

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

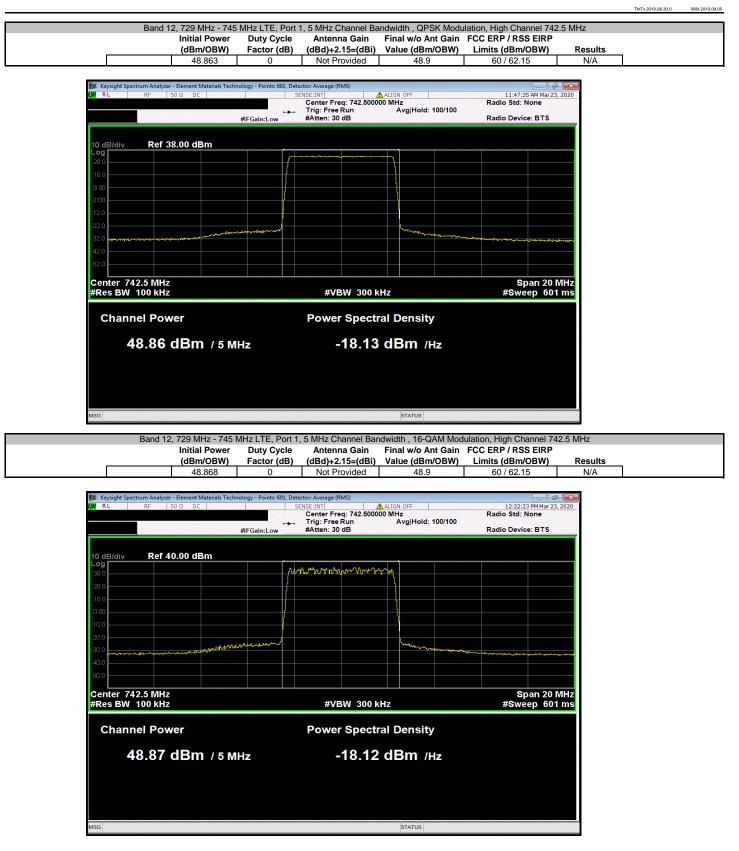
The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 27.50(c)(3), the Effective Radiated Power (ERP) of the transceiver cannot exceed 1000 Watts/MHz Per RSS 130 section 4.6.3/ SRSP-518 5.1, the maximum (EIRP) limits are 1640 watts/MHz.

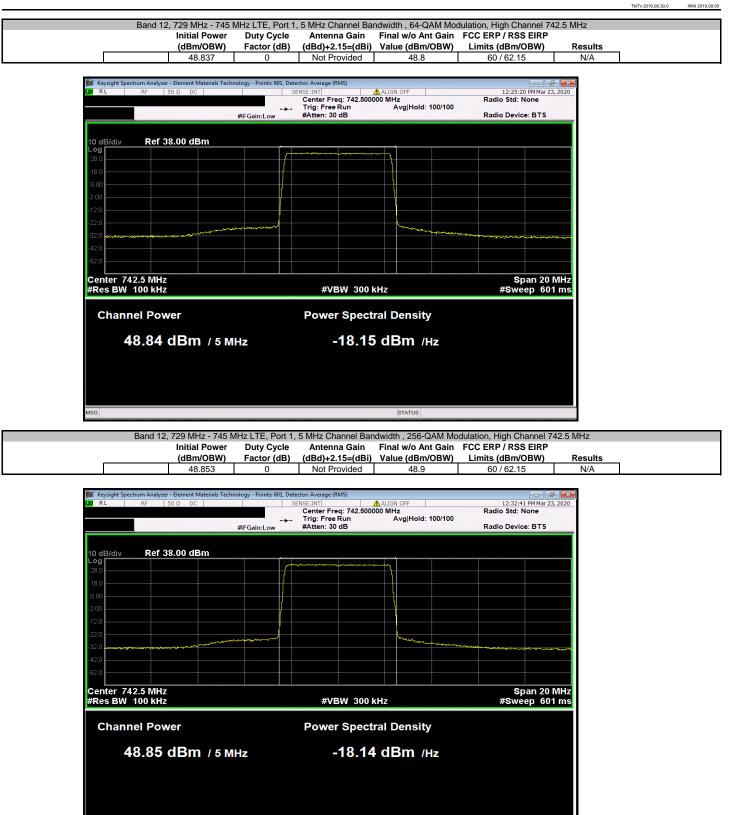


						TbtTx 2019.08.30.0	XMit 2019.09.0
	eiver Station Remote Radio Head Model AHLBBA				Work Order:		
Serial Number: K9193514835						23-Mar-20	
Customer: Nokia Solutions and N					Temperature:		
Attendees: Mitch Hill, John Ratta	navong				Humidity:		
Project: None					Barometric Pres.:		
Tested by: Brandon Hobbs		Power: 54 VDC			Job Site:	TX03	
TEST SPECIFICATIONS		Test Method					
FCC 27:2020		ANSI C63.26:2015					
RSS-130:2019, SRSP-518		RSS-130:2019, SR	SP-518				
COMMENTS							
	Inted for in the reference level offest including any rst case port was determined in the original client					ed for testing. Measured o	only the affected
DEVIATIONS FROM TEST STANDARD							
None							
Configuration # 2,6	Signature	-Jar					
		Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW)	Results
Band 12, 729 MHz - 745 MHz LTE Port 1		· · ·	. /		· · ·	· ·	
	annel Bandwidth						
	QPSK Modulation	10.000			40.0	AA / AA / F	
	High Channel 742.5 MHz	48.863	0	Not Provided	48.9	60 / 62.15	N/A
	16-QAM Modulation	40.000	0	Not Devided	40.0	00 / 00 45	N1/A
	High Channel 742.5 MHz 64-QAM Modulation	48.868	0	Not Provided	48.9	60 / 62.15	N/A
	64-QAM Modulation High Channel 742.5 MHz	48.837	0	Not Provided	48.8	60 / 62.15	N/A
	256-QAM Modulation	40.037	0	Not Flovided	40.0	007 02.15	IN/A
	High Channel 742.5 MHz	48.853	0	Not Provided	48.9	60 / 62.15	N/A
10 MHz C	hannel Bandwidth	40.000	Ū	Not i Tovideu	40.0	007 02.10	10/X
	QPSK Modulation						
	High Channel 740 MHz	48.829	0	Not Provided	48.8	60 / 62.15	N/A
	16-QAM Modulation						
	High Channel 740 MHz	48.817	0	Not Provided	48.8	60 / 62.15	N/A
	64-QAM Modulation						
	High Channel 740 MHz	48.85	0	Not Provided	48.9	60 / 62.15	N/A
	256-QAM Modulation						
Devit	High Channel 740 MHz	48.843	0	Not Provided	48.8	60 / 62.15	N/A
Port 2 5 MHz Ch	annel Bandwidth QPSK Modulation						
	High Channel 742.5 MHz	48.872	0	Not Provided	48.9	60 / 62.15	N/A
	16-QAM Modulation	40.012	<u> </u>		.0.0	00, 02.10	
	High Channel 742.5 MHz	48,706	0	Not Provided	48.7	60 / 62.15	N/A
	64-QAM Modulation		-				
	High Channel 742.5 MHz	48.772	0	Not Provided	48.8	60 / 62.15	N/A
	256-QAM Modulation						
	High Channel 742.5 MHz	48.748	0	Not Provided	48.7	60 / 62.15	N/A
10 MHz C	hannel Bandwidth						
	QPSK Modulation						
	High Channel 740 MHz	48.786	0	Not Provided	48.8	60 / 62.15	N/A
	16-QAM Modulation						
	High Channel 740 MHz	48.748	0	Not Provided	48.7	60 / 62.15	N/A
	64-QAM Modulation						
	High Channel 740 MHz	48.714	0	Not Provided	48.7	60 / 62.15	N/A
	256-QAM Modulation	10 70 (AA / AA / F	
	High Channel 740 MHz	48.731	0	Not Provided	48.7	60 / 62.15	N/A









