QAM	50	0	17.35	17.43	17.37		
10	256QAM	1	0	17.15	17.23	17.34		
10	256QAM	1	25	17.18	17.47	17.14		
10	256QAM	1	49	17.22	17.48	17.25	18.9	0
10	256QAM	25	0	17.24	17.24	17.23		
10	256QAM	25	12	17.20	17.31	17.15		
10	256QAM	25	25	17.36	17.49	17.50		
10	256QAM	50	0	17.27	17.44	17.34	18.9	0
Channel				19975	20175	20375		
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	17.49	17.55	17.55	18.9	0
5	QPSK	1	12	17.50	17.63	17.54		
5	QPSK	1	24	17.37	17.54	17.34		
5	QPSK	12	0	17.51	17.52	17.47		
5	QPSK	12	7	17.52	17.52	17.43	18.9	0
5	QPSK	12	13	17.29	17.33	17.32		
5	QPSK	25	0	17.33	17.51	17.38		
5	16QAM	1	0	17.42	17.48	17.49	18.9	0
5	16QAM	1	12	17.28	17.39	17.28		
5	16QAM	1	24	17.44	17.62	17.33		
5	16QAM	12	0	17.38	17.49	17.35		
5	16QAM	12	7	17.33	17.49	17.41	18.9	0
5	16QAM	12	13	17.47	17.62	17.39		
5	16QAM	25	0	17.44	17.46	17.36		
5	64QAM	1	0	17.37	17.33	17.33	18.9	0
5	64QAM	1	12	17.48	17.58	17.57		
5	64QAM	1	24	17.35	17.24	17.38		
5	64QAM	12	0	17.27	17.45	17.34		
5	64QAM	12	7	17.33	17.49	17.18	18.9	0
5	64QAM	12	13	17.18	17.26	17.26		
5	64QAM	25	0	17.32	17.48	17.38		
5	256QAM	1	0	17.16	17.23	17.40	18.9	0
5	256QAM	1	12	17.21	17.44	17.16		
5	256QAM	1	24	17.31	17.54	17.27		
5	256QAM	12	0	17.20	17.25	17.22		
5	256QAM	12	7	17.25	17.30	17.14	18.9	0
5	256QAM	12	13	17.34	17.44	17.41		
5	256QAM	25	0	17.28	17.38	17.29		
Channel				19965	20175	20385	18.9	0
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	17.57	17.64	17.52	18.9	0
3	QPSK	1	8	17.53	17.67	17.57		
3	QPSK	1	14	17.45	17.53	17.39		



3	QPSK	8	0	17.48	17.59	17.50	18.9	0
3	QPSK	8	4	17.51	17.58	17.33		
3	QPSK	8	7	17.35	17.39	17.30		
3	QPSK	15	0	17.38	17.56	17.44		
3	16QAM	1	0	17.39	17.51	17.50	18.9	0
3	16QAM	1	8	17.29	17.39	17.27		
3	16QAM	1	14	17.47	17.53	17.43		
3	16QAM	8	0	17.42	17.45	17.29		
3	16QAM	8	4	17.32	17.53	17.44	18.9	0
3	16QAM	8	7	17.38	17.65	17.41		
3	16QAM	15	0	17.40	17.42	17.36		
3	64QAM	1	0	17.31	17.38	17.29		
3	64QAM	1	8	17.41	17.62	17.63	18.9	0
3	64QAM	1	14	17.31	17.33	17.37		
3	64QAM	8	0	17.35	17.55	17.40		
3	64QAM	8	4	17.34	17.44	17.13		
3	64QAM	8	7	17.19	17.29	17.22	18.9	0
3	64QAM	15	0	17.24	17.44	17.40		
3	256QAM	1	0	17.15	17.19	17.37		
3	256QAM	1	8	17.26	17.49	17.16		
3	256QAM	1	14	17.26	17.53	17.22	18.9	0
3	256QAM	8	0	17.20	17.34	17.26		
3	256QAM	8	4	17.23	17.22	17.17		
3	256QAM	8	7	17.33	17.40	17.52		
3	256QAM	15	0	17.31	17.38	17.32	18.9	0
Channel				19957	20175	20393		
