FCC REPORT

Report Reference No.....:: CHTEW2112024002R1 Report Verification:

Project No..... SHT2111139401EW

FCC ID.....:: B32T650M

Applicant's name.....: VeriFone Inc

Suite 200 1400 W Stanford Ranch Rd Rocklin CA 95765 Address.....

Test item description: **Point of Sale Terminal**

Trade Mark: Verifone

Model/Type reference.....: T650m

Listed Model(s): T650m-2

FCC CFR Title 47 Part 2 Standard::

FCC CFR Title 47 Part 22

FCC CFR Title 47 Part 24

FCC CFR Title 47 Part 27

Date of receipt of test sample..... Dec.06, 2021

Date of testing..... Dec.07, 2021- Dec.28 2021

Date of issue....: Dec.29 2021

Result.....: **Pass**

Compiled by

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The test report merely correspond to the test sample.

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1. TEST STANDARDS AND REPORT VERSION

1.1. Applicable Standards

The tests were performed according to following standards:

FCC Rules Part 2: FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

FCC Rules Part 22: PUBLIC MOBILE SERVICES

FCC Rules Part 24: PERSONAL COMMUNICATIONS SERVICES

FCC Rules Part 27: MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

ANSI C63.26: 2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

KDB 971168 D01 Power Meas License Digital Systems v03: MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

1.2. Report version information

Revision No.	Date of issue	Description
N/A	2021-07-08	Original
R1	2021-12-28	The 4G main antenna and diversity antenna are updated, and the wiring method of the diversity antenna is changed from the original built-in Layout to an external coaxial cable. Update test radiated power and radiated spurious, update hardware version, based on the report CHTEW21070019(2021-07-08)

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2. Test Description

Test Item	Section in CFR 47	Result	Test Engineer	
	Part 22.913(a)			
ERP and EIRP	Part 24.232(b)	Pass	Pan Xie	
	Part 27.50			
	Part 2.1053			
Radiated Spurious Emissions	Part 22.917	Pass	Dan Via	
Radiated Spurious Emissions	Part 24.238	F a 5 5	Pan Xie	
	Part 27.53			

Note: The measurement uncertainty is not included in the test result.

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3. **SUMMARY**

3.1. Client Information

Applicant:	VeriFone Inc
Address:	Suite 200 1400 W Stanford Ranch Rd Rocklin CA 95765
Manufacturer:	Verifone Systems (China) Inc.
Address:	Rm 318, south of Bld C18, Startup Headquarters Base, North of Fuyuan Road, Wuqing Development Area, Tianjin, China, 301700
Factory:	Cal-Comp Electronics (Thailand) Public Co., Ltd.
Address:	No. 138, Village No. 4, Phetchakasem Road, Sa Phang Subdistrict, Khao Yoi District, 76140, Phetchaburi Province, Thailand

3.2. Product Description

Name of EUT:Point of Sale TerminalTrade Mark:VerifoneModel No.:T650mListed Model(s):T650m-2SIM Information:Support Two SIM CardAdapter information:Model:S010CNU0500200 Input: AC100-240V, 50/60Hz, 400mA	
Model No.: T650m Listed Model(s): T650m-2 SIM Information: Support Two SIM Card Model:S010CNU0500200	
Listed Model(s): T650m-2 SIM Information: Support Two SIM Card Model:S010CNU0500200	
SIM Information: Support Two SIM Card Model:S010CNU0500200	
Model:S010CNU0500200	
1 4 4 4 4 6 4 6 4 4 4 4 4 4 4 4 4 4 4 4	
Output: 5.0Vdc, 2000mA	
Hardware version: DVT3	
Software version: 1A.0.0	
4G	
Operation Band: \boxtimes FDD Band 2 \boxtimes FDD Band 4 \boxtimes FDD Band 5	
☐ FDD Band 7 ☐ FDD Band 12 ☐ FDD Band 13	3
☑ FDD Band 25	
FDD Band 2: 1850.7 MHz – 1909.3 MHz	
FDD Band 4: 1710.7 MHz – 1754.3 MHz	
FDD Band 5: 824.7 MHz – 848.3 MHz	
FDD Band 7: 2502.5 MHz – 2567.5 MHz	
Transmit frequency: FDD Band 12: 699.7 MHz – 715.3 MHz	
FDD Band 13: 779.5 MHz – 784.5 MHz	
FDD Band 25: 1850.7 MHz- 1914.3 MHz	
FDD Band 26: 824.7 MHz – 848.3 MHz	
FDD Band 2: 1930.7 MHz – 1989.3 MHz	
FDD Band 4: 2110.7 MHz – 2154.3 MHz	
FDD Band 5: 869.7 MHz – 893.3 MHz	
Receive frequency: FDD Band 7: 2622.5 MHz – 2687.5 MHz	
FDD Band 12: 729.7 MHz – 745.3 MHz	
FDD Band 13: 748.5 MHz – 753.5 MHz	

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	FDD Band 25:	1930.7 MHz- 1994.3 MHz
	FDD Band 26:	869.7 MHz – 893.3 MHz
	FDD Band 2:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	FDD Band 4:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	FDD Band 5:	1.4MHz, 3MHz, 5MHz, 10MHz
Channel bandwidth:	FDD Band 7:	5MHz, 10MHz, 15MHz, 20MHz
Charmer bandwidth.	FDD Band 12:	1.4MHz, 3MHz, 5MHz, 10MHz
	FDD Band 13:	5MHz, 10MHz
	FDD Band 25:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	FDD Band 26:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz
Power Class:	Class 3	
Modulation type:	QPSK, 16QAM	
Antenna type	FPC Antenna	
	Band2:0.53dBi Band4: 0.53dBi	
	Band5: -1.0dBi Band7: -0.23dBi	
Antenna Gain	Band12: -2.2dBi	
	Band13: -2.17dBi	
	Band25: 0.53dBi	
	Band26:-1.0dBi	