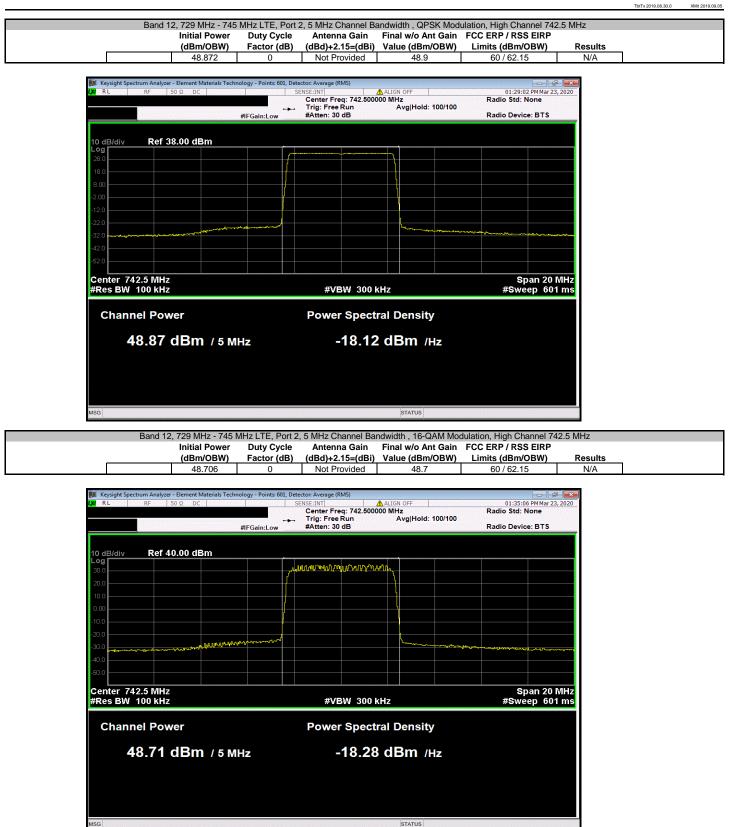


Initial Power (dBm/OBW) Duty Cycle Factor (dB) Antenna Gain (dBd)+2.15=(dBi) Final w/o Ant Gain Value (dBm/OBW) FCC ERP / R Limits (dBr 48.829 0 Not Provided 48.8 60 / 62	
Keysight Spectrum Analyzer - Element Materials Technology - Points: 601, Detector: Average (RMS)	
	2.15 N/A
M RL RF 50 Ω DC SENSE:INT ALIGN OFF 02:3	6:04 PM Mar 23, 2020
Center Freq: 740.000000 MHz Radio St	d: None
#IFGain:Low #Atten: 30 dB Radio De	evice: BTS
10 dB/div Ref 38.00 dBm	
28.0	
-2.00	
-12.0	
32.0	
52.0	
Center 740 MHz	Span 25 MHz
	weep 601 ms
Channel Power Power Spectral Density	
48.83 dBm / 10 мнz -21.17 dBm /нz	
(dBm/OBW) Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBW) Limits (dBr 48.817 0 Not Provided 48.8 60 / 62	
🎉 Keysight Spectrum Analyzer - Element Materials Technology - Points: 601, Detector: Average (RMS)	
X RF 50 Ω DC SENSE:INT ALIGN OFF 02:4 Center Freq: 740.000000 MHz Radio Str	12:54 PM Mar 23, 2020
100 RL RF 50 Ω DC SENSEINT ALIGN OFF 02:4 Center Freq: 740.000000 MHz Radio Stu →→ Trig: Free Run Avg Hold: 100/100	12:54 PM Mar 23, 2020
QM RL RF 50 Ω DC SENSE:INT ▲ ALIGN OFF 02:4 Center Freq: 740.000000 MHz Radio Str #IFGain:Low Trig: Free Run Avg Hold: 100/100 Radio De #IFGain:Low #Atten: 30 dB Radio De	42:54 PM Mar 23, 2020 d: None
Mail RL RF 50 Ω DC SENSE.INT Ald GN OFF 02:4 Center Freq: 740.000000 MHz Radio Str Trig: Free Run Avg Hold: 100/100 #IFGain:Low #Atten: 30 dB Radio De 10 dB/div Ref 39.00 dBm Control of the second data	42:54 PM Mar 23, 2020 d: None
Mark RF 50 Ω DC SENSE.INT All GN OFF 02:4 Center Freq; 740.000000 MHz Radio Str #IFGain:Low Trig: Free Run Avg Hold: 100/100 Radio De 10 dB/div Ref 39.00 dBm	42:54 PM Mar 23, 2020 d: None
Mail RL RF 50 Ω DC SENSE:INT Ald GN OFF 02:4 Center Freq; 740.000000 MHz Radio Str Trig: Free Run Avg Hold: 100/100 Radio De #IFGain:Low #IFGain:Low #Atten: 30 dB Radio De Radio De 10 dB/div Ref 39.00 dBm Center Freq; 740.0000 MHz Radio De 9.00	42:54 PM Mar 23, 2020 d: None
Image: Weight of the second	42:54 PM Mar 23, 2020 d: None
M RL RF 50 Ω DC SENSE.INT ALIGN OFF 02:4 Center Freq; 740.000000 HHz Radio Str Trig: Free Run Avg Hold: 100/100 Radio Str #IFGain:Low #IFGain:Low #Atten: 30 dB Radio Str Radio Str 10 dB/div Ref 39.00 dBm	42:54 PM Mar 23, 2020 d: None
M ALIGN OFF 02:4 Center Freq; 740.000000 MHz Radio Str #IFGain:Low Trig: Free Run Avg Hold: 100/100 Radio De #Atten: 30 dB Radio Str 10 dB/div Ref 39.00 dBm Ref 39.00 dBm 10 dB/div Ref 39.00 dBm Ref 39.00 dBm 220 Image: Str Image: Str 10 dB/div Ref 39.00 dBm Image: Str 220 Image: Str Image: Str 221.0 Image: Str Image: Str	42:54 PM Mar 23, 2020 d: None
OX RL RF 50 Ω DC SENSE.INT ① AUGNOFF 02:4 Center Freq; 740.000000 HHz Radio Str Trig: Free Run Avg Hold: 100/100 Radio De 10 dB/div Ref 39.00 dBm #Atten: 30 dB Radio De Radio De 230 10 dB/div Ref 39.00 dBm 10 dB/div Ref 39.00 dBm 10 dB/div Radio De 10 dB/div Ref 39.00 dBm 10 dB/div Ref 39.00 dBm 10 dB/div	12:54 PM Mar 23, 2020 d: None evice: BTS
Mail RL RF 50 Ω DC SENSE.INT Align OFF 02:4 Center Freq; 740.000000 MHz Radio Str Trig: Free Run Avg Hold: 100/100 Radio De #IFGain:Low #IFGain:Low #Atten: 30 dB Avg Hold: 100/100 Radio De 10 dB/div Ref 39.00 dBm	12:54 PM Mar 23, 2020 d: None evice: BTS
OX RL RF 50 Ω DC SENSE.INT ① AUGNOFF 02:4 Center Freq; 740.000000 HHz Radio Str Trig: Free Run Avg Hold: 100/100 Radio De 10 dB/div Ref 39.00 dBm #Atten: 30 dB Radio De Radio De 230 10 dB/div Ref 39.00 dBm 10 dB/div Ref 39.00 dBm 10 dB/div Radio De 10 dB/div Ref 39.00 dBm 10 dB/div Ref 39.00 dBm 10 dB/div	12:54 PM Mar 23, 2020 d: None evice: BTS
Image: Server inf information of the informati	12:54 PM Mar 23, 2020 d: None evice: BTS
W RL RF 50 Ω DC SENSE:INT ΔALIGN OFF 02:4 #IFGain:Low #IFGain:Low #IFGain:Low Avg Hold: 100/100 Radio Str 10 dB/div Ref 39.00 dBm Radio De 290 10 10 10 10 31.0 10 10 10 10 10 41 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 110 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 <td< td=""><td>12:54 PM Mar 23, 2020 d: None evice: BTS</td></td<>	12:54 PM Mar 23, 2020 d: None evice: BTS