Frequency (MHz)				1710.7	1732.5	1754.3	Tune-up limit (dBm)	MPR (dB)
1.4	QPSK	1	0	17.50	17.65	17.54	18.9	0
1.4	QPSK	1	3	17.59	17.61	17.61		
1.4	QPSK	1	5	17.38	17.51	17.32		
1.4	QPSK	3	0	17.44	17.60	17.46		
1.4	QPSK	3	1	17.48	17.52	17.40		
1.4	QPSK	3	3	17.30	17.39	17.30		
1.4	QPSK	6	0	17.35	17.47	17.38	18.9	0
1.4	16QAM	1	0	17.39	17.53	17.46	18.9	0
1.4	16QAM	1	3	17.22	17.43	17.31		
1.4	16QAM	1	5	17.51	17.55	17.37		
1.4	16QAM	3	0	17.39	17.50	17.31		
1.4	16QAM	3	1	17.23	17.47	17.42		
1.4	16QAM	3	3	17.46	17.66	17.43		
1.4	16QAM	6	0	17.35	17.44	17.41	18.9	0
1.4	64QAM	1	0	17.38	17.31	17.35	18.9	0
1.4	64QAM	1	3	17.44	17.57	17.58		
1.4	64QAM	1	5	17.27	17.24	17.39		
1.4	64QAM	3	0	17.34	17.45	17.37		
1.4	64QAM	3	1	17.39	17.40	17.18		
1.4	64QAM	3	3	17.11	17.27	17.23		
1.4	64QAM	6	0	17.32	17.52	17.32	18.9	0
1.4	256QAM	1	0	17.16	17.22	17.33	18.9	0
1.4	256QAM	1	3	17.28	17.39	17.19		
1.4	256QAM	1	5	17.27	17.49	17.23		
1.4	256QAM	3	0	17.20	17.27	17.18		
1.4	256QAM	3	1	17.25	17.30	17.18		
1.4	256QAM	3	3	17.37	17.40	17.48		
1.4	256QAM	6	0	17.20	17.48	17.33	18.9	0





Band 25 Ant2 DS12									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				26140	26340	26590			
Frequency (MHz)				1860	1880	1905			
20	QPSK	1	0	18.31	18.49	18.37	19.6	0	
20	QPSK	1	49	18.41	18.37	18.30			
20	QPSK	1	99	18.19	18.22	18.23			
20	QPSK	50	0	18.24	18.37	18.26			
20	QPSK	50	24	18.28	18.33	18.24			
20	QPSK	50	50	18.03	18.13	17.89			
20	QPSK	100	0	18.17	18.20	18.15			
20	16QAM	1	0	18.29	18.32	18.25			
20	16QAM	1	49	18.00	18.25	18.12	19.6	0	
20	16QAM	1	99	18.22	18.36	18.19			
20	16QAM	50	0	18.11	18.29	18.01			
20	16QAM	50	24	18.04	18.19	17.99			
20	16QAM	50	50	18.12	18.24	18.14			
20	16QAM	100	0	18.21	18.25	18.05			
20	64QAM	1	0	18.13	18.18	18.00			
20	64QAM	1	49	18.11	18.31	18.17	19.6	0	
20	64QAM	1	99	18.01	18.09	18.13			
20	64QAM	50	0	18.05	18.25	18.02			
20	64QAM	50	24	18.11	18.15	18.06			
20	64QAM	50	50	17.98	18.08	17.97			
20	64QAM	100	0	18.12	18.28	18.06			
20	256QAM	1	0	17.94	18.01	17.96			
20	256QAM	1	49	18.02	18.09	18.02	19.6	0	
20	256QAM	1	99	18.12	18.26	18.15			
20	256QAM	50	0	17.94	18.10	17.95			
20	256QAM	50	24	18.03	18.04	17.83			
20	256QAM	50	50	18.06	18.23	18.22			
20	256QAM	100	0	17.94	18.04	18.05			
Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1857.5	1880	1907.5			
15	QPSK	1	0	18.26	18.34	18.26	19.6	0	
15	QPSK	1	37	18.34	18.28	18.25			
