Prüfbericht-Nr.: *Test report no.:*	**IN22Y7T9 001**	**Auftrags-Nr.:** *Order no.:* 146733111 010	Seite 1 von 94 *Page 1 of 94*
Kunden-Referenz-Nr.: *Client reference no.:*	2455720	**Auftragsdatum:** *Order date:* 2022-10-18	
Auftraggeber: *Client:*	DS Services of America, Inc. dba Primo Water North America 1150 Assembly Drive, Ste 800 Tampa, Florida 33607		
Prüfgegenstand: *Test item:*	Pureflo	**Product Type**	Pureflo
Bezeichnung.: *Identification .:*	STFP2KHK2RO STFP2KHK1CA		
Auftrags-Inhalt: *Order content:*	Testing and issue of Test Report and Grant Certificate		
Prüfgrundlage: *Test specification:*	FCC Part 2, Part 22H, Part 24E & Part 27		
Wareneingangsdatum: *Date of sample receipt:*	2022-11-04		
Prüfmuster-Nr : *Test sample no:*	A003366433-001 A003415430-001		
Prüfzeitraum: *Testing period:*	2022-11-04 - 2022-11-28		
Ort der Prüfung: *Place of testing:*	Wireless laboratory, Bangalore		
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (India) Pvt.Ltd., 27/B, 2nd Cross, Electronic City Phase1 Bangalore -560 100, India FCC Test site registration number: 496599 ISED Test site registration number: 3466E-1		
Prüfergebnis*: *Test result*:*	Pass		

geprüft von: *tested by:*	Likhithesh M D	**genehmigt von:** *authorized by:*	Madhu K N
Datum: *Date:* 2022-12-15		**Ausstellatum:** *Issue date:* 2023-04-18	
Stellung / *Position:*	**Likhithesh M D** Senior Enigneer	**Stellung** / *Position:*	**Madhu K N** Senior Enigneer
Sonstiges / *Other:*	**FCC ID: 2A9TV-STFP2KHK1RO**		
Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	**Prüfmuster vollständig und unbeschädigt** ***Test item complete and undamaged***		

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
** Legend:*	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. *The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.*
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. *Test clauses with remark of * are subcontracted to qualified subcontractors and descripted under the respective test clause in the report.* *Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.*
4	Die Entscheidungsregel für Konformitätserklärungen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. *The decision rule for statements of conformity in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report.*

TEST SUMMARY

Test Item	FCC Clause	Results
Conducted Output Average Power And Peak to Average Power ratio	§2.1046 §22.913(a)(5) §24.232(c) §27.50(d)(4) §27.50(b)(10) §27.50(c)(10)	Pass
Equivalent Isotropic Radiated Power (EIRP) / Effective Radiated Power (ERP)	§22.913(a)(5) §24.232 (c) §27.50(d)(4) §27.50(b)(10) §27.50(c)(10)	Pass
Field strength of spurious radiation	§24.238(a) §27.53 (h)(1) §22.917 (a) §27.53 (g)(f)	Pass
Frequency Stability	§2.1055 §22.355 §24.235 §27.54	N/T
Emission Bandwidth and Occupied Bandwidth	§2.1049	N/T
Band Edge	§2.1051 §22.917(a) §24.238(a) §27.53(h) §27.53(g) §27.53(f) §27.53(c)	N/T
Conducted Emissions on AC Power Lines	§15.207	Pass

Note:
N/T: Not Tested

Pure flo product uses certified RF modules with FCC IDs: **XMR202005BG95M5** hence the above mentioned test cases are excluded and which can be found in the module test report: R2005A0283-R1V1/R2V1/R3V1/R4V1 issued on July 23rd & 24th 2020 of respective FCC ID.

Product Category: Electronics Testing
Test Discipline: EMC Test Facility

REVISION HISTORY OF THIS REPORT

Report Number	Version	Description	Issue date
IN22Y7T9 001	01	Initial issue of report	24-03-2023
IN22Y7T9 001	02	Updated Reviewer Comments	31-03-2023
IN22Y7T9 001	03	Updated Reviewer Comments	14-04-2023
IN22Y7T9 001	04	Updated Reviewer Comments	18-04-2023

Table of Contents

1 GENERAL REMARKS

1.1 Attachments

All attachments are part of this test report and are issued in separate document

1. TEST SETUP PHOTOS

2: EUT EXTERNAL PHOTOS

3: EUT INTERNAL PHOTOS

4: FCC LABEL AND LABEL LOCATION

5: BLOCK DIAGRAM

6: SPECIFICATION OF EUT

7: SCHEMATIC DIAGRAM

8: BILL OF MATERIAL

9: USER MANUAL

10: MAXIMUM PERMISSIBLE EXPOSURE INFORMATION

2 TEST SITES

2.1 Testing Facilities

1. TÜV Rheinland (India) Pvt.Ltd.,
   27/B, 2nd Cross,
   ElectronicCityPhase1
   Bangalore – 560 100,
   India

   Radiated Measurement site type :
   Fully anechoic chamber (used for above 1 GHz measurements)

2. TUV Rheinland (India) Pvt.Ltd.,
   108 , Beside ISBR Business School,
   Electronic city Phase I
   Bangalore - 560 100.
   India

   Radiated Measurement site type :
   Semi anechoic chamber (used for below 1 GHz measurements)

2.2 List of Test and Measurement Instruments

Table 1: List of test and measurement instruments

Equipment	Manufacturer	Model Name	Serial Number	Firmware Versions	Calibration Due Date	Periodicity	Test Facility
Radio Communication tester	Rohde & Schwarz	CMW 500	1201.000 2K50	-	20.08.2023	Yearly	Radiated Spurious Emission
EMI Receiver	Rohde & Schwarz	ESW 44	101732	1.72SP1	04.08.2023	Yearly	
EMI Receiver	Rohde & Schwarz	ESW 44	101733	1.72SP1	12.02.2023	Yearly	
Active loop antenna	Frankonia	LAX-18	LAX-10-800	-	31.01.2023	Yearly	
Baloon and Bicorical Antenna	Schwarzbeck	BBA 9106+VHBB 9124	9124-1117	-	03.02.2023	Yearly	
Log - Periodical Antenna	Schwarzbeck	VUSLP-9111B	9111B-111	-	26.01.2023	Yearly	
Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-1944	-	11.10.2023	Yearly	
Semi Anechoic Chamber	Frankonia	-	-	-	-	-	
Fully Anechoic Chamber	Albatross	-	-	-	-	-	
EMI Receiver	Rohde & Schwarz	ESR7	101133	3.48 SP3	22.07.2023	Yearly	Conducted AC Power line Test
Line Impedance Stabilization Network	Rohde & Schwarz	ENV 216	101434	-	11.04.2023	Yearly	
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100811	-	12.07.2023	Yearly	

Table 2: Instrument application Software versions

SL. No.	Test Type	Application software	Version
1	Radiated spurious emission measurement in 10mtr-SAC	BAT EMC	3.20.0.17
2	Radiated spurious emission measurement in FAC	EMC 32	10.60.20

3 GENERAL PRODUCT INFORMATION

3.1 Product Function and Intended Use

The primo water purifier is a hot and cold-water purifier with several stages of purification.

3.2 Ratings and System Details of Equipment under Test

Table 3: Ratings and System Details as declared by Client*

Cellular Operator		**PureFlo**				
Radio Protocol		LTE and GSM				
LTE E-UTRA operating bands		Band	Bandwidth (MHz)	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		2	1.4, 3, 5, 10, 15, 20	1850.7 - 1909.3	1930.7-1989.3	QPSK, 16QAM
		4	1.4, 3, 5, 10, 15, 20	1710.7 - 1754.3	2110.7-2154.3	QPSK, 16QAM
		5	1.4, 3, 5, 10	824.7 - 848.3	869.7 - 893.3	QPSK, 16QAM
		12	1.4, 3, 5, 10	699 - 716	729 - 746	QPSK, 16QAM
		13	5, 10	746 -755.90	777 – 786.90	QPSK, 16QAM
		25	1.4, 3, 5, 10, 15, 20	1850 - 1914.90	1930 – 1994.50	QPSK, 16QAM
		26	1.4, 3, 5, 10	814-849	859-894	QPSK, 16QAM
		66	1.4, 3, 5, 10, 15, 20	1710 – 1779.90	2110 – 2199.90	QPSK, 16QAM
		85	5, 10	698 – 715.90	728 – 745.90	QPSK, 16QAM
GSM		850	-	824.20-848.80	869.20-893.80	GPRS, EGPRS
		900	-	890.20 – 914.80	935.20 – 959.80	GPRS, EGPRS
		1800		1710.20 – 1784.80	1805.20 – 1879.80	GPRS, EGPRS
		1900		1850.20 – 1909.80	1930.20 – 1989.80	GPRS, EGPRS
Transmitted Power for LTE and Maximum Power (dBm)		Band	Power Class	Max. Conducted Average. Output Power		
		4	Power Class 3: 23dBm	22.98dBm		
GSM		850	Power Class 5: 33dBm	32.96dBm		
Antenna Type		Chip Antenna				
Number of Antenna		1				
Antenna Gain		Refer Clause 3.3				
Supply Voltage to Product		110V 60Hz				
Environmental conditions	Storage	-20° C to 60° C				
	Operating	-40° C to +85° C				
EUT Dimension (L X W X H**)**		32cmX30cmX114cm				

***Disclaimer:**
The information/data is supplied by the client and the same is considered to arrive at the final value.
Any changes made apart from the specified specification, can directly impact on the tests results. Refer the products user manual for more details.

3.3 Antenna Gain Details

Antenna Type	Antenna Gain (dBi)
Chip Antenna	2.53

3.4 Measurement Uncertainty

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$

Table 4: Measurement Uncertainty

Parameter	Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±1.5 dB
Power Spectral Density, conducted	±3 dB
Unwanted Emissions, conducted	±3 dB
All emissions, radiated	±6 dB
Temperature	±3 ℃
Supply Voltages	±3 %
Time	±5 %

4 TEST SET-UP AND OPERATION MODE

4.1 Principle of Configuration Selection

Transmission was enabled with highest possible duty cycle on low, mid and high channels

4.2 UUT Operation and Software

Hardware Version Identification number (HVIN): 1.02
Software version : 1.08

4.3 Special Accessories and Auxiliary Equipment

-None

4.4 Simultaneous Transmission

-This product does not support for Simultaneous Operation

4.5 Countermeasures to achieve EMC Compliance

- None

4.6 List of frequencies

Table 5: List of Center frequencies

Protocol	Band	UL Frequency (MHz)	DL Frequency (MHz)
LTE	2	1850.7 -1909.3	1930.7-1989.3
	4	1710.7 - 1754.3	2110.7-2154.3
	5	824.7 - 848.3	869.7 - 893.3
	12	699 - 716	729 - 746
	13	746 -755.90	777 – 786.90
	25	1850 - 1914.90	1930 – 1994.50
	26	814-849	859-894
	66	1710 – 1779.90	2110 – 2199.90
	85	698 – 715.90	728 – 745.90
GSM	850	824.20-848.80	869.20-893.80
	900	890.20 – 914.80	935.20 – 959.80
	1800	1710.20 – 1784.80	1805.20 – 1879.80
	1900	1850.20 – 1909.80	1930.20 – 1989.80

Note:

TUV Sample Identification number A003366433-001– Radiated & Conducted test Sample
A003415430-001 – Radiated test Sample

5 OPERATIONAL DESCRIPTION OF THE PRODUCT

The primo water purifier is a hot and cold-water purifier with several stages of purification. The product contains a few different PCBs that control different aspects of the product. These are:

1. Power Supply – This is a packaged power supply product, which converts 100V to 230V AC at 50 and 60 hz to 12V DC.
2. Power Supply PCB – This PCB takes in 12V power and provides it to the other PCBs.
3. Product Control PCB – This is the PCB which controls the different solenoid valves on the product as well as the 12V dc motor for the RO pump.
4. Display / Dispensing PCB – This PCB has display LEDs and the dispensing control of the water purifier.
5. IOT / RF PCB – This PCB collects information from the other PCBs and sends data to AWS servers about once a day over CATM or GSM networks.

RF circuit function:

The IOT PCB connects to the other PCBs and gathers data about the water purifier performance. This data is then sent to an AWS server once a day. The communication with the AWS server is done using a Quectel module BG95-M5. The connection is made over CATM or GSM and the data is sent using AWS MQTT Core Services. All communication is encrypted using AWS SSL Certificates, which are installed in the BG95-M5 module () at the time of manufacturing the PCB.

RF signal flow:

The BG95-M5 module has an RF antenna connected to a U.FL connector. The Antenna is a 4G Multi-band antenna, which covers all the transmission and reception bands available on the BG95-M5. The main processor on the PCB is the RP2040. This processor communicates to the BG95-M5 module over UART. The RF communication on the PCB is only done on the BG95-M5. There is a short track from the BG95-M5 module to the 4G antenna, keeping any RF signals away from the rest of the PCB. Any RF spurious emissions are further prevented by the 2 solid ground planes on the 4 layer PCB.

Description of Antenna system (Baluns, Multiplexers):

The antenna on the product is an LTE 4G full band antenna. This antenna is short wire, about 50mm to the main PCB. The entire PCB and the antenna is enclosed in a plastic container keeping it away from the remaining product and connections. This prevents any connector from becoming an antenna on the PCB.
The antenna is a Quectel YF0006DA 4G Full Band Antenna

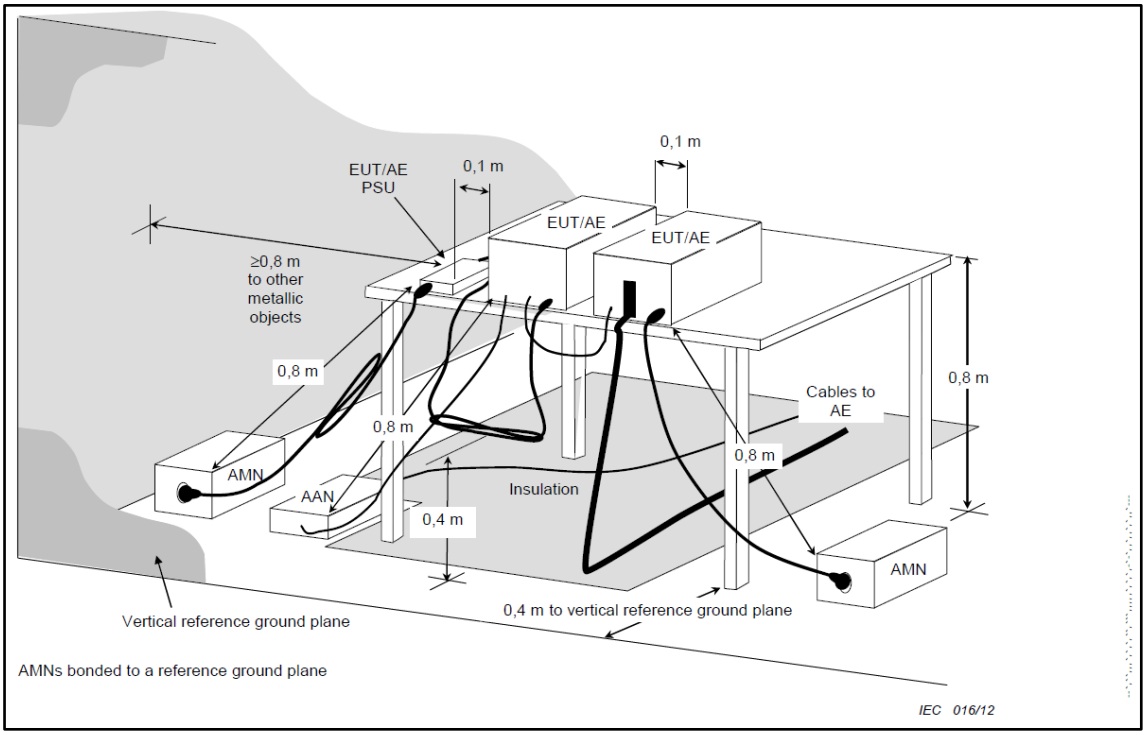
6 TEST METHODOLOGY

6.1 Conducted Spurious Emission Test on AC Power Line

Measured levels of ac power-line conducted emission across the 50Ω LISN port (to which the EUT is connected). All emission voltage and current measurements shall be made on each current-carrying conductor at the plug end of the EUT power cord by the use of mating plugs and receptacles on the LISN, if used. Equipment shall be tested with power cords that are normally supplied or recommended by the manufacturer and that have electrical and shielding characteristics that are the same as those cords normally supplied or recommended by the manufacturer.

The device is placed on the test table, raised 80cm above the reference ground plane. The vertical conducting plane is located 40cm to the rear of the device. AC Conducted emission measurement is made over frequency range from 150kHz to 30MHz, this measurement was performed with EUT powered by an AC adaptor with 110V AC 60Hz supply.

6.1.1 Test Setup Configuration



6.2 Radiated Emission Test

Frequency Range 9 kHz - 30 MHz

Test performed as per ANSI C63.4-2014 section 8.3

The loop Antenna was placed at 1m above the ground plane & EUT is 3 meters far from the measuring antenna. With 3m measurement distance, correction data were applied to the measured results. The test arrangement, measuring antenna guidelines and operational configurations in 8.2.1 and 8.2.2, shall be followed. The measurement antenna shall be positioned with its plane perpendicular to the ground at the Specified distance, when perpendicular to the ground plane, the lowest height of the magnetic antenna shall be 1 m above the ground and shall be positioned at the specified distance from the EUT. EUT & its associates are placed on non-conducting table of 0.8m height which is placed on the turn table, For each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable. The report shall list worst case emission results, for each of the parallel & perpendicular orientations.

6.2.1 Test Setup Configuration

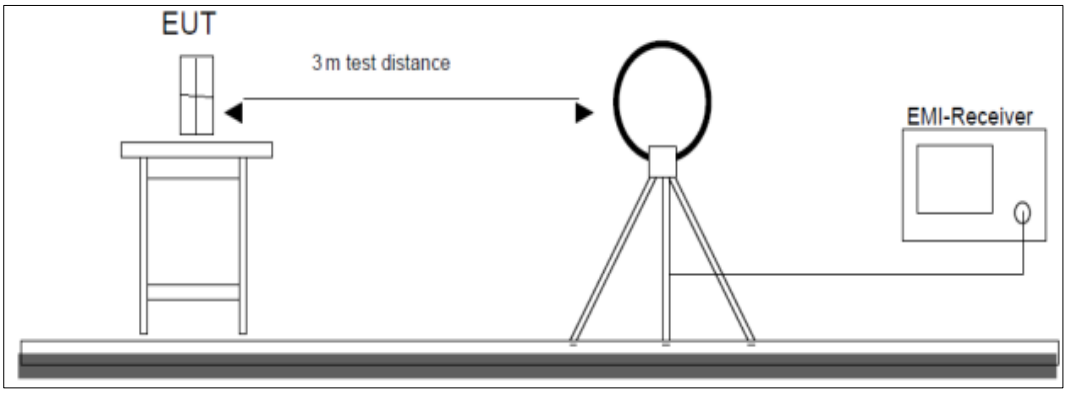


Figure 1: Frequency Range 9 kHz- 30 MHz

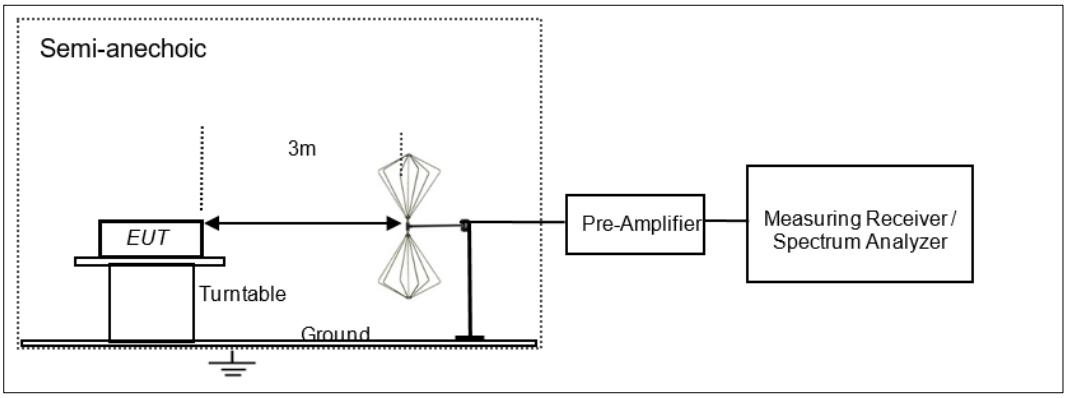


Figure 2: Frequency Range 30 MHz – 200 MHz

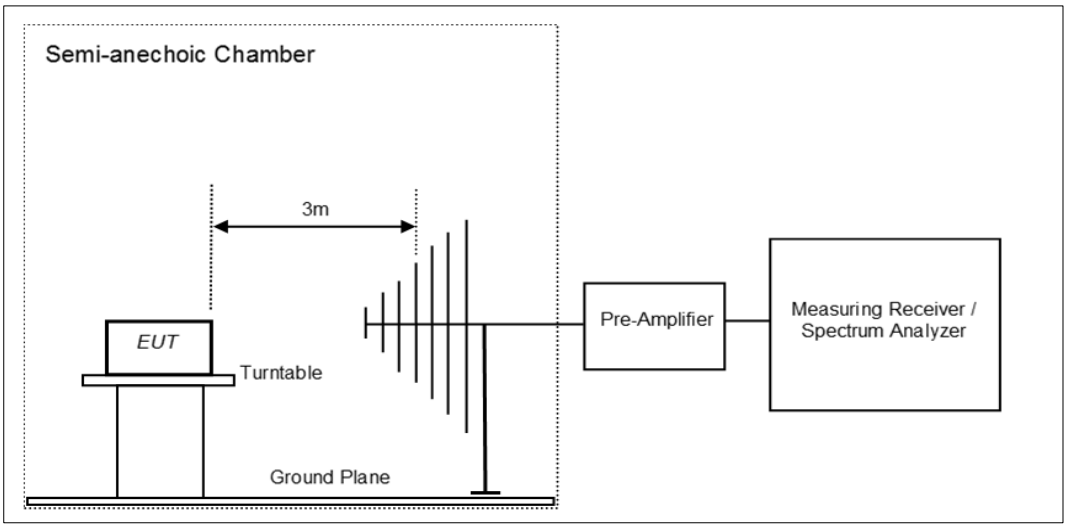


Figure 3: Frequency Range 200 MHz - 1GHz

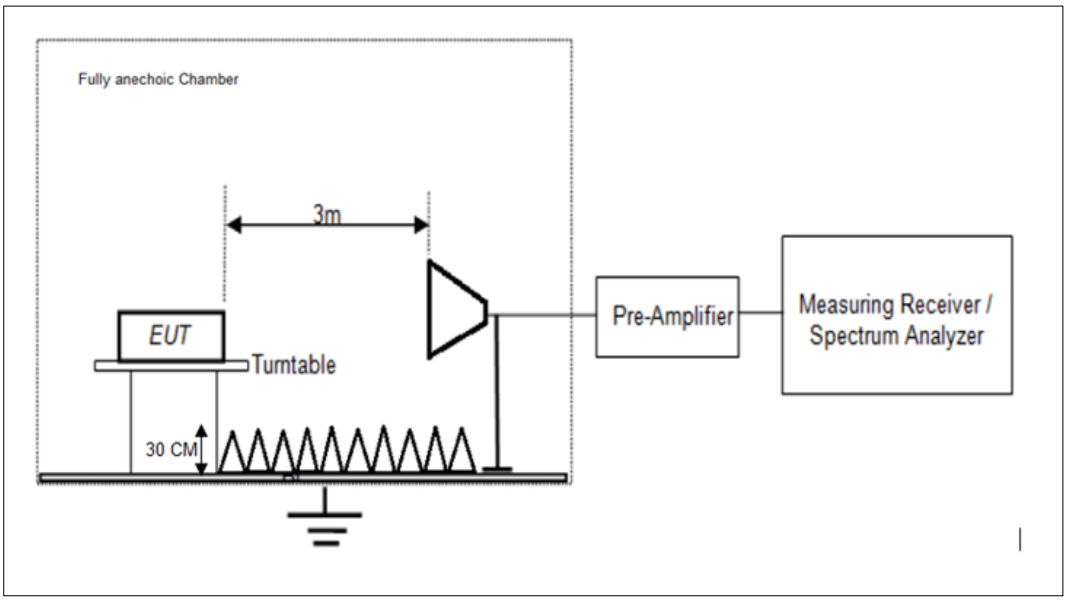


Figure 4: Frequency Range above 1 GHz

Frequency Range 30MHz to 10th harmonics of the highest fundamental frequency

Test performed as per ANSI C63.26-2015

Radiated spurious emission test are performed as below.