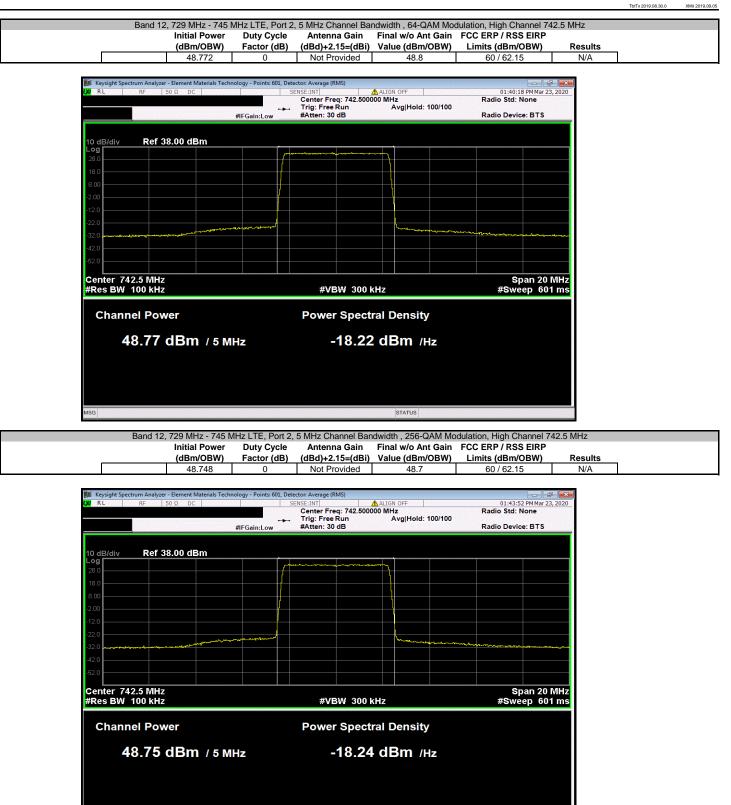


Initial Power (dBm/OBW)	Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV	N) Limits (dBm/OBW) Res	esults
48.85	0 Not Provided 48.9	60 / 62.15 N	N/A
Keysight Spectrum Analyzer - Element Materials Techn UM RL RF 50 Ω DC	nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF	02:49:05 PM Mar 23, 2020	
	Center Freq: 740.000000 MHz Trig: Free Run Avg Hold: 100/1	Radio Std: None	
	#IFGain:Low #Atten: 30 dB	Radio Device: BTS	
10 dB/div Ref 38.00 dBm			
28.0			
8.00			
-12.0			
-22.0			
-42.0			
-52.0 Center 740 MHz		Span 25 MHz	
#Res BW 200 kHz	#VBW 620 kHz	#Sweep 601 ms	
Channel Power	Power Spectral Density		
48.85 dBm / 10 r	мнz -21.15 dBm /нz		
MSG	STATUS		
	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN	in FCC ERP / RSS EIRP	tz esults
Band 12, 729 MHz - 745 I Initial Power	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga	in FCC ERP / RSS EIRP W) Limits (dBm/OBW) Res	
Band 12, 729 MHz - 745 Initial Power (dBm/OBW)	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS)	in FCC ERP / RSS EIRP W) Limits (dBm/OBW) Res	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 Keysight Spectrum Analyzer - Element Materials Tech	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 Keysight Spectrum Analyzer - Element Materials Techn RL RF 50 Ω DC	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAM Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz	Ain FCC ERP / RSS EIRP N Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 M Keysight Spectrum Analyzer - Element Materials Techn M RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm Log	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 Initial Power (dBm/OBW) 10 dB/div 10 dB/di 10 dB/div 10 dB/div 10 dB/div 10 dB/div 10 dB/div 10 d	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP M) Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 MK Keysight Spectrum Analyzer - Element Materials Techn MK RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm 20.0	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP M) Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 I Initial Power (dBm/OBW) 48.843	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP M) Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 I Initial Power (dBm/OBW) 48.843 Keysight Spectrum Analyzer- Element Materials Techn N RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm 280 180 8.00 -2.00 -120 -220 -320	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP M) Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 I Initial Power (dBm/OBW) 48.843 Keysight Spectrum Analyzer - Element Materials Techn RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm 28.0 18.0 8.00 2.00 12.0 22.0	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) SENSE:INT ALIGN OFF Center Freq: 740.000000 MHz - Trig: Free Run Avg Hold: 100/1	Ain FCC ERP / RSS EIRP M) Limits (dBm/OBW) Res 60 / 62.15 N 02:52:50 PM Mar 23, 2020 Radio Std: None	esults
Band 12, 729 MHz - 745 I Initial Power (dBm/OBW) 48.843 Keysight Spectrum Analyzer - Element Materials Techn RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm Log 28 0 18 0 8 00 20 0 12 0 22 0 32 0 42 0 52 0 Center 740 MHz	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector Average (RMS) Center Freq: 740.000000 MHz 	hin FCC ERP / RSS EIRP M Limits (dBm/OBW) Res 60 / 62.15 N Control Control	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 ■ Keysight Spectrum Analyzer - Element Materials Techn RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm 280 10 dB/div Ref 38.00 dBm 290 200 200 200 200 200 200 200	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points 601 Detector Average (RMS) SENSE:INT Conter Freq: 740.00000 MHz Trig: Free Run Avg Hold: 100/1 #IFGain:Low #Atten: 30 dB #UBW 620 KHz	An FCC ERP / RSS EIRP M Limits (dBm/OBW) Res 60 / 62.15 N COMMAR 23,2020 Radio Std: None Radio Device: BTS	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 Image: state sta	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) Center Freq: 740, 00000 MHz Trig: Free Run #Atten: 30 dB #UBW 620 kHz Power Spectral Density	hin FCC ERP / RSS EIRP M Limits (dBm/OBW) Res 60 / 62.15 N Control Control	esults
Band 12, 729 MHz - 745 Initial Power (dBm/OBW) 48.843 ■ Keysight Spectrum Analyzer - Element Materials Techn RL RF 50 Ω DC 10 dB/div Ref 38.00 dBm 280 10 dB/div Ref 38.00 dBm 290 200 200 200 200 200 200 200	MHz LTE, Port 1, 10 MHz Channel Bandwidth, 256-QAN Duty Cycle Antenna Gain Final w/o Ant Ga Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OBV 0 Not Provided 48.8 nology - Points: 601, Detector: Average (RMS) Center Freq: 740, 00000 MHz Trig: Free Run #Atten: 30 dB #UBW 620 kHz Power Spectral Density	hin FCC ERP / RSS EIRP M Limits (dBm/OBW) Res 60 / 62.15 N Control Control	esults











Band	Initial Power	Duty Cycle	2, 10 MHz Channel Antenna Gain		dulation, High Channel 7 FCC ERP / RSS EIRP	40 MHZ	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results	-
	48.786	0	Not Provided	48.8	60 / 62.15	N/A	
Keysight Spectrum Analyze	r - Element Materials Tec 50 Ω DC		ENSE:INT	ALIGN OFF	02:06:08 PM Mar 2	a a a a a a a a a a a a a a a a a a a	
			Center Freq: 740.000 Trig: Free Run #Atten: 30 dB	000 MHz Avg Hold: 100/100	Radio Std: None		
		#IFGain:Low	#Atten: 30 dB		Radio Device: BTS		
10 dB/div Ref 3	8.00 dBm						
28.0							
8.00							
-2.00				\			
-22.0							
-32.0							
-52.0							
Center 740 MHz			#\/DW_686		Span 25		
#Res BW 200 kHz			#VBW 6201		#Sweep 60		
Channel Pov	ver		Power Spect	ral Density			
48.79	dBm / 10	MHz	-21.21	dBm /нz			
uso.				STATIS			
MSG Band 1	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	odulation, High Channel FCC ERP / RSS EIRP	740 MHz	_
			Antenna Gain	Bandwidth, 16-QAM Mo		740 MHz Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.0000 Trig: Free Run	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 Align off Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector. Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000 #Atten: 30 dB	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF D000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq Run #Atten: 30 dB #VBW 620 I Power Spect	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq Run #Atten: 30 dB #VBW 620 I Power Spect	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF D000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
Band 1 Ba	Initial Power (dBm/OBW) 48.748	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq Run #Atten: 30 dB #VBW 620 I Power Spect	Bandwidth, 16-QAM Mo Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1



	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	Limits (dBm/OBW)	Results	
	48.714	0	Not Provided	48.7	60 / 62.15	N/A	
Keysight Spectrum Analyze					02:21:41 PM Mar 2		
(X) RL RF	50 Ω DC	-	GENSE:INT Center Freq: 740.0000 Trig: Free Run	ALIGN OFF D00 MHz Avg Hold: 100/100	Radio Std: None	3,2020	
		#IFGain:Low	#Atten: 30 dB		Radio Device: BTS		
10 dB/div Ref 3	8.00 dBm						
28.0							
18.0 8.00							
-2.00							
-22.0							
-32.0							
-52.0							
Center 740 MHz #Res BW 200 kHz			#VBW 6201	kHz	Span 25 #Sweep 60	MHz 1 ms	
Channel Pov			Power Spect	ral Density			
48.71	dBm / 10	MHz	-21.29	dBm /Hz			
MSG				STATUS			
				andwidth, 256-QAM M	odulation, High Channel	740 MHz	
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW)	Results	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12 Band 1	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12 Image: Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:26:06 PMMar 2 Radio Std: None Radio Device: BTS	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) EXISE:UNT Center Freq: 740.0000 Trig: Free Run	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7 Allign OFF D00 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC 8.00 dBm	Duty Cycle Factor (dB) 0 anology - Points: 601, Det	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF D000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:26:00 PMMar2 Radio Std: None Radio Device: BTS	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC 8.00 dBm 8.00 dBm 9 <	Duty Cycle Factor (dB) 0 anology - Points 601, Det #IFGain:Low	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF 000 MHz Avg Hold: 100/100 KHz KHz ral Density	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:26:00 PMMar2 Radio Std: None Radio Device: BTS	Results N/A	
Band 12	Initial Power (dBm/OBW) 48.731 - Element Materials Tech 50 Ω DC 8.00 dBm	Duty Cycle Factor (dB) 0 anology - Points 601, Det #IFGain:Low	Antenna Gain (dBd)+2.15=(dBi) Not Provided	andwidth, 256-QAM M Final w/o Ant Gain Value (dBm/OBW) 48.7 ALIGN OFF D000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:26:00 PMMar2 Radio Std: None Radio Device: BTS	Results N/A	



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

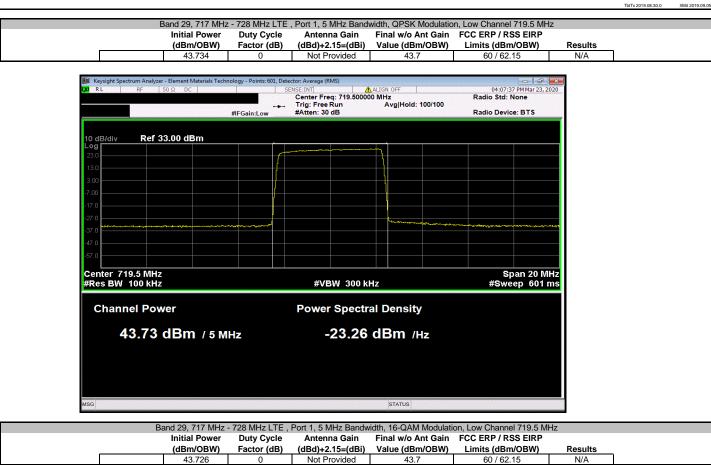
The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 27.50(c)(3), the Effective Radiated Power (ERP) of the transceiver cannot exceed 1000 Watts/MHz Per RSS 130 section 4.6.3/ SRSP-518 5.1, the maximum (EIRP) limits are 1640 watts/MHz.