15	QPSK	1	74	18.12	18.17	18.10			
15	QPSK	36	0	18.19	18.22	18.20			
15	QPSK	36	20	18.19	18.27	18.13			
15	QPSK	36	39	17.97	18.06	17.81	19.6	0	
15	QPSK	75	0	18.02	18.12	18.07			
15	16QAM	1	0	18.17	18.20	18.12			
15	16QAM	1	37	17.88	18.12	17.98			
15	16QAM	1	74	18.14	18.23	18.10			
15	16QAM	36	0	18.06	18.19	17.87	19.6	0	
15	16QAM	36	20	17.91	18.11	17.93			
15	16QAM	36	39	17.98	18.20	18.00			
15	16QAM	75	0	18.17	18.18	17.93			
15	64QAM	1	0	18.01	18.11	17.93	19.6	0	
15	64QAM	1	37	18.02	18.22	18.11			
15	64QAM	1	74	17.88	17.94	18.00			
15	64QAM	36	0	17.99	18.21	17.90			
15	64QAM	36	20	18.01	18.05	18.01			
15	64QAM	36	39	17.90	17.95	17.91	19.6	0	



15	64QAM	75	0	18.07	18.19	18.02		
15	256QAM	1	0	17.88	17.90	17.87		
15	256QAM	1	37	17.95	17.97	17.97		
15	256QAM	1	74	18.04	18.13	18.02		
15	256QAM	36	0	17.83	18.05	17.84		
15	256QAM	36	20	17.88	17.96	17.68		
15	256QAM	36	39	17.94	18.10	18.06		
15	256QAM	75	0	17.89	17.90	18.00		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	18.19	18.33	18.29		
10	QPSK	1	25	18.32	18.29	18.19		
10	QPSK	1	49	18.06	18.14	18.18		
10	QPSK	25	0	18.18	18.24	18.11		
10	QPSK	25	12	18.18	18.20	18.18		
10	QPSK	25	25	17.92	17.97	17.76		
10	QPSK	50	0	18.06	18.13	18.06		
10	16QAM	1	0	18.22	18.23	18.12		
10	16QAM	1	25	17.86	18.20	18.00		
10	16QAM	1	49	18.10	18.31	18.10		
10	16QAM	25	0	18.05	18.20	17.90		
10	16QAM	25	12	17.92	18.06	17.91		
10	16QAM	25	25	18.01	18.18	18.01		
10	16QAM	50	0	18.08	18.15	17.97		
10	64QAM	1	0	18.05	18.10	17.84		
10	64QAM	1	25	18.04	18.16	18.13		
10	64QAM	1	49	17.92	18.04	17.99		
10	64QAM	25	0	17.99	18.14	17.97		
10	64QAM	25	12	17.96	18.07	18.00		
10	64QAM	25	25	17.91	18.01	17.85		
10	64QAM	50	0	18.04	18.16	17.93		
10	256QAM	1	0	17.90	17.95	17.90		
10	256QAM	1	25	17.94	17.96	17.91		
10	256QAM	1	49	18.04	18.14	18.02		
10	256QAM	25	0	17.81	18.03	17.79		
10	256QAM	25	12	17.95	17.95	17.78		
10	256QAM	25	25	17.91	18.16	18.09		
10	256QAM	50	0	17.88	17.95	17.97		
Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	18.17	18.40	18.23		
5	QPSK	1	12	18.37	18.29	18.20		
5	QPSK	1	24	18.13	18.12	18.11		
5	QPSK	12	0	18.14	18.28	18.17		
5	QPSK	12	7	18.20	18.26	18.14		
5	QPSK	12	13	17.94	18.01	17.84		
5	QPSK	25	0	18.07	18.04	18.00		
5	16QAM	1	0	18.17	18.16	18.15		
5	16QAM	1	12	17.87	18.18	18.04		
5	16QAM	1	24	18.12	18.20	18.06		
5	16QAM	12	0	17.96	18.24	17.89		
5	16QAM	12	7	17.99	18.08	17.85		