All the radiated emission measurements are performed in accordance with common requirement specified in 5.5.2 and Pre-test site path loss correction factors are used to adjust the EUT emission data in place of two step substitution method (as defined in Annex B of ANSI C63.26-2015).

The equipment under test is placed on non-conductive table at 3m away from the receive antenna in accordance with above mentioned standard. Turn table is rotated through 360 degree, and receiver antenna height is varied in order to determine the level of maximum emission. The maximum emission level and position of the maximized emission is recorded with use of spectrum analyzer.

Using pre-test site path loss to determine EUT emission power:

1) EUT emission powers are calculated using the following equation:

Emission Power = EUT_{Prec} [dBm EIRP/ ERP] + P_L [dB]

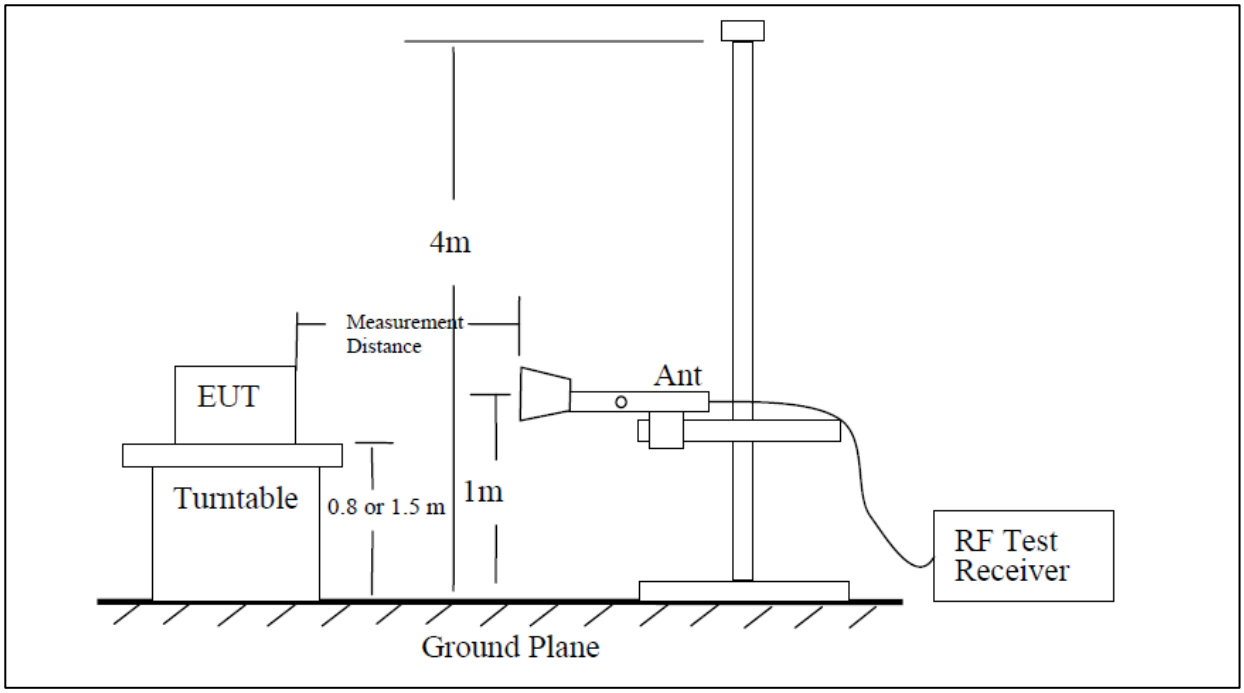
Where

EUT_{Prec} = power of the emission measured at the test receiver during EUT measurements.

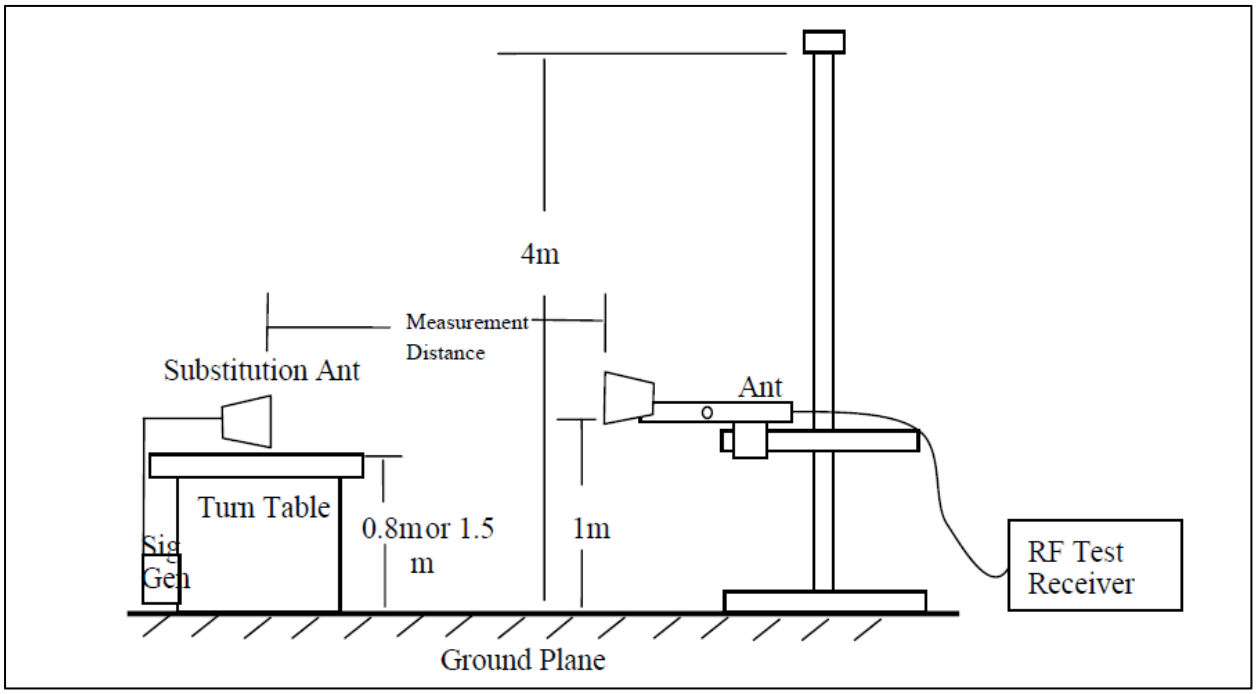
PL = path loss determined on the frequency of the EUT emission or calculated Using linear interpolation between site characterization frequencies.

2) This is the level to be compared against the regulatory limit as it is the emission power referenced back to the EUT on the test site.

Test site-up for radiated measurements



Substitution method set-up for radiated emission

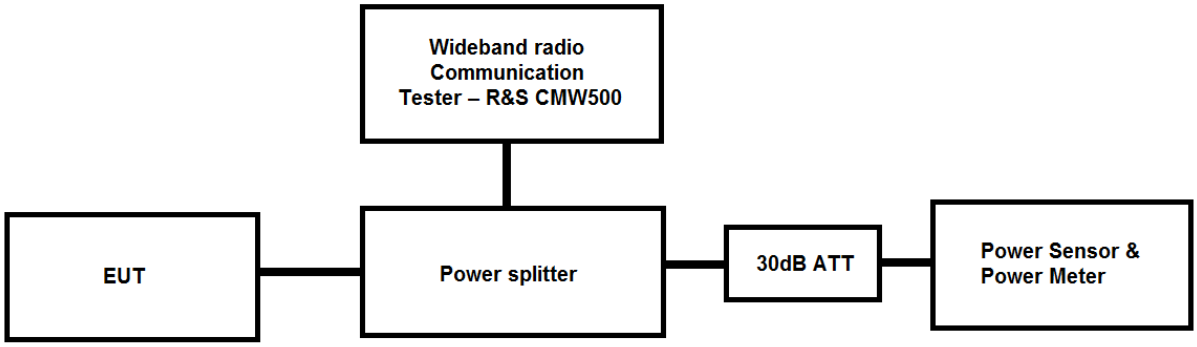


7 TEST RESULTS

7.1 Conducted Output Average Power

Result	***Pass***
Test Specification	FCC Part §2.1046, §22.913(a)(5), §24.232(c), §27.50(d)(4), §27.50(b)(10), §27.50(c)(10)
Test Method / Procedure	ANSI C63.26-2015 971168 D01 Power Meas License Digital Systems v03r01
Measurement Bandwidth(RBW)	≥ OBW
Detector function	Peak / Average
Requirement	NA

Test Setup:



Environmental conditions:

Temperature (Norm) = + 22.3 °C Voltage = 110V AC 60Hz Relative humidity = 62 %

KDB Guidelines applied:

Measurements were made as per section 5.1.3, section 5.2.4 and section 5.7.3 in KDB 971168 D01 Power Meas License Digital Systems v03r01.

Test results:

Note:
1. All the losses are included during measurement and final values are mentioned in the test report.
2. RF Output power (dBm) = Measured power (dBm) + Attenuator factor (30dB) + Power Splitter (6 dB) + Cable loss (1dB)
3. This product do not support additional beamforming gain / directional gain, it uses single antenna and hence directional gain of the single antenna is Refer Clause 3.3.

Table 6: Conducted Power test results

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
2	18607	1850.7	1.4	21.96	25.30	20.93	25.22
				19.96	22.68	19.82	25.26
	18900	1880		21.68	25.20	20.43	22.98
				19.51	22.50	19.64	25.12
	19193	1909.3		21.65	25.08	20.02	22.91
				19.68	22.52	19.56	22.90
	18615	1851.5	3	21.11	27.53	21.52	28.46
				21.11	28.15	21.60	29.05
	18900	1880		21.22	27.72	21.08	28.51
				22.04	29.02	21.36	29.12
	19185	1908.5		21.16	27.44	22.94	28.07
				22.00	28.99	21.20	28.96
	18625	1852.5	5	21.19	27.60	21.26	27.70
				22.05	29.08	22.19	29.12
	18900	1880		21.31	27.71	21.39	27.74
				22.04	28.99	21.29	28.27
	19175	1907.5		22.99	27.48	21.30	28.16
				22.08	28.91	21.20	29.05
	18650	1855	10	22.88	27.04	22.79	27.60
				22.98	27.89	21.38	29.22
	18900	1880		21.09	27.99	21.88	28.60
				21.10	27.57	21.61	28.95
	19150	1905		21.19	27.53	22.38	27.55
				22.15	28.91	21.46	28.80
	18675	1857.5	15	22.36	27.28	21.16	27.56
				22.22	29.21	22.10	29.18
	18900	1880		21.35	27.80	21.25	27.65
				21.27	28.34	22.07	29.15
	19125	1902.4		21.04	27.55	21.00	27.47
				22.10	29.16	22.08	29.09
	18700	1860	20	22.27	27.44	21.35	27.87
				21.41	27.94	21.16	28.63
	18900	1880		21.42	27.82	21.22	27.77
				21.18	28.41	22.10	29.30
	19100	1900		21.12	27.63	21.29	27.63
				21.12	27.71	22.13	29.19

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
4	19957	1710.7	1.4	**21.92**	25.67	20.82	25.36
				19.61	22.72	19.53	25.31
	20175	1732.5		21.73	25.33	20.17	25.27
				19.61	22.86	19.41	25.12
	20393	1754.3		21.88	25.43	20.98	25.32
				19.97	25.18	19.91	25.52
	19965	1711.5	3	22.47	26.90	22.78	28.21
				21.87	28.98	22.03	29.77
	20175	1732.5		**22.84**	27.45	22.95	28.22
				21.88	29.10	21.85	29.67
	20385	1753.5		22.80	27.33	22.86	28.07
				21.84	29.04	22.04	29.81
	19975	1712.5	5	**22.52**	27.18	22.95	27.94
				21.46	28.52	21.44	29.36
	20175	1732.5		22.52	27.08	22.88	27.96
				21.37	28.54	21.46	29.39
	20375	1752.5		21.44	28.00	22.65	27.79
				21.57	28.65	21.50	29.38
	20000	1715	10	21.09	28.05	22.75	28.01
				21.81	29.29	21.76	29.22
	20175	1732.5		21.10	28.04	21.10	28.03
				21.76	29.22	22.71	28.30
	20350	1750		**22.58**	27.84	22.48	27.75
				21.71	29.13	21.63	29.04
	20025	1717.5	15	**22.60**	27.16	22.86	28.11
				21.42	28.71	21.73	29.47
	20175	1732.5		21.52	28.04	21.10	28.07
				21.35	28.77	21.43	29.41
	20325	1747.5		22.30	26.90	22.56	27.88
				21.45	28.70	21.62	29.37
	20050	1720	20	**22.63**	27.20	22.88	28.16
				21.42	28.67	21.65	29.55
	20175	1732.5		22.47	27.17	21.16	28.11
				21.38	28.88	21.52	29.44
	20300	1745		22.30	26.88	22.58	27.85
				21.41	28.64	21.60	29.40

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) QPSK	Peak Measured Power (dBm) QPSK	Average Measured Power (dBm) 16QAM	Peak Measured Power (dBm) 16QAM
5	20407	824.7	1.4	22.40	26.29	21.44	26.16
				20.53	25.57	20.32	25.87
	20525	836.5		22.15	26.10	21.60	26.06
				20.10	25.20	20.22	25.76
	20643	848.3		22.58	26.51	21.76	26.53
				20.47	25.37	20.64	26.05
	20415	825.5	3	22.93	27.45	22.88	28.31
				21.71	29.00	22.05	29.82
	20525	836.5		22.66	27.26	22.74	28.21
				21.53	28.80	21.75	29.70
	20635	847.5		22.72	27.29	22.96	28.31
				21.99	29.17	22.01	20.02
	20425	826.5	5	21.03	27.48	22.86	28.21
				21.69	28.90	21.92	29.64
	20525	836.5		22.89	27.38	21.21	28.13
				21.47	28.76	21.83	29.69
	20625	846.5		22.96	27.12	22.13	27.44
				22.03	29.28	21.34	29.21
	20450	829	10	22.77	27.20	21.16	28.34
				21.41	28.45	22.16	29.42
	20525	836.5		22.83	27.05	21.52	28.40
				21.77	28.61	22.05	29.35
	20600	844		22.92	27.43	21.22	28.40
				21.95	28.83	21.38	28.77

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
12	23017	699.7	1.4	22.16	26.25	21.79	26.38
				20.12	21.85	19.86	25.66
	23095	707.5		22.08	26.19	20.78	25.73
				19.82	21.92	19.83	25.54
	23173	715.3		22.10	26.21	21.26	25.85
				19.98	25.02	19.90	25.59
	23025	700.5	3	22.35	27.73	22.15	29.61
				22.17	28.29	22.36	29.22
	23095	707.5		22.29	27.61	22.58	28.68
				22.20	28.36	21.19	29.13
	23165	714.5		22.53	26.95	22.30	27.82
				22.66	28.84	22.82	29.59
	23035	701.5	5	22.45	26.87	22.11	27.71
				22.34	28.46	22.44	29.25
	23095	707.5		22.45	26.70	22.91	27.89
				22.30	28.57	22.52	29.27
	23155	713.5		22.71	27.08	22.51	27.85
				22.81	28.85	22.90	29.53
	23060	704	10	22.80	27.96	22.68	27.82
				22.80	29.14	22.68	29.03
	23095	707.5		22.62	26.73	22.14	27.93
				22.63	28.44	22.77	29.15
	23130	711		22.61	27.00	22.74	27.88
				22.71	28.50	22.89	29.17

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
13	23025	779.5	5	22.53	26.51	22.07	27.78
				21.22	28.10	22.62	29.18
	23230	782		22.57	26.63	22.15	27.72
				22.25	28.09	22.60	29.16
	23255	784.5		21.07	27.21	22.42	27.56
				21.29	28.40	22.63	29.04
	23230	782	10	22.52	26.76	22.05	27.42
				22.41	27.86	22.52	28.77

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
25	26047	1850.7	1.4	21.82	25.30	20.58	25.08
				19.65	22.57	19.79	25.21
	26365	1882.5		21.64	25.18	20.32	22.90
				19.46	22.48	19.37	22.90
	26683	1914.3		21.68	25.07	20.26	22.79
				19.38	22.30	19.42	22.78
	26055	1851.5	3	22.58	26.95	22.37	27.69
				21.39	28.45	21.60	29.22
	26365	1882.5		21.20	27.74	21.63	28.56
				21.39	28.53	21.37	29.10
	26675	1913.5		22.99	27.43	21.41	28.40
				21.25	28.20	21.25	28.97
	26065	1852.5	5	22.27	26.65	21.05	28.37
				21.57	28.45	21.65	29.36
	26365	1882.5		21.16	27.51	21.13	28.29
				21.92	28.99	21.92	29.44
	26665	1912.5		22.80	27.21	22.94	27.97
				21.96	29.04	21.81	29.30
	26090	1855	10	21.21	27.57	22.47	27.66
				22.14	28.94	21.50	28.84
	26365	1882.5		21.02	27.07	21.68	28.40
				21.98	28.70	21.29	28.95
	26640	1910		22.77	27.19	21.09	28.10
				21.81	28.54	22.33	29.25
	26115	1857.5	15	21.22	27.61	21.46	28.52
				22.03	29.15	21.31	29.02
	26365	1882.5		21.11	27.14	21.58	28.42
				21.99	29.01	21.08	28.86
	26615	1907.5		22.80	27.19	21.05	28.17
				21.72	28.82	22.14	29.42
	26140	1860	20	21.17	27.56	21.50	28.48
				22.07	29.09	21.16	29.01
	26365	1882.5		21.05	27.15	21.39	28.40
				21.90	28.99	22.17	29.61
	26590	1905		22.68	27.13	21.03	28.13
				21.84	28.85	22.17	29.43

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) QPSK	Peak Measured Power (dBm) QPSK	Average Measured Power (dBm) 16QAM	Peak Measured Power (dBm) 16QAM
26	26797	814.7	1.4	22.98	26.71	22.43	26.72
				20.86	25.43	20.70	25.89
	26915	831.4		22.51	26.31	21.66	26.26
				20.40	25.10	20.39	25.75
	27033	848.2		21.05	26.82	22.39	26.55
				21.19	25.89	21.20	26.55
	26805	815.5	3	21.18	27.63	21.28	28.22
				22.10	29.05	21.17	28.89
	26915	831.4		21.09	27.35	21.21	28.21
				21.60	28.78	21.72	29.51
	27025	847.4		21.05	27.33	22.72	27.90
				21.97	29.16	21.09	28.87
	26815	816.5	5	21.20	27.55	21.55	28.57
				21.74	28.91	21.35	29.01
	26915	831.4		21.02	27.39	21.32	28.21
				21.53	28.49	21.70	29.43
	27015	846.5		22.93	27.36	21.11	28.28
				21.82	29.15	21.36	29.07
	26840	819	10	22.67	26.20	22.98	27.01
				22.58	26.76	21.76	26.65
	26915	831.4		22.37	25.98	22.65	26.83
				22.56	26.80	21.55	26.51
	26990	843.9		22.40	26.28	22.80	27.20
				22.34	27.39	22.21	27.02
	26765	821.5	15	22.72	26.39	21.45	28.59
				22.59	28.94	22.38	27.97
	26915	831.4		22.93	27.30	21.20	28.28
				21.68	29.13	22.04	29.71
	26965	841.4		22.46	26.85	22.98	27.88
				21.56	28.89	21.77	29.48