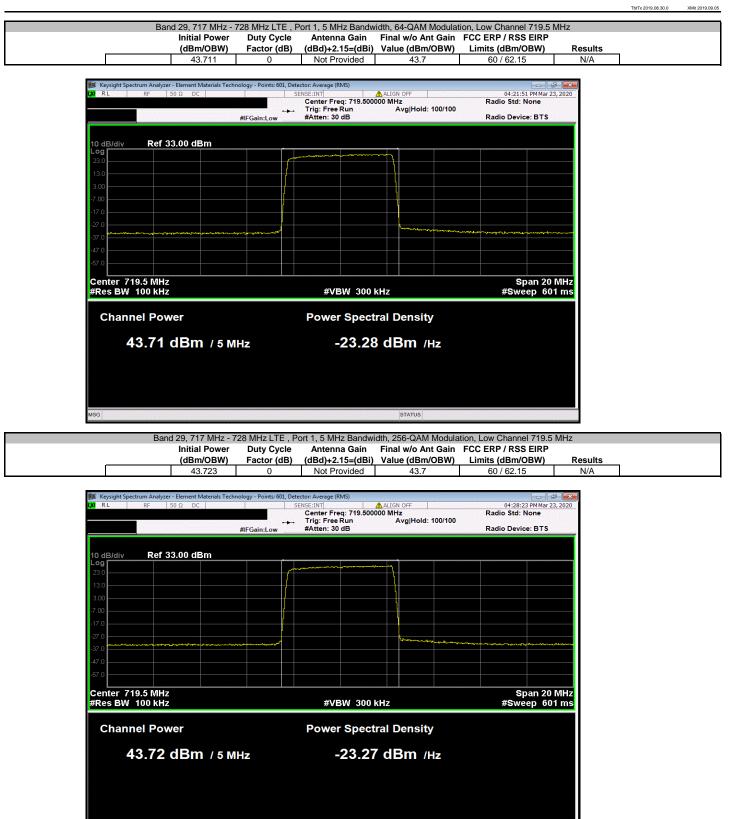


Serial Number: K9193514835 Di		
	der: NOKI0013	
	ate: 23-Mar-20	
	ure: 22.7 °C	
	lity: 48.9% RH	
	es.: 1008 mbar	
	ite: TX03	
TEST SPECIFICATIONS Test Method		
CC 27:2020 ANSI C63.26:2015		
RSS-130:2019, SRSP-518 RSS-130:2019, SRSP-518		
COMMENTS		
Il measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The hottest port per power amplifier (PA) was	used for testing. Measured c	only the
iffected channels in each extended band. The worst case port was determined in the original client provided test report. The carrier power was set to maximum for all testing	g.	
IEVIATIONS FROM TEST STANDARD		
Configuration # 2.6		
Signature		
Initial Power Duty Cycle Antenna Gain Final w/o Ant Ga	in FCC ERP / RSS EIRP	
(dBm/OBW) Factor (dB) (dBd)+2.15=(dBi) Value (dBm/OB)		Results
Sand 29, 717 MHz - 728 MHz LTE	.,	
Port 1		
5 MHz Bandwidth		
QPSK Modulation		
Low Channel 719.5 MHz 43.734 0 Not Provided 43.734	60 / 62.15	N/A
16-QAM Modulation		
Low Channel 719.5 MHz 43.726 0 Not Provided 43.726	60 / 62.15	N/A
64-QAM Modulation		
	60 / 62.15	N/A
Low Channel 719.5 MHz 43.711 0 Not Provided 43.711		11/7
256-QAM Modulation		
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723	60 / 62.15	N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth	60 / 62.15	
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation		N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.768	60 / 62.15 60 / 62.15	
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.768 16-QAM Modulation	60 / 62.15	N/A N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.768 16-QAM Modulation Low Channel 722 MHz 43.775 0 Not Provided 43.775		N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth Image: Comparison of the provided 43.723 0 Not Provided 43.723 IO PSK Modulation Image: Comparison of the provided 43.768 0 Not Provided 43.768 I6-QAM Modulation Image: Comparison of the provided 43.776 0 Not Provided 43.775 Image: Comparison of the provided Image: Comparison of the provided 43.775 0 Not Provided 43.775 Image: Comparison of the provided of the provided Image: Comparison of the provided of the provi	60 / 62.15	N/A N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.768 16 QAM Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.775 16-QAM Modulation Low Channel 722 MHz 43.775 0 Not Provided 43.775 64-QAM Modulation Low Channel 722 MHz 43.739 0 Not Provided 43.739	60 / 62.15	N/A N/A
256-QAM Modulation Low Channel 719.5 MHz 43.723 0 Not Provided 43.723 10 MHz Bandwidth QPSK Modulation Low Channel 722 MHz 43.768 0 Not Provided 43.768 16-QAM Modulation Low Channel 722 MHz 43.775 0 Not Provided 43.775 64-QAM Modulation	60 / 62.15 60 / 62.15	N/A N/A N/A



RL RF 50 Ω DC	SENSE:INT ALIGN OFF Center Freq: 719.500000 MHz	04:18:08 PM Mar 23, 2020 Radio Std: None
	Trig: Free Run Avg Hold: 100/100	Radio Device: BTS
#IFGa	in:Low #Atten: 30 dB	Radio Device: B I S
dB/div Ref 34.00 dBm		
.0	_{իսան} երություններություններություններություններություններություններություններություններություններություններությո	
0		
.0		
.0	a desperied to the second se	
0		
.0		
enter 719.5 MHz		Span 20 MHz
les BW 100 kHz	#VBW 300 kHz	#Sweep 601 ms
		-
Channel Power	Power Spectral Density	
	· · · · · · · · · · · · · · · · · · ·	
43.73 dBm / 5 мнz	-23.26 dBm /нz	







	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain		ation, Low Channel 722 M FCC ERP / RSS EIRP Limits (dBm/OBW)	Results
	43.768		Not Provided	43.8	60 / 62.15	N/A
💓 Keysight Spectrum Analyze	- Element Materials Techn	ology - Points: 601, Det	ector: Average (RMS)			
	50 Ω DC		ENSE:INT Center Freq: 722.000		03:09:27 PM Mar 23 Radio Std: None	
		#IFGain:Low	Trig: Free Run #Atten: 30 dB	Avg Hold: 100/100	Radio Device: BTS	
10 dB/div Ref 3	3.00 dBm					
13.0						
-7.00						
-17.0						
-27.0						
-47.0						
-57.0						
Center 722 MHz #Res BW 200 kHz			#VBW 620	kHz	Span 25 #Sweep 60′	n ms
Channel Pow	/er		Power Spect	tral Density		
43.77	dBm / 10 M	ЛНZ	-26.23	3 dBm /Hz		
MSG				STATUS	ation, Low Channel 722 M FCC ERP / RSS EIRP	MHz
MSG	nd 29, 717 MHz - 7	728 MHz LTE , 1	Port 1, 10 MHz Banc Antenna Gain	STATUS	FCC ERP / RSS EIRP Limits (dBm/OBW)	MHz Results
^{MSG} Bar	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775	728 MHz LTE,I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A
MSG Bar	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775	728 MHz LTE , 1 Duty Cycle Factor (dB) 0 ology - Points: 601, Det	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A
MSG Bar	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn	728 MHz LTE , 1 Duty Cycle Factor (dB) 0 ology - Points: 601, Det	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS)	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A
MSG Bar Keysight Spectrum Analyzet	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
MSG Bar Keysight Spectrum Analyze XX RL RF 10 dB/cliv Ref 3	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
Bar Bar Keysight Spectrum Analyzer X RL RF 10 dBJdiv Ref 3	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
MSG Bar Bar M RL RF 10 dB/div Ref 3 Log 25.0	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
Bar Bar Keysight Spectrum Analyze UK RL RF Log 250 15.0 5.00 -5.00 -15.0	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
MSG ■ Keysight Spectrum Analyzei ■ Keysight Spectrum Analyzei ■ RL RF 10 dB/div Ref 3 250 150 5.00 -5.00	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
Bar Bar Keysight Spectrum Analyze UK RL RF Log 250 15.0 5.00 -5.00 -15.0	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
MSG ■ Keysight Spectrum Analyze W RL RF 10 dB/div Ref 3 250 150 5.00 5	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	status dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:31:08 PM Mar 22 Radio Std: None Radio Device: BTS	Results N/A
MSG Bar Bar Keysight Spectrum Analyzer XR RL RF 10 dBJ/div Ref 3 25.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 5.0 15.0 1	hd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC 5,000 dIBm	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run	STATUS dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8 ALIGN OFF 0000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBn//OBW) 60 / 62.15	Results N/A
MSG Bar Bar MSG MSG MSG MSG Bar Not Spectrum Analyzer MRL RF 10 dB/div Ref 3 25.0 15.0 5.00 5.00 5.00 5.00 5.00 5.00 5	nd 29, 717 MHz - 7 Initial Power (dBm/OBW) 43.775 - Element Materials Techn 50 Ω DC	728 MHz LTE , I Duty Cycle Factor (dB) 0	Port 1, 10 MHz Banc Antenna Gain (dBd)+2.15=(dBi) Not Provided etor: Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Free Run #Atten: 30 dB	STATUS dwidth, 16-QAM Modul Final w/o Ant Gain Value (dBm/OBW) 43.8 ALIGN OFF 0000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:31:08 PMMar 22 Radio Std: None Radio Device: BTS	Results N/A