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3.3. Operation state

Test frequency list

PDD Band 2							
### FDD Band 2 FDD Band 2		Test Frequency ID	Bandwidth [MHz]	NuL	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink
### FDD Band 2 Cow Range				40007		207	[MHz]
FDD Band 2 S							
FDD Band 2 FDD Band 2		Low Range	5	18625	1852.5	625	1932.5
### FDD Band 2 Mid Range			10 15 ^[1]				
FDD Band 4			20 [1]				
1.4 19193 19993 1193 1998 3 1998 3 1998 3 1998 3 1998 3 1998 3 1998 3 1998 3 1998 19	FDD Band 2	Mid Range	1.4/3/5/10	18900	1880	900	1960
High Range				19193	1909.3	1193	1989.3
Test Frequency ID					1908.5		
Test Frequency ID		High Range					
NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS of 1972) as allowed. Test Frequency ID Bandwidth Na. Frequency of Uplink (Mitright Mitright Mitri			15 ^[1]	19125	1902.5	1125	1982.5
Test Frequency ID Bandwidth Nu. Frequency of Uplan Mrd. Devenitor Mrd. Mrd. Devenitor Mrd.		NOTE 1: Randwidth					
FDD Band 4 Control Co					cilled OL receiver:	sensitivity re	quirement (13
FDD Band 4 (MHz)							
FDD Band 4 1.4		Test Frequency ID		NuL		N _{DL}	
Section Property					' ' '		[MHz]
FDD Band 4 Low Range							
FDD Band 4 Converge		I am Danas					
Mid Range		Low Range		20000	1715	2000	2115
Mid Range	FDD Band 4						
Test Frequency ID	-	Mid Range					
High Range			1.4	20393	1754.3	2393	2154.3
Test Frequency ID Bandwidth Nut. Frequency of Downlink Mirt.							
Test Frequency ID		High Range				2350	
Test Frequency ID			15	20325	1747.5	2325	2147.5
FDD Band 7 Comparison of Co			20	20300	1/45	2300	2145
FDD Band 5 1.4		Test Frequency ID		N _{UL}		N _{DL}	
FDD Band 5 Low Range							[MHz]
FDD Band 5 5 20425 826.5 2425 871.5		-					
Total Panel 5		Low Range	5				
Test Frequency ID	EDD David 5		10 ^[1]				
Test Frequency ID	FDD Band 5	Mid Range	1.4/3/5 10 ^[1]	20525	836.5	2525	881.5
High Range				20643	848.3	2643	893.3
NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed.		High Range	3	20635	847.5	2635	892.5
NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed. Test Frequency ID Bandwidth NuL Frequency of Uplink MHz MHz Sept. Mov. MHz MHz MHz Sept. Mov. MHz MHz			5 10 ^[1]				
Image			or which a relaxation	n of the spec			
Low Range		Test Frequency ID		N _{UL}		N _{DL}	Downlink
Section Page 15 20825 2507.5 2825 2627.5 20850 2510 2850 2630 2630 2630 2635 2630 2635 2630 2635 2630 2635 2010 21350 2535 3100 2655 201425 2567.5 3425 2687.5 21375 2562.5 3375 2682.5 2010 21350 2550 3350 2680 2680 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010 21350 2550 2010	1						2622.5
Page		Low Range					
Section Sect			20 [1]				
High Range	FDD Band 7	Mid Range	5/10/15 20 [1]	21100	2535	3100	2655
High Range				21425	2567.5	3425	2687.5
Table 4.3.1.1.12-1: Test frequencies for E-UTRA channel bandwidth for operating band 12 Test Frequency ID Bandwidth MuL Frequency of Mid Range 1.4.3 23015 701.5 5095 731.5 10.19 23130 711.5 5155 744.5 10.19 23130 711.5 5105 741.5 741.5 741.5 741.5 741.5 741.5 741.5 741.5 741.5		High Range		21400			
NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed. Table 4.3.1.1.12-1: Test frequencies for E-UTRA channel bandwidth for operating band 12 Test Frequency ID Bandwidth NuL Frequency of NuL Downlink [MHz] Downlink [MHz] Nul Prequency of Nul Downlink [MHz] Nul Prequency of Nul Downlink [MHz] Nul Nul Prequency of Nul Prequency of Nul Downlink [MHz] Nul			20 [1]				
Table 4.3.1.1.12-1: Test frequencies for E-UTRA channel bandwidth for operating band 12 Test Frequency ID Bandwidth NuL Frequency of Uplink [MHz] Uplink [MHz] Uplink [MHz] 1.4 23017 699.7 5017 729.7 3 23025 700.5 5025 732.5 5025 732.5			or which a relaxation	n of the spec			
Test Frequency ID							
FDD Band 12 Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity requirement Image: Comparison of the specified UE receiver sensitivity r		Table 4.3.1.1.12-1:	•	s for E-UTF	RA channel band	width for o	perating band 1
FDD Band 12 Low Range		Test Frequency ID		NuL		N _{DL}	
FDD Band 12 Low Range 3 23025 700.5 5025 730.5 5110 23036 701.5 5035 731.5 510 10 111 23060 704 5060 734 5060 734 510/10 111 23060 707.5 5095 737.5 510/10 111 23173 715.3 5173 745.3 510/10 111 23173 715.3 5173 745.3 510/10 111 23155 713.5 5155 743.5 510/10 111 23130 711 5130 741 NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement (TS 36.101 [27] Clause 7.3) is allowed. Test Frequency ID Bandwidth Nu. Frequency of No. Downlink [MHz] Low Range 5 11 23205 779.5 5205 748.5 510 Downlink [MHz] Low Range 5 11 23205 779.5 5205 748.5 510 Downlink [MHz] Low Range 5 11 23230 782 5230 751 High Range 5 11 23230 782 5230 751 High Range 5 11 23235 784.5 5255 753.5 High Range 5 11 23235 784.5 5255 753.5 NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement Note Section Section				23017		5017	
FDD Band 12 Test Frequency ID Bandwidth NuL Frequency of Low Range 1.0 (10) 2.0305 731.5 5035 731.5		Low Paper	3	23025	700.5	5025	730.5
Mid Range		Low Range		23035	701.5	5035	731.5
Test Frequency ID Bandwidth NuL Street	FDD Band 12	Mid Range					
High Range		mid range	5 [1]/10 [1]				
FDD Band 13 Fig. 18 Fig. 19							
Test Frequency ID Bandwidth NuL Frequency of IMHz Low Range 10 ft 23205 779.5 5205 748.5 10 ft 23230 782 5230 751 16 ft Range 10 ft 23255 784.5 5255 753.5 10 ft 23230 782 5230 751 16 ft Range 10 ft 23235 782 5230 751 16 ft Range 10 ft 23235 784.5 5235 753.5 10 ft 23230 782 5230 751 16 ft Range 10 ft 23235 784.5 5235 753.5 16 ft Range 10 ft 23235 782 5230 751 16 ft Range 10 ft 23235 782 5230 751 175			^				
Test Frequency ID Bandwidth NuL Frequency of NuL Dpink (MHz)		High Range			/13.5		
FDD Band 13 Image: Im			5 [1] 10 [1]	23155 23130	711		
FDD Band 13		NOTE 1: Bandwidth	5 [1] 10 [1] for which a relaxati	23155 23130 ion of the spe	711		
FDD Band 13 Low Hange		NOTE 1: Bandwidth (TS 36.101	5 (1) 10 (1) for which a relaxat [27] Clause 7.3) is	23155 23130 ion of the spe allowed.	711 cified UE receiver s	ensitivity req	uirement
FDD Band 13 Mid Range 5 (17) (10) 23230 782 5230 751 High Range 5 (17) 23255 784 5 5255 753 5 10 (17) 23230 782 5230 751 NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement		NOTE 1: Bandwidth (TS 36.101	5 [1] 10 [1] for which a relaxat [27] Clause 7.3) is Bandwidth [MHz]	23155 23130 ion of the spe allowed.	711 cified UE receiver s Frequency of Uplink [MHz]	ensitivity req	Frequency of Downlink [MHz]
High Range		NOTE 1: Bandwidth (TS 36.101	5 (1) 10 (1) for which a relaxat [27] Clause 7.3) is Bandwidth [MHz] 5 (1)	23155 23130 ion of the spe allowed.	711 cified UE receiver s Frequency of Uplink [MHz] 779.5	NoL 5205	Frequency of Downlink [MHz]
NOTE 1: Bandwidth for which a relaxation of the specified UE receiver sensitivity requirement	FDD Band 13	NOTE 1: Bandwidth (TS 36.101	5 [1] 10 [1] for which a relaxat [27] Clause 7.3) is Bandwidth [MHz] 5 [1] 10 [1] 5 [1]/10 [1]	23155 23130 on of the spe allowed. Nu. 23205 23230	711 cified UE receiver s Frequency of Uplink [MHz] 779.5 782	No. 5205 5230	Frequency of Downlink [MHz] 748.5
(TS 36.101 [27] Clause 7.3) is allowed.	FDD Band 13	NOTE 1: Bandwidth (TS 36.101	5 [1] 10 [1] for which a relaxati [27] Clause 7.3) is Bandwidth [MHz] 5 [1] 10 [1] 5 [1]/10 [1]	23155 23130 on of the spe allowed. Nu. 23205 23230 23230 23255	711 cified UE receiver s Frequency of Uplink [MHz] 779.5 782 782 784.5	No. 5205 5230 5230 5255	Frequency of Downlink [MHz] 748.5 751 751 753.5
	FDD Band 13	NOTE 1: Bandwidth (TS 36.101 Test Frequency ID Low Range Mid Range High Range NOTE 1: Bandwidt	5 (1) 10 (1) for which a relaxati [27] Clause 7.3) is Bandwidth [MHz] 5 (1) 10 (1) 5 (1) 10 (1) 10 (1)	23155 23130 on of the spe allowed. Nu. 23205 23230 23230 23255 23230 2300 on of the spe	711 cified UE receiver s Frequency of Uplink [MHz] 779.5 782 782 784.5 7882	No. 5205 5230 5255 5230	Frequency of Downlink [MHz] 748.5 751 753.5 751
	FDD Band 13	NOTE 1: Bandwidth (TS 36.101 Test Frequency ID Low Range Mid Range High Range NOTE 1: Bandwidt	5 (1) 10 (1) for which a relaxati [27] Clause 7.3) is Bandwidth [MHz] 5 (1) 10 (1) 5 (1) 10 (1) 10 (1)	23155 23130 on of the spe allowed. Nu. 23205 23230 23230 23255 23230 2300 on of the spe	711 cified UE receiver s Frequency of Uplink [MHz] 779.5 782 782 784.5 7882	No. 5205 5230 5255 5230	Frequency of Downlink [MHz] 748.5 751 753.5 751

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	Test Frequency ID	Bandwidth [MHz]	NuL	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
		1.4	26047	1850.7	8047	1930.7
	11	3	26055	1851.5	8055	1931.5
		5	26065	1852.5	8065	1932.5
	Low Range	10	26090	1855	8090	1935
		15 [1]	26115	1857.5	8115	1937.5
		20 [1]	26140	1860	8140	1940
DD Band 25	Mid Range	1.4/3/5/10 15 [1]/20 [1]	26365	1882,5	8365	1962.5
		1.4	26683	1914.3	8683	1994.3
		3	26675	1913.5	8675	1993.5
	High Range	5	26665	1912.5	8665	1992.5
	Tilgii Kalige	10	26640	1910	8640	1990
		15 ^[1]	26615	1907.5	8615	1987.5
		20 [1]	26590	1905	8590	1985
	NOTE 1: Bandwidtl (TS 36.10	n for which a relaxati 11 [27] Clause 7.3) is		ecified OE receiver	sensitivity n	equirement
				Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
	(TS 36.10	11 [27] Clause 7.3) is	allowed.	Frequency of		Frequency of
	(TS 36.10	1 [27] Clause 7.3) is Banwidth[MHz]	allowed.	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
	(TS 36.10	Banwidth[MHz]	N _{UL}	Frequency of Uplink [MHz] 824.7	N _{DL}	Frequency of Downlink [MHz] 869.7
EDD Band 26	Test Frequency	Banwidth[MHz]	N _{UL} 26797 26805	Frequency of Uplink [MHz] 824.7 825.5	N _{DL} 8797 8805	Frequency of Downlink [MHz] 869.7 870.5
FDD Band 26	Test Frequency	Banwidth[MHz] 1.4 3 5	N _{UL} 26797 26805 26815	Frequency of Uplink [MHz] 824.7 825.5 826.5	N _{DL} 8797 8805 8815	Frequency of Downlink [MHz] 869.7 870.5 871.5
FDD Band 26	Test Frequency	Banwidth[MHz] 1.4 3 5 10	N _{UL} 26797 26805 26815 26840	Frequency of Uplink [MHz] 824.7 825.5 826.5 829	N _{DL} 8797 8805 8815 8840	Frequency of Downlink [MHz] 869.7 870.5 871.5 874
FDD Band 26	Test Frequency ID Low Range	Banwidth[MHz] 1.4 3 5 10 15	N _{UL} 26797 26805 26815 26840 26865	Frequency of Uplink [MHz] 824.7 825.5 826.5 829 831.5	N _{DL} 8797 8805 8815 8840 8865	Frequency of Downlink [MHz] 869.7 870.5 871.5 874 876.5
FDD Band 26	Test Frequency ID Low Range	Banwidth[MHz] 1.4 3 5 10 15 1.4/3/5/10/15	N _{UL} 26797 26805 26815 26840 26865 26915	Frequency of Uplink [MHz] 824.7 825.5 826.5 829 831.5 836.5	N _{DL} 8797 8805 8815 8840 8865 8915	Frequency of Downlink [MHz] 869.7 870.5 871.5 874 876.5 881.5
FDD Band 26	Test Frequency ID Low Range	Banwidth[MHz] 1.4 3 5 10 15 1.4/3/5/10/15 1.4	N _{UL} 26797 26805 26815 26840 26865 26915 27033	Frequency of Uplink [MHz] 824.7 825.5 826.5 829 831.5 836.5 848.3	N _{DL} 8797 8805 8815 8840 8865 8915 9033	Frequency of Downlink [MHz] 869.7 870.5 871.5 874 876.5 881.5 893.3
FDD Band 26	Test Frequency ID Low Range Mid Range	Banwidth[MHz] 1.4 3 5 10 15 1.4/3/5/10/15 1.4	N _{UL} 26797 26805 26815 26840 26865 26915 27033 27025	Frequency of Uplink [MHz] 824.7 825.5 826.5 829 831.5 836.5 848.3 847.5	N _{DL} 8797 8805 8815 8840 8865 8915 9033 9025	Frequency of Downlink [MHz] 869.7 870.5 871.5 874 876.5 881.5 893.3 892.5

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3.4. EUT operation mode

For RF test items

The EUT has been tested under typical operating condition. Testing was performed by configuring EUT to maximum output power status.