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
66	131979	1710.7	1.4	21.96	25.70	19.82	24.78
				19.76	24.78	19.92	25.39
	132322	1745		21.72	25.60	20.78	25.34
				19.60	24.78	19.49	25.20
	132665	1770.3		21.20	25.22	20.54	25.23
				19.31	24.27	19.39	24.79
	131987	1711.5	3	22.27	27.92	22.58	28.68
				22.30	28.39	22.46	29.23
	132322	1745		22.08	29.10	22.33	27.80
				22.44	27.94	22.70	28.55
	132657	1778.5		22.32	27.99	22.95	28.19
				22.01	27.88	22.71	29.66
	131997	1712.5	5	22.49	28.00	22.68	28.00
				22.26	28.34	22.54	29.36
	132322	1745		22.44	27.94	22.78	28.46
				21.32	28.34	22.87	29.69
	132647	1777.5		22.04	27.60	22.15	28.45
				21.22	28.38	22.27	29.26
	132022	1715	10	22.15	25.79	22.10	25.91
				22.03	25.90	21.03	25.77
	132322	1745		21.83	25.46	21.65	25.71
				21.80	25.80	20.77	25.70
	132622	1775		22.08	25.65	22.05	25.76
				21.83	25.74	20.98	25.68
	132047	1717.5	15	21.45	27.99	22.98	27.98
				22.36	28.61	22.02	28.00
	132322	1745		22.38	26.98	22.74	27.97
				21.25	28.61	22.64	28.01
	132597	1772.5		22.11	27.63	22.65	27.97
				22.19	28.51	22.45	29.28
	132072	1720	20	22.34	27.96	22.7	28.97
				22.35	28.76	22.53	29.48
	132322	1745		22.38	28.03	22.92	28.09
				21.31	28.78	22.49	29.43
	132572	1770		22.91	27.63	22.71	28.58
				22.13	28.32	22.42	29.29

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	Average Measured Power (dBm)	Peak Measured Power (dBm)
				QPSK	QPSK	16QAM	16QAM
85	134027	700.5	5	22.67	27.72	22.61	27.63
				22.50	29.17	22.38	29.09
	134092	707		22.79	27.66	22.64	27.70
				22.57	29.15	22.18	29.10
	134157	713.5		22.83	27.60	22.96	27.76
				22.61	29.28	22.51	29.32
	134052	703	10	22.48	26.70	22.03	27.62
				22.34	27.83	22.53	27.83
	134092	707		22.49	27.71	22.11	27.71
				22.45	26.95	22.72	28.00
	134132	711		22.46	27.66	22.78	27.70
				22.58	27.21	22.92	28.10

GSM Test Results:

		Conducted Power (dBm)		
GSM 850		**Channel 128**	**Channel 190**	**Channel 251**
		824.2 (MHz)	**836.6 (MHz)**	**848.8 (MHz)**
GPRS (GMSK)	1TXslot	32.54	32.81	32.88
	2TXslot	32.79	32.68	32.88
	3TXslot	32.80	32.67	32.89
	4TXslot	32.82	32.70	**32.93**
EGPRS (8PSK)	1TXslot	32.59	32.78	**32.96**
	2TXslot	32.53	32.78	32.96
	3TXslot	32.90	32.77	32.95
	4TXslot	32.90	32.76	32.95

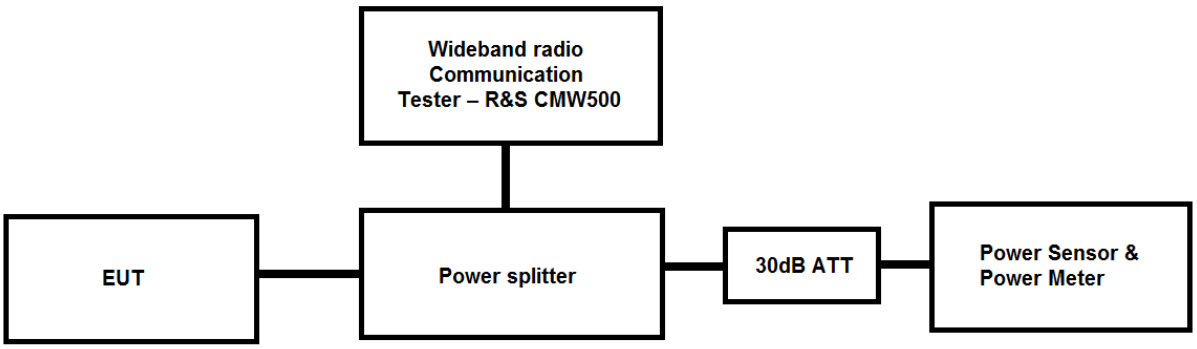
		Conducted Power (dBm)		
GSM 1900		**Channel Number 512**	**Channel 661**	**Channel 810**
		1850.2 (MHz)	**1880 (MHz)**	**1909.8 (MHz)**
GPRS (GMSK)	1TXslot	28.72	28.10	28.30
	2TXslot	**28.78**	28.10	28.33
	3TXslot	28.75	28.14	28.34
	4TXslot	28.77	28.18	28.34
EGPRS (8PSK)	1TXslot	28.68	28.04	28.25
	2TXslot	28.69	28.03	28.27
	3TXslot	**28.80**	28.16	28.32
	4TXslot	28.70	28.05	28.27

7.2 Peak to Average Power Ratio (PAPR)

Result ***Pass***

Test Specification	FCC Part §2.1046, §22.913(a)(5), §24.232(c), §27.50(d)(4), §27.50(b)(10), §27.50(c)(10)
Test Method / Procedure	ANSI C63.26-2015 971168 D01 Power Meas License Digital Systems v03r01
Measurement Bandwidth(RBW)	≥ OBW
Detector function	Peak / Average
Requirement	PAPR ≤ 13dB

Test Setup:



Environmental conditions:

Temperature (Norm) = + 22.3 °C Voltage = 110V AC 60Hz Relative humidity = 62 %

KDB Guidelines applied:

Measurements were made as per section 5.1.3, section 5.2.4 and section 5.7.3 in KDB 971168 D01 Power Meas License Digital Systems v03r01.

Test results:

Note:
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Total Average Output power (dBm) = Measured Average power (dBm) + Attenuator factor (30dB) + Power Splitter (6 dB) + Cable loss (1dB)
3. This product do not support additional beamforming gain / directional gain, it uses single antenna and hence directional gain of the single antenna is Refer Clause 3.3.
4. PAPR (dB) = Measured peak power (dBm) – Measured average power (dBm)

Table 7: PAPR test results

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
2	18607	1850.7	1.4	21.96	25.30	3.34	≤13
				19.96	24.68	4.72	≤13
	18900	1880		21.68	25.20	3.52	≤13
				19.51	24.50	4.99	≤13
	19193	1909.3		21.65	25.08	3.43	≤13
				19.68	24.52	4.84	≤13
	18615	1851.5	3	23.11	27.53	4.42	≤13
				23.11	28.15	5.04	≤13
	18900	1880		23.24	27.72	4.48	≤13
				24.04	29.02	4.98	≤13
	19185	1908.5		23.16	27.44	4.28	≤13
				24.00	28.99	4.99	≤13
	18625	1852.5	5	23.19	27.60	4.41	≤13
				24.05	29.08	5.03	≤13
	18900	1880		23.31	27.71	4.40	≤13
				24.04	28.99	4.95	≤13
	19175	1907.5		22.99	27.48	4.49	≤13
				24.08	28.91	4.83	≤13
	18650	1855	10	22.88	27.04	4.16	≤13
				22.98	27.89	4.91	≤13
	18900	1880		23.09	27.99	4.90	≤13
				23.10	27.57	4.47	≤13
	19150	1905		23.19	27.53	4.34	≤13
				24.15	28.91	4.76	≤13
	18675	1857.5	15	24.12	27.28	2.92	≤13
				24.22	29.21	4.99	≤13
	18900	1880		23.35	27.8	4.45	≤13
				23.27	28.34	5.07	≤13
	19125	1902.4		23.04	27.55	4.51	≤13
				24.10	29.16	5.06	≤13
	18700	1860	20	22.27	27.44	5.17	≤13
				23.41	27.94	4.53	≤13
	18900	1880		23.42	27.82	4.40	≤13
				23.18	28.41	5.23	≤13
	19100	1900		23.12	27.63	4.51	≤13
				23.12	27.71	4.59	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR(dB)	Limit(dB)
				16QAM	16QAM		
2	18607	1850.7	1.4	20.93	25.22	4.29	≤13
				19.82	25.26	5.44	≤13
	18900	1880		20.43	24.98	4.55	≤13
				19.64	25.12	5.48	≤13
	19193	1909.3		20.02	24.91	4.89	≤13
				19.56	24.90	5.34	≤13
	18615	1851.5	3	23.52	28.46	4.94	≤13
				23.60	29.05	5.45	≤13
	18900	1880		23.08	28.51	5.43	≤13
				23.36	29.12	5.76	≤13
	19185	1908.5		22.94	28.07	5.13	≤13
				23.20	28.96	5.76	≤13
	18625	1852.5	5	23.26	27.70	4.44	≤13
				24.19	29.12	4.93	≤13
	18900	1880		23.39	27.74	4.35	≤13
				23.29	28.27	4.98	≤13
	19175	1907.5		23.30	28.16	4.86	≤13
				23.20	29.05	5.85	≤13
	18650	1855	10	22.79	27.60	4.81	≤13
				23.38	29.24	5.86	≤13
	18900	1880		23.88	28.60	4.72	≤13
				23.61	28.95	5.34	≤13
	19150	1905		22.38	27.55	5.17	≤13
				23.46	28.80	5.34	≤13
	18675	1857.5	15	23.16	27.56	4.40	≤13
				24.10	29.18	5.08	≤13
	18900	1880		23.25	27.65	4.40	≤13
				24.07	29.15	5.08	≤13
	19125	1902.4		23.00	27.47	4.47	≤13
				24.08	29.09	5.01	≤13
	18700	1860	20	23.35	27.87	4.52	≤13
				23.16	28.63	5.47	≤13
	18900	1880		23.24	27.77	4.53	≤13
				24.10	29.30	5.20	≤13
	19100	1900		23.29	27.63	4.34	≤13
				24.13	29.19	5.06	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit(dB)
				QPSK	QPSK		
4	19957	1710.7	1.4	21.92	25.67	3.75	≤13
				19.61	24.72	5.11	≤13
	20175	1732.5		21.73	25.33	3.60	≤13
				19.61	24.86	5.25	≤13
	20393	1754.3		21.88	25.43	3.55	≤13
				19.97	25.18	5.21	≤13
	19965	1711.5	3	22.47	26.90	4.43	≤13
				23.87	28.98	5.11	≤13
	20175	1732.5		22.84	27.45	4.61	≤13
				23.88	29.10	5.22	≤13
	20385	1753.5		22.80	27.33	4.53	≤13
				23.84	29.04	5.20	≤13
	19975	1712.5	5	22.52	27.18	4.66	≤13
				23.46	28.52	5.06	≤13
	20175	1732.5		22.52	27.08	4.56	≤13
				23.37	28.54	5.17	≤13
	20375	1752.5		23.44	28.00	4.56	≤13
				23.57	28.65	5.08	≤13
	20000	1715	10	23.09	28.05	4.96	≤13
				23.81	29.29	5.48	≤13
	20175	1732.5		23.10	28.04	4.94	≤13
				23.76	29.24	5.48	≤13
	20350	1750		22.58	27.84	5.26	≤13
				23.71	29.13	5.42	≤13
	20025	1717.5	15	22.60	27.16	4.56	≤13
				23.42	28.71	5.29	≤13
	20175	1732.5		23.52	28.04	4.52	≤13
				23.35	28.77	5.42	≤13
	20325	1747.5		22.30	26.90	4.60	≤13
				23.45	28.70	5.25	≤13
	20050	1720	20	22.63	27.20	4.57	≤13
				23.42	28.67	5.25	≤13
	20175	1732.5		22.47	27.17	4.70	≤13
				23.38	28.88	5.50	≤13
	20300	1745		22.30	26.88	4.58	≤13
				23.41	28.64	5.23	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit(dB)
				16QAM	16QAM		
4	19957	1710.7	1.4	20.82	25.36	4.54	≤13
				19.53	25.31	5.78	≤13
	20175	1732.5		20.17	25.27	5.10	≤13
				19.41	25.12	5.71	≤13
	20393	1754.3		20.98	25.32	4.34	≤13
				19.91	25.52	5.61	≤13
	19965	1711.5	3	22.78	28.21	5.43	≤13
				24.03	29.77	5.74	≤13
	20175	1732.5		22.95	28.22	5.27	≤13
				23.85	29.67	5.82	≤13
	20385	1753.5		22.86	28.07	5.21	≤13
				24.04	29.81	5.77	≤13
	19975	1712.5	5	22.95	27.94	4.99	≤13
				23.44	29.36	5.92	≤13
	20175	1732.5		22.88	27.96	5.08	≤13
				23.46	29.39	5.93	≤13
	20375	1752.5		22.65	27.79	5.14	≤13
				23.50	29.38	5.88	≤13
	20000	1715	10	22.75	28.01	5.26	≤13
				23.76	29.24	5.48	≤13
	20175	1732.5		23.10	28.03	4.93	≤13
				22.71	28.30	5.59	≤13
	20350	1750		22.48	27.75	5.27	≤13
				23.63	29.04	5.41	≤13
	20025	1717.5	15	22.86	28.11	5.25	≤13
				23.73	29.47	5.74	≤13
	20175	1732.5		23.10	28.07	4.97	≤13
				23.43	29.41	5.98	≤13
	20325	1747.5		22.56	27.88	5.32	≤13
				23.62	29.37	5.75	≤13
	20050	1720	20	22.88	28.16	5.28	≤13
				23.65	29.55	5.90	≤13
	20175	1732.5		23.16	28.11	4.95	≤13
				23.52	29.44	5.92	≤13
	20300	1745		22.58	27.85	5.27	≤13
				23.60	29.40	5.80	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) QPSK	Peak Measured Power (dBm) QPSK	PAPR (dB)	Limit (dB)
5	20407	824.7	1.4	22.40	26.29	3.89	≤13
				20.53	25.57	5.04	≤13
	20525	836.5		22.15	26.10	3.95	≤13
				20.10	25.20	5.10	≤13
	20643	848.3		22.58	26.51	3.93	≤13
				20.47	25.37	4.90	≤13
	20415	825.5	3	22.93	27.45	4.52	≤13
				23.71	29.00	5.29	≤13
	20525	836.5		22.66	27.26	4.60	≤13
				23.53	28.80	5.27	≤13
	20635	847.5		22.72	27.29	4.57	≤13
				23.99	29.17	5.18	≤13
	20425	826.5	5	23.03	27.48	4.45	≤13
				23.69	28.90	5.21	≤13
	20525	836.5		22.89	27.38	4.49	≤13
				23.47	28.76	5.29	≤13
	20625	846.5		22.96	27.12	4.16	≤13
				24.03	29.28	5.25	≤13
	20450	829	10	22.77	27.20	4.43	≤13
				23.41	28.45	5.04	≤13
	20525	836.5		22.83	27.05	4.22	≤13
				23.77	28.61	4.84	≤13
	20600	844		22.92	27.43	4.51	≤13
				23.95	28.83	4.88	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) 16QAM	Peak Measured Power (dBm) 16QAM	PAPR (dB)	Limit (dB)
5	20407	824.7	1.4	21.44	26.16	4.72	≤13
				20.32	25.87	5.55	≤13
	20525	836.5		21.60	26.06	4.46	≤13
				20.22	25.76	5.54	≤13
	20643	848.3		21.76	26.53	4.77	≤13
				20.64	26.05	5.41	≤13
	20415	825.5	3	22.88	28.31	5.43	≤13
				24.05	29.82	5.77	≤13
	20525	836.5		22.74	28.21	5.47	≤13
				23.75	29.70	5.95	≤13
	20635	847.5		22.96	28.31	5.35	≤13
				24.01	20.02	-3.99	≤13
	20425	826.5	5	22.86	28.23	5.37	≤13
				23.92	29.64	5.72	≤13
	20525	836.5		23.23	28.13	4.90	≤13
				23.83	29.69	5.86	≤13
	20625	846.5		22.13	27.44	5.31	≤13
				23.34	29.21	5.87	≤13
	20450	829	10	23.16	28.34	5.18	≤13
				24.16	29.42	5.26	≤13
	20525	836.5		23.52	28.40	4.88	≤13
				24.05	29.35	5.30	≤13
	20600	844		23.24	28.40	5.16	≤13
				23.38	28.77	5.39	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
12	23017	699.7	1.4	22.16	26.25	4.09	≤13
				20.12	24.85	4.73	≤13
	23095	707.5		22.08	26.19	4.11	≤13
				19.82	24.92	5.10	≤13
	23173	715.3		22.10	26.24	4.14	≤13
				19.98	25.02	5.04	≤13
	23025	700.5	3	23.35	27.73	4.38	≤13
				23.17	28.29	5.12	≤13
	23095	707.5		23.29	27.61	4.32	≤13
				23.20	28.36	5.16	≤13
	23165	714.5		22.53	26.95	4.42	≤13
				23.66	28.84	5.18	≤13
	23035	701.5	5	22.45	26.87	4.42	≤13
				23.34	28.46	5.12	≤13
	23095	707.5		22.45	26.70	4.25	≤13
				23.30	28.57	5.27	≤13
	23155	713.5		22.71	27.08	4.37	≤13
				23.81	28.85	5.04	≤13
	23060	704	10	22.80	27.96	5.16	≤13
				23.80	29.14	5.34	≤13
	23095	707.5		22.62	26.73	4.11	≤13
				23.63	28.44	4.81	≤13
	23130	711		22.61	27.00	4.39	≤13
				23.71	28.50	4.79	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				16QAM	16QAM		
12	23017	699.7	1.4	21.79	26.38	4.59	≤13
				19.86	25.66	5.80	≤13
	23095	707.5		20.78	25.73	4.95	≤13
				19.83	25.54	5.71	≤13
	23173	715.3		21.26	25.85	4.59	≤13
				19.90	25.59	5.69	≤13
	23025	700.5	3	23.15	29.61	6.46	≤13
				23.36	29.22	5.86	≤13
	23095	707.5		23.58	28.68	5.10	≤13
				24.19	29.13	4.94	≤13
	23165	714.5		22.30	27.82	5.52	≤13
				23.82	29.59	5.77	≤13
	23035	701.5	5	23.11	27.71	4.60	≤13
				23.44	29.25	5.81	≤13
	23095	707.5		22.91	27.89	4.98	≤13
				23.52	29.27	5.75	≤13
	23155	713.5		22.51	27.85	5.34	≤13
				23.90	29.53	5.63	≤13
	23060	704	10	22.68	27.82	5.14	≤13
				23.68	29.03	5.35	≤13
	23095	707.5		23.14	27.93	4.79	≤13
				23.77	29.15	5.38	≤13
	23130	711		22.74	27.88	5.14	≤13
				23.89	29.17	5.28	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
13	23025	779.5	5	22.53	26.51	3.98	≤13
				23.22	28.10	4.88	≤13
	23230	782		22.57	26.63	4.06	≤13
				23.25	28.09	4.84	≤13
	23255	784.5		23.07	27.21	4.14	≤13
				23.29	28.40	5.11	≤13
	23230	782	10	22.52	26.76	4.24	≤13
				23.41	27.86	4.45	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				16QAM	16QAM		
13	23025	779.5	5	23.07	27.78	4.71	≤13
				23.62	29.18	5.56	≤13
	23230	782		23.15	27.72	4.57	≤13
				23.60	29.16	5.56	≤13
	23255	784.5		22.42	27.56	5.14	≤13
				23.63	29.04	5.41	≤13
	23230	782	10	23.05	27.42	4.37	≤13
				23.52	28.77	5.25	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
25	26047	1850.7	1.4	21.82	25.30	3.48	≤13
				19.65	24.57	4.92	≤13
	26365	1882.5		21.64	25.18	3.54	≤13
				19.46	24.48	5.02	≤13
	26683	1914.3		21.68	25.07	3.39	≤13
				19.38	24.30	4.92	≤13
	26055	1851.5	3	22.58	26.95	4.37	≤13
				23.39	28.45	5.06	≤13
	26365	1882.5		23.20	27.74	4.54	≤13
				23.39	28.53	5.14	≤13
	26675	1913.5		22.99	27.43	4.44	≤13
				23.25	28.20	4.95	≤13
	26065	1852.5	5	22.27	26.65	4.38	≤13
				23.57	28.45	4.88	≤13
	26365	1882.5		23.16	27.51	4.35	≤13
				23.92	28.99	5.07	≤13
	26665	1912.5		22.80	27.23	4.43	≤13
				23.96	29.04	5.08	≤13
	26090	1855	10	23.21	27.57	4.36	≤13
				24.14	28.94	4.80	≤13
	26365	1882.5		23.02	27.07	4.05	≤13
				23.98	28.70	4.72	≤13
	26640	1910		22.77	27.19	4.42	≤13
				23.81	28.54	4.73	≤13
	26115	1857.5	15	23.22	27.61	4.39	≤13
				24.03	29.15	5.12	≤13
	26365	1882.5		23.11	27.14	4.03	≤13
				23.99	29.01	5.02	≤13
	26615	1907.5		22.8	27.19	4.39	≤13
				23.72	28.82	5.10	≤13
	26140	1860	20	23.17	27.56	4.39	≤13
				24.07	29.09	5.02	≤13
	26365	1882.5		23.05	27.15	4.10	≤13
				23.9	28.99	5.09	≤13
	26590	1905		22.68	27.13	4.45	≤13
				23.84	28.85	5.01	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				16QAM	16QAM		
25	26047	1850.7	1.4	20.58	25.08	4.50	≤13
				19.79	25.21	5.42	≤13
	26365	1882.5		20.32	24.90	4.58	≤13
				19.37	24.90	5.53	≤13
	26683	1914.3		20.26	24.79	4.53	≤13
				19.42	24.78	5.36	≤13
	26055	1851.5	3	22.37	27.69	5.32	≤13
				23.60	29.22	5.62	≤13
	26365	1882.5		23.63	28.56	4.93	≤13
				23.37	29.10	5.73	≤13
	26675	1913.5		23.41	28.40	4.99	≤13
				23.25	28.97	5.72	≤13
	26065	1852.5	5	23.05	28.37	5.32	≤13
				23.65	29.36	5.71	≤13
	26365	1882.5		23.13	28.29	5.16	≤13
				23.92	29.44	5.52	≤13
	26665	1912.5		22.94	27.97	5.03	≤13
				23.81	29.30	5.49	≤13
	26090	1855	10	22.47	27.66	5.19	≤13
				23.50	28.84	5.34	≤13
	26365	1882.5		23.68	28.40	4.72	≤13
				23.29	28.95	5.66	≤13
	26640	1910		23.09	28.10	5.01	≤13
				24.33	29.25	4.92	≤13
	26115	1857.5	15	23.46	28.52	5.06	≤13
				23.31	29.02	5.71	≤13
	26365	1882.5		23.58	28.42	4.84	≤13
				23.08	28.86	5.78	≤13
	26615	1907.5		23.05	28.17	5.12	≤13
				24.14	29.42	5.28	≤13
	26140	1860	20	23.5	28.48	4.98	≤13
				23.16	29.01	5.85	≤13
	26365	1882.5		23.39	28.4	5.01	≤13
				24.17	29.61	5.44	≤13
	26590	1905		23.03	28.13	5.10	≤13
				24.17	29.43	5.26	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) QPSK	Peak Measured Power (dBm) QPSK	PAPR (dB)	Limit (dB)
26	26797	814.7	1.4	22.98	26.71	3.73	≤13
				20.86	25.43	4.57	≤13
	26915	831.4		22.51	26.31	3.80	≤13
				20.40	25.10	4.70	≤13
	27033	848.2		23.05	26.82	3.77	≤13
				21.19	25.89	4.70	≤13
	26805	815.5	3	23.18	27.63	4.45	≤13
				24.10	29.05	4.95	≤13
	26915	831.4		23.09	27.35	4.26	≤13
				23.60	28.78	5.18	≤13
	27025	847.4		23.05	27.33	4.28	≤13
				23.97	29.16	5.19	≤13
	26815	816.5	5	23.20	27.55	4.35	≤13
				23.74	28.91	5.17	≤13
	26915	831.4		23.02	27.39	4.37	≤13
				23.53	28.49	4.96	≤13
	27015	846.5		22.93	27.36	4.43	≤13
				23.82	29.15	5.33	≤13
	26840	819	10	22.67	26.20	3.53	≤13
				22.58	26.76	4.18	≤13
	26915	831.4		22.37	25.98	3.61	≤13
				22.56	26.80	4.24	≤13
	26990	843.9		22.40	26.28	3.88	≤13
				22.34	27.39	5.05	≤13
	26765	821.5	15	22.72	26.39	3.67	≤13
				22.59	28.94	6.35	≤13
	26915	831.4		22.93	27.30	4.37	≤13
				23.68	29.13	5.45	≤13
	26965	841.4		22.46	26.85	4.39	≤13
				23.56	28.89	5.33	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm) 16QAM	Peak Measured Power (dBm) 16QAM	PAPR (dB)	Limit (dB)
26	26797	814.7	1.4	22.43	26.72	4.29	≤13
				20.70	25.89	5.19	≤13
	26915	831.4		21.66	26.26	4.60	≤13
				20.39	25.75	5.36	≤13
	27033	848.2		22.39	26.55	4.16	≤13
				21.20	26.55	5.35	≤13
	26805	815.5	3	23.28	28.24	4.96	≤13
				23.17	28.89	5.72	≤13
	26915	831.4		23.21	28.23	5.02	≤13
				23.72	29.51	5.79	≤13
	27025	847.4		22.72	27.90	5.18	≤13
				23.09	28.87	5.78	≤13
	26815	816.5	5	23.55	28.57	5.02	≤13
				23.35	29.01	5.66	≤13
	26915	831.4		23.32	28.23	4.91	≤13
				23.70	29.43	5.73	≤13
	27015	846.5		23.11	28.28	5.17	≤13
				23.36	29.07	5.71	≤13
	26840	819	10	22.98	27.01	4.03	≤13
				21.76	26.65	4.89	≤13
	26915	831.4		22.65	26.83	4.18	≤13
				21.55	26.51	4.96	≤13
	26990	843.9		22.80	27.20	4.40	≤13
				22.21	27.02	4.81	≤13
	26765	821.5	15	23.45	28.59	5.14	≤13
				22.38	27.97	5.59	≤13
	26915	831.4		23.20	28.28	5.08	≤13
				24.04	29.71	5.67	≤13
	26965	841.4		22.98	27.88	4.90	≤13
				23.77	29.48	5.71	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
66	131979	1710.7	1.4	21.96	25.70	3.74	≤13
				19.76	24.78	5.02	≤13
	132322	1745		21.72	25.60	3.88	≤13
				19.60	24.78	5.18	≤13
	132665	1770.3		21.20	25.22	4.02	≤13
				19.31	24.27	4.96	≤13
	131987	1711.5	3	23.27	27.92	4.65	≤13
				23.30	28.39	5.09	≤13
	132322	1745		24.08	29.10	5.02	≤13
				23.44	27.94	4.50	≤13
	132657	1778.5		23.32	27.99	4.67	≤13
				24.01	27.88	3.87	≤13
	131997	1712.5	5	23.49	28.00	4.51	≤13
				23.26	28.34	5.08	≤13
	132322	1745		23.44	27.94	4.50	≤13
				23.32	28.34	5.02	≤13
	132647	1777.5		23.04	27.60	4.56	≤13
				23.22	28.38	5.16	≤13
	132022	1715	10	22.15	25.79	3.64	≤13
				22.03	25.90	3.87	≤13
	132322	1745		21.83	25.46	3.63	≤13
				21.80	25.80	4.00	≤13
	132622	1775		22.08	25.65	3.57	≤13
				21.83	25.74	3.91	≤13
	132047	1717.5	15	23.45	27.99	4.54	≤13
				23.36	28.61	5.25	≤13
	132322	1745		22.38	26.98	4.60	≤13
				23.25	28.61	5.36	≤13
	132597	1772.5		23.11	27.63	4.52	≤13
				23.19	28.51	5.32	≤13
	132072	1720	20	23.34	27.96	4.62	≤13
				23.35	28.76	5.41	≤13
	132322	1745		23.38	28.03	4.65	≤13
				23.31	28.78	5.47	≤13
	132572	1770		22.91	27.63	4.72	≤13
				23.13	28.32	5.19	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				16QAM	16QAM		
66	131979	1710.7	1.4	19.82	24.78	4.96	≤13
				19.92	25.39	5.47	≤13
	132322	1745		20.78	25.34	4.56	≤13
				19.49	25.20	5.71	≤13
	132665	1770.3		20.54	25.23	4.69	≤13
				19.39	24.79	5.40	≤13
	131987	1711.5	3	23.58	28.68	5.10	≤13
				23.46	29.23	5.77	≤13
	132322	1745		22.33	27.80	5.47	≤13
				22.70	28.55	5.85	≤13
	132657	1778.5		22.95	28.19	5.24	≤13
				23.71	29.66	5.95	≤13
	131997	1712.5	5	22.68	28.00	5.32	≤13
				23.54	29.36	5.82	≤13
	132322	1745		22.78	28.46	5.68	≤13
				23.87	29.69	5.82	≤13
	132647	1777.5		23.15	28.45	5.30	≤13
				23.27	29.26	5.99	≤13
	132022	1715	10	22.10	25.91	3.81	≤13
				21.03	25.77	4.74	≤13
	132322	1745		21.65	25.71	4.06	≤13
				20.77	25.70	4.93	≤13
	132622	1775		22.05	25.76	3.71	≤13
				20.98	25.68	4.70	≤13
	132047	1717.5	15	22.98	27.98	5.00	≤13
				23.02	28	4.98	≤13
	132322	1745		22.74	27.97	5.23	≤13
				23.64	28.01	4.37	≤13
	132597	1772.5		22.65	27.97	5.32	≤13
				23.45	29.28	5.83	≤13
	132072	1720	20	23.7	28.97	5.27	≤13
				23.53	29.48	5.95	≤13
	132322	1745		22.92	28.09	5.17	≤13
				23.49	29.43	5.94	≤13
	132572	1770		23.71	28.58	4.87	≤13
				23.42	29.29	5.87	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				QPSK	QPSK		
85	134027	700.5	5	22.67	27.72	5.05	≤13
				23.50	29.17	5.67	≤13
	134092	707		22.79	27.66	4.87	≤13
				23.57	29.15	5.58	≤13
	134157	713.5		22.83	27.60	4.77	≤13
				23.61	29.28	5.67	≤13
	134052	703	10	22.48	26.70	4.22	≤13
				22.34	27.83	5.49	≤13
	134092	707		23.49	27.71	4.22	≤13
				22.45	26.95	4.50	≤13
	134132	711		23.46	27.66	4.20	≤13
				22.58	27.21	4.63	≤13