Dun	Initial Power	Duty Cycle	Port 1, 10 MHz Band Antenna Gain		ation, Low Channel 722 M FCC ERP / RSS EIRP	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
	43.739	0	Not Provided	43.7	60 / 62.15	N/A
Keysight Spectrum Analyzer	- Element Materials Techr 0 Ω DC			ALIGN OFF	03:52:58 PM Mar 23,	
			Center Freq: 722.000 Trig: Free Run	000 MHz Avg Hold: 100/100	Radio Std: None	2020
		#IFGain:Low	#Atten: 30 dB		Radio Device: BTS	
10 dB/div Ref 3 Log	3.00 dBm		1			
23.0						
3.00						
-7.00				\\		
-27.0						
-37.0						
-57.0						
Center 722 MHz			#) (DUL 600		Span 25 M	
#Res BW 200 kHz			#VBW 620		#Sweep 601	ms
Channel Pow	er		Power Spect	ral Density		
43.74	dBm / 10 r	MHz	-26.26	6 dBm /нz		
MSG				STATUS		
				width, 256-QAM Modu	lation, Low Channel 722 M	ИНz
	l 29, 717 MHz - 7 Initial Power (dBm/OBW)	728 MHz LTE , P Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	width, 256-QAM Modu	FCC ERP / RSS EIRP Limits (dBm/OBW)	Results
	Initial Power	Duty Cycle	Antenna Gain	width, 256-QAM Modu Final w/o Ant Gain	FCC ERP / RSS EIRP	
Banc	Initial Power (dBm/OBW) 43.738	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A
Banc	Initial Power (dBm/OBW) 43.738	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A
Banc	Initial Power (dBm/OBW) 43.738	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None	Results N/A
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7 Align off O00 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None Radio Device: BTS	Results N/A 2020
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7 AllGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None Radio Device: BTS	Results N/A 2020
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0 nology - Points: 601, Dete	Antenna Gain (dBd)+2.15=(dBi) Not Provided	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7 AllGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None Radio Device: BTS	Results N/A 2020
Band	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided eton Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Freq: 722.000 Trig: Freq: 722.000 Weather Spect	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7 AllGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None Radio Device: BTS	Results N/A 2020
Banc	Initial Power (dBm/OBW) 43.738 Element Materials Techn 0 Ω DC 3.00 dBm	Duty Cycle Factor (dB) 0	Antenna Gain (dBd)+2.15=(dBi) Not Provided eton Average (RMS) ENSE:INT Center Freq: 722.000 Trig: Freq: 722.000 Trig: Freq: 722.000 Weather Spect	width, 256-QAM Modu Final w/o Ant Gain Value (dBm/OBW) 43.7	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 03:58:01 PM Mar 23, Radio Std: None Radio Device: BTS	Results N/A 2020

STATUS

MSG



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 90.542, the Effective Radiated Power (ERP) of the transceiver cannot exceed 1000 Watts/MHz Per RSS 140 section 4.3 and SRSP-540, the maximum (EIRP) limits are 1000 watts/MHz.

Mid Channel 763 MHz



N/A

EUT: Airscale Base Transceiver Station Remote Radio Head Model AHLBBA Work Order: NOKI0013 Date: 24-Mar-20 EUT: Arscale Base Transceiver Stat Serial Number: K9193514835 Customer: Nokia Solutions and Networks Attendees: Mitch Hill, John Rattanavong Project: None Tested by: Brandon Hobbs TEST SPECIFICATIONS Temperature: 22.4 °C Humidity: 50.6% RH Barometric Pres.: 1008 mbar Job Site: TX03 Power: 54 VDC Test Method FCC 901:2020 ANSI C63.26:2015 RSS-140:2018, SRSP-540 RSS-140:2018, SRSP-540 COMMENTS All measurement path losses were accounted for in the reference level offest including any attenuators, filters and DC blocks. The hottest port per power amplifier (PA) was used for testing. The worst case port was letermined in the original client provided test report. The carrier power was set to maximum for all testing. DEVIATIONS FROM TEST STANDARD None 7 2,6 1 Configuration # 1 Signature Initial Power Duty Cycle Factor (dB) Antenna Gain Final w/o Ant Gain FCC ERP / RSS EIRP (dBm/OBW) (dBd)+2.15=(dBi) Value (dBm/OBW) Limits (dBm/OBW) Results Band 14, 763 MHz, LTE Port 1 10 MHz Bandwidth QPSK Modulation Mid Channel 763 MHz 48.942 Not Provided 48.942 60 / 60 N/A 0 Port 2 10 MHz Bandwidth QPSK Modulation

48.837

0

Not Provided

48.837

60 / 60



	Band 14, 76 Initial Power	3 MHz, LTE, Po Duty Cycle	ort 1, 10 MHz Bandwid Antenna Gain	th, QPSK Modulation, N Final w/o Ant Gain	Vid Channel 763 MHz FCC ERP / RSS EIRP	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
	48.942	0	Not Provided	48.9	60 / 60	N/A
🎉 Keysight Spectrum Analyzer	Element Materials Techn	alagy Deintr 601 Dat	actor Average (PMS)			1
	50 Ω DC		ENSE:INT	ALIGN OFF	04:07:33 PM Mar 24, 2020	
			Center Freq: 763.0000 Trig: Free Run	0 MHz Avg Hold: 100/100	Radio Std: None	
		#IFGain:Low	#Atten: 30 dB	-	Radio Device: BTS	-
to an an Def 2	8.00 dBm					
Log	8.00 dBm					
28.0		\sim				
18.0						
8.00				Ì		
-2.00						
-12.0						
-22.0						
-42.0						
-52.0						
Center 763 MHz			#\/ D \// 600 k		Span 25 MHz	
#Res BW 200 kHz			#VBW 620 k	n 2	#Sweep 601 ms	
Channel Pow	ver		Power Spectr	al Density		
48.94	dBm / 10 M	ЛНz	-21.06	dBm /Hz		
MSG				STATUS		-
						-
				th, QPSK Modulation, N		
	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)	Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW)	Results

	Band 14, 76	53 MHZ, LTE, Por	t 2, 10 MHz Bandwid	th, QPSK Modulation, N	Aid Channel 763 MHz	
	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
	48.837	0	Not Provided	48.8	60 / 60	N/A

RF 50 Ω DC		Detector: Average (RMS) SENSE:INT	ALIGN OFF			15 PM Mar 24, 202	
	#IFGain:Low	Center Freq: 763.0 Trig: Free Run #Atten: 30 dB	000000 MHz Avg Hold: '	100/100	Radio Std: Radio Devi		
IB/div Ref 38.00 dBm							
]	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
				<			
nter 763 MHz es BW 200 kHz		#VBW 62	0 kHz		Span 25 MH: #Sweep 601 m		
Channel Power		Power Spe	ctral Density				
48.84 dBm /	10 MHz	-21.1	16 dBm /⊦	z			



XMit 2019.09.0

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 27.50(c)(3), the Effective Radiated Power (ERP) of the transceiver cannot exceed 1000 Watts/MHz Per RSS 130 section 4.6.3 and SRSP-518 5.1, the maximum (EIRP) limits are 1640 watts/MHz.