5	16QAM	12	13	18.03	18.11	17.99		
5	16QAM	25	0	18.09	18.11	17.94		
5	64QAM	1	0	17.99	18.12	17.85		
5	64QAM	1	12	17.99	18.15	18.04		



5	64QAM	1	24	17.86	17.96	18.02		
5	64QAM	12	0	17.92	18.20	17.90		
5	64QAM	12	7	18.06	17.99	17.92		
5	64QAM	12	13	17.85	18.04	17.93		
5	64QAM	25	0	18.06	18.17	17.98		
5	256QAM	1	0	17.81	17.90	17.86		
5	256QAM	1	12	17.88	17.99	17.92		
5	256QAM	1	24	18.02	18.19	18.00		
5	256QAM	12	0	17.87	18.04	17.81		
5	256QAM	12	7	17.95	17.98	17.78		
5	256QAM	12	13	17.93	18.07	18.16		
5	256QAM	25	0	17.88	17.90	18.01		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	18.24	18.37	18.33	19.6	0
3	QPSK	1	8	18.28	18.33	18.21		
3	QPSK	1	14	18.05	18.16	18.11		
3	QPSK	8	0	18.11	18.29	18.17	19.6	0
3	QPSK	8	4	18.17	18.20	18.18		
3	QPSK	8	7	17.98	17.99	17.73		
3	QPSK	15	0	18.05	18.05	18.10		
3	16QAM	1	0	18.15	18.24	18.18	19.6	0
3	16QAM	1	8	17.94	18.12	17.99		
3	16QAM	1	14	18.15	18.21	18.13		
3	16QAM	8	0	18.05	18.21	17.93		
3	16QAM	8	4	17.88	18.07	17.88	19.6	0
3	16QAM	8	7	17.99	18.11	18.05		
3	16QAM	15	0	18.17	18.12	17.91		
3	64QAM	1	0	18.08	18.03	17.96	19.6	0
3	64QAM	1	8	17.99	18.23	18.10		
3	64QAM	1	14	17.86	17.95	18.04		
3	64QAM	8	0	17.99	18.19	17.98		
3	64QAM	8	4	17.95	18.08	17.95	19.6	0
3	64QAM	8	7	17.83	18.00	17.87		
3	64QAM	15	0	18.03	18.14	18.01		
3	256QAM	1	0	17.82	17.85	17.83	19.6	0
3	256QAM	1	8	17.92	17.99	17.96		
3	256QAM	1	14	17.99	18.20	18.10		
3	256QAM	8	0	17.83	18.03	17.82		
3	256QAM	8	4	17.94	17.92	17.68	19.6	0
3	256QAM	8	7	17.93	18.07	18.06		
3	256QAM	15	0	17.79	17.91	17.93		
Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	18.23	18.35	18.29	19.6	0
1.4	QPSK	1	3	18.35	18.27	18.22		
1.4	QPSK	1	5	18.05	18.07	18.17		
1.4	QPSK	3	0	18.12	18.25	18.17		
1.4	QPSK	3	1	18.15	18.28	18.11		
1.4	QPSK	3	3	17.88	18.03	17.76		
1.4	QPSK	6	0	18.01	18.16	18.05	19.6	0
1.4	16QAM	1	0	18.14	18.21	18.16	19.6	0
1.4	16QAM	1	3	17.88	18.16	17.97		
1.4	16QAM	1	5	18.09	18.29	18.05		
1.4	16QAM	3	0	17.98	18.15	17.95		
1.4	16QAM	3	1	17.88	18.04	17.85		



1.4	16QAM	3	3	18.05	18.20	18.05		
1.4	16QAM	6	0	18.16	18.12	17.99	19.6	0
1.4	64QAM	1	0	17.99	18.05	17.86		
1.4	64QAM	1	3	18.02	18.17	18.02		
1.4	64QAM	1	5	17.94	17.97	18.09		
1.4	64QAM	3	0	17.93	18.12	17.89		
1.4	64QAM	3	1	18.02	18.02	17.94		
1.4	64QAM	3	3	17.83	17.99	17.92		
1.4	64QAM	6	0	17.98	18.18	17.91	19.6	0
1.4	256QAM	1	0	17.79	17.90	17.83		
1.4	256QAM	1	3	17.93	17.98	17.89		