LTE Band	Channel no's	Channel Frequency (MHz)	Cell Bandwidth (MHz)	Average Measured Power (dBm)	Peak Measured Power (dBm)	PAPR (dB)	Limit (dB)
				16QAM	16QAM		
85	134027	700.5	5	22.61	27.63	5.02	≤13
				23.38	29.09	5.71	≤13
	134092	707		22.64	27.70	5.06	≤13
				23.18	29.10	5.92	≤13
	134157	713.5		22.96	27.76	4.80	≤13
				23.51	29.32	5.81	≤13
	134052	703	10	23.03	27.62	4.59	≤13
				22.53	27.83	5.30	≤13
	134092	707		23.11	27.71	4.60	≤13
				22.72	28.00	5.28	≤13
	134132	711		22.78	27.70	4.92	≤13
				22.92	28.10	5.18	≤13

7.3 Equivalent Isotropic Radiated Power (EIRP) / Effective Radiated Power (ERP)

Result ***Pass***

Specification	FCC Part §22.913(a)(5), §24.232 (c), §27.50(d)(4), §27.50(b)(10), §27.50(c)(10)
Test Method / Procedure	ANSI C63.26-2015
Measurement Bandwidth	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector function	Refer remarks below
Measuring Distance	3 m
Requirement	As per the limits mentioned in the below table
Test setup	Reffer TEST METHODOLOGY

Limit:

FCC Clause	Requirements
FCC Part 24.232(c)	Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.
FCC Part 27.50(d)(4)	Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1755-1780 MHz bands are limited to 1 watt EIRP.
FCC Part 22.913(a)(5)	The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.
FCC Part 27.50(b)(10)	Portable stations transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.
FCC Part 27.50(c)(10)	Control and mobile stations in the 698-746 MHz band are limited to 3 watts ERP.

Environmental conditions:

Temperature (Norm) = + 24 °C Voltage = 110V AC 60Hz Relative humidity = 62 %

KDB Guidelines applied:

All the radiated emission measurements are performed in accordance with common requirement specified in 5.5.2 and Pre-test site path loss correction factors are used to adjust the EUT emission data in place of two step substitution method (as defined in Annex B of ANSI C63.26-2015)

Test results:

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

Table 8: ERP/EIRP Test results for LTE

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
2	QPSK	**15**	**1**	**0**	**Low**	**1857.5**	**Vertical**	**27.06**	**33.01**
							Horizontal	**27.57**	**33.01**
		5	6	0	Mid	1880	Vertical	26.29	33.01
							Horizontal	26.90	33.01
		10	4	2	High	1902.4	Vertical	21.25	33.01
							Horizontal	25.34	33.01

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
2	16-QAM	**5**	**6**	**0**	**Low**	**1852.5**	**Vertical**	**25.89**	**33.01**
							Horizontal	**26.8**	**33.01**
		15	6	0	Mid	1880	Vertical	23.37	33.01
							Horizontal	24.29	33.01
		20	6	0	High	1900	Vertical	21.03	33.01
							Horizontal	24.03	33.01

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
4	QPSK	3	6	0	Low	1711.5	Vertical	25.78	30.00
							Horizontal	22.11	30.00
		3	**6**	**0**	**Mid**	**1732.5**	**Vertical**	**26.06**	**30.00**
							Horizontal	**22.59**	**30.00**
		3	6	0	High	1753.5	Vertical	24.83	30.00
							Horizontal	24.46	30.00

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
4	16-QAM	3	6	0	Low	1711.5	Vertical	25.40	30.00
							Horizontal	21.97	30.00
		3	**6**	**0**	**Mid**	**1732.5**	**Vertical**	**25.92**	**30.00**
							Horizontal	**22.63**	**30.00**
		3	6	0	High	1753.5	Vertical	25.11	30.00
							Horizontal	24.43	30.00

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
5	QPSK	3	6	0	Low	825.5	Vertical	18.04	38.45
							Horizontal	17.11	38.45
		10	**4**	**0**	**Mid**	**836.5**	**Vertical**	**18.19**	**38.45**
							Horizontal	**15.61**	**38.45**
		5	6	0	High	846.5	Vertical	17.97	38.45
							Horizontal	17.17	38.45

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
5	16-QAM	**10**	**4**	**0**	**Low**	**829**	**Vertical**	**18.30**	**38.45**
							Horizontal	**16.96**	**38.45**
		10	4	0	Mid	836.5	Vertical	18.28	38.45
							Horizontal	15.73	38.45
		3	6	0	High	847.4	Vertical	17.66	38.45
							Horizontal	17.29	38.45

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
12	QPSK	10	4	0	Low	704	Vertical	12.060	34.77
							Horizontal	7.800	34.77
		10	4	0	Mid	707.5	Vertical	13.060	34.77
							Horizontal	8.270	34.77
		5	**6**	**0**	**High**	**713.4**	**Vertical**	**14.740**	**34.77**
							Horizontal	**10.450**	**34.77**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
12	16-QAM	10	4	0	Low	704	Vertical	11.8	34.77
							Horizontal	6.95	34.77
		3	6	0	Mid	707.5	Vertical	12.39	34.77
							Horizontal	7.53	34.77
		5	**6**	**0**	**High**	**713.4**	**Vertical**	**14.89**	**34.77**
							Horizontal	**10.25**	**34.77**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
13	QPSK	5	6	0	Low	779.5	Vertical	18.42	34.77
							Horizontal	15.76	34.77
		5	6	0	Mid	782	Vertical	18.60	34.77
							Horizontal	15.90	34.77
		5	**6**	**0**	**High**	**784.4**	**Vertical**	**18.86**	**34.77**
							Horizontal	**16.77**	**34.77**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
13	16-QAM	5	6	0	Low	779.5	Vertical	17.99	34.77
							Horizontal	15.35	34.77
		5	6	0	Mid	782	Vertical	18.17	34.77
							Horizontal	16.2	34.77
		5	**6**	**0**	**High**	**784.4**	**Vertical**	**18.79**	**34.77**
							Horizontal	**16.43**	**34.77**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
25	QPSK	10	4	0	Low	1855	Vertical	22.05	33.01
							Horizontal	23.03	33.01
		15	6	0	Mid	1882.5	Vertical	21.31	33.01
							Horizontal	22.92	33.01
		5	**6**	**0**	**High**	**1912.4**	**Vertical**	**22.90**	**33.01**
							Horizontal	**26.50**	**33.01**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
25	16-QAM	**5**	**6**	**0**	**Low**	**1852.5**	**Vertical**	**25.80**	**33.01**
							Horizontal	**26.46**	**33.01**
		20	6	0	Mid	1882.5	Vertical	24.43	33.01
							Horizontal	22.27	33.01
		10	4	2	High	1909.4	Vertical	19.56	33.01
							Horizontal	22.99	33.01

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
26	QPSK	**3**	**6**	**0**	**Low**	**815.5**	**Vertical**	**20.41**	**38.45**
							Horizontal	**17.93**	**38.45**
		15	6	0	Mid	831.4	Vertical	18.04	38.45
							Horizontal	15.93	38.45
		3	6	0	High	847.4	Vertical	18.18	38.45
							Horizontal	15.48	38.45

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
26	16-QAM	**5**	**1**	**0**	**Low**	**816.5**	**Vertical**	**20.09**	**38.45**
							Horizontal	**17.68**	**38.45**
		15	6	0	Mid	831.4	Vertical	18.09	38.45
							Horizontal	14.25	38.45
		15	6	0	High	841.4	Vertical	18.14	38.45
							Horizontal	15.40	38.45

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
66	QPSK	5	1	0	Low	1712.5	Vertical	26.67	30.00
							Horizontal	23.11	30.00
		3	1	0	Mid	1745	Vertical	26.56	30.00
							Horizontal	24.31	30.00
		3	**6**	**0**	**High**	**1778.4**	**Vertical**	**26.22**	**30.00**
							Horizontal	**26.99**	**30.00**

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
66	16-QAM	5	1	0	Low	1720	Vertical	23.32	30.00
							Horizontal	23.88	30.00
		5	6	0	Mid	1745	Vertical	27.00	30.00
							Horizontal	24.95	30.00
		5	**6**	**0**	**High**	**1777.4**	**Vertical**	**27.06**	**30.00**
							Horizontal	**27.72**	**30.00**

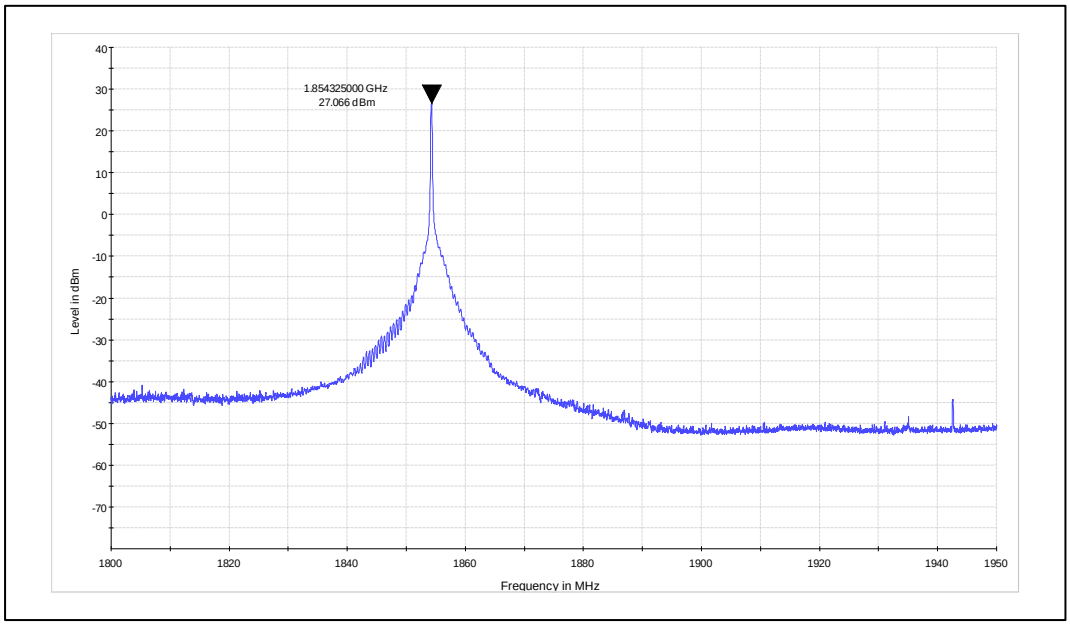
Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
85	QPSK	5	6	0	Low	700.5	Vertical	13.34	34.77
							Horizontal	9.66	34.77
		5	**6**	**0**	**Mid**	**707**	**Vertical**	**14.45**	**34.77**
							Horizontal	**9.51**	**34.77**
		5	6	0	High	713.4	Vertical	14.41	34.77
							Horizontal	9.73	34.77

Band	Modulation	Cell BW	No. of RB	RB Pos	Channel	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
85	16-QAM	5	6	0	Low	700.5	Vertical	12.64	34.77
							Horizontal	9.42	34.77
		5	**6**	**0**	**Mid**	**707**	**Vertical**	**14.24**	**34.77**
							Horizontal	**9.26**	**34.77**
		5	6	0	High	713.4	Vertical	14.07	34.77
							Horizontal	9.43	34.77

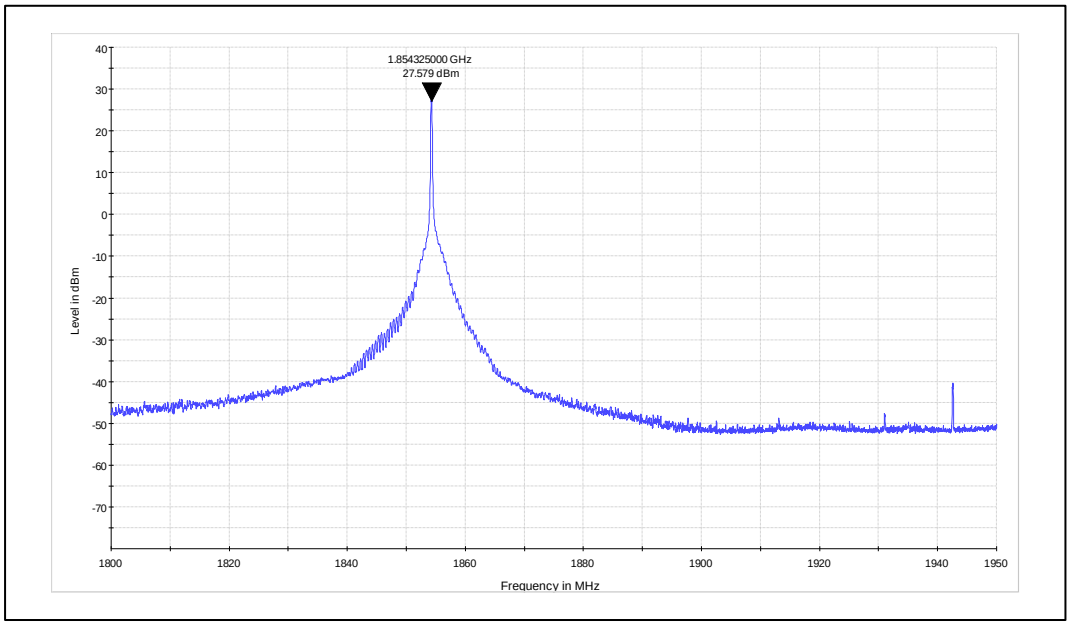
Worst case plots:

LTE Band 2

Channel Frequency: 1857.5MHz_QPSK



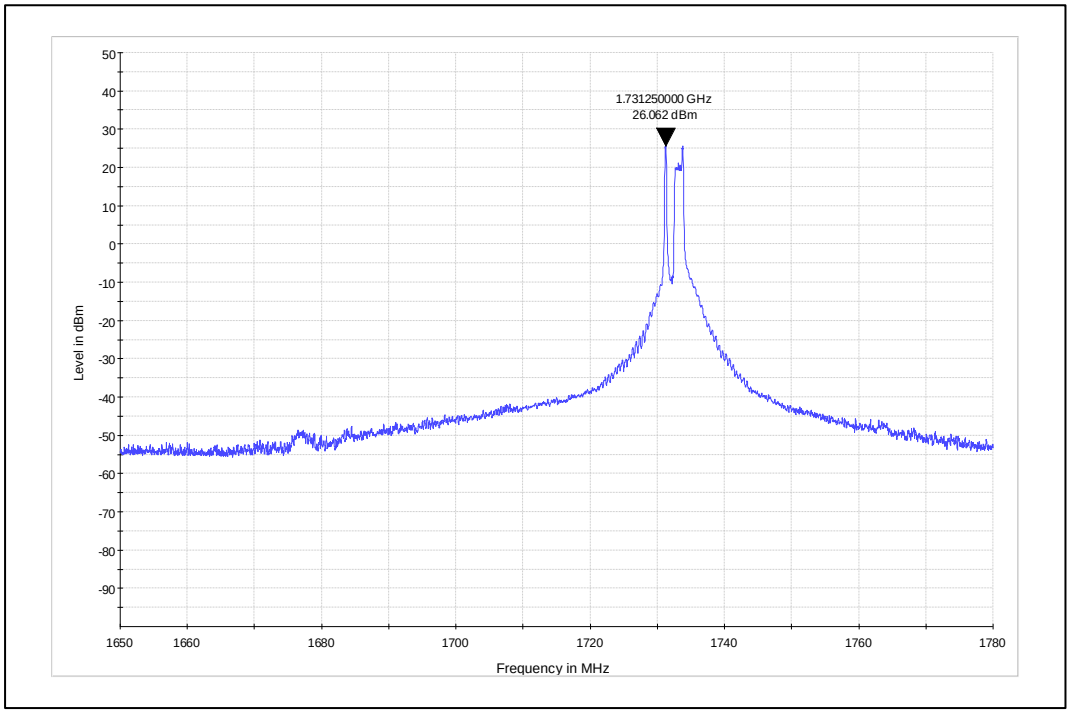
Frequency Range: 1800MHz-1959MHz **Polarization: Vertical**



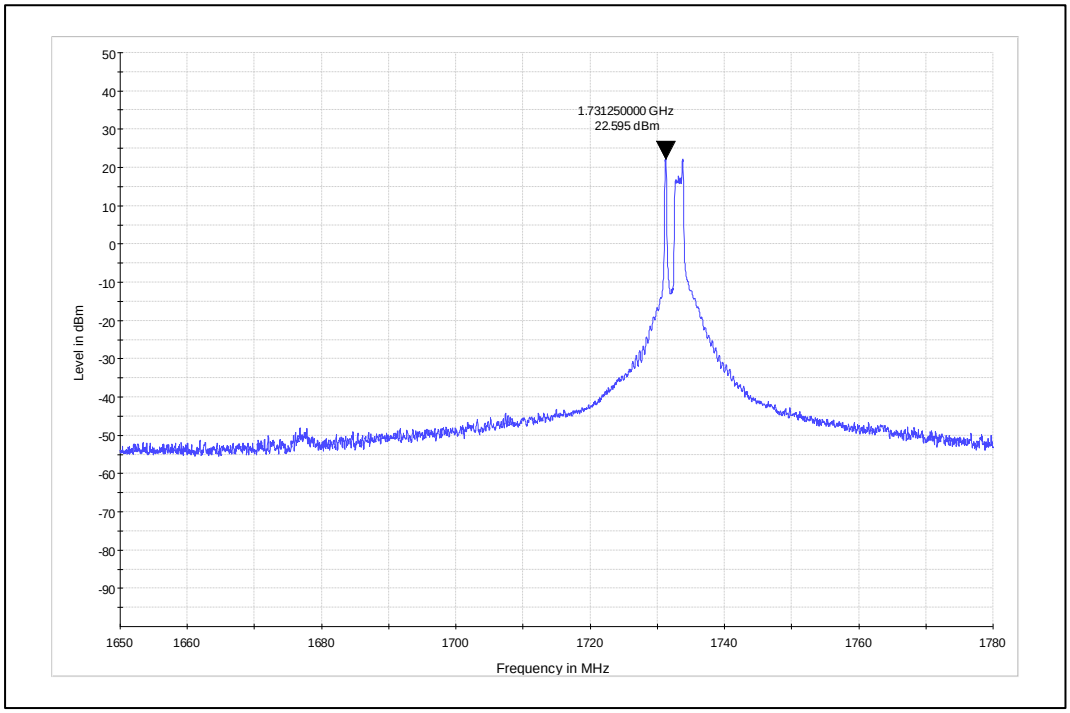
Frequency Range: 1800MHz-1959MHz **Polarization: Horizontal**

LTE Band 4

Channel Frequency: 1732.5MHz_QPSK



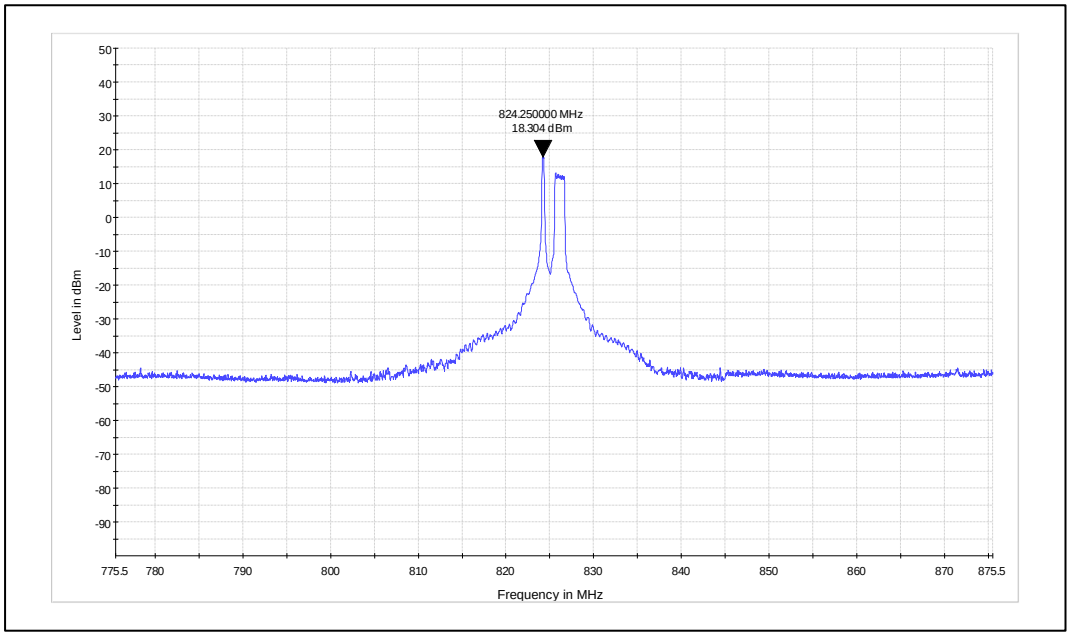
Frequency Range: 1650MHz-1780MHz **Polarization: Vertical**



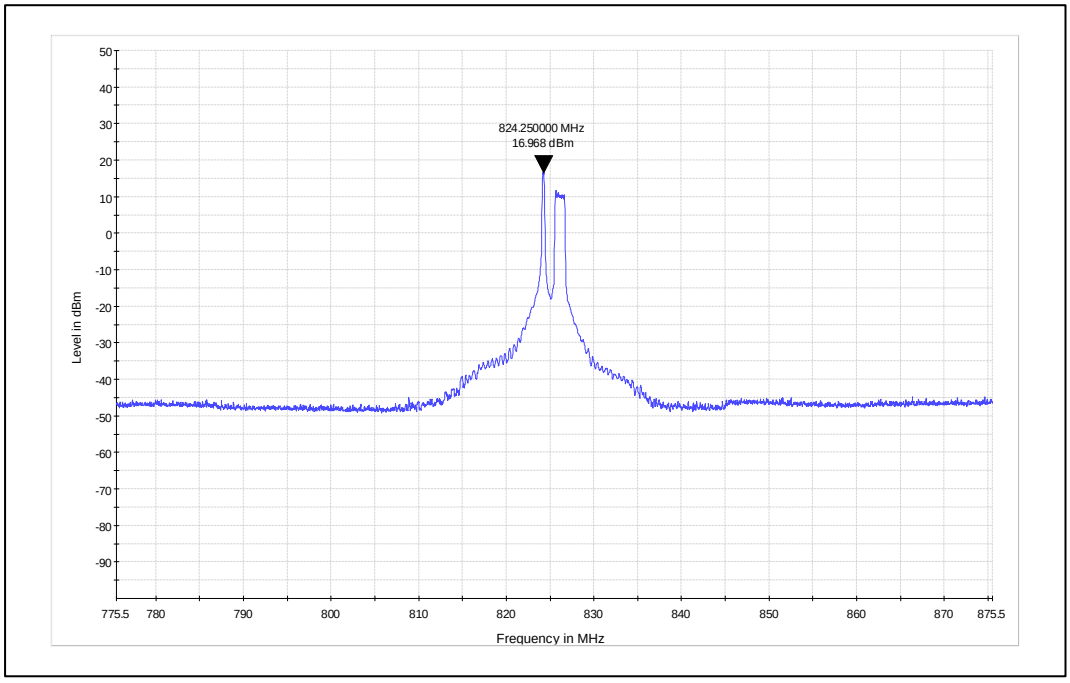
Frequency Range: 1650MHz-1780MHz **Polarization: Horizontal**

LTE Band 5

Channel Frequency: 829MHz_16QAM



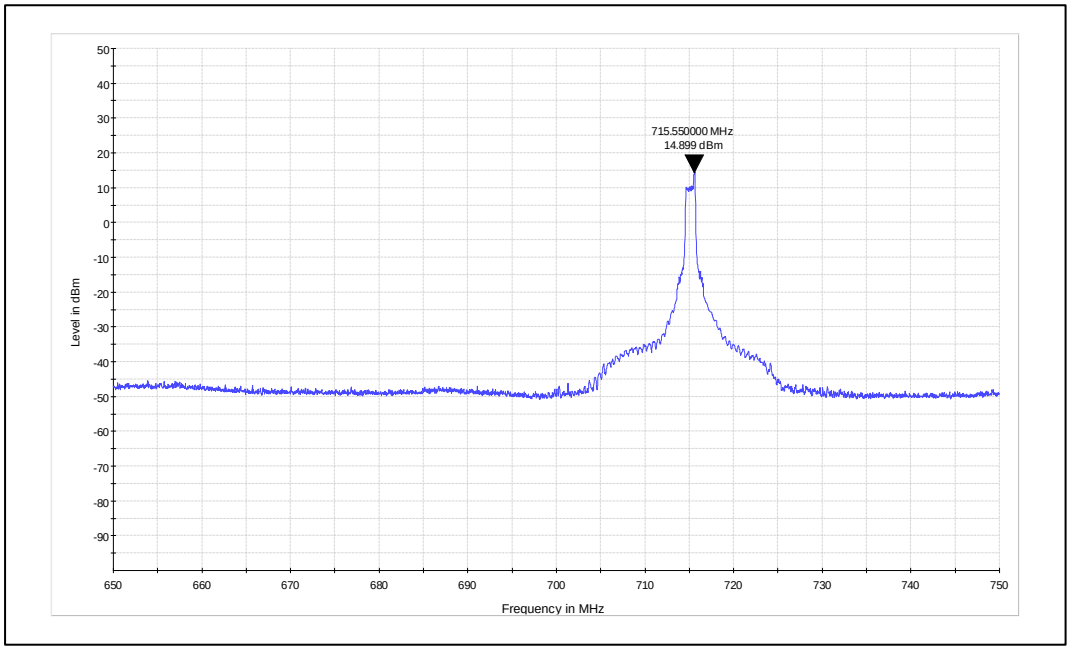
Frequency Range: 775.5MHz-875.5MHz **Polarization: Vertical**



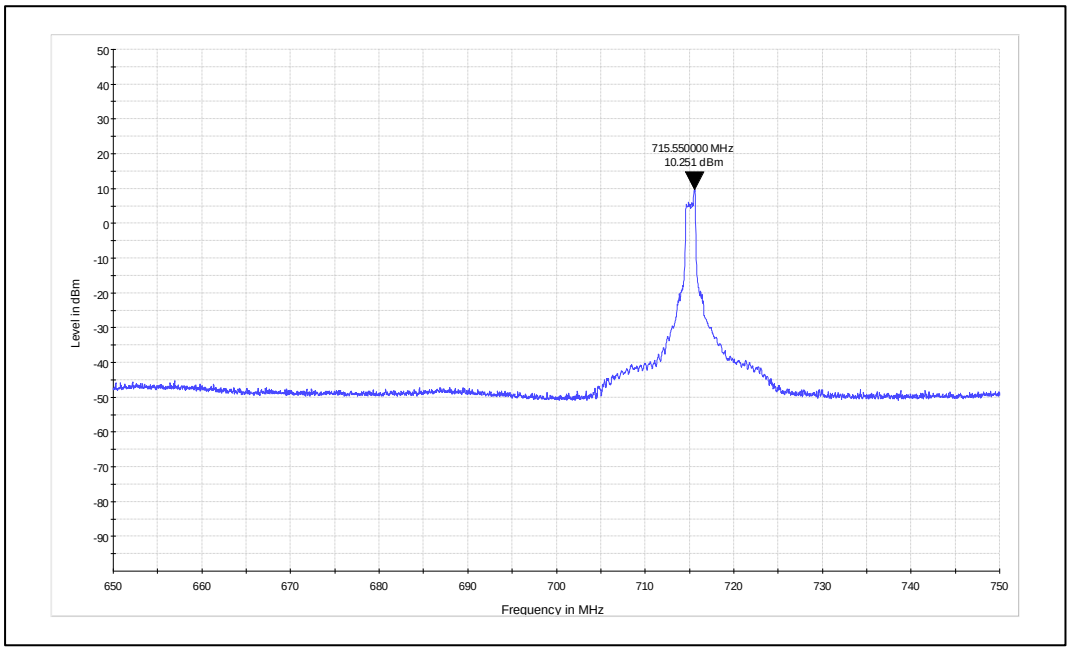
Frequency Range: 775.5MHz-875.5MHz **Polarization: Horizontal**

LTE Band 12

Channel Frequency: 713.4MHz_16QAM



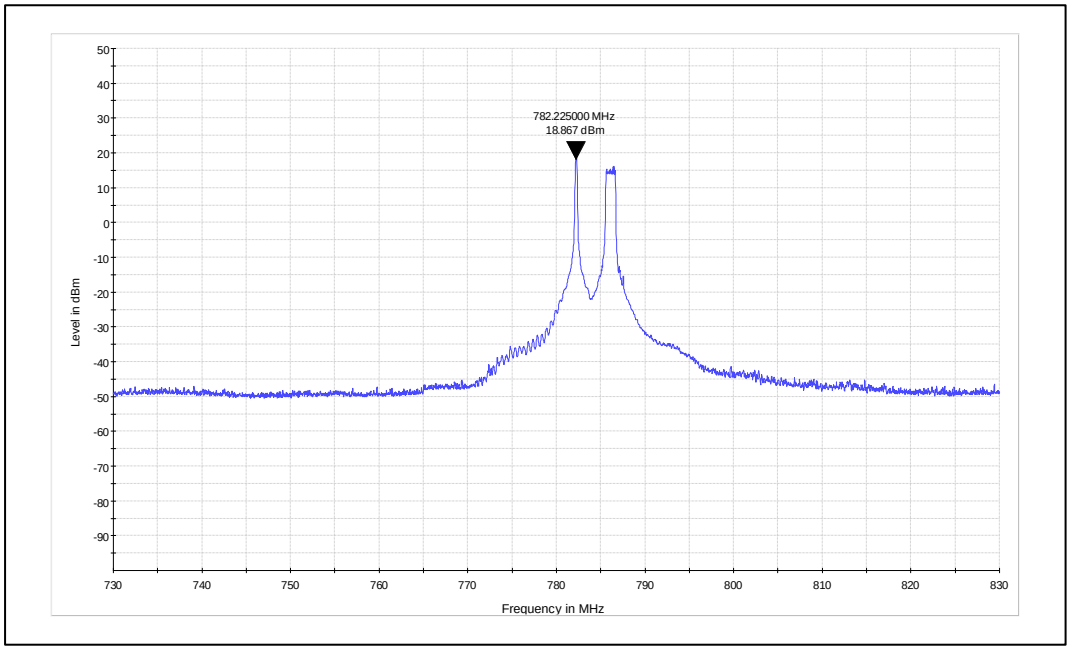
Frequency Range: 650MHz-750MHz **Polarization: Vertical**



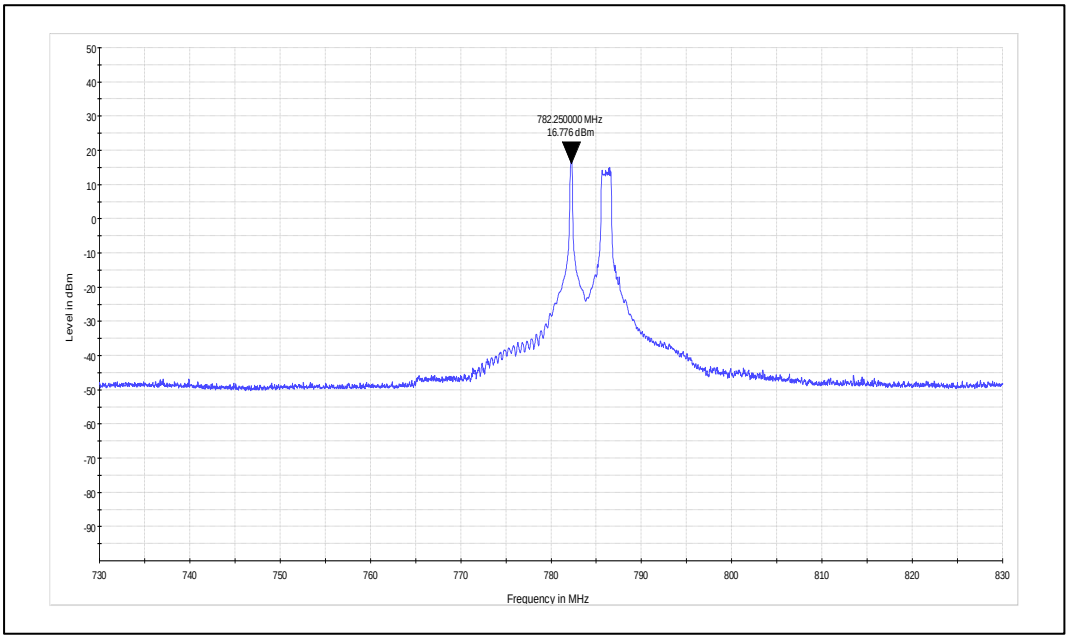
Frequency Range: 650MHz-750MHz **Polarization: Horizontal**

LTE Band 13

Channel Frequency: 784.4MHz_QPSK



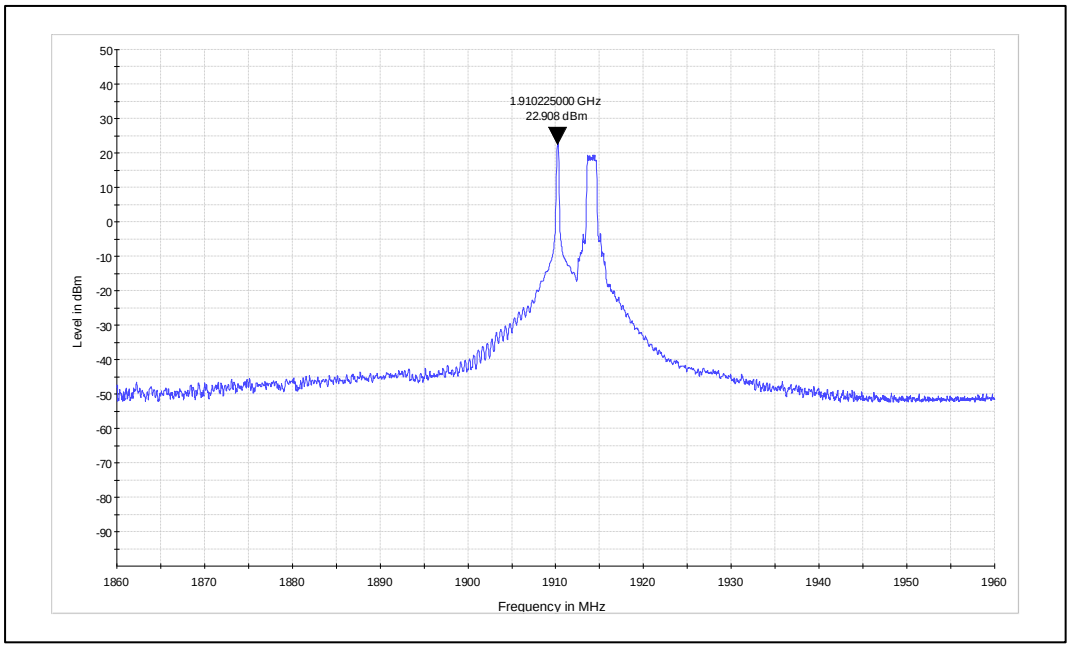
Frequency Range: 730MHz-830MHz **Polarization: Vertical**