T (1)	Donal	Bandwidth (MHz)						Modulation		RB#		
Test Items	Band	1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full
	2	0	0	0	0	0	0	0	0	0	-	-
	4	0	0	0	0	0	0	0	0	0	-	-
	5	0	0	0	0	-	-	0	0	0	-	-
ERP and EIRP	7	-	-	0	0	0	0	0	0	0	-	-
ERF allu EIRF	12	0	0	0	0	-	-	0	0	0	-	-
	13	-	-	0	0	-	-	0	0	0	-	-
	25	0	0	0	0	0	0	0	0	0	-	-
	26	0	0	0	0	0	-	0	0	0	-	-
	2	-	-	-	-	-	0	0	-	0	-	-
	4	-	-	-	-	-	0	0	=	0	-	=
	5	-	-	-	0	-	-	0	-	0	-	-
Radiated Spurious	7	-	-	-	-	-	0	0	=	0	-	-
Emission	12	-	-	-	0	-	-	0	-	0	-	-
	13	-	-	-	0	-	-	0	-	0	-	-
	25	-	-	-	-	-	0	0	-	0	-	ı
	26	-	-	-	-	0	-	0	=	0	-	=
Remark	 The mark " ○ "means that this configuration is chosenfor testing The mark "-"means that this bandwidth is not test. 											

The Test EUT support two SIM card(SIM1,SIM2),so all the tests are performed at each SIM card (SIM1,SIM2) mode, the datum recorded is the worst case for all the mode at SIM1 Card mode.

3.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

• - supplied by the manufacturer

0	- supplied by the lab		
		Manufacturer:	/
0		Model No.:	/
		Manufacturer:	/
0		Model No.:	/

3.6. Modifications

No modifications were implemented to meet testing criteria.

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4. TEST ENVIRONMENT

4.1. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.				
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China				
Connect information:	Tel: 86-755-26715499 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn				
Qualifications	Туре	Accreditation Number			
Qualifications	FCC	762235			

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4.2. Equipments Used during the Test

Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2021/9/13	2022/9/12
•	Signal & Spectrum Analyzer	R&S	HTWE0262	FSW26	103440	2021/9/13	2022/9/12
•	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2021/9/13	2022/9/12
•	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2021/9/13	2022/9/12
•	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A

•	Radiated Spurious Emission								
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
•	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	N/A	2018/09/27	2022/09/26		
•	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2021/9/13	2022/9/12		
•	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2021/04/06	2022/04/05		
•	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2020/4/27	2023/4/27		
•	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/04/06	2022/04/05		
•	Horn Antenna	SCHWARZBECK	HTWE0126	9120D	1011	2020/04/01	2023/03/31		
•	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2021/11/5	2022/11/4		
•	Broadband Preamplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2021/03/05	2022/03/04		
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2021/02/26	2022/02/25		
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25		
•	RF Connection Cable	HUBER+SUHNER	HTWE0119-05	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25		
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25		
•	RF Connection Cable	HUBER+SUHNER	HTWE0121-01	6m 18GHz S Serisa	N/A	2021/02/26	2022/02/25		
•	EMI Test Software	Audix	N/A	E3	N/A	N/A	N/A		

•	Auxiliary Equipment									
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)			
•	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2021/9/13	2022/9/12			
•	High pass filter	Wainwright	HTWE0297	WHKX3.0/18G-10SS	38	2021/05/14	2022/05/13			
0	Band Stop filter		HTW0039	N/A	N/A	2021/01/27	2022/01/26			

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4.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

	VN=Nominal Voltage	DC 3.70V
Voltage	VL=Lower Voltage	DC 3.60V
	VH=Higher Voltage	DC 4.20V
Tomporoturo	TN=Normal Temperature	25 °C
Temperature	Extreme Temperature	From −30° to + 50° centigrade
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

4.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1"and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongweilaboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.51 dB	(1)
Transmitter power Radiated	2.66dB for <1GHz 3.44dB for >1GHz	(1)
Conducted spurious emissions 9kHz~40GHz	0.51 dB	(1)
Radiated spurious emissions	2.66dB for <1GHz 3.44dB for >1GHz	(1)
Occupied Bandwidth	15Hz for <1GHz 70Hz for >1GHz	(1)
Frequency error	15Hz for <1GHz 70Hz for >1GHz	(1)

⁽¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

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5. TEST CONDITIONS AND RESULTS

5.1. ERP and EIRP

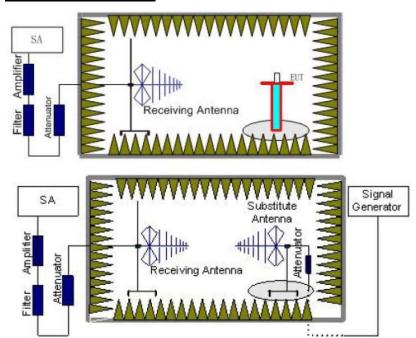
LIMIT

LTE Band 2/7/25: 2W(33dBm) EIRP

LTE Band 4: 1W(30dBm) EIRP

LTE Band 5/26: 7W(38.50dBm) ERP LTE Band 12: 3W(34.77dBm) ERP LTE Band 13: 30W(44.77dBm) ERP

TEST CONFIGURATION



TEST PROCEDURE

- Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- 2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto

Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

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b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

- c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
- d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
- e) Record the measured emission amplitude level and frequency
- 6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- Set-up the substitution measurement with the reference point of the substitution antenna located as near
 as possible to where the center of the EUT radiating element was located during the initial EUT
 measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- 10. For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - Record the output power level of the signal generator when equivalence is achieved in step b).
- 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
- 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

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LTE Band 2-1.4MHz							
Modulation	Channel	EIRP (dBm)		Line it (dDae)	Daniell		
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result		
	Low	20.85	18.69				
QPSK	Mid	21.52	18.37	<22.00	PASS		
	High	20.74	18.15				
	Low	20.53	18.48	- ≤33.00			
16QAM	Mid	21.32	18.80		PASS		
	High	20.74	18.31				

LTE Band 2-3MHz							
Modulation	Channel	EIRP		Limit (dDm)	Decult		
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result		
	Low	20.53	18.21	700.00			
QPSK	Mid	21.19	18.43		PASS		
	High	21.12	18.57				
	Low	20.38	18.30	≤33.00			
16QAM	Mid	20.85	18.47		PASS		
	High	20.63	18.51				

LTE Band 2-5MHz							
Modulation	Channel	EIRP	(dBm)	Limit (dBm)	Result		
iviodulation	Chamilei	Vertical	Horizontal	Lilliit (UBIII)			
	Low	20.42	18.25				
QPSK	Mid	21.03	18.49	700.00	PASS		
	High	20.77	18.56				
	Low	20.68	18.74	≤33.00			
16QAM	Mid	20.08	18.24		PASS		
	High	20.36	18.33				

LTE Band 2-10MHz							
Modulation	Channel	EIRP (dBm)		Limit (dBm)	Decut		
iviodulation	Chamei	Vertical	Horizontal	Limit (ubin)	Result		
	Low	20.02	18.21				
QPSK	Mid	21.29	18.73	222.00	PASS		
	High	20.80	18.05				
	Low	20.68	18.84	≤33.00			
16QAM	Mid	21.60	18.93		PASS		
	High	20.76	18.50				

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LTE Band 2-15MHz							
Modulation	Channel	EIRP	(dBm)	Limit (dDm)	Result		
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)			
	Low	20.14	18.44				
QPSK	Mid	21.38	18.62	200.00	PASS		
	High	21.10	18.45				
	Low	20.42	18.39	≤33.00			
16QAM	Mid	20.93	18.47		PASS		
	High	20.65	18.23				

LTE Band 2-20MHz							
Modulation	Channel	EIRP	(dBm)	Limit (dPm)	Result		
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)			
	Low	20.52	18.40				
QPSK	Mid	21.07	18.31	700.00	PASS		
	High	20.78	18.68				
	Low	20.42	18.46	≤33.00			
16QAM	Mid	20.12	18.21		PASS		
	High	20.38	18.34				

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LTE Band 4-1.4MHz								
Modulation	Channel	EIRP	(dBm)	Livit (ID)	Result			
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)				
	Low	20.78	18.03					
QPSK	Mid	21.35	18.64	420.00	PASS			
	High	20.51	18.16					
	Low	21.02	17.89	≤30.00				
16QAM	Mid	21.37	18.63		PASS			
	High	20.21	18.01					

LTE Band 4-3MHz							
Modulation	Channel	EIRP	(dBm)	Limit (dBm)	Result		
iviodulation	Chamilei	Vertical	Horizontal	Limit (dbin)			
	Low	20.86	18.02				
QPSK	Mid	21.54	18.36	~20.00	PASS		
	High	20.21	18.13				
	Low	20.87	17.69	≤30.00			
16QAM	Mid	21.22	18.43		PASS		
	High	20.18	18.01				

	LTE Band 4-5MHz									
Modulation	Channel	EIRP	EIRP (dBm)		Dogult					
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result					
	Low	21.12	18.02							
QPSK	Mid	21.41	18.64	100.00	PASS					
	High	20.37	18.07							
	Low	21.16	18.25	≤30.00						
16QAM	Mid	21.08	18.47		PASS					
	High	20.23	17.82							