							TbtTx 2019.08.30.0	XMit 201
		ver Station Remote Radio Head Model AHLBB.	A			Work Order:		
Serial Number:							24-Mar-20	
Customer:	Nokia Solutions and Net	works				Temperature:		
	Mitch Hill, John Rattana	vong					50.4% RH	
Project:						Barometric Pres.:		
	Brandon Hobbs		Power: 54 VDC			Job Site:	TX03	
EST SPECIFICAT	IONS		Test Method					
CC 27:2020			ANSI C63.26:2					
SS-130:2019, SRS	SP-518		RSS-130:2019), SRSP-518				
OMMENTS								
II measurement p	ath losses were account	ed for in the reference level offest including a	ny attenuators, filters and	d DC blocks. T	he hottest port per	power amplifier (PA)	was used for testing. Th	e worst cas
ort was determine	ed in the original client p	rovided test report. The carrier power was set	to maximum for all testi	ng.				
EVIATIONS FROM	M TEST STANDARD							
one								
			1					
onfiguration #	2,6		and has	1				
		Signature	\sim	-				
			Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP	
			(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
and 12, 729 MHz -								
anu 12, 723 minz -	· 745 IVINZ, LIE							
	Port 1							
		dwidth						
	Port 1	dwidth QPSK Modulation						
	Port 1		49.029	0	Not Provided	49.0	60 / 62.15	N/A
	Port 1	QPSK Modulation	49.029 49.049	0	Not Provided Not Provided	49.0 49.0	60 / 62.15 60 / 62.15	N/A N/A
	Port 1	QPSK Modulation Low Channel 734 MHz						
	Port 1	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz	49.049	0	Not Provided	49.0	60 / 62.15	N/A
	Port 1 10 MHz Bar	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz	49.049	0	Not Provided	49.0	60 / 62.15	N/A
	Port 1 10 MHz Bar Port 2	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation	49.049	0	Not Provided Not Provided	49.0	60 / 62.15 60 / 62.15	N/A N/A
	Port 1 10 MHz Bar Port 2	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz	49.049	0	Not Provided	49.0	60 / 62.15	N/A
	Port 1 10 MHz Bar Port 2	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation	49.049 48.978	0	Not Provided Not Provided	49.0 49.0	60 / 62.15 60 / 62.15	N/A N/A
	Port 1 10 MHz Bar Port 2 10 MHz Bar	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz	49.049 48.978 48.927	0	Not Provided Not Provided	49.0 49.0 48.9	60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
	Port 1 10 MHz Bar Port 2 10 MHz Bar	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz	49.049 48.978 48.927 48.927 48.916	0 0 0 0	Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
and 29, 717 MHz -	Port 1 10 MHz Bar Port 2 10 MHz Bar	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz	49.049 48.978 48.927 48.927 48.916	0 0 0 0	Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
and 29, 717 MHz -	Port 1 10 MHz Bar Port 2 10 MHz Bar 728 MHz, LTE	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz	49.049 48.978 48.927 48.927 48.916	0 0 0 0	Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
and 29, 717 MHz -	Port 1 10 MHz Bar Port 2 10 MHz Bar 728 MHz, LTE Port 1	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz	49.049 48.978 48.927 48.927 48.916	0 0 0 0	Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
and 29, 717 MHz -	Port 1 10 MHz Bar Port 2 10 MHz Bar 728 MHz, LTE Port 1	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz	49.049 48.978 48.927 48.927 48.916	0 0 0 0	Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A
and 29, 717 MHz -	Port 1 10 MHz Bar Port 2 10 MHz Bar 728 MHz, LTE Port 1	QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz QPSK Modulation Low Channel 734 MHz Mid Channel 737 MHz High Channel 740 MHz dwidth QPSK Modulation	49.049 48.978 48.927 48.916 48.92	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Not Provided Not Provided Not Provided Not Provided Not Provided	49.0 49.0 48.9 48.9 48.9 48.9	60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15 60 / 62.15	N/A N/A N/A N/A N/A

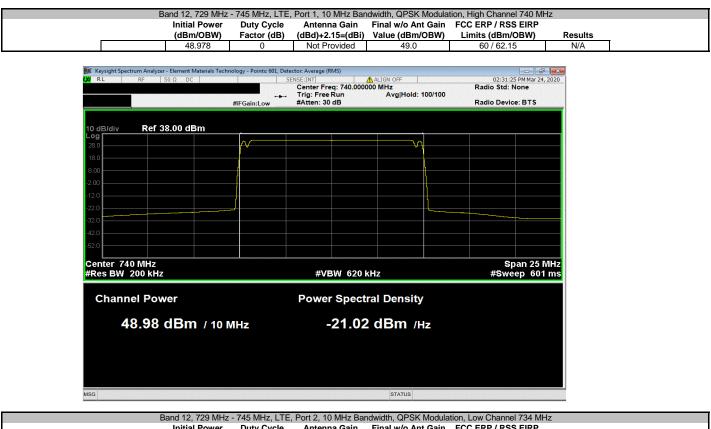




	Initial Power	Duty Cycle	Antenna Gain	Final W/O Ant Gain	FUU ERF / ROO EIRF	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
	49.049	0	Not Provided	49.0	60 / 62.15	N/A

RL RF 50 Ω DC	+ #IFGain:Low		: 737.000000 N un	IGN OFF MHz Avg Hold: 100/100	03:01:4 Radio Std: Radio Devi	
dB/div Ref 38.00 dBm						
9	~~~~	·				
0						
0				\		
o o						
nter 737 MHz es BW 200 kHz		#VB\	Span 25 MH #Sweep 601 m			
Channel Power		Power	Spectral	Density		
49.05 dBm / 10 мнz		-2	2 0.95 d	Bm /Hz		
				STATUS		

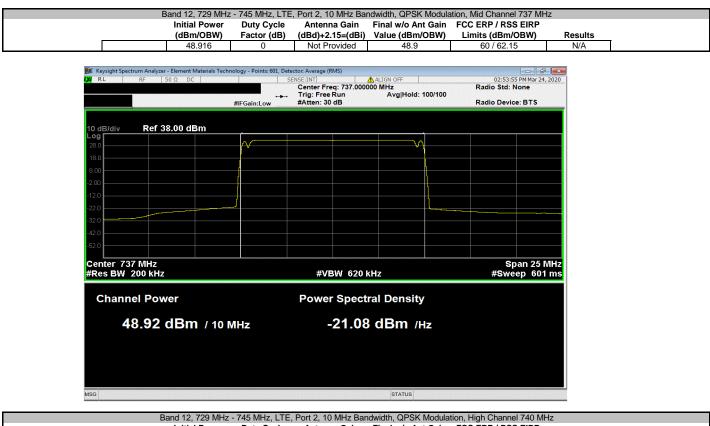




B	and 12, 729 MHz	- 745 MHz, LTE,	Port 2, 10 MHz Bar	ndwidth, QPSK Modula	tion, Low Channel 734 Mb	Ηz
	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP	
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results
	48.927	0	Not Provided	48.9	60 / 62.15	N/A

Keysight Spectrum Analyzer - Element Mate				
RL RF 50 Ω DC	#IFGain:Low	Center Freq: 734.0000	ALIGN OFF 00 MHz Avg Hold: 100/100	03:17:57 PM Mar 24, 20 Radio Std: None Radio Device: BTS
dB/div Ref 38.00 dBn				
g	<u>مر</u>			
.0	1 V			
0				
0			l	
0				
0				
0				
enter 734 MHz tes BW 200 kHz		#VBW 620 k	-⊥Hz	Span 25 MH #Sweep 601 m
Channel Power		Power Spectr	al Density	
48.93 dBm	/ 10 MHz	-21.07	dBm /Hz	

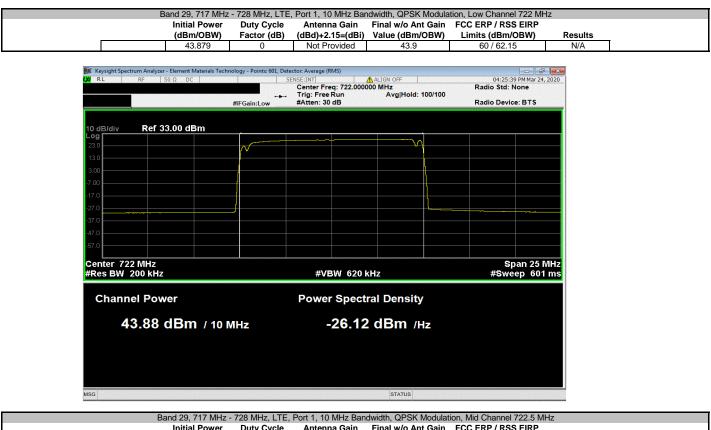




Ba	nd 12, 729 MHz ·	- 745 MHz, LTE,	Port 2, 10 MHz Ban	dwidth, QPSK Modula	tion, High Channel 740 Mł	Ηz	
	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP		
	(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results	
	48.92	0	Not Provided	48.9	60 / 62.15	N/A	

RL RF 50 Ω DC		SENSE:INT	ALIGN OFF	02:44:24 PM Mar 24, 202
	#IFGain:Low	Center Freq: 740.0000		Radio Std: None Radio Device: BTS
dB/div Ref 38.00 dBm				
g	AC			
.0	V		¥∖	
.0				
0				
0				
enter 740 MHz les BW 200 kHz		#VBW 620 k		Span 25 MH #Sweep 601 m
IES DW ZUU KHZ		#VBW 020 K		#Sweep out m
Channel Power		Power Spect	ral Density	
48.92 dBm /	10 MHz	-21.08	dBm /Hz	

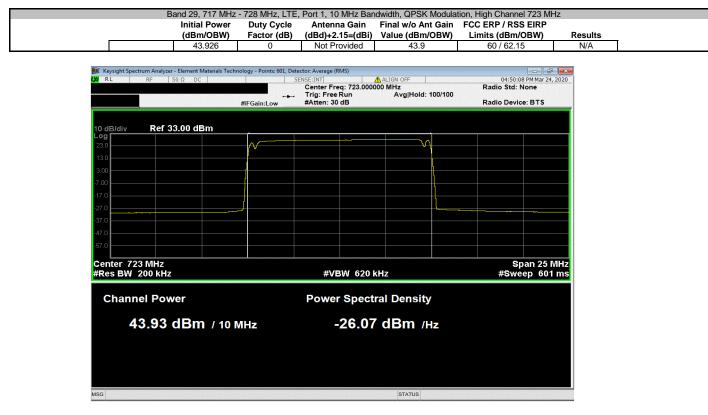




Band 29, 717 MHz	- 728 MHz, LTE,	Port 1, 10 MHz Ban	dwidth, QPSK Modulat	tion, Mid Channel 722.5 M	Hz	
Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP		
(dBm/OBW)	Factor (dB)	(dBd)+2.15=(dBi)	Value (dBm/OBW)	Limits (dBm/OBW)	Results	
43.943	0	Not Provided	43.9	60 / 62.15	N/A	I.