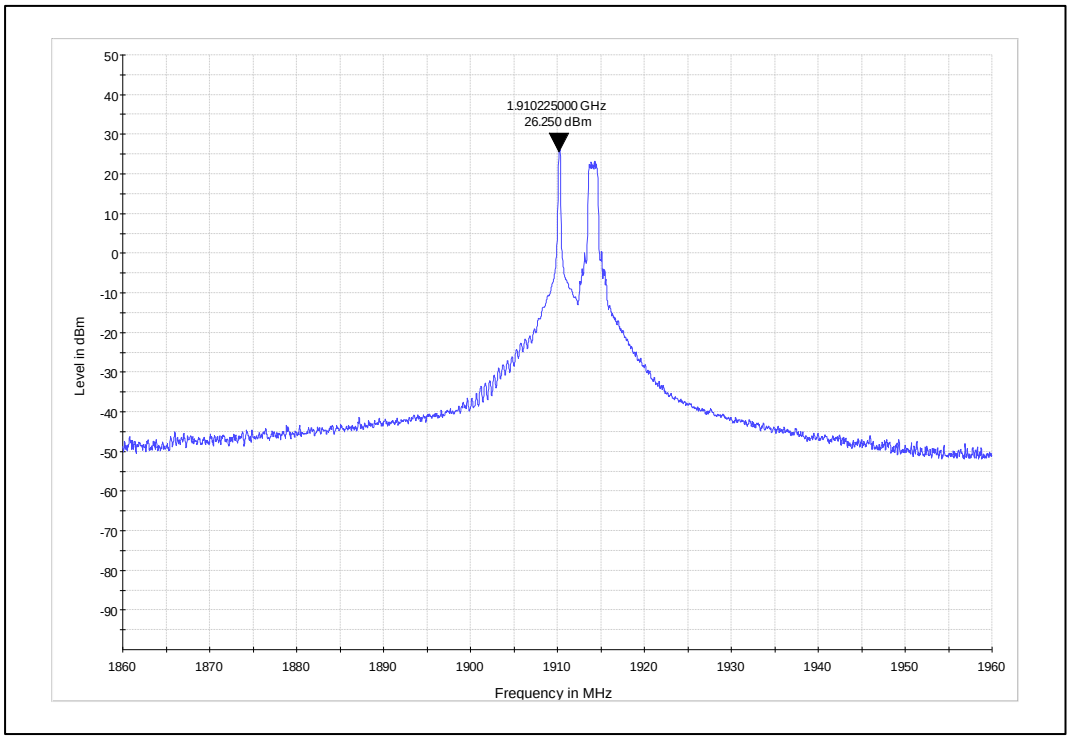
Frequency Range: 730MHz-830MHz **Polarization: Horizontal**

LTE Band 25

Channel Frequency: 1912.4MHz_QPSK



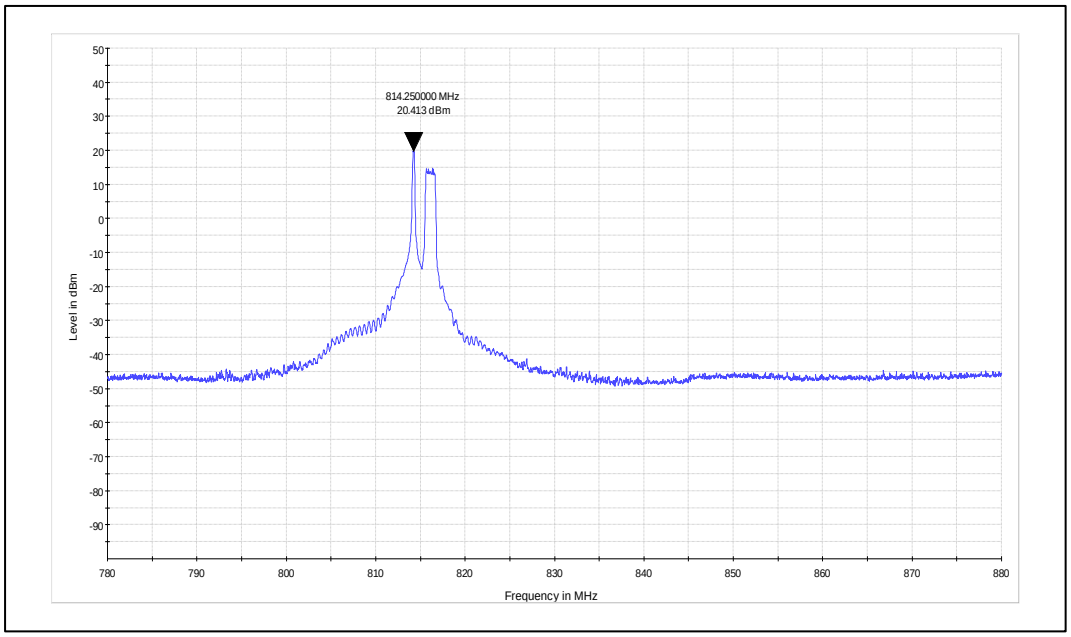
Frequency Range: 1860MHz-1960MHz **Polarization: Vertical**



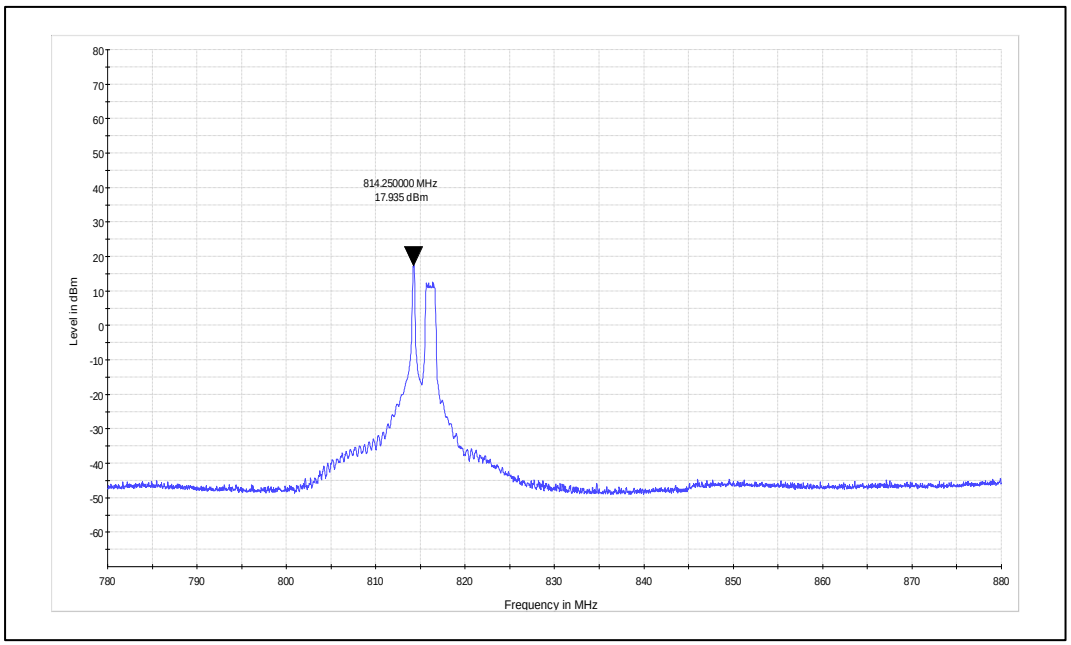
Frequency Range: 1860MHz-1960MHz **Polarization: Horizontal**

LTE Band 26

Channel Frequency: 815.5MHz_QPSK



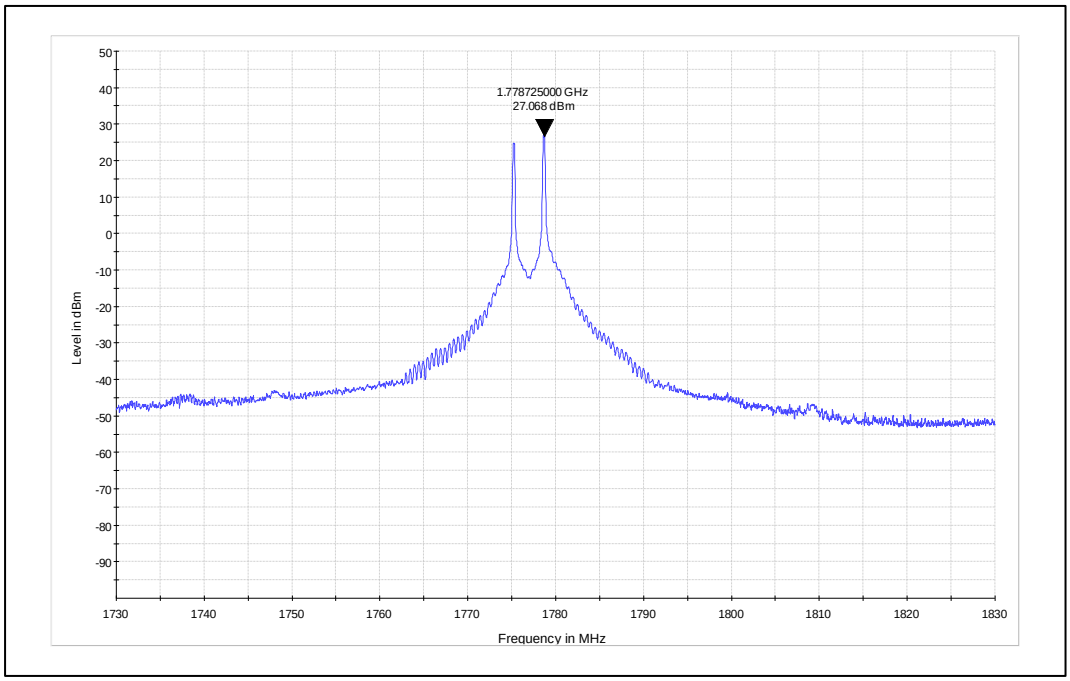
Frequency Range: 780MHz-880MHz **Polarization: Vertical**



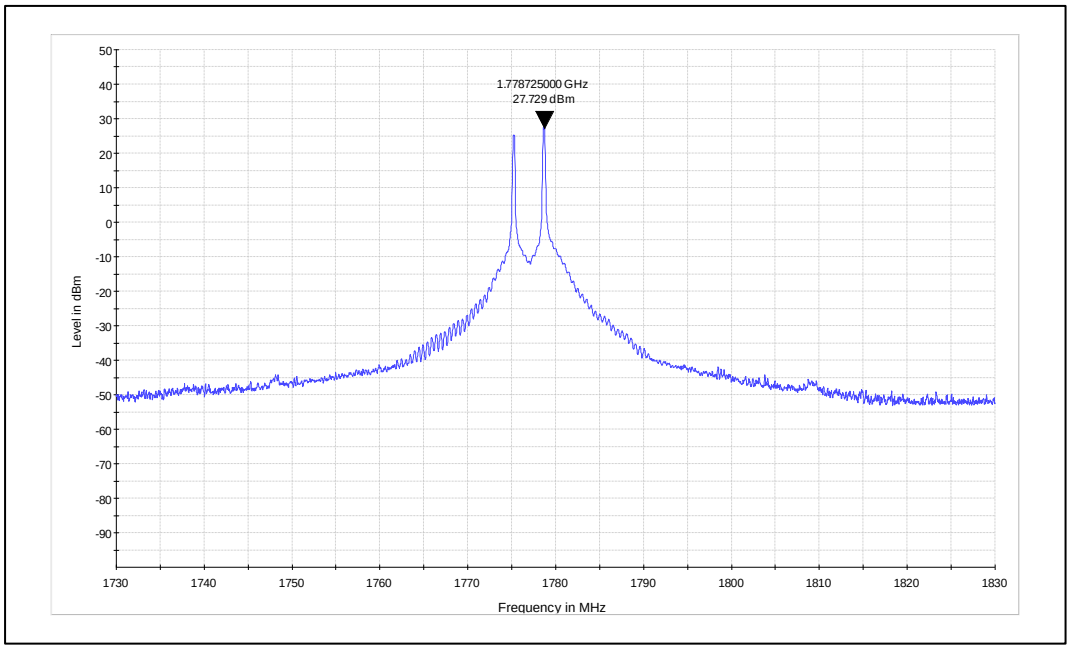
Frequency Range: 780MHz-880MHz **Polarization: Horizontal**

LTE Band 66

Channel Frequency: 1777.4MHz_16QAM

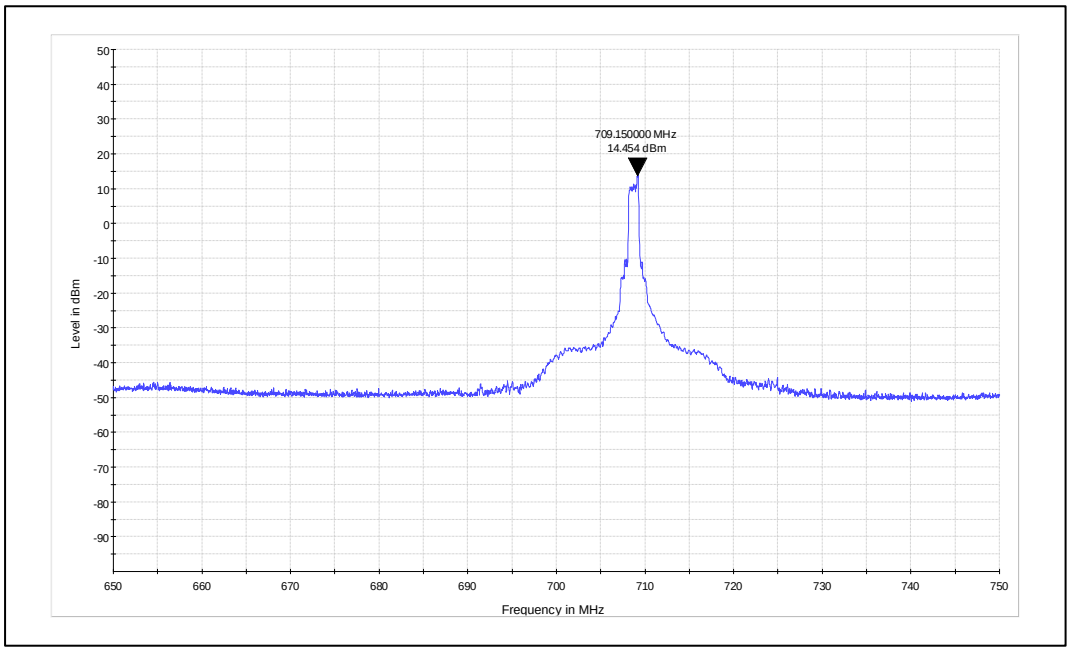


Frequency Range: 1730MHz-1830MHz **Polarization: Vertical**

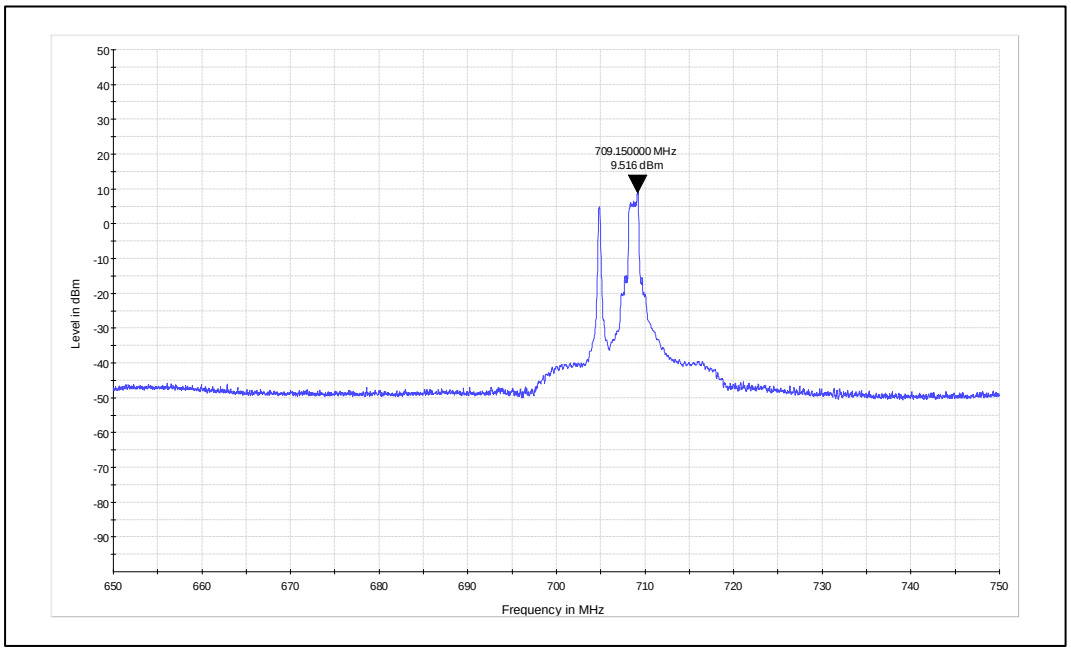


Frequency Range: 1730MHz-1830MHz **Polarization: Horizontal**

LTE Band 85
Channel Frequency: 707MHz_QPSK



Frequency Range: 650MHz-750MHz **Polarization: Vertical**



Frequency Range: 650MHz-750MHz **Polarization:Horizontal**

GSM Test Results

Band	Modulation	Slot	Channel Number	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
GSM 850	GPRS	4	128	824.2	Vertical	8.30	38.45
					Horizontal	5.07	38.45
		1	190	836.6	Vertical	11.16	38.45
					Horizontal	6.45	38.45
		4	**251**	**848.8**	**Vertical**	**12.42**	**38.45**
					Horizontal	**10.37**	**38.45**

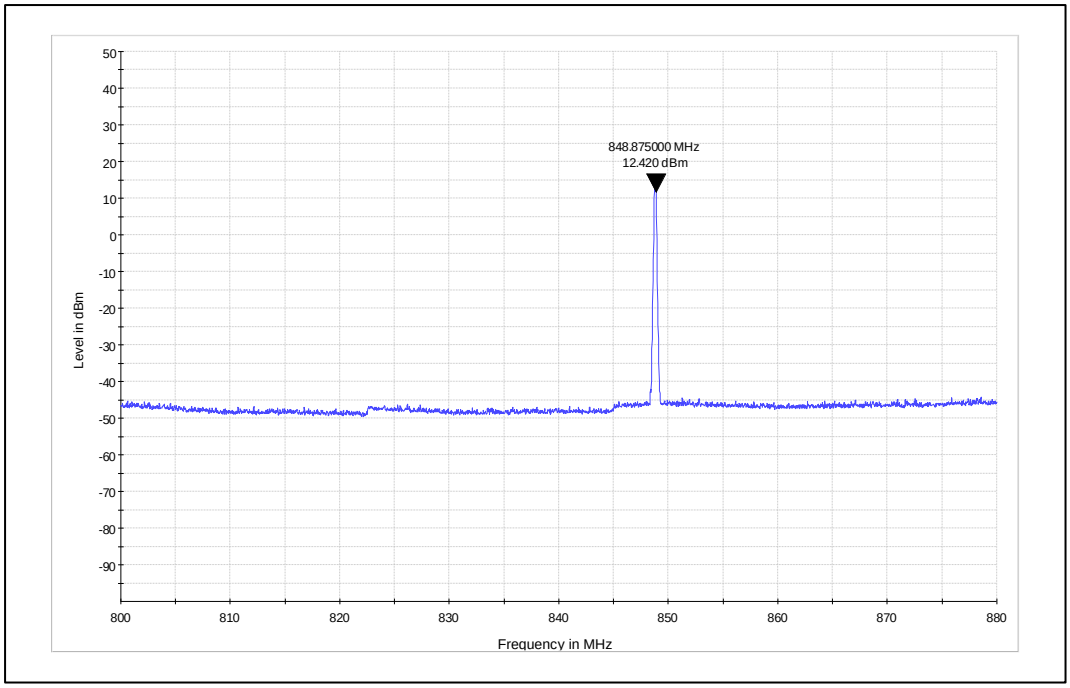
Band	Modulation	Slot	Channel Number	Channel Frequency (MHz)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)
GSM 850	EGPRS	4	128	824.2	Vertical	8.36	38.45
					Horizontal	5.08	38.45
		1	**190**	**836.6**	**Vertical**	**11.16**	**38.45**
					Horizontal	**6.56**	**38.45**
		1	251	848.8	Vertical	11.66	38.45
					Horizontal	9.50	38.45

Band	Modulation	Slot	Channel Number	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
GSM 1900	GPRS	2	512	1850.2	Vertical	24.63	33.01
					Horizontal	24.79	33.01
		4	661	1880	Vertical	25.57	33.01
					Horizontal	25.33	33.01
		4	**810**	**1909.8**	**Vertical**	**25.56**	**33.01**
					Horizontal	**25.65**	**33.01**

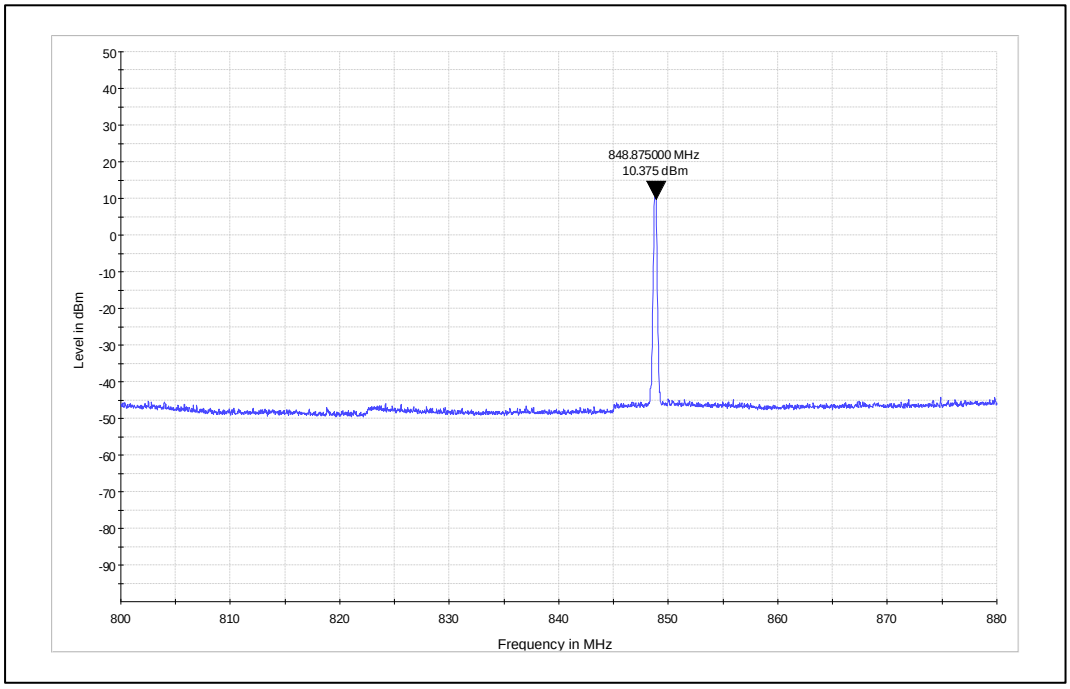
Band	Modulation	Slot	Channel Number	Channel Frequency (MHz)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)
GSM 1900	EGPRS	2	512	1850.2	Vertical	24.80	33.01
					Horizontal	24.83	33.01
		3	661	1880	Vertical	25.50	33.01
					Horizontal	25.34	33.01
		3	**810**	**1909.8**	**Vertical**	**25.54**	**33.01**
					Horizontal	**25.65**	**33.01**