LTE Band 4-10MHz									
Modulation	Channel	EIRP	(dBm)	Limit (dPm)	Dogult				
iviodulation	Chamei	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.21	17.84						
QPSK	Mid	21.47	18.72		PASS				
	High	20.45	18.17	<20.00					
	Low	21.31	18.26	≥30.00					
16QAM	Mid	21.26	18.59		PASS				
	High	20.40	18.15						

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LTE Band 4-15MHz									
Modulation	Channel	EIRP (dBm)		Limit (dDm)	Result				
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Kesuit				
	Low	21.12	17.92						
QPSK	Mid	21.54	18.75		PASS				
	High	20.47	18.12	<20.00					
	Low	20.66	17.96	≤30.00					
16QAM	Mid	21.21	18.62		PASS				
	High	20.34	17.83						

LTE Band 4-20MHz									
Modulation	Channel	EIRP	EIRP (dBm)		Result				
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.02	17.74						
QPSK	Mid	21.26	18.31		PASS				
	High	20.18	18.28	<20.00					
	Low	20.81	18.02	≤30.00					
16QAM	Mid	21.06	18.34		PASS				
	High	20.39	17.85						

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LTE Band 5-1.4MHz									
Madulatian	Channel	ERP	(dBm)	Limit (dPm)	Result				
Modulation	Chamilei	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.32	18.02	- ≤38.50					
QPSK	Mid	21.72	18.36		PASS				
	High	20.76	18.24						
	Low	21.04	18.01						
16QAM	Mid	21.57	18.57		PASS				
	High	20.63	18.22						

	LTE Band 5-3MHz									
N 1 1 2	Channal	ERP (dBm)		Lineit (dDne)	Decult					
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result					
	Low	21.17	18.03	100.50						
QPSK	Mid	21.41	18.42		PASS					
	High	20.84	18.28							
	Low	21.21	17.95	- ≤38.50						
16QAM	Mid	21.68	18.39		PASS					
	High	20.83	18.26							

	LTE Band 5-5MHz								
Modulation	Channel	ERP	(dBm)	Limit (dDm)	Result				
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.34	17.84						
QPSK	Mid	21.64	18.41	400.50	PASS				
	High	20.83	18.35						
	Low	21.31	18.08	≤38.50					
16QAM	Mid	21.64	18.28		PASS				
	High	20.87	18.11						

	LTE Band 5-10MHz									
Modulation	Channel	ERP	(dBm)	Limit (dRm)	Result					
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Resuit					
	Low	21.19	17.75							
QPSK	Mid	21.78	18.36	400.50	PASS					
	High	20.86	18.31							
	Low	21.41	18.10	- ≤38.50						
16QAM	Mid	21.34	18.47]	PASS					
	High	20.83	18.32							

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LTE Band 7-5MHz									
Mashalatian	Channel	EIRP	(dBm)	Limit (dPm)	Result				
Modulation	Chamilei	Vertical	Horizontal	Limit (dBm)	VESUIL				
	Low	20.36	18.15						
QPSK	Mid	20.88	19.03		PASS				
	High	20.09	18.11						
	Low	20.31	18.15	≤33.00					
16QAM	Mid	20.82	19.23		PASS				
	High	19.90	17.81						

LTE Band 7-10MHz									
Madulation	Channel	EIRP	(dBm)	Limit (dBm)	Result				
Modulation	Chamilei	Vertical	Horizontal	Limit (dbin)	Result				
	Low	20.35	18.26						
QPSK	Mid	20.87	18.74	400.00	PASS				
	High	20.22	18.23						
	Low	20.21	17.81	≤33.00					
16QAM	Mid	20.45	18.65		PASS				
	High	19.87	18.15						

	LTE Band 7-15MHz									
Modulation	Channel	EIRP	(dBm)	Limit (dDm)	Result					
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result					
	Low	20.29	18.20	100.00						
QPSK	Mid	20.63	18.87		PASS					
	High	20.06	18.24							
	Low	20.31	18.51	≤33.00						
16QAM	Mid	20.42	18.75		PASS					
	High	19.74	17.83							

LTE Band 7-20MHz									
Modulation	Channel	EIRP	(dBm)	Limit (dPm)	Result				
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Resuit				
	Low	20.41	18.05	400.00					
QPSK	Mid	20.76	19.07		PASS				
	High	20.08	18.14						
	Low	20.58	18.26	≤33.00					
16QAM	Mid	20.73	19.10]	PASS				
	High	20.01	18.21						

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LTE Band 12-1.4MHz									
Mashalatian	Channel	ERP	(dBm)	Limit (dPm)	Result				
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.36	19.27						
QPSK	Mid	21.59	20.08	40.4.77	PASS				
	High	21.43	19.39						
	Low	21.32	19.36	- ≤34.77					
16QAM	Mid	21.35	20.13		PASS				
	High	21.41	19.02						

LTE Band 12-3MHz								
Modulation	Channel	ERP	(dBm)	Limit (dPm)	Result			
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result			
	Low	21.41	19.41					
QPSK	Mid	21.70	19.73		PASS			
	High	21.45	19.49	<24.77				
	Low	21.25	19.30	≤34.77				
16QAM	Mid	21.48	20.01		PASS			
	High	21.37	19.44					

LTE Band 12-5MHz								
Modulation	Channel	ERP	(dBm)	Limit (dPm)	Docult			
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result			
	Low	21.37	19.35					
QPSK	Mid	21.40	19.83		PASS			
	High	21.28	19.61					
	Low	21.46	19.49	≤34.77				
16QAM	Mid	21.29	19.38		PASS			
	High	21.31	19.43					

LTE Band 12-10MHz									
Modulation	Channel	ERP	(dBm)	Limit (dBm)	Result				
iviodulation	Channel	Vertical	Horizontal	LIIIII (UDIII)	Result				
	Low	21.34	19.21						
QPSK	Mid	21.62	20.10	40.4.77	PASS				
	High	21.43	19.26						
	Low	21.51	19.38	≤34.77					
16QAM	Mid	21.55	20.12		PASS				
	High	21.46	19.34						

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LTE Band 13-5MHz									
Modulation	Channal	ERP	(dBm)	Limit (dDm)	Dooult				
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	20.62	18.04						
QPSK	Mid	21.31	18.67		PASS				
	High	21.03	17.69						
	Low	20.73	18.07	<44.77					
16QAM	Mid	21.51	18.85		PASS				
	High	20.72	17.53						

LTE Band 13-10MHz								
Modulation C	Channal	ERP (dBm)		Limit (dBm)	Dogult			
iviodulation	Channel	Vertical	Horizontal	Limit (dbm)	Result			
QPSK	Mid	21.63	18.58	<44.77	PASS			
16QAM	Mid	21.32	18.66	\ 44 .77	PASS			

LTE Band 25-1.4MHz								
Mashalatian	Channel	EIRP	(dBm)	Limit (dPm)	Result			
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result			
	Low	21.22	18.12					
QPSK	Mid	21.13	18.43		PASS			
	High	20.06	17.85	<22.00				
	Low	21.21	17.93	≤33.00 F				
16QAM	Mid	21.18	18.26		PASS			
	High	20.31	17.55					

LTE Band 25-3MHz									
Modulation	Channel	EIRP	(dBm)	Limit (dPm)	Danish				
iviodulation	Chame	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.31	18.02						
QPSK	Mid	21.38	18.32		PASS				
	High	20.43	17.76	<22.00					
	Low	21.13	17.83	≤33.00					
16QAM	Mid	21.17	18.43		PASS				
	High	20.25	17.66						

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LTE Band 25-5MHz									
Mashalatian	Channel	EIRP	EIRP (dBm)		Result				
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.04	17.85						
QPSK	Mid	21.17	18.45		PASS				
	High	20.42	18.08	<22.00					
	Low	21.28	18.12	≤33.00					
16QAM	Mid	21.15	18.33		PASS				
	High	20.03	17.86						

	LTE Band 25-10MHz									
Modulation	Channel	EIRP	(dBm)	Limit (dDm)	Dogult					
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result					
	Low	21.25	17.84							
QPSK	Mid	21.13	18.40	100.00	PASS					
	High	20.07	17.83							
	Low	21.38	18.12	≤33.00						
16QAM	Mid	21.24	18.46		PASS					
	High	20.16	17.65							

	LTE Band 25-15MHz								
Modulation	Channel	EIRP	(dBm)	Limit (dPm)	Result				
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result				
	Low	21.14	17.78						
QPSK	Mid	21.23	18.35	400.00	PASS				
	High	20.44	17.51						
	Low	21.16	17.89	≤33.00					
16QAM	Mid	21.07	18.27		PASS				
	High	20.28	17.80						

	LTE Band 25-20MHz								
Modulation	Channel	EIRP	(dBm)	Limit (dRm)	Result				
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Resuit				
	Low	21.21	17.86						
QPSK	Mid	21.15	18.24	400.00	PASS				
	High	20.27	18.11						
	Low	21.04	17.86	≤33.00					
16QAM	Mid	21.10	18.31		PASS				
	High	20.23	17.75						

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		LTE Band 2	6-1.4MHz		
Modulation	Channel	ERP	(dBm)	Limit (dDm)	Dooult
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result
	Low	21.05	17.80		
QPSK	Mid	21.21	18.62		PASS
	High	20.49	17.45	~ 22.00	
	Low	20.67	17.93	≤33.00	
16QAM	Mid	21.21	18.77		PASS
	High	20.52	17.56		

		LTE Band	26-3MHz		
Modulation	Channel	ERP	(dBm)	Limit (dBm)	Result
Modulation	Chamer	Vertical	Horizontal	Limit (ubin)	Kesuit
	Low	20.86	17.91		
QPSK	Mid	21.32	18.62		PASS
	High	20.58	17.85	≤33.00	
	Low	20.78	17.78	≥33.00	
16QAM	Mid	20.86	18.44		PASS
	High	20.43	17.70		

		LTE Band	26-5MHz		
Modulation	Channel	ERP	(dBm)	Limit (dPm)	Result
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result
	Low	20.75	17.75		
QPSK	Mid	21.20	18.58		PASS
	High	20.68	18.03	<22.00	
	Low	20.87	18.07	≤33.00	
16QAM	Mid	21.12	18.46		PASS
	High	20.41	17.74		