1.4	256QAM	1	5	18.06	18.13	18.08		
1.4	256QAM	3	0	17.89	17.99	17.81		
1.4	256QAM	3	1	17.94	17.96	17.70		
1.4	256QAM	3	3	17.93	18.15	18.11		
1.4	256QAM	6	0	17.90	17.99	17.90	19.6	0

Band 66 Ant2 DS12								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	17.68	17.83	17.76		
20	QPSK	1	49	17.76	17.79	17.71	18.9	0
20	QPSK	1	99	17.60	17.72	17.64		
20	QPSK	50	0	17.72	17.80	17.65		
20	QPSK	50	24	17.68	17.79	17.60	18.9	0
20	QPSK	50	50	17.49	17.52	17.48		
20	QPSK	100	0	17.54	17.70	17.56		
20	16QAM	1	0	17.62	17.70	17.65		
20	16QAM	1	49	17.53	17.57	17.46	18.9	0
20	16QAM	1	99	17.68	17.81	17.56		
20	16QAM	50	0	17.55	17.69	17.53		
20	16QAM	50	24	17.51	17.70	17.54	18.9	0
20	16QAM	50	50	17.65	17.81	17.57		
20	16QAM	100	0	17.58	17.64	17.58		
20	64QAM	1	0	17.52	17.57	17.50		
20	64QAM	1	49	17.63	17.79	17.77	18.9	0
20	64QAM	1	99	17.50	17.53	17.57		
20	64QAM	50	0	17.49	17.70	17.59		
20	64QAM	50	24	17.54	17.63	17.38	18.9	0
20	64QAM	50	50	17.36	17.48	17.47		
20	64QAM	100	0	17.52	17.65	17.59		
20	256QAM	1	0	17.42	17.48	17.51		
20	256QAM	1	49	17.47	17.60	17.34	18.9	0
20	256QAM	1	99	17.49	17.69	17.49		
20	256QAM	50	0	17.46	17.54	17.43		
20	256QAM	50	24	17.43	17.47	17.36	18.9	0
20	256QAM	50	50	17.54	17.58	17.69		
20	256QAM	100	0	17.41	17.59	17.48		
Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	17.54	17.75	17.67		
15	QPSK	1	37	17.63	17.74	17.59	18.9	0
15	QPSK	1	74	17.50	17.67	17.59		
15	QPSK	36	0	17.61	17.76	17.52	18.9	0



15	QPSK	36	20	17.56	17.74	17.55		
15	QPSK	36	39	17.34	17.41	17.41		
15	QPSK	75	0	17.45	17.60	17.43		0
15	16QAM	1	0	17.58	17.59	17.57		
15	16QAM	1	37	17.45	17.41	17.30	18.9	0
15	16QAM	1	74	17.62	17.70	17.47		
15	16QAM	36	0	17.48	17.54	17.48	18.9	0
15	16QAM	36	20	17.41	17.55	17.44		
15	16QAM	36	39	17.54	17.72	17.48		0
15	16QAM	75	0	17.45	17.52	17.53		
15	64QAM	1	0	17.47	17.47	17.39	18.9	0
15	64QAM	1	37	17.55	17.67	17.66		
15	64QAM	1	74	17.40	17.43	17.46		0
15	64QAM	36	0	17.36	17.65	17.48		
15	64QAM	36	20	17.42	17.48	17.30	18.9	0
15	64QAM	36	39	17.21	17.41	17.42		
15	64QAM	75	0	17.48	17.52	17.47		0
15	256QAM	1	0	17.36	17.35	17.38		
15	256QAM	1	37	17.34	17.55	17.25	18.9	0
15	256QAM	1	74	17.36	17.53	17.44		
15	256QAM	36	0	17.38	17.50	17.30	18.9	0
15	256QAM	36	20	17.34	17.38	17.26		
15	256QAM	36	39	17.49	17.46	17.58	18.9	0
15	256QAM	75	0	17.29	17.55	17.32		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	17.52	17.67	17.64	18.9	0