GSM 850 Worst Case Plots

Channel Frequency: 848.8MHz_GPRS



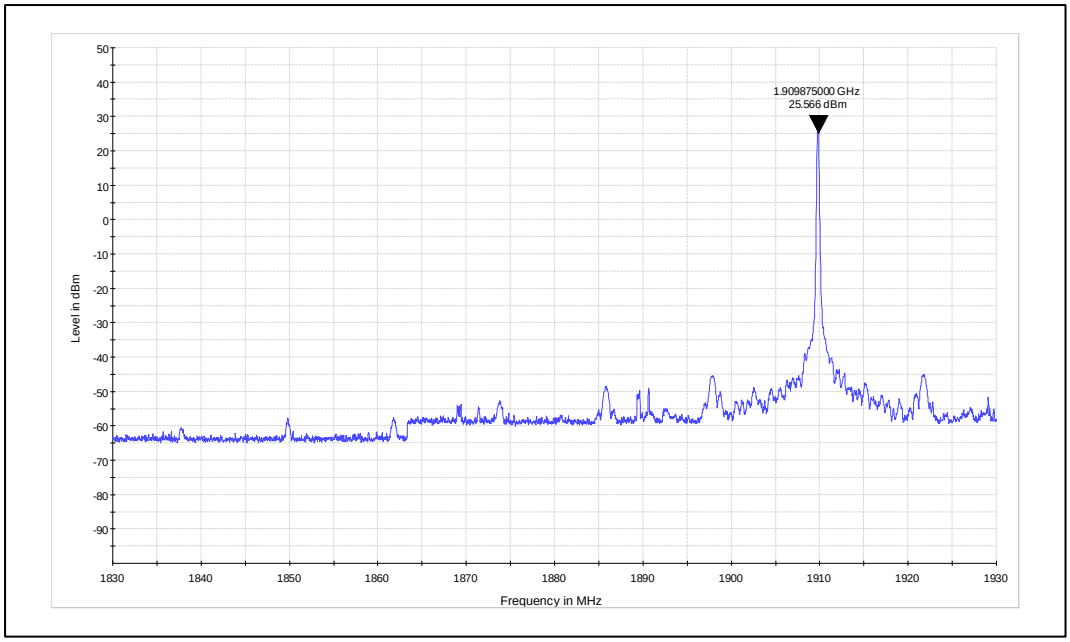
Frequency Range: 800MHz-880MHz **Polarization: Vertical**



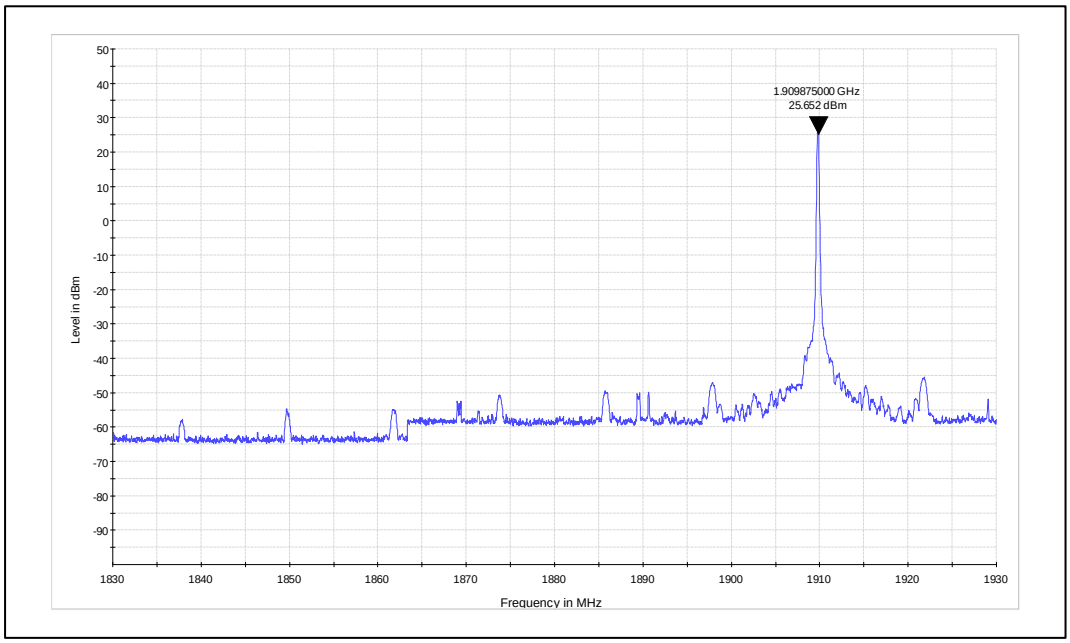
Frequency Range: 800MHz-880MHz **Polarization: Horizontal**

GSM 1900 Worst Case Plots

Channel Frequency: 1909.8MHz_GPRS



Frequency Range: 1830MHz-1930MHz **Polarization: Vertical**



Frequency Range: 1830MHz-1930MHz **Polarization: Horizontal**

7.4 Field Strength of Spurious Radiation

Result ***Pass***

Specification	FCC Part §2.1053, §22.917(a), §24.238(a), §27.53(a), §27.53(f), §27.53(g) & §27.53(h) RSS 132 Issue 3, Section 5.5 As per sub clause 5.5 of ANSI C63.26-2015
Test Method / Procedure	As per sub clause 7 in 971168 D01 Power Meas License Digital Systems v03r01
Measurement Bandwidth (RBW)	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector Function	Peak
Measuring Distance	3 m
Requirement	The power of any emission outside the authorized frequency range must be attenuated below the transmitting power (P) by a factor of at least 43+10log(P) dB For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −40 dBm/MHz equivalent isotopically radiated power (EIRP) for wideband signals
Test setup	Reffer TEST METHODOLOGY

Environmental conditions:

Temperature (Norm) = + 24 °C Voltage = 110V AC 60Hz Relative humidity = 62 %

Note: All the losses are included during measurement and final values are mentioned in the test report. Refer TEST METHODOLOGY for more details

Note:

1. All the losses are included during measurement and final values are mentioned in the test report.
2. Spurious emission limit is derived using the following equation: 43 + 10*log(P) = 43 + 10*log(P) = -13dBm
   P is average power in W

Test results:

Test results for frequency range 9 kHz – 30MHz

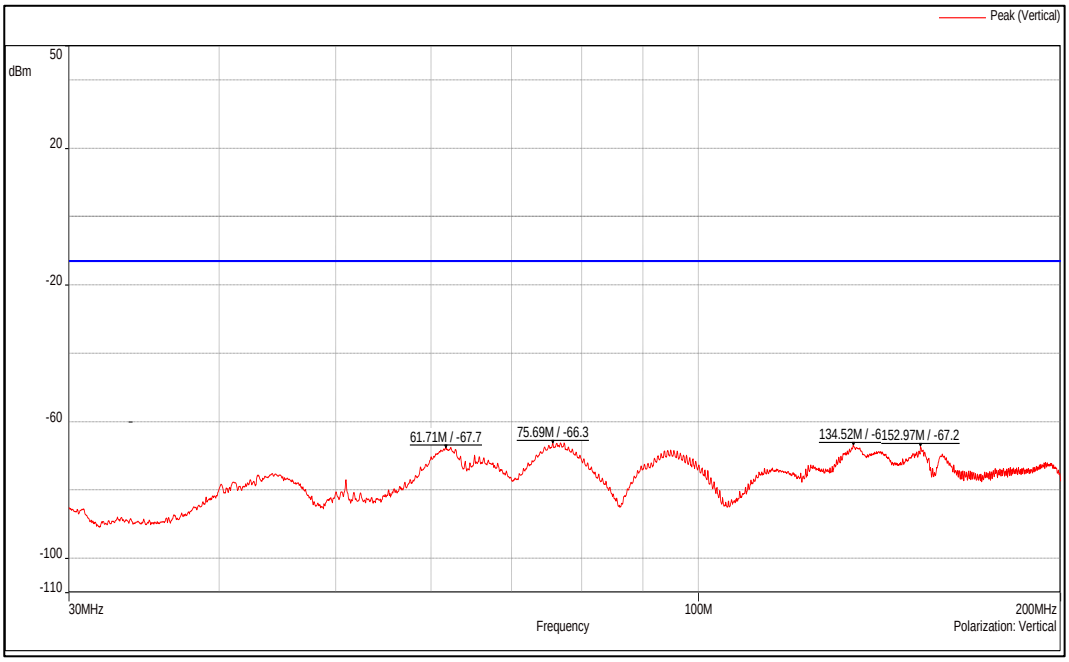
No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, hence not reported

Spurious emissions for Model name: STFP2KHK2R0

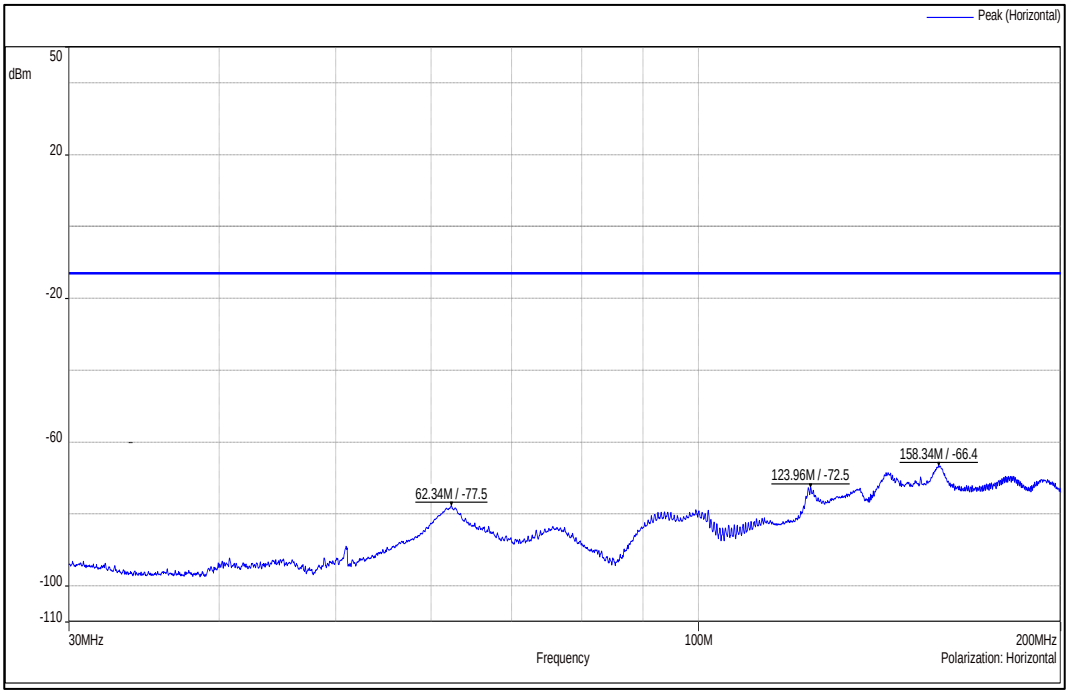
Test results for frequency range 30MHz – 200MHz

Antenna polarization	Measured Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
Vertical	61.71	-67.70	-13	-54.70
	75.69	-66.30	-13	-53.30
	134.52	-66.36	-13	-53.36
	152.97	-67.20	-13	-54.20
Horizontal	62.34	-77.5	-13	-64.50
	123.96	-72.5	-13	-59.50
	158.34	-66.40	-13	-53.40

Plots for frenquency range 30MHz to 200MHz



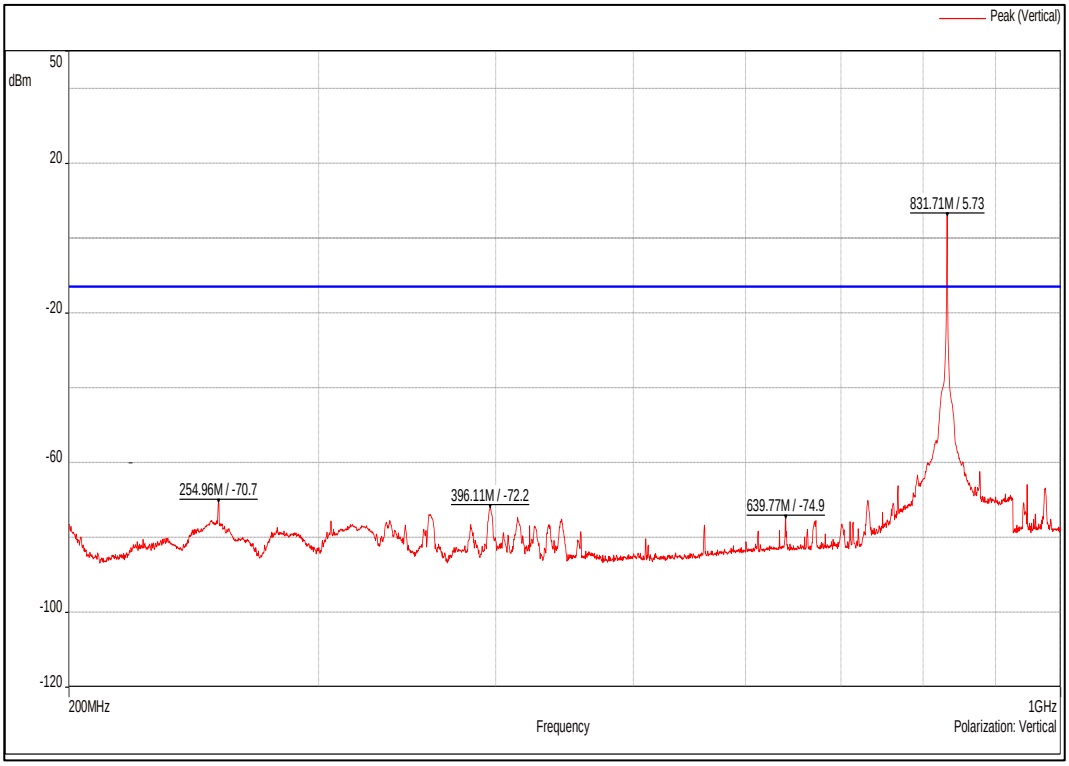
Frequency Range: 30MHz-200MHz **Polarization: Vertical**



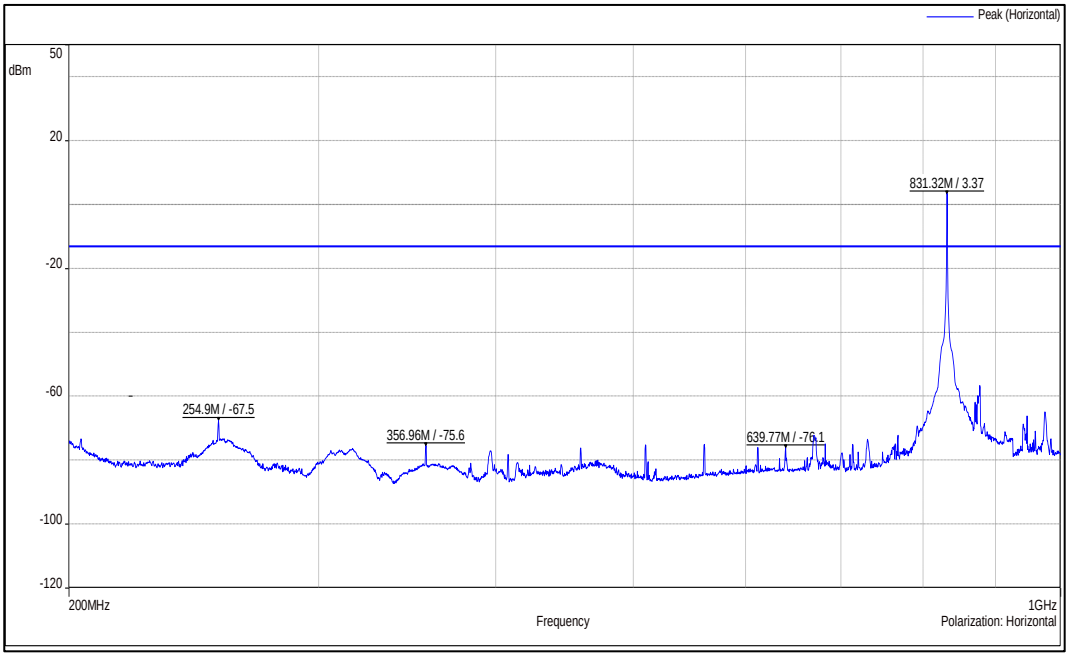
Frequency Range: 30MHz-200MHz **Polarization: Horizontal**

Test results for frequency range 200MHz – 1GHz

Antenna polarization	Measured Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
Vertical	254.96	-70.70	-13	-57.70
	396.11	-72.20	-13	-59.20
	639.77	-76.60	-13	-63.60
Horizontal	254.90	-67.50	-13	-54.50
	356.96	-75.60	-13	-62.60
	639.77	-76.10	-13	-63.10



Frequency Range: 200MHz-1GHz **Polarization: Vertical**



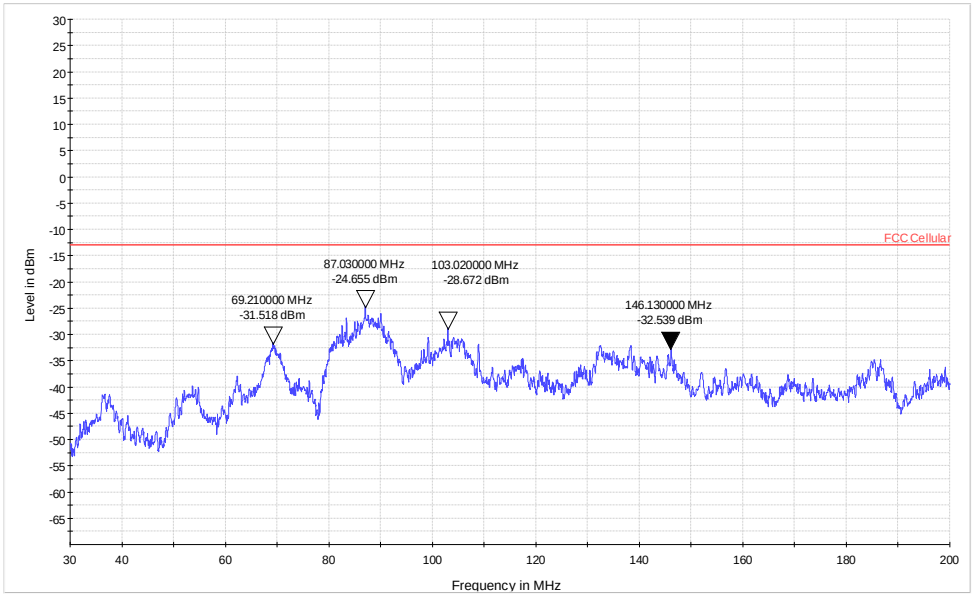
Frequency Range: 200MHz-1GHz **Polarization: Horizontal**

Spurious emissions for Model Number: STFP2KHK1CA

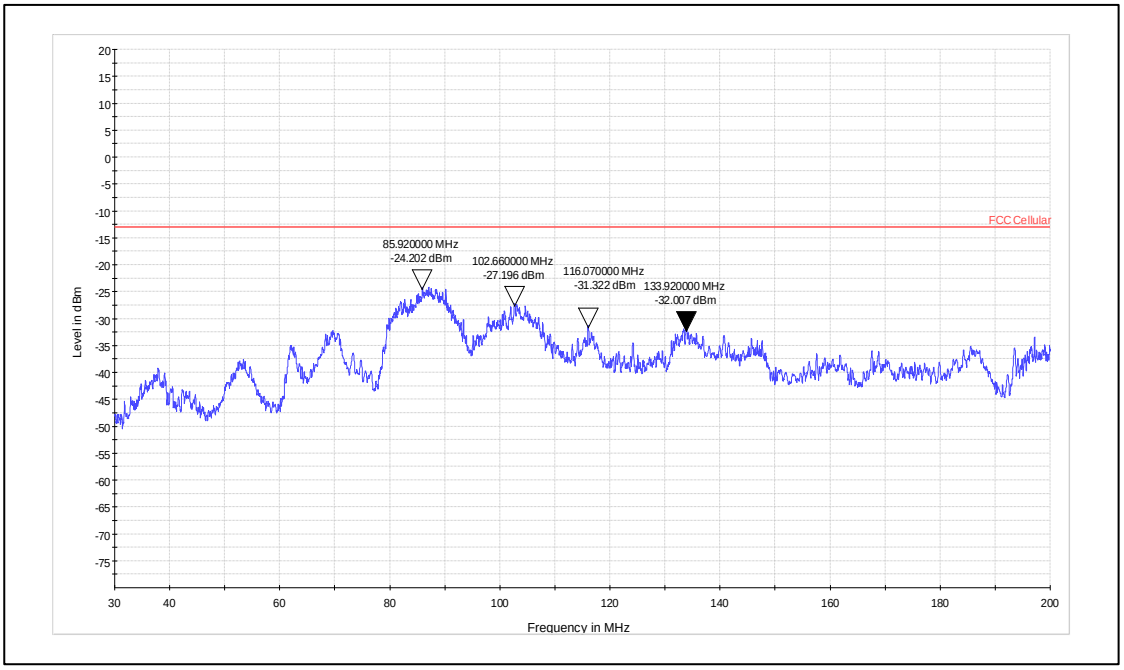
Test results for frequency range 30MHz – 200MHz