		LTE Band 2	26-10MHz		
Modulation	Channel	ERP	(dBm)	Limit (dRm)	Result
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Resuit
	Low	21.04	17.82		
QPSK	Mid	21.31	18.64		PASS
	High	20.56	17.75	<22.00	
	Low	21.14	18.12	- ≤33.00	
16QAM	Mid	21.30	18.69		PASS
	High	20.55	17.78		

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		LTE Band 2	26-15MHz		
Modulation	Channel	ERP	(dBm)	Limit (dDm)	Result
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result
	Low	20.80	17.83		
QPSK	Mid	21.23	18.71		PASS
	High	20.72	17.82	<22.00	
	Low	20.54	17.74	≤33.00	
16QAM	Mid	21.13	18.52		PASS
	High	20.46	17.58		

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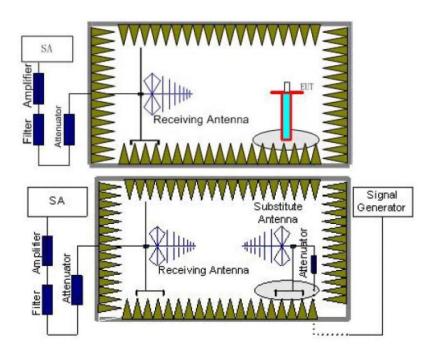
5.2. Radiated Spurious Emission

LIMIT

LTE Band 2/4/5/12/13/25/26: -13dBm;

LTE Band 7: -25dBm

TEST CONFIGURATION



TEST PROCEDURE

- 1. Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- 2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto

Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
 - e) Record the measured emission amplitude level and frequency

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6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.

- Set-up the substitution measurement with the reference point of the substitution antenna located as near
 as possible to where the center of the EUT radiating element was located during the initial EUT
 measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- 10. For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - c) Record the output power level of the signal generator when equivalence is achieved in step b).
- 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
- 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Note: only show the worse case for QPSK modulation.

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1860MHz					Polari	zation: Hor	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	44.64	-77.41	25.69	6.99	30.92	-75.65	-13.00	-62.65	Peak
2	657.66	-78.38	28.16	10.11	30.07	-70.18	-13.00	-57.18	Peak
3	1384.29	-70.04	37.13	12.14	29.46	-50.23	-13.00	-37.23	Peak
4	2434.83	-68.85	39.63	14.96	28.34	-42.60	-13.00	-29.60	Peak
5	3700.48	-62.74	42.29	7.01	37.16	-50.60	-13.00	-37.60	Peak
6	5554.08	-63.92	43.80	9.39	32.79	-43.52	-13.00	-30.52	Peak
1860MHz					Polari	zation: Ver	tical		
1860MHz Mark	Frequency	Reading	Antenna	Cable	Polari Preamp		tical Limit	0ver	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 96.76	dBm -79.50	dB 25.79	dB 7.48	Preamp dB 30.89	Level dBm -77.12	Limit dBm -13.00	limit -64.12	Peak
Mark 1 2	MHz 96.76 693.28	dBm -79.50 -79.72	dB 25.79 28.54	dB 7.48 10.23	Preamp dB 30.89 30.09	Level dBm -77.12 -71.04	Limit dBm -13.00 -13.00	limit -64.12 -58.04	Peak Peak
Mark 1 2 3	MHz 96.76 693.28 1432.25	dBm -79.50 -79.72 -69.17	dB 25.79 28.54 37.76	dB 7.48 10.23 12.25	Preamp dB 30.89 30.09 29.32	Level dBm -77.12 -71.04 -48.48	Limit dBm -13.00 -13.00	limit -64.12 -58.04 -35.48	Peak Peak Peak

1880MHz					Polar	ization: Ho	rizontal		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	33.93	-77.23	26.84	6.86	30.91	-74.44	-13.00	-61.44	Peak
2	756.99	-78.82	29.19	10.43	30.16	-69.36	-13.00	-56.36	Peak
3	1290.30	-69.25	36.93	11.91	29.66	-50.07	-13.00	-37.07	Peak
4	2459.02	-68.15	39.50	15.08	28.14	-41.71	-13.00	-28.71	Peak
5	3738.23	-66.01	42.25	7.05	37.06	-53.77	-13.00	-40.77	Peak
6	5610.76	-64.51	43.74	9.44	33.30	-44.63	-13.00	-31.63	Peak
1880MHz					Polar	ization: Ve	rtical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
Mark 1		_							Remark Peak
	MHz	dBm	dB	dB	dB '	dBm	dBm	limit	
1	MHz 93.74	dBm -79.06	dB 25.84	dB 7.46	dB 30.87	dBm -76.63	dBm -13.00	limit -63.63	Peak
1 2	MHz 93.74 728.27	dBm -79.06 -79.11	dB 25.84 29.25	dB 7.46 10.34	dB 30.87 30.13	dBm -76.63 -69.65	dBm -13.00 -13.00	limit -63.63 -56.65	Peak Peak
1 2 3	MHz 93.74 728.27 1456.05	dBm -79.06 -79.11 -69.88	dB 25.84 29.25 37.76	dB 7.46 10.34 12.30	dB 30.87 30.13 29.18	dBm -76.63 -69.65 -49.00	dBm -13.00 -13.00 -13.00	limit -63.63 -56.65 -36.00	Peak Peak Peak

1900MHz					Polar	ization: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-78.30	26.96	6.95	30.87	-75.26	-13.00	-62.26	Peak
2	653.05	-78.88	28.38	10.10	30.07	-70.47	-13.00	-57.47	Peak
3	1421.28	-70.05	37.02	12.22	29.41	-50.22	-13.00	-37.22	Peak
4	2203.18	-69.14	40.95	14.04	29.45	-43.60	-13.00	-30.60	Peak
5	3814.91	-67.54	42.12	7.14	36.72	-55.00	-13.00	-42.00	Peak
6	5676.23	-66.96	43.83	9.51	33.55	-47.17	-13.00	-34.17	Peak
1900MHz					Polar	ization: Vei	rtical		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
	95.74	-79.22	25.81	7.48	30.88	-76.81	-13.00	-63.81	Peak
1	22174								
1 2	795.19	-79.86	29.36	10.54	29.96	-69.92	-13.00	-56.92	Peak
				10.54 12.22	29.96 29.41	-69.92 -48.72	-13.00 -13.00	-56.92 -35.72	Peak Peak
2	795.19	-79.86	29.36						
2 3	795.19 1421.28	-79.86 -69.29	29.36 37.76	12.22	29.41	-48.72	-13.00	-35.72	Peak

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1720MHz					Polari	ization: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	43.71	-73.80	26.09	6.97	30.90	-71.64	-13.00	-58.64	Peak
2	683.60	-78.95	28.06	10.19	30.09	-70.79	-13.00	-57.79	Peak
3	1327.69	-68.88	37.01	12.01	29.51	-49.37	-13.00	-36.37	Peak
4	2437.50	-67.82	39.61	14.98	28.31	-41.54	-13.00	-28.54	Peak
5	5158.11	-69.67	44.03	8.96	34.69	-51.37	-13.00	-38.37	Peak
6	10183.22	-74.88	50.88	12.41	31.72	-43.31	-13.00	-30.31	Peak
					Polar	ization: Vei	tical		
1720MHz Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Polari Preamp		tical Limit	Over limit	Remark
720MHz	Frequency	Reading	Antenna		Preamp	Level	Limit		Remark Peak
1720MHz Mark	Frequency MHz	Reading dBm	Antenna dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
720MHz Mark	Frequency MHz 95.74	Reading dBm -78.19	Antenna dB 25.81	dB 7.48	Preamp dB 30.88	Level dBm -75.78	Limit dBm -13.00	limit -62.78	Peak
720MHz Mark 1 2	Frequency MHz 95.74 829.47	Reading dBm -78.19 -79.14	Antenna dB 25.81 29.80	dB 7.48 10.67	Preamp dB 30.88 29.98	Level dBm -75.78 -68.65	Limit dBm -13.00 -13.00	limit -62.78 -55.65	Peak Peak
1720MHz Mark 1 2 3	Frequency MHz 95.74 829.47 1438.56	Reading dBm -78.19 -79.14 -69.11	Antenna dB 25.81 29.80 37.76	dB 7.48 10.67 12.26	Preamp dB 30.88 29.98 29.27	Level dBm -75.78 -68.65 -48.36	Limit dBm -13.00 -13.00	limit -62.78 -55.65 -35.36	Peak Peak Peak

1732.5MHz					Polari	ization: Hoi	rizontal		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	43.71	-73.42	26.09	6.97	30.90	-71.26	-13.00	-58.26	Peak
2	431.26	-79.36	26.01	9.29	30.44	-74.50	-13.00	-61.50	Peak
3	1440.14	-68.96	36.91	12.27	29.25	-49.03	-13.00	-36.03	Peak
4	2467.14	-67.97	39.45	15.10	28.09	-41.51	-13.00	-28.51	Peak
5	3446.64	-61.47	40.25	6.74	37.11	-51.59	-13.00	-38.59	Peak
6	5173.09	-57.69	44.00	8.96	34.62	-39.35	-13.00	-26.35	Peak
1732.5MHz					Polari	ization: Ver	tical		
1732.5MHz	Frequency	Reading	Antenna	Cable	Polari		tical Limit	Over	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 43.71	dBm -73.75	dB 21.49	dB 6.97	Preamp dB 30.90	Level dBm -76.19	Limit dBm -13.00	limit -63.19	Peak
Mark 1 2	MHz 43.71 662.30	dBm -73.75 -78.49	dB 21.49 28.26	dB 6.97 10.12	Preamp dB 30.90 30.08	Level dBm -76.19 -70.19	Limit dBm -13.00 -13.00	limit -63.19 -57.19	Peak Peak
Mark 1 2 3	MHz 43.71 662.30 1387.34	dBm -73.75 -78.49 -68.91	dB 21.49 28.26 37.71	dB 6.97 10.12 12.15	Preamp dB 30.90 30.08 29.47	Level dBm -76.19 -70.19 -48.52	Limit dBm -13.00 -13.00	limit -63.19 -57.19 -35.52	Peak Peak Peak