10	QPSK	1	25	17.62	17.66	17.61		
10	QPSK	1	49	17.52	17.66	17.52		0
10	QPSK	25	0	17.60	17.66	17.55		
10	QPSK	25	12	17.57	17.64	17.47	18.9	0
10	QPSK	25	25	17.38	17.45	17.36		
10	QPSK	50	0	17.45	17.66	17.46		0
10	16QAM	1	0	17.54	17.58	17.54		
10	16QAM	1	25	17.46	17.49	17.36	18.9	0
10	16QAM	1	49	17.56	17.77	17.44		
10	16QAM	25	0	17.44	17.64	17.45		0
10	16QAM	25	12	17.38	17.55	17.47		
10	16QAM	25	25	17.60	17.71	17.46	18.9	0
10	16QAM	50	0	17.53	17.49	17.52		
10	64QAM	1	0	17.44	17.50	17.37	18.9	0
10	64QAM	1	25	17.49	17.73	17.72		
10	64QAM	1	49	17.34	17.43	17.43		0
10	64QAM	25	0	17.38	17.62	17.47		
10	64QAM	25	12	17.44	17.52	17.30	18.9	0
10	64QAM	25	25	17.31	17.38	17.31		
10	64QAM	50	0	17.39	17.57	17.47		0
10	256QAM	1	0	17.38	17.36	17.39		
10	256QAM	1	25	17.39	17.47	17.25	18.9	0
10	256QAM	1	49	17.36	17.61	17.44		
10	256QAM	25	0	17.37	17.49	17.31	18.9	0
10	256QAM	25	12	17.32	17.31	17.25		
10	256QAM	25	25	17.45	17.42	17.65		0
10	256QAM	50	0	17.37	17.49	17.36		
Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		



5	QPSK	1	0	17.54	17.69	17.71		
5	QPSK	1	12	17.68	17.65	17.59	18.9	0
5	QPSK	1	24	17.50	17.60	17.59		
5	QPSK	12	0	17.59	17.71	17.59		
5	QPSK	12	7	17.53	17.65	17.55	18.9	0
5	QPSK	12	13	17.43	17.38	17.42		
5	QPSK	25	0	17.44	17.57	17.45		
5	16QAM	1	0	17.51	17.62	17.51		
5	16QAM	1	12	17.37	17.52	17.31	18.9	0
5	16QAM	1	24	17.63	17.68	17.47		
5	16QAM	12	0	17.43	17.58	17.48		
5	16QAM	12	7	17.38	17.61	17.46	18.9	0
5	16QAM	12	13	17.52	17.66	17.45		
5	16QAM	25	0	17.53	17.53	17.51		
5	64QAM	1	0	17.43	17.43	17.41		
5	64QAM	1	12	17.55	17.72	17.69	18.9	0
5	64QAM	1	24	17.34	17.43	17.49		
5	64QAM	12	0	17.36	17.60	17.48		
5	64QAM	12	7	17.42	17.51	17.23	18.9	0
5	64QAM	12	13	17.30	17.33	17.38		
5	64QAM	25	0	17.46	17.52	17.48		
5	256QAM	1	0	17.33	17.40	17.37		
5	256QAM	1	12	17.34	17.56	17.22	18.9	0
5	256QAM	1	24	17.41	17.56	17.36		
5	256QAM	12	0	17.31	17.49	17.30		
5	256QAM	12	7	17.38	17.42	17.24		
5	256QAM	12	13	17.41	17.43	17.61	18.9	0
5	256QAM	25	0	17.27	17.48	17.42		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	17.61	17.73	17.64		
3	QPSK	1	8	17.64	17.71	17.65	18.9	0
3	QPSK	1	14	17.55	17.66	17.49		
3	QPSK	8	0	17.64	17.68	17.49		
3	QPSK	8	4	17.60	17.63	17.56	18.9	0
3	QPSK	8	7	17.36	17.37	17.37		
3	QPSK	15	0	17.47	17.62	17.49		
3	16QAM	1	0	17.53	17.58	17.55		
3	16QAM	1	8	17.48	17.46	17.31	18.9	0
3	16QAM	1	14	17.57	17.71	17.48		
3	16QAM	8	0	17.44	17.58	17.42		