Keysight Spectrum Analyzer - Element Mate	rials Technology - Points: 601, D				
RL RF 50 Ω DC			ALIGN OFF	04:40:05 PM Mar 24, 20	
	, #IFGain:Low	Center Freq: 722.5000 Trig: Free Run #Atten: 30 dB	Radio Std: None Radio Device: BTS		
dB/div Ref 33.00 dBn	<u>ب</u> ــــــ				
9 10	~~~~		<u></u>		
.0					
10					
0					
0					
0					
0					
0					
.0					
enter 722.5 MHz				Span 25 MH	
es BW 200 kHz		#VBW 620 k	(HZ	#Sweep 601 m	
Channel Power		Power Spect	ral Density		
		20.00			
43.94 dBm	/ 10 MHz	-26.06	dBm /Hz		
			STATUS		







Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

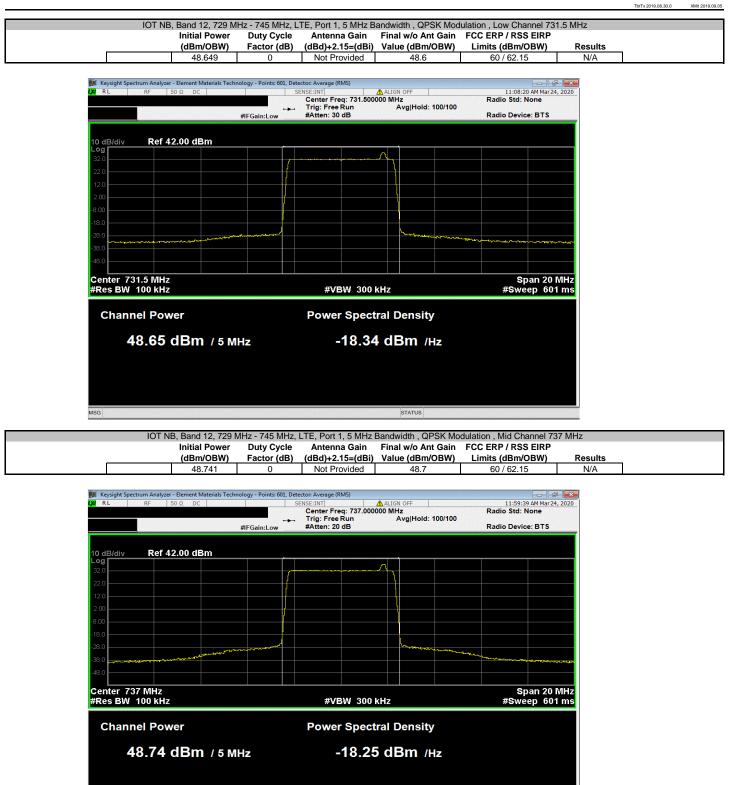
The method in section 5.2.4.4 of ANSI C63.26 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Per FCC section 27.50(c)(3), the Effective Radiated Power (ERP) of the transceiver cannot exceed 1000 Watts/MHz Per RSS 130 section 4.6.3 and SRSP-518 5.1, the maximum (EIRP) limits are 1640 watts/MHz.



							TbtTx 2019.08.30.0	XMit 201
		er Station Remote Radio Head Model Al	HLBBA			Work Order:		
Serial Number: K919							24-Mar-20	
	a Solutions and Net					Temperature:		
	Hill, John Rattana	/ong					50.6% RH	
Project: None						Barometric Pres.:		
Tested by: Brand	don Hobbs		Power: 54 VDC			Job Site:	TX03	
EST SPECIFICATIONS			Test Method					
CC 27:2020			ANSI C63.26:2015					
SS-130:2019, SRSP-518			RSS-130:2019, SR	SP-518				
OMMENTS								
		d for in the reference level offest includ		locks. The h	ottest port per pow	er amplifier (PA) was	used for testing. The wor	st case port
as determined in the or	iginal client provide	ed test report. The carrier power was se	t to maximum for all testing.					
EVIATIONS FROM TEST	STANDARD							
one								
			2 1 1					
onfiguration #	2,6	Signature	2. Jan					
		Ognatare	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain	FCC ERP / RSS EIRP	
			(dBm/OBW)			Value (dBm/OBW)	Limits (dBm/OBW)	Results
Port 1	5 MHz Band	vidth QPSK Modulation						
		Low Channel 731.5 MHz	48.649	0	Not Provided	48.6	60 / 62.15	N/A
		Mid Channel 737 MHz	48.741	0	Not Provided	48.7	60 / 62.15	N/A
		High Channell 742.5 MHz	48.664	0	Not Provided	48.7	60 / 62.15	N/A
	10 MHz Band	dwidth QPSK Modulation						
		Low Channel 734 MHz	48.944	0	Not Provided	48.9	60 / 62.15	N/A
		Mid Channel 737 MHz	48.936	0	Not Provided	48.9	60 / 62.15	N/A
		High Channell 740 MHz	48.915	ő	Not Provided	48.9	60 / 62.15	N/A
Port 2	2		10.010	Ŭ		10.0	00702.10	
	5 MHz Band	width						
		QPSK Modulation						
		Low Channel 731.5 MHz	48.732	0	Not Provided	48.7	60 / 62.15	N/A
		Mid Channel 737 MHz	48.73	0	Not Provided	48.7	60 / 62.15	N/A
		High Channell 742.5 MHz	48.552	0	Not Provided	48.6	60 / 62.15	N/A
	10 MHz Ban	dwidth QPSK Modulation						
		Low Channel 734 MHz	48,908	0	Not Provided	48.9	60 / 62.15	N/A
		Mid Channel 737 MHz	48.906 48.843	0	Not Provided	48.8	60 / 62.15	N/A
				-				N/A
		High Channell 740 MHz	48.82	0	Not Provided	48.8	60 / 62.15	