1745MHz					Polar	ization: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-74.42	26.96	6.95	30.87	-71.38	-13.00	-58.38	Peak
2	786.85	-79.95	29.81	10.52	30.01	-69.63	-13.00	-56.63	Peak
3	1332.08	-69.86	37.02	12.02	29.48	-50.30	-13.00	-37.30	Peak
4	2434.83	-69.45	39.63	14.96	28.34	-43.20	-13.00	-30.20	Peak
5	3471.72	-62.92	40.61	6.76	37.08	-52.63	-13.00	-39.63	Peak
6	5210.74	-59.32	43.96	9.01	34.43	-40.78	-13.00	-27.78	Peak
1745MHz					Polar	ization: Ve	rtical		
1745MHz Mark	Frequency	Reading	Antenna	Cable			rtical	Over	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
		_			Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 44.64	dBm -73.61	dB 21.58	dB 6.99	Preamp dB 30.92	Level dBm -75.96	Limit dBm -13.00	limit -62.96	Peak
Mark 1 2	MHz 44.64 571.37	dBm -73.61 -78.44	dB 21.58 26.26	dB 6.99 9.83	Preamp dB 30.92 30.37	Level dBm -75.96 -72.72	Limit dBm -13.00 -13.00	limit -62.96 -59.72	Peak Peak
Mark 1 2 3	MHz 44.64 571.37 1387.34	dBm -73.61 -78.44 -69.31	dB 21.58 26.26 37.71	dB 6.99 9.83 12.15	Preamp dB 30.92 30.37 29.47	Level dBm -75.96 -72.72 -48.92	Limit dBm -13.00 -13.00	limit -62.96 -59.72 -35.92	Peak Peak Peak

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829MHz					Polari	ization: Hor	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-78.29	26.96	6.95	30.87	-75.25	-13.00	-62.25	Peak
2	613.00	-79.82	28.14	9.96	30.37	-72.09	-13.00	-59.09	Peak
3	1358.68	-69.16	37.08	12.08	29.41	-49.41	-13.00	-36.41	Peak
4	2467.14	-67.60	39.45	15.10	28.09	-41.14	-13.00	-28.14	Peak
5	5410.97	-72.71	44.06	9.38	33.35	-52.62	-13.00	-39.62	Peak
6	9280.59	-74.56	49.55	11.75	31.19	-44.45	-13.00	-31.45	Peak
829MHz					Polari	ization: Ver	tical		
829MHz Mark	Frequency	Reading	Antenna	Cable	Polari Preamp		tical Limit	Over	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 65.26	dBm -74.01	dB 21.36	dB 7.20	Preamp dB 30.99	Level dBm -76.44	Limit dBm -13.00	limit -63.44	Peak
Mark 1 2	MHz 65.26 657.66	dBm -74.01 -80.42	dB 21.36 28.24	dB 7.20 10.11	Preamp dB 30.99 30.07	Level dBm -76.44 -72.14	Limit dBm -13.00 -13.00	limit -63.44 -59.14	Peak Peak
Mark 1 2 3	MHz 65.26 657.66 1596.81	dBm -74.01 -80.42 -68.35	dB 21.36 28.24 37.76	dB 7.20 10.11 12.64	Preamp dB 30.99 30.07 29.44	Level dBm -76.44 -72.14 -47.39	Limit dBm -13.00 -13.00	limit -63.44 -59.14 -34.39	Peak Peak Peak
Mark 1 2 3 4	MHz 65.26 657.66 1596.81 2442.87	dBm -74.01 -80.42 -68.35 -67.49	dB 21.36 28.24 37.76 39.28	dB 7.20 10.11 12.64 15.00	Preamp dB 30.99 30.07 29.44 28.26	Level dBm -76.44 -72.14 -47.39 -41.47	Limit dBm -13.00 -13.00 -13.00	limit -63.44 -59.14 -34.39 -28.47	Peak Peak Peak Peak

.5MHz					Polar	ization: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	37.84	-69.85	27.46	6.90	30.86	-66.35	-13.00	-53.35	Peak
2	432.78	-78.44	26.02	9.30	30.44	-73.56	-13.00	-60.56	Peak
3	1427.54	-68.31	36.98	12.24	29.36	-48.45	-13.00	-35.45	Peak
4	2445.55	-68.41	39.57	15.01	28.23	-42.06	-13.00	-29.06	Peak
5	5554.08	-72.28	43.80	9.39	32.79	-51.88	-13.00	-38.88	Peak
6	10869.96	-75.55	52.60	12.51	32.43	-42.87	-13.00	-29.87	Peak
.5MHz					Polar	ization: Ve	rtical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	37.84	-68.97	20.47	6.90	30.86	-72.46	-13.00	-59.46	Peak
2	728.27	-78.52	29.25	10.34	30.13	-69.06	-13.00	-56.06	Peak
3	1440.14	-69.45	37.76	12.27	29.25	-48.67	-13.00	-35.67	Peak
	2195.93	-68.76	41.66	14.02	29.43	-42.51	-13.00	-29.51	Peak
4					34 00	-52.47	-13.00	-39.47	Peak
4 5	5061.77	-70.81	44.33	8.89	34.88	-52.4/	-13.00	-39.47	reak

844MHz					Polari	zation: Hor	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-75.42	26.96	6.95	30.87	-72.38	-13.00	-59.38	Peak
2	431.26	-78.41	26.01	9.29	30.44	-73.55	-13.00	-60.55	Peak
3	1381.25	-69.31	37.12	12.13	29.46	-49.52	-13.00	-36.52	Peak
4	2445.55	-67.60	39.57	15.01	28.23	-41.25	-13.00	-28.25	Peak
5	5434.57	-71.97	44.02	9.36	33.00	-51.59	-13.00	-38.59	Peak
6	10869.96	-75.43	52.60	12.51	32.43	-42.75	-13.00	-29.75	Peak
844MHz					Polari	zation: Ver	tical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
rial K									remark
nark	MHz	dBm	dB	dB	dB	dBm	dBm	limit	remark
1		dBm -65.76							Peak
	MHz		dB	dB	dB .	dBm	dBm	limit	
1	MHz 44.64	-65.76	dB 21.58	dB 6.99	dB 30.92	dBm -68.11	dBm -13.00	limit -55.11	Peak
1 2	MHz 44.64 598.09	-65.76 -79.59	dB 21.58 27.36	dB 6.99 9.92	dB 30.92 30.42	dBm -68.11 -72.73	dBm -13.00 -13.00	limit -55.11 -59.73	Peak Peak
1 2 3	MHz 44.64 598.09 1459.25	-65.76 -79.59 -69.50	dB 21.58 27.36 37.76	dB 6.99 9.92 12.31	dB 30.92 30.42 29.21	dBm -68.11 -72.73 -48.64	dBm -13.00 -13.00 -13.00	limit -55.11 -59.73 -35.64	Peak Peak Peak

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I0MHz					Polariza	ation: Horiz	zontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	50.66	-67.61	23.60	7.05	31.01	-67.97	-25.00	-42.97	Peak
2	653.05	-78.34	28.38	10.10	30.07	-69.93	-25.00	-44.93	Peak
3	3662.78	-69.38	42.33	6.98	37.11	-57.18	-25.00	-32.18	Peak
4	5009.43	-66.18	44.34	8.83	34.83	-47.84	-25.00	-22.84	Peak
5	7508.69	-71.24	48.05	10.46	33.68	-46.41	-25.00	-21.41	Peak
6	10999.95	-75.73	52.91	12.53	32.01	-42.30	-25.00	-17.30	Peak
I0MHz					Polariza	ation: Verti	cal		
Maral.	_								
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
mark 1		_							Remark Peak
	MHz	dBm	dB	dB	dB '	dBm	dBm	limit	
1	MHz 50.66	dBm -65.77	dB 22.19	dB 7.05	dB 31.01	dBm -67.54	dBm -25.00	limit -42.54	Peak
1 2	MHz 50.66 431.26	dBm -65.77 -78.38	dB 22.19 25.51	dB 7.05 9.29	dB 31.01 30.44	dBm -67.54 -74.02	dBm -25.00 -25.00	limit -42.54 -49.02	Peak Peak
1 2 3	MHz 50.66 431.26 3662.78	dBm -65.77 -78.38 -69.02	dB 22.19 25.51 42.43	dB 7.05 9.29 6.98	dB 31.01 30.44 37.11	dBm -67.54 -74.02 -56.72	dBm -25.00 -25.00 -25.00	limit -42.54 -49.02 -31.72	Peak Peak Peak

2535MHz					Polariza	ation: Horiz	zontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-72.58	26.96	6.95	30.87	-69.54	-25.00	-44.54	Peak
2	795.19	-78.99	29.84	10.54	29.96	-68.57	-25.00	-43.57	Peak
3	3616.45	-68.95	42.37	6.93	37.02	-56.67	-25.00	-31.67	Peak
4	5060.69	-66.38	44.23	8.89	34.88	-48.14	-25.00	-23.14	Peak
5	7585.53	-69.26	47.70	10.39	33.65	-44.82	-25.00	-19.82	Peak
6	10971.98	-75.40	52.84	12.53	32.10	-42.13	-25.00	-17.13	Peak
2535MHz					Polariza	ation: Verti	cal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	32.99	-63.65	18.92	6.85	30.92	-68.80	-25.00	-43.80	Peak
2	659.98	-78.71	28.21	10.12	30.08	-70.46	-25.00	-45.46	Peak
3	3616.45	-69.23	42.57	6.93	37.02	-56.75	-25.00	-31.75	Peak
4	5532.26	-73.10	43.97	9.37	32.52	-52.28	-25.00	-27.28	Peak
5	7585.53	-69.82	48.27	10.39	33.65	-44.81	-25.00	-19.81	Peak
6	10888.51	-75.47	52.69	12.52	32.37	-42.63	-25.00	-17.63	Peak