3	16QAM	8	4	17.43	17.66	17.50	18.9	0
3	16QAM	8	7	17.55	17.76	17.52		
3	16QAM	15	0	17.50	17.51	17.45		
3	64QAM	1	0	17.37	17.52	17.37		
3	64QAM	1	8	17.48	17.71	17.63	18.9	0
3	64QAM	1	14	17.41	17.45	17.48		
3	64QAM	8	0	17.33	17.57	17.48		
3	64QAM	8	4	17.42	17.57	17.32	18.9	0
3	64QAM	8	7	17.24	17.37	17.39		
3	64QAM	15	0	17.38	17.60	17.52		
3	256QAM	1	0	17.27	17.34	17.38		
3	256QAM	1	8	17.32	17.46	17.23	18.9	0
3	256QAM	1	14	17.38	17.58	17.34		
3	256QAM	8	0	17.36	17.45	17.28	18.9	0
3	256QAM	8	4	17.36	17.34	17.30		



3	256QAM	8	7	17.48	17.51	17.59		
3	256QAM	15	0	17.28	17.55	17.38		
Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	17.57	17.66	17.67		
1.4	QPSK	1	3	17.64	17.72	17.63		
1.4	QPSK	1	5	17.48	17.57	17.53		
1.4	QPSK	3	0	17.56	17.66	17.49		
1.4	QPSK	3	1	17.54	17.72	17.50		
1.4	QPSK	3	3	17.38	17.41	17.35		
1.4	QPSK	6	0	17.40	17.63	17.42	18.9	0
1.4	16QAM	1	0	17.53	17.61	17.55		
1.4	16QAM	1	3	17.39	17.44	17.38		
1.4	16QAM	1	5	17.58	17.77	17.46		
1.4	16QAM	3	0	17.39	17.57	17.48	18.9	0
1.4	16QAM	3	1	17.39	17.66	17.47		
1.4	16QAM	3	3	17.50	17.73	17.43		
1.4	16QAM	6	0	17.52	17.59	17.45	18.9	0
1.4	64QAM	1	0	17.37	17.52	17.37		
1.4	64QAM	1	3	17.55	17.68	17.73		
1.4	64QAM	1	5	17.43	17.48	17.53		
1.4	64QAM	3	0	17.34	17.57	17.47	18.9	0
1.4	64QAM	3	1	17.39	17.59	17.24		
1.4	64QAM	3	3	17.32	17.35	17.34		
1.4	64QAM	6	0	17.41	17.53	17.51	18.9	0
1.4	256QAM	1	0	17.27	17.33	17.39		
1.4	256QAM	1	3	17.36	17.55	17.20		
1.4	256QAM	1	5	17.41	17.63	17.43		
1.4	256QAM	3	0	17.37	17.42	17.36	18.9	0
1.4	256QAM	3	1	17.35	17.35	17.21		
1.4	256QAM	3	3	17.41	17.42	17.63		
1.4	256QAM	6	0	17.34	17.44	17.37	18.9	0

Band 7 Ant3 DSI2								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350	16.9	0
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	15.75	15.91	15.81		
20	QPSK	1	49	15.74	15.88	15.76		
20	QPSK	1	99	15.65	15.81	15.76		
20	QPSK	50	0	15.73	15.85	15.64		
20	QPSK	50	24	15.76	15.75	15.71		
20	QPSK	50	50	15.54	15.65	15.42	16.9	0
20	QPSK	100	0	15.68	15.75	15.67		
20	16QAM	1	0	15.73	15.82	15.60		
20	16QAM	1	49	15.58	15.68	15.56		
20	16QAM	1	99	15.78	15.77	15.60		
20	16QAM	50	0	15.55	15.69	15.55		
20	16QAM	50	24	15.55	15.71	15.53		
20	16QAM	50	50	15.74	15.80	15.65	16.9	0
20	16QAM	100	0	15.69	15.69	15.54		
20	64QAM	1	0	15.56	15.61	15.52		
20	64QAM	1	49	15.72	15.83	15.81		
20	64QAM	1	99	15.56	15.58	15.61		
20	64QAM	50	0	15.56	15.69	15.56	16.9	0