#VBW 620 kHz

Power Spectral Density

Center 734 MHz #Res BW 200 kHz

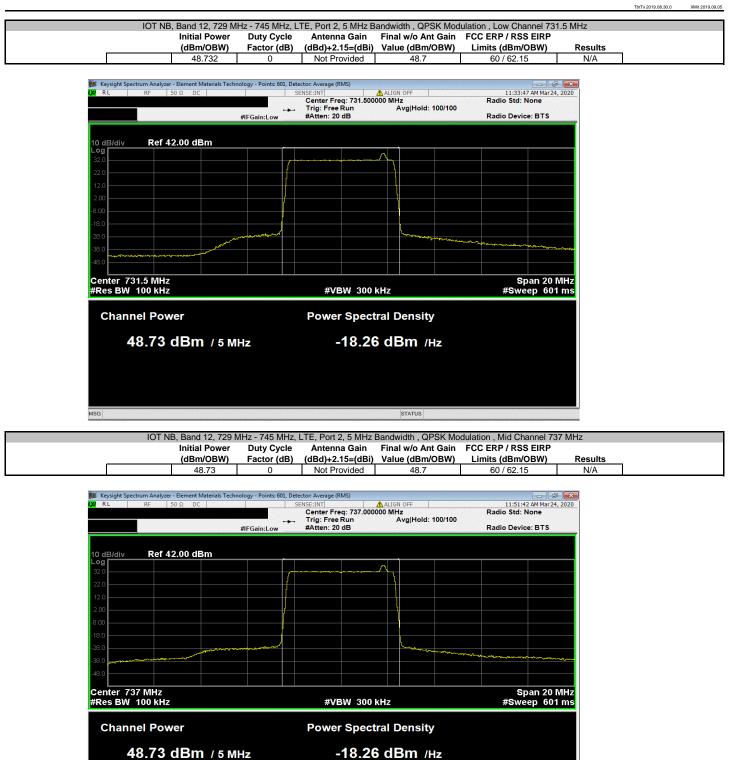
Channel Power

Span 25 MHz #Sweep 601 ms

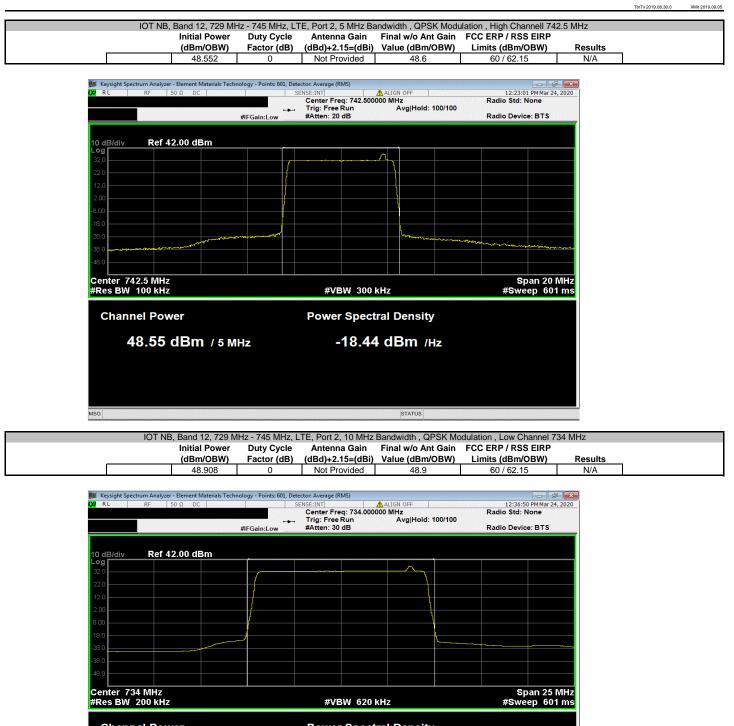


	Initial Power (dBm/OBW)	Duty Cycle Factor (dB)	Antenna Gain (dBd)+2.15=(dBi)		FCC ERP / RSS EIRP Limits (dBm/OBW)	Results	
	48.936		Not Provided	48.9	60 / 62.15	N/A	
Keysight Spectrum Analyzer	- Element Materials Techr 50 Ω DC		ENSE:INT	ALIGN OFF	01:32:34 PM Mar 24, 2		
		#IFGain:Low	Center Freq: 737.000 Trig: Free Run #Atten: 30 dB	Avg Hold: 100/100	Radio Std: None Radio Device: BTS		
		#IFGain:Low	#Atten: 30 dB		Radio Device. B 13		
	2.00 dBm						
32.0							
22.0							
2:00		}					
-8.00							
-18.0							
-28.0							
-38.0							
					Spap 25.04	H 7	
Center 737 MHz #Res BW 200 kHz			#VBW 620	kHz	Span 25 M #Sweep 601 r	ns	
Channel Pow	er		Power Spect	tral Density			
40.04	dBm / 10 M		-21 06	6 dBm /Hz			
				STATUS			
MSG				STATUS Bandwidth , QPSK Moo	dulation , High Channell 740 FCC ERP / RSS EIRP) MHz	
ISG	Band 12, 729 Mł Initial Power (dBm/OBW)	Hz - 745 MHz, L' Duty Cycle Factor (dB)	TE, Port 1, 10 MHz I Antenna Gain _(dBd)+2.15=(dBi)	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW)	Results	
5G	Band 12, 729 Mł Initial Power	Hz - 745 MHz, L' Duty Cycle	TE, Port 1, 10 MHz I Antenna Gain	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain	FCC ERP / RSS EIRP		1
IOT NB,	Band 12, 729 MH Initial Power (dBm/OBW) 48.915 - Element Materials Techr	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided	Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided etor Average (RMS) ENSE:INTI Center Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
IOT NB,	Band 12, 729 MH Initial Power (dBm/OBW) 48.915 - Element Materials Techr	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT	STATUS Bandwidth , QPSK Mor Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A]
IOT NB,	Band 12, 729 MH Initial Power (dBm/OBW) 48.915 - Element Materials Techr	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB, IOT NB, Keysight Spectrum Analyzer R L RF 2 0 dB/div Ref 4 0 dB/d	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Moo Final w/o Ant Gain Value (dBm/OBW) 48.9	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB, IOT NB, Keysight Spectrum Analyzer RL RF 2 0 dB/div Ref 4 0 dB/div Ref 4 0 dB/div 10 0 dB/div	Band 12, 729 MH Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided etor: Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Free Run #Atten: 30 dB	STATUS Bandwidth , QPSK Mor Final w/o Ant Gain Value (dBm/OBW) 48.9 ALIGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PMMar 24, 2 Radio Std: None Radio Device: BTS	Results N/A	1
IOT NB, IOT NB, Keysight Spectrum Analyzer RL RF 2 0 dB/div Ref 4 0 dB/div Ref 4 0 dB/div 10 0 dB/div	Band 12, 729 MH Initial Power (dBm/OBW) 48.915 - Element Materials Techr 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mor Final w/o Ant Gain Value (dBm/OBW) 48.9 ALIGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PM Mar 24, 27 Radio Std: None	Results N/A	1
IOT NB,	Band 12, 729 Mł Initial Power (dBm/OBW) 48.915 • Element Materials Techr 50 Ω DC 1.00 dBm	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 1, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided etor: Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Free Run #Atten: 30 dB	STATUS Bandwidth , QPSK Mor Final w/o Ant Gain Value (dBm/OBW) 48.9 ALIGN OFF 000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 02:00:48 PMMar 24, 2 Radio Std: None Radio Device: BTS	Results N/A	1









Channel Power

Power Spectral Density

48.91 dBm / 10 MHz

-21.09 dBm /Hz



	Initial Power	Duty Cycle	Antenna Gain	Final w/o Ant Gain		Deculto	
	(dBm/OBW) 48.843	Factor (dB) 0	(dBd)+2.15=(dBi) Not Provided	Value (dBm/OBW) 48.8	Limits (dBm/OBW) 60 / 62.15	Results N/A	
							•
Keysight Spectrum Analyzer	r - Element Materials Techn 50 Ω DC		ector: Average (RMS) ENSE:INT	ALIGN OFF	[] (라 01:40:09 PM Mar 24, 3		
			Center Freq: 737.000 Trig: Free Run		Radio Std: None		
		#IFGain:Low	#Atten: 30 dB		Radio Device: BTS		
10 dB/div Ref 4	1.00 dBm						
Log 31.0							
21.0							
11.0							
1.00		/					
-9.00							
-29.0		~~~					
-39.0							
-49.0							
Center 737 MHz	I				Span 25 N		
#Res BW 200 kHz			#VBW 620	KHZ	#Sweep 601	ms	
Channel Pow	ver		Power Spect	tral Density			
	dBm / 10 M	MHz	-21.10	6 dBm /Hz			
MSG	, Band 12, 729 M⊦ Initial Power	Hz - 745 MHz, L' Duty Cycle	TE, Port 2, 10 MHz I Antenna Gain	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain	dulation , High Channell 74 FCC ERP / RSS EIRP		
MSG	, Band 12, 729 M⊦	Hz - 745 MHz, L ⁻	TE, Port 2, 10 MHz I	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain		0 MHz Results N/A	
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82	Hz - 745 MHz, L ⁻ Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW)	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	7
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	1
IOT NB	, Band 12, 729 MF Initial Power (dBm/OBW) 48.82 r- Element Materials Techn	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	1
IOT NB	, Band 12, 729 MF Initial Power (dBm/OBW) 48.82 r- Element Materials Techn	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided ector: Average (RMS) ENSE:INT Center Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15	Results N/A	
IOT NB	, Band 12, 729 MF Initial Power (dBm/OBW) 48.82 r- Element Materials Techn	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A]
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	1
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	1
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	1
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	1
IOT NB	, Band 12, 729 MH Initial Power (dBm/OBW) 48.82 r - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None	Results N/A	
IOT NB	, Band 12, 729 MF Initial Power (dBm/OBW) 48.82 - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz I Antenna Gain (dBd)+2.15=(dBi) Not Provided etor: Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Free Run #Atten: 30 dB	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8 ALIGN OFF 0000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PM Mar 24, Radio Std: None Radio Device: BTS	Results N/A	
IOT NB	, Band 12, 729 MF Initial Power (dBm/OBW) 48.82 - Element Materials Techn 50 Ω DC	Hz - 745 MHz, L' Duty Cycle Factor (dB) 0	TE, Port 2, 10 MHz f Antenna Gain (dBd)+2.15=(dBi) Not Provided ector Average (RMS) ENSE:INT Center Freq: 740.000 Trig: Freq: 740.000 Trig: Freq: 740.000	STATUS Bandwidth , QPSK Mo Final w/o Ant Gain Value (dBm/OBW) 48.8 ALIGN OFF D000 MHz Avg Hold: 100/100	FCC ERP / RSS EIRP Limits (dBm/OBW) 60 / 62.15 01:46:58 PMMar 24, Radio Std: None Radio Device: BTS	Results N/A	

STATUS

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