2560MHz					Polariza	ation: Horiz	zontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-72.88	26.96	6.95	30.87	-69.84	-25.00	-44.84	Peak
2	639.42	-80.12	29.02	10.05	30.16	-71.21	-25.00	-46.21	Peak
3	3200.50	-68.22	41.37	6.46	37.11	-57.50	-25.00	-32.50	Peak
4	5099.49	-67.03	44.15	8.93	34.81	-48.76	-25.00	-23.76	Peak
5	6577.75	-70.30	46.44	9.78	34.08	-48.16	-25.00	-23.16	Peak
6	7663.17	-71.25	47.71	10.49	33.64	-46.69	-25.00	-21.69	Peak
2560MHz					Polariza	ation: Verti	cal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	44.64	-65.86	21.58	6.99	30.92	-68.21	-25.00	-43.21	Peak
2	657.66	-78.07	28.24	10.11	30.07	-69.79	-25.00	-44.79	Peak
3	3728.63	-69.10	42.23	7.04	37.08	-56.91	-25.00	-31.91	Peak
4	5099.49	-69.00	44.21	8.93	34.81	-50.67	-25.00	-25.67	Peak
5	7663.17	-71.24	48.35	10.49	33.64	-46.04	-25.00	-21.04	Peak
		-75.21	52.88	12.96	32.30	-41.67	-25.00	-16.67	Peak

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1860MHz					Polar	ization: Ho	rizontal			
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark	
1	41.75	-72.72	26.96	6.95	30.87	-69.68	-13.00	-56.68	Peak	
2	655.35	-79.42	28.27	10.11	30.07	-71.11	-13.00	-58.11	Peak	
3	1425.97	-68.35	36.99	12.23	29.37	-48.50	-13.00	-35.50	Peak	
4	2309.76	-69.51	40.33	14.34	29.04	-43.88	-13.00	-30.88	Peak	
5	3700.48	-63.41	42.29	7.01	37.16	-51.27	-13.00	-38.27	Peak	
6	5554.08	-63.61	43.80	9.39	32.79	-43.21	-13.00	-30.21	Peak	
1860MHz					Polar	rization: Ve	rtical			
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark	
1	45.75	-67.78	21.68	7.00	30.93	-70.03	-13.00	-57.03	Peak	
2	646.20	-79.28	28.37	10.08	30.10	-70.93	-13.00	-57.93	Peak	
	1465.68	-69.19	37.76	12.33	29.27	-48.37	-13.00	-35.37	Peak	
3				14 15	29.52	-42.97	-13.00	-29.97	Peak	
3 4	2237.33	-68.84	41.26	14.13	20.02	72121		20.01	1	
_	2237.33 3700.48	-68.84 -62.21	41.26 42.31	7.01	37.16	-50.05	-13.00	-37.05	Peak	
_				14 13	29 52	-42.97	-13.00	-29.97		Peak

1882.5MHz					Polari	zation: Ho	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-74.82	26.96	6.95	30.87	-71.78	-13.00	-58.78	Peak
2	494.65	-78.08	25.41	9.54	30.48	-73.61	-13.00	-60.61	Peak
3	1355.70	-69.17	37.07	12.07	29.40	-49.43	-13.00	-36.43	Peak
4	2267.02	-68.87	40.57	14.20	29.44	-43.54	-13.00	-30.54	Peak
5	3743.66	-64.56	42.25	7.06	37.04	-52.29	-13.00	-39.29	Peak
6	5618.90	-64.40	43.75	9.45	33.33	-44.53	-13.00	-31.53	Peak
1882.5MHz					Polari	zation: Ver	tical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
	MHz	dBm	dB	dB	dB .	dBm	dBm	limit	
	44.64	-67.24	21.58	6.99	30.92	-69.59	-13.00	-56.59	Peak
1	44.04	0,12							
1 2	434.30	-78.97	25.54	9.30	30.44	-74.57	-13.00	-61.57	Peak
			25.54 37.76	9.30 12.33	30.44 29.27	-74.57 -47.69	-13.00 -13.00	-61.57 -34.69	Peak Peak
2	434.30	-78.97							
2 3	434.30 1465.68	-78.97 -68.51	37.76	12.33	29.27	-47.69	-13.00	-34.69	Peak

1905MHz					Polari	ization: Ho	rizontal		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
4	MHz	dBm	dB	dB	dB	dBm	dBm 13.00	limit	Daral.
1	41.75	-72.24	26.96	6.95		-69.20	-13.00	-56.20	Peak
2	800.80	-77.59	29.86	10.56		-67.11	-13.00	-54.11	Peak
3	1290.30	-69.53	36.93	11.91	29.66	-50.35	-13.00	-37.35	Peak
4	2774.89	-72.86	40.49	16.25	26.01	-42.13	-13.00	-29.13	Peak
5	3792.84	-64.38	42.20	7.12	36.84	-51.90	-13.00	-38.90	Peak
6	5684.47	-66.15	43.84	9.52	33.59	-46.38	-13.00	-33.38	Peak
1905MHz					Polari	ization: Vei	rtical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	42.79	-59.98	21.39	6.96	30.89	-62.52	-13.00	-49.52	Peak
2	676.43	-79.52	28.59	10.16	30.08	-70.85	-13.00	-57.85	Peak
3	1490.03	-69.24	37.76	12.39	29.52	-48.61	-13.00	-35.61	Peak
4	2205.60	-69.51	41.66	14.05	29.45	-43.25	-13.00	-30.25	Peak
5	3792.84	-66.79	42.04	7.12	36.84	-54.47	-13.00	-41.47	
5	5684.47	-62.55	44.00	9.52	33.59	-34.47	-13.00	-41.47	Peak
6									

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831.5MHz					Polar	ization: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	41.75	-77.64	26.96	6.95	30.87	-74.60	-13.00	-61.60	Peak
2	600.20	-78.01	27.87	9.93	30.43	-70.64	-13.00	-57.64	Peak
3	1360.17	-69.19	37.08	12.08	29.41	-49.44	-13.00	-36.44	Peak
4	2203.18	-68.42	40.95	14.04	29.45	-42.88	-13.00	-29.88	Peak
5	5450.35	-72.51	43.99	9.35	32.75	-51.92	-13.00	-38.92	Peak
6	10183.22	-75.37	50.88	12.41	31.72	-43.80	-13.00	-30.80	Peak
•									
831.5MHz					Polar	ization: Ve	rtical		
	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Polar Preamp		rtical Limit	Over limit	Remark
831.5MHz	Frequency				Preamp	Level	Limit		Remark Peak
831.5MHz Mark	Frequency MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
831.5MHz Mark	Frequency MHz 44.64	dBm -70.02	dB 21.58	dB 6.99	Preamp dB 30.92	Level dBm -72.37	Limit dBm -13.00	limit -59.37	Peak
831.5MHz Mark 1 2	Frequency MHz 44.64 555.52	dBm -70.02 -79.24	dB 21.58 25.66	dB 6.99 9.75	Preamp dB 30.92 30.33	Level dBm -72.37 -74.16	Limit dBm -13.00 -13.00	limit -59.37 -61.16	Peak Peak
831.5MHz Mark 1 2 3	Frequency MHz 44.64 555.52 1421.28	dBm -70.02 -79.24 -68.10	dB 21.58 25.66 37.76	dB 6.99 9.75 12.22	Preamp dB 30.92 30.33 29.41	Level dBm -72.37 -74.16 -47.53	Limit dBm -13.00 -13.00	limit -59.37 -61.16 -34.53	Peak Peak Peak

36.5MHz					Polari	zation: Hor	izontal		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	41.75	-76.47	26.96	6.95	30.87	-73.43	-13.00	-60.43	Peak
2	434.30	-79.12	26.02	9.30	30.44	-74.24	-13.00	-61.24	Peak
3	1448.07	-69.07	36.86	12.28	29.19	-49.12	-13.00	-36.12	Peak
4	2459.02	-68.99	39.50	15.08	28.14	-42.55	-13.00	-29.55	Peak
5	5434.57	-72.02	44.02	9.36	33.00	-51.64	-13.00	-38.64	Peak
6	9267.14	-75.05	49.50	11.71	31.17	-45.01	-13.00	-32.01	Peak
36.5MHz					Polari	zation: Ver	tical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	44.64	-69.45	21.58	6.99	30.92	-71.80	-13.00	-58.80	Peak
2	526.97	-78.79	25.67	9.65	30.39	-73.86	-13.00	-60.86	Peak
				12.02	29.48	-48.42	-13.00	-35.42	Peak
3	1332.08	-68.42	37.46	12.02					
_	1332.08 2461.72	-68.42 -68.32	37.46 39.27	15.09	28.12	-42.08	-13.00	-29.08	Peak
3							-13.00 -13.00	-29.08 -37.58	Peak Peak

1.5MHz					Polari	zation: Ho	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	39.75	-76.92	27.74	6.93	30.84	-73.09	-13.00	-60.09	Peak
2	598.09	-78.48	27.78	9.92	30.42	-71.20	-13.00	-58.20	Peak
3	1430.68	-69.07	36.97	12.24	29.33	-49.19	-13.00	-36.19	Peak
4	2335.27	-68.91	40.18	14.46	28.95	-43.22	-13.00	-30.22	Peak
5	5801.06	-72.48	44.00	9.59	33.20	-52.09	-13.00	-39.09	Peak
6	9280.59	-74.30	49.55	11.75	31.19	-44.19	-13.00	-31.19	Peak
1.5MHz					Polari	zation: Ver	tical		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	44.64	-67.56	21.58	6.99	30.92	-69.91	-13.00	-56.91	Peak
2	632.71	-78.81	28.21	10.02	30.21	-70.79	-13.00	-57.79	Peak
3	1508.15	-68.64	37.76	12.43	29.54	-47.99	-13.00	-34.99	Peak
5		-69.40	41.63	14.05	29.46	-43.18	-13.00	-30.18	Peak
4	2208.03	-09.40	41.05						
	2208.03 4996.14	-71.06	44.49	8.81	34.81	-52.57	-13.00	-39.57	Peak

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782MHz					Polari	zation: Hor	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	44.95	-95.49	25.56	6.99	0.00	-62.94	-13.00	-49.94	Peak
2	420.77	-93.54	25.98	9.24	0.00	-58.32	-13.00	-45.32	Peak
3	1553.29	-51.48	36.23	4.40	36.94	-47.79	-13.00	-34.79	Peak
4	2334.18	-58.97	40.19	5.46	37.37	-50.69	-13.00	-37.69	Peak
5	3616.45	-68.65	42.37	6.93	37.02	-56.37	-13.00	-43.37	Peak
6	9019.05	-74.53	48.56	11.70	30.66	-44.93	-13.00	-31.93	Peak
782MHz					Polari	zation: Ver	tical		
782MHz Mark	Frequency MH7	Reading	Antenna dB	Cable dB	Preamp	Level	Limit	Over	Remark
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
			dB 25.42	dB 7.41	Preamp	Level	Limit dBm -13.00		Peak
Mark 1	MHz 88.93	dBm -93.12 -92.62	dB 25.42 26.08	dB	Preamp dB 0.00	Level dBm -60.29 -57.01	Limit dBm -13.00 -13.00	limit -47.29 -44.01	Peak Peak
Mark 1 2	MHz 88.93 492.92	dBm -93.12	dB 25.42	dB 7.41 9.53	Preamp dB 0.00	Level dBm -60.29	Limit dBm -13.00	limit -47.29	Peak
Mark 1 2 3	MHz 88.93 492.92 1553.29	dBm -93.12 -92.62 -56.17	dB 25.42 26.08 37.76	dB 7.41 9.53 4.40	Preamp dB 0.00 0.00 36.94	Level dBm -60.29 -57.01 -50.95	Limit dBm -13.00 -13.00	limit -47.29 -44.01 -37.95	Peak Peak Peak

9.5MHz		Polar	Polarization: Horizontal						
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	40.74	-94.93	27.43	6.94	0.00	-60.56	-13.00	-47.56	Peak
2	438.91	-93.85	26.04	9.32	0.00	-58.49	-13.00	-45.49	Peak
3	1557.25	-59.02	36.20	4.41	36.94	-55.35	-13.00	-42.35	Peak
4	2340.13	-66.66	40.15	5.46	37.34	-58.39	-13.00	-45.39	Peak
5	4676.70	-70.44	43.53	8.19	34.66	-53.38	-13.00	-40.38	Peak
6	8703.29	-75.21	48.14	11.98	29.94	-45.03	-13.00	-32.03	Peak
9.5MHz					Polar	ization: Ve	rtical		
9.5MHz Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Polar Preamp dB		rtical Limit	Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 92.76	dBm -95.63	dB 25.85	dB 7.45	Preamp dB 0.00	Level dBm -62.33	Limit dBm -13.00	limit -49.33	Peak
Mark 1 2	MHz 92.76 512.36	dBm -95.63 -93.90	dB 25.85 25.97	dB 7.45 9.60	Preamp dB 0.00	Level dBm -62.33 -58.33	Limit dBm -13.00 -13.00	limit -49.33 -45.33	Peak Peak
Mark 1 2 3	MHz 92.76 512.36 1557.25	dBm -95.63 -93.90 -60.74	dB 25.85 25.97 37.76	dB 7.45 9.60 4.41	Preamp dB 0.00 0.00 36.94	Level dBm -62.33 -58.33 -55.51	Limit dBm -13.00 -13.00	limit -49.33 -45.33 -42.51	Peak Peak Peak

'84.5MHz						Polarization: Horizontal					
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark		
	MHz	dBm	dB	dB	dB	dBm	dBm	limit			
1	44.64	-92.49	25.69	6.99	0.00	-59.81	-13.00	-46.81	Peak		
2	416.36	-93.68	25.88	9.23	0.00	-58.57	-13.00	-45.57	Peak		
3	1569.19	-60.11	36.13	4.43	36.99	-56.54	-13.00	-43.54	Peak		
4	3653.46	-68.26	42.34	6.97	37.09	-56.04	-13.00	-43.04	Peak		
5	5448.41	-72.07	43.99	9.35	32.78	-51.51	-13.00	-38.51	Peak		
6	10217.17	-74.59	50.97	12.41	31.93	-43.14	-13.00	-30.14	Peak		
'84.5MHz		Polariza						ization: Vertical			
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark		
	MHz	dBm	dB	dB	dB	dBm	dBm	limit			
	11112										
1	92.76	-94.25	25.85	7.45	0.00	-60.95	-13.00	-47.95	Peak		
1 2			25.85 25.14	7.45 9.16	0.00 0.00	-60.95 -57.73	-13.00 -13.00	-47.95 -44.73	Peak Peak		
	92.76	-94.25									
2	92.76 394.97	-94.25 -92.03	25.14	9.16	0.00	-57.73	-13.00	-44.73	Peak		
2 3	92.76 394.97 1569.19	-94.25 -92.03 -61.82	25.14 37.76	9.16 4.43	0.00 36.99	-57.73 -56.62	-13.00 -13.00	-44.73 -43.62	Peak Peak		

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Band12

04MHz						Polarization: Horizontal					
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark		
1	40.74	-94.13	27.43	6.94	0.00	-59.76	-13.00	-46.76	Peak		
2	431.26	-93.36	26.01	9.29	0.00	-58.06	-13.00	-45.06	Peak		
3	1399.35	-59.89	37.16	4.17	36.57	-55.13	-13.00	-42.13	Peak		
4	2796.57	-60.94	40.70	6.03	37.37	-51.58	-13.00	-38.58	Peak		
5	3498.74	-60.75	40.99	6.79	37.10	-50.07	-13.00	-37.07	Peak		
6	8814.77	-75.05	48.81	11.94	30.70	-45.00	-13.00	-32.00	Peak		
704MHz	Polarization: Vertical										
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark		
	MHz	dBm	dB	dB	dB	dBm	dBm	limit			
1	97.78	-93.61	25.78	7.49	0.00	-60.34	-13.00	-47.34	Peak		
2	419.30	-92.83	25.37	9.24	0.00	-58.22	-13.00	-45.22	Peak		
3	2097.51	-57.50	40.02	5.15	37.50	-49.83	-13.00	-36.83	Peak		
4	3498.74	-56.82	41.10	6.79	37.10	-46.03	-13.00	-33.03	Peak		
5	6412.43	-73.59	46.73	9.70	34.07	-51.23	-13.00	-38.23	Peak		
	10778.21	-74.46	52.58	12.50	32.84	-42.22	-13.00	-29.22	Peak		

07.5MHz						Polarization: Horizontal				
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark	
1	37.84	-93.50	27.46	6.90	0.00	-59.14	-13.00	-46.14	Peak	
2	393.58	-92.17	25.28	9.15	0.00	-57.74	-13.00	-44.74	Peak	
3	2108.21	-59.25	40.14	5.17	37.46	-51.40	-13.00	-38.40	Peak	
4	2810.85	-60.17	40.75	6.05	37.40	-50.77	-13.00	-37.77	Peak	
5	4223.95	-65.41	42.36	7.69	35.91	-51.27	-13.00	-38.27	Peak	
6	8703.29	-75.35	48.14	11.98	29.94	-45.17	-13.00	-32.17	Peak	
)7.5MHz										
7.5MHz					Polari	zation: Ver	tical			
)7.5MHz Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark	
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit		
Mark 1	MHz 51.56	dBm -90.21	dB 22.36	dB 7.06	Preamp dB 0.00	Level dBm -60.79	Limit dBm -13.00	limit -47.79	Peak	
Mark 1 2	MHz 51.56 521.44	dBm -90.21 -93.04	dB 22.36 25.77	dB 7.06 9.63	Preamp dB 0.00	Level dBm -60.79 -57.64	Limit dBm -13.00 -13.00	limit -47.79 -44.64	Peak Peak	
Mark 1	MHz 51.56	dBm -90.21	dB 22.36	dB 7.06	Preamp dB 0.00	Level dBm -60.79	Limit dBm -13.00	limit -47.79	Peak	
Mark 1 2	MHz 51.56 521.44	dBm -90.21 -93.04	dB 22.36 25.77	dB 7.06 9.63	Preamp dB 0.00	Level dBm -60.79 -57.64	Limit dBm -13.00 -13.00	limit -47.79 -44.64	Peak Peak	
1 2 3	MHz 51.56 521.44 1663.80	dBm -90.21 -93.04 -59.58	dB 22.36 25.77 36.15	dB 7.06 9.63 4.56	Preamp dB 0.00 0.00 37.16	Level dBm -60.79 -57.64 -56.03	Limit dBm -13.00 -13.00	limit -47.79 -44.64 -43.03	Peak Peak Peak	

711MHz						Polarization: Horizontal					
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark		
1	38.78	-94.43	27.60	6.92	0.00	-59.91	-13.00	-46.91	Peak		
2	438.91	-93.71	26.04	9.32	0.00	-58.35	-13.00	-45.35	Peak		
3	1413.67	-57.33	37.07	4.19	36.65	-52.72	-13.00	-39.72	Peak		
4	2825.19	-60.98	40.77	6.06	37.46	-51.61	-13.00	-38.61	Peak		
5	3534.54	-59.78	41.49	6.83	37.04	-48.50	-13.00	-35.50	Peak		
6	8996.12	-75.17	48.50	11.84	30.23	-45.06	-13.00	-32.06	Peak		
711MHz	Polarization: Vertical										
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	Over	Remark		
	MHz	dBm	dB	dB	dB	dBm	dBm	limit			
1	89.87	-94.44	25.83	7.42	0.00	-61.19	-13.00	-48.19	Peak		
2	419.30	-93.21	25.37	9.24	0.00	-58.60	-13.00	-45.60	Peak		
3	1413.67	-58.65	37.76	4.19	36.65	-53.35	-13.00	-40.35	Peak		
4	2118.97	-57.19	40.38	5.18	37.42	-49.05	-13.00	-36.05	Peak		
5	3534.54	-58.90	41.64	6.83	37.04	-47.47	-13.00	-34.47	Peak		
6	8725.48	-75.64	48.88	11.97	30.09	-44.88	-13.00	-31.88	Peak		

-----End of Report-----