Antenna polarization	Measured Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
Vertical	69.21	-31.51	-13	-18.51
	87.03	-27.65	-13	-14.65
	103.02	-28.67	-13	-15.67
	146.13	-32.53	-13	-19.53
Horizontal	85.92	-24.20	-13	-11.20
	102.66	-27.19	-13	-14.19
	116.07	-31.32	-13	-18.32
	133.92	-32.00	-13	-19.00

Plots for frequency range 30MHz to 200MHz



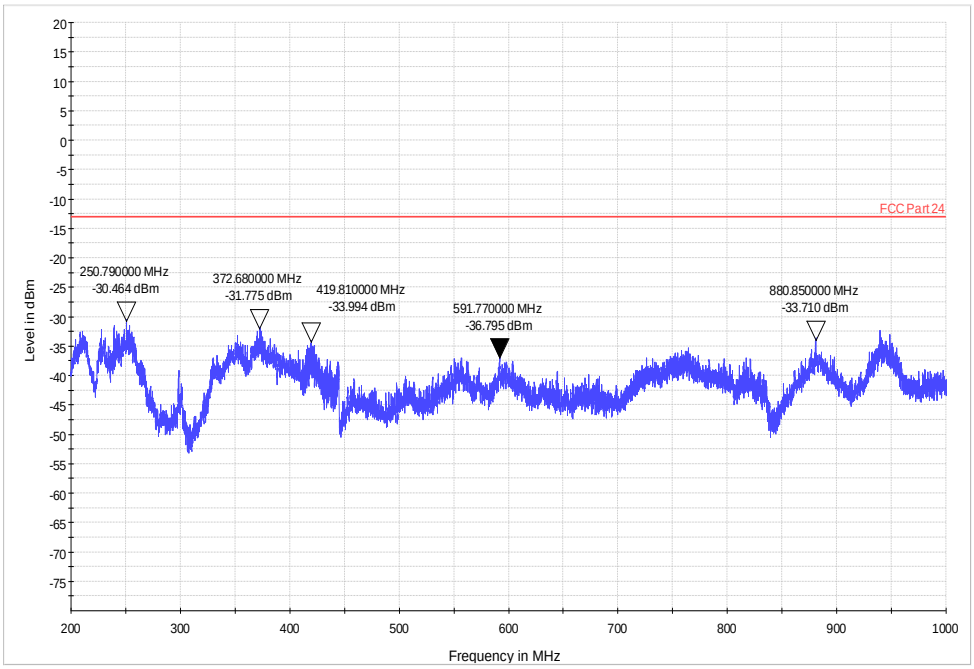
Frequency Range: 30MHz-200MHz **Polarization: Vertical**



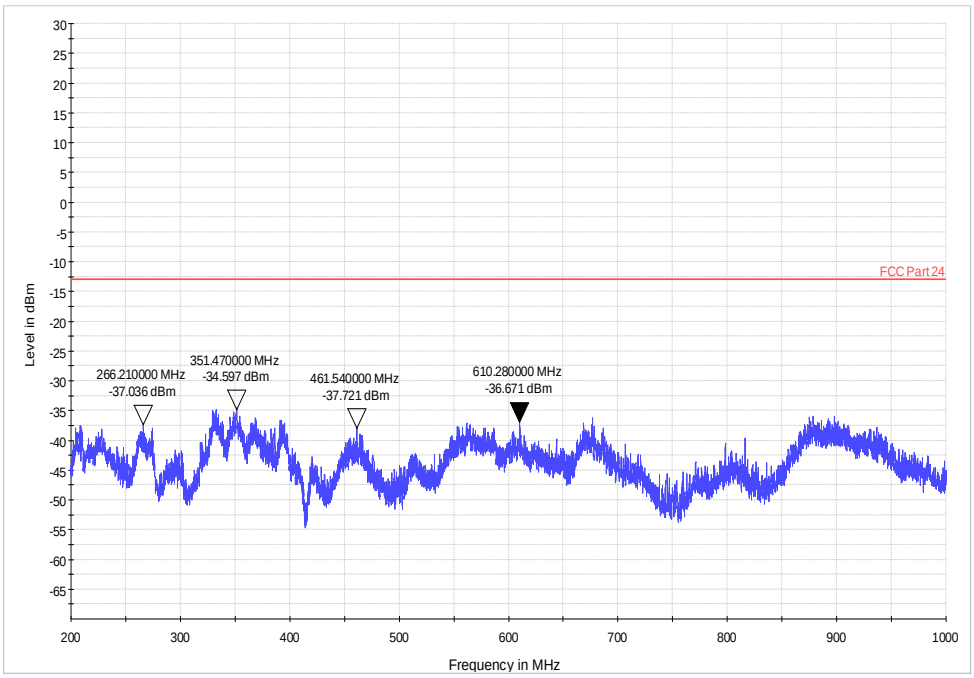
Frequency Range: 30MHz-200MHz **Polarization: Horizontal**

Test results for frequency range 200MHz – 1GHz

Antenna polarization	Measured Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)
Vertical	250.79	-30.46	-13	-17.46
	372.68	-31.77	-13	-18.77
	419.81	-33.99	-13	-20.99
	880.85	-33.71	-13	-20.71
Horizontal	266.21	-37.03	-13	-24.03
	351.47	-34.59	-13	-21.59
	461.54	-37.72	-13	-24.72
	610.28	-36.67	-13	-23.67



Frequency Range: 200MHz-1GHz **Polarization: Vertical**



Frequency Range: 200MHz-1GHz **Polarization: Horizontal**

Above 1GHz Test results:

LTE Band 2:

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
2	QPSK	**15**	**1857.5**	**3715.00**	**Vertical**	**-48.63**	**-13**	**-35.63**
				5572.50		**-44.79**	**-13**	**-31.79**
				7430.00		**-51.27**	**-13**	**-38.27**
				3715.00	**Horizontal**	**-45.32**	**-13**	**-32.32**
				5572.50		**-45.50**	**-13**	**-32.50**
				7430.00		**-45.97**	**-13**	**-32.97**
		5	1880	3760.00	Vertical	-50.12	-13	-37.12
				5640.00		-46.74	-13	-33.74
				7520.00		-51.24	-13	-38.24
				3760.00	Horizontal	-49.14	-13	-36.14
				5640.00		-45.94	-13	-32.94
				7520.00		-47.78	-13	-34.78
		10	1902.4	3804.80	Vertical	-52.99	-13	-39.99
				5707.20		-46.59	-13	-33.59
				7609.60		-50.78	-13	-37.78
				3804.80	Horizontal	-53.11	-13	-40.11
				5707.20		-46.53	-13	-33.53
				7609.60		-50.65	-13	-37.65

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
2	16-QAM	5	1852.5	3705.00	Vertical	-45.43	-13	-32.43
				5557.50		-47.09	-13	-34.09
				7410.00		-51.45	-13	-38.45
				3705.00	Horizontal	-47.31	-13	-34.31
				5557.50		-46.90	-13	-33.90
				7410.00		-50.80	-13	-37.80
		15	1880	3760.00	Vertical	-47.96	-13	-34.96
				5640.00		-49.54	-13	-36.54
				7520.00		-50.08	-13	-37.08
				3760.00	Horizontal	-47.12	-13	-34.12
				5640.00		-46.44	-13	-33.44
				7520.00		-50.03	-13	-37.03
		20	1900	3800.00	Vertical	-53.30	-13	-40.30
				5700.00		-49.76	-13	-36.76
				7600.00		-51.17	-13	-38.17
				3800.00	Horizontal	-47.75	-13	-34.75
				5700.00		-46.96	-13	-33.96
				7600.00		-47.23	-13	-34.23

LTE Band 4:

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
4	QPSK	3	1711.5	3423	Vertical	-43.69	-13	-30.69
				5134.5		-50.82	-13	-37.82
				6846		-54.00	-13	-41.00
				3423	Horizontal	-46.13	-13	-33.13
				5134.5		-50.64	-13	-37.64
				6846		-53.23	-13	-40.23
		3	1732.5	3465	Vertical	-41.96	-13	-28.96
				5197.5		-51.51	-13	-38.51
				6930		-52.97	-13	-39.97
				3465	Horizontal	-42.68	-13	-29.68
				5197.5		-50.81	-13	-37.81
				6930		-52.89	-13	-39.89
		3	1753.5	3507	Vertical	-41.62	-13	-28.62
				5260.5		-50.67	-13	-37.67
				7014		-52.55	-13	-39.55
				3507	Horizontal	-42.49	-13	-29.49
				5260.5		-50.97	-13	-37.97
				7014		-52.74	-13	-39.74

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
4	16-QAM	3	1711.5	3423	Vertical	-44.33	-13	-31.33
				5134.5		-50.57	-13	-37.57
				6846		-53.43	-13	-40.43
				3423	Horizontal	-44.23	-13	-31.23
				5134.5		-51.26	-13	-38.26
				6846		-52.98	-13	-39.98
		3	**1732.5**	**3465**	**Vertical**	**-39.32**	**-13**	**-26.32**
				5197.5		**-50.76**	**-13**	**-37.76**
				6930		**-52.95**	**-13**	**-39.95**
				3465	**Horizontal**	**-42.40**	**-13**	**-29.40**
				5197.5		**-50.96**	**-13**	**-37.96**
				6930		**-53.24**	**-13**	**-40.24**
		3	1753.5	3507	Vertical	-41.22	-13	-28.22
				5260.5		-50.90	-13	-37.90
				7014		-52.53	-13	-39.53
				3507	Horizontal	-45.41	-13	-32.41
				5260.5		-51.15	-13	-38.15
				7014		-51.71	-13	-38.71

LTE Band 5:

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
5	QPSK	3	825.5	1651.00	Vertical	-48.91	-13	-35.91
				2476.50		-45.06	-13	-32.06
				3302.00		-50.79	-13	-37.79
				1651.00	Horizontal	-54.86	-13	-41.86
				2476.50		-40.29	-13	-27.29
				3302.00		-56.42	-13	-43.42
		10	836.5	1673.00	Vertical	-36.58	-13	-23.58
				2509.50		-47.68	-13	-34.68
				3346.00		-49.39	-13	-36.39
				1673.00	Horizontal	-39.12	-13	-26.12
				2509.50		-41.49	-13	-28.49
				3346.00		-52.30	-13	-39.30
		5	846.5	1693.00	Vertical	-42.92	-13	-29.92
				2539.50		-47.90	-13	-34.90
				3386.00		-56.47	-13	-43.47
				1693.00	Horizontal	-40.91	-13	-27.91
				2539.50		-44.25	-13	-31.25
				3386.00		-55.66	-13	-42.66

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
5	16-QAM	10	829	1658	Vertical	-44.09	-13	-31.09
				2487		-45.92	-13	-32.92
				3316		-50.69	-13	-37.69
				1658	Horizontal	-42.88	-13	-29.88
				2487		-37.28	-13	-24.28
				3316		-52.93	-13	-39.93
		10	**836.5**	**1673**	**Vertical**	**-36.05**	**-13**	**-23.05**
				2509.5		**-44.09**	**-13**	**-31.09**
				3346		**-56.53**	**-13**	**-43.53**
				1673	**Horizontal**	**-37.36**	**-13**	**-24.36**
				2509.5		**-39.48**	**-13**	**-26.48**
				3346		**-55.62**	**-13**	**-42.62**
		3	847.4	1694.8	Vertical	-40.44	-13	-27.44
				2542.2		-47.72	-13	-34.72
				3389.6		-56.33	-13	-43.33
				1694.8	Horizontal	-44.30	-13	-31.30
				2542.2		-44.59	-13	-31.59
				3389.6		-56.67	-13	-43.67

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
12	QPSK	10	704	1408	Vertical	-47.29	-13	-34.29
				2112		-51.46	-13	-38.46
				2816		-53.23	-13	-40.23
				1408	Horizontal	-47.18	-13	-34.18
				2112		-49.81	-13	-36.81
				2816		-52.17	-13	-39.17
		10	**707.5**	**1415**	**Vertical**	**-51.97**	**-13**	**-38.97**
				2122.5		**-49.04**	**-13**	**-36.04**
				2830		**-52.98**	**-13**	**-39.98**
				1415	**Horizontal**	**-43.76**	**-13**	**-30.76**
				2122.5		**-47.92**	**-13**	**-34.92**
				2830		**-52.44**	**-13**	**-39.44**
		5	713.4	1426.8	Vertical	-45.84	-13	-32.84
				2140.2		-46.98	-13	-33.98
				2853.6		-51.36	-13	-38.36
				1426.8	Horizontal	-46.00	-13	-33.00
				2140.2		-47.10	-13	-34.10
				2853.6		-52.57	-13	-39.57

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
12	16-QAM	10	704	1408	Vertical	-46.82	-13	-33.82
				2112		-51.71	-13	-38.71
				2816		-53.51	-13	-40.51
				1408	Horizontal	-46.82	-13	-33.82
				2112		-49.93	-13	-36.93
				2816		-53.12	-13	-40.12
		3	707.5	1415	Vertical	-46.38	-13	-33.38
				2122.5		-49.70	-13	-36.70
				2830		-52.89	-13	-39.89
				1415	Horizontal	-46.72	-13	-33.72
				2122.5		-49.63	-13	-36.63
				2830		-52.99	-13	-39.99
		5	713.4	1426.8	Vertical	-49.85	-13	-36.85
				2140.2		-49.82	-13	-36.82
				2853.6		-53.45	-13	-40.45
				1426.8	Horizontal	-46.84	-13	-33.84
				2140.2		-46.42	-13	-33.42
				2853.6		-53.17	-13	-40.17

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
13	QPSK	5	779.5	1559	Vertical	-49.59	-40	-9.59
				2338.5		-49.62	-13	-36.62
				3118		-51.04	-13	-38.04
				1559	Horizontal	-45.47	-40	-5.47
				2338.5		-46.03	-13	-33.03
				3118		-53.04	-13	-40.04
		5	782	1564	Vertical	-47.52	-40	-7.52
				2346		-49.10	-13	-36.10
				3128		-52.39	-13	-39.39
				1564	Horizontal	-46.22	-40	-6.22
				2346		-43.84	-13	-30.84
				3128		-54.50	-13	-41.50
		5	**784.4**	**1568.8**	**Vertical**	**-48.88**	**-40**	**-8.88**
				2353.2		**-49.52**	**-13**	**-36.52**
				3137.6		**-51.92**	**-13**	**-38.92**
				1568.8	**Horizontal**	**-47.44**	**-40**	**-7.44**
				2353.2		**-41.89**	**-13**	**-28.89**
				3137.6		**-50.02**	**-13**	**-37.02**

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
13	16-QAM	5	779.5	1559	Vertical	-47.47	-40	-7.47
				2338.5		-48.12	-13	-35.12
				3118		-55.20	-13	-42.20
				1559	Horizontal	-42.61	-40	-2.61
				2338.5		-44.55	-13	-31.55
				3118		-55.40	-13	-42.40
		5	782	1564	Vertical	-49.19	-40	-9.19
				2346		-48.75	-13	-35.75
				3128		-51.29	-13	-38.29
				1564	Horizontal	-43.86	-40	-3.86
				2346		-45.82	-13	-32.82
				3128		-55.01	-13	-42.01
		5	784.4	1568.8	Vertical	-49.04	-40	-9.04
				2353.2		-47.95	-13	-34.95
				3137.6		-56.21	-13	-43.21
				1568.8	Horizontal	-48.74	-40	-8.74
				2353.2		-45.17	-13	-32.17
				3137.6		-55.09	-13	-42.09

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
25	QPSK	10	1855	3710	Vertical	-45.43	-13	-32.43
				5565		-44.66	-13	-31.66
				7420		-51.16	-13	-38.16
				3710	Horizontal	-45.34	-13	-32.34
				5565		-44.15	-13	-31.15
				7420		-46.63	-13	-33.63
		15	1882.5	3765	Vertical	-48.08	-13	-35.08
				5647.5		-46.67	-13	-33.67
				7530		-51.31	-13	-38.31
				3765	Horizontal	-47.27	-13	-34.27
				5647.5		-45.46	-13	-32.46
				7530		-47.62	-13	-34.62
		5	1912.4	3824.8	Vertical	-52.01	-13	-39.01
				5737.2		-47.15	-13	-34.15
				7649.6		-50.94	-13	-37.94
				3824.8	Horizontal	-48.12	-13	-35.12
				5737.2		-46.03	-13	-33.03
				7649.6		-51.47	-13	-38.47

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
25	16-QAM	5	1852.5	3705	Vertical	-46.86	-13	-33.86
				5557.5		-49.65	-13	-36.65
				7410		-50.39	-13	-37.39
				3705	Horizontal	-47.04	-13	-34.04
				5557.5		-47.44	-13	-34.44
				7410		-47.97	-13	-34.97
		20	**1882.5**	**3765**	**Vertical**	**-47.15**	**-13**	**-34.15**
				5647.5		**-46.03**	**-13**	**-33.03**
				7530		**-50.3**	**-13**	**-37.3**
				3765	**Horizontal**	**-45.36**	**-13**	**-32.36**
				5647.5		**-43.96**	**-13**	**-30.96**
				7530		**-46.87**	**-13**	**-33.87**
		10	1909.4	3818.8	Vertical	-49.24	-13	-36.24
				5728.2		-46.13	-13	-33.13
				7637.6		-50.76	-13	-37.76
				3818.8	Horizontal	-48.44	-13	-35.44
				5728.2		-45.30	-13	-32.30
				7637.6		-51.45	-13	-38.45

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
26	QPSK	3	815.5	1631	Vertical	-49.52	-13	-36.52
				2446.5		-43.48	-13	-30.48
				3262		-52.47	-13	-39.47
				1631	Horizontal	-48.58	-13	-35.58
				2446.5		-40.09	-13	-27.09
				3262		-51.88	-13	-38.88
		15	831.4	1662.8	Vertical	-49.53	-13	-36.53
				2494.2		-45.37	-13	-32.37
				3325.6		-50.11	-13	-37.11
				1662.8	Horizontal	-46.78	-13	-33.78
				2494.2		-41.02	-13	-28.02
				3325.6		-56.64	-13	-43.64
		3	847.4	1694.8	Vertical	-40.56	-13	-27.56
				2542.2		-50.83	-13	-37.83
				3389.6		-50.27	-13	-37.27
				1694.8	Horizontal	-45.64	-13	-32.64
				2542.2		-38.85	-13	-25.85
				3389.6		-56.02	-13	-43.02

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
26	16-QAM	**5**	**816.5**	**1633**	**Vertical**	**-49.31**	**-13**	**-36.31**
				2449.5		**-42.70**	**-13**	**-29.70**
				3266		**-46.93**	**-13**	**-33.93**
				1633	**Horizontal**	**-48.95**	**-13**	**-35.95**
				2449.5		**-36.97**	**-13**	**-23.97**
				3266		**-50.50**	**-13**	**-37.50**
		15	831.4	1662.8	Vertical	-49.71	-13	-36.71
				2494.2		-43.15	-13	-30.15
				3325.6		-52.35	-13	-39.35
				1662.8	Horizontal	-45.77	-13	-32.77
				2494.2		-39.16	-13	-26.16
				3325.6		-53.12	-13	-40.12
		15	841.4	1682.8	Vertical	-40.13	-13	-27.13
				2524.2		-49.19	-13	-36.19
				3365.6		-52.21	-13	-39.21
				1682.8	Horizontal	-37.39	-13	-24.39
				2524.2		-38.95	-13	-25.95
				3365.6		-53.34	-13	-40.34

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
66	QPSK	5	1712.5	3425	Vertical	-41.8	-13	-28.8
				5137.5		-50.68	-13	-37.68
				6850		-53.67	-13	-40.67
				3425	Horizontal	-45.19	-13	-32.19
				5137.5		-50.35	-13	-37.35
				6850		-53.68	-13	-40.68
		3	**1745**	**3490**	**Vertical**	**-40.23**	**-13**	**-27.23**
				5235		**-51.08**	**-13**	**-38.08**
				6980		**-45.18**	**-13**	**-32.18**
				3490	**Horizontal**	**-45.94**	**-13**	**-32.94**
				5235		**-50.84**	**-13**	**-37.84**
				6980		**-52.76**	**-13**	**-39.76**
		3	1778.4	3556.8	Vertical	-40.88	-13	-27.88
				5335.2		-50.7	-13	-37.7
				7113.6		-51.52	-13	-38.52
				3556.8	Horizontal	-43.78	-13	-30.78
				5335.2		-51.34	-13	-38.34
				7113.6		-52.35	-13	-39.35

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
66	16-QAM	5	1720	3440	Vertical	-42.83	-13	-29.83
				5160		-50.53	-13	-37.53
				6880		-53.06	-13	-40.06
				3440	Horizontal	-43.58	-13	-30.58
				5160		-48.13	-13	-35.13
				6880		-49.32	-13	-36.32
		5	1745	3490	Vertical	-43.58	-13	-30.58
				5235		-51.31	-13	-38.31
				6980		-52.73	-13	-39.73
				3490	Horizontal	-44.39	-13	-31.39
				5235		-50.83	-13	-37.83
				6980		-52.43	-13	-39.43
		5	1777.4	3554.8	Vertical	-42.99	-13	-29.99
				5332.2		-50.92	-13	-37.92
				7109.6		-51.76	-13	-38.76
				3554.8	Horizontal	-40.81	-13	-27.81
				5332.2		-51.32	-13	-38.32
				7109.6		-51.48	-13	-38.48

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
85	QPSK	5	700.5	1401	Vertical	-51.59	-13	-38.59
				2101.5		-48.54	-13	-35.54
				2802		-55.32	-13	-42.32
				1401	Horizontal	-50.94	-13	-37.94
				2101.5		-44.51	-13	-31.51
				2802		-55.70	-13	-42.70
		5	707	1414	Vertical	-57.15	-13	-44.15
				2121		-52.91	-13	-39.91
				1414	Horizontal	-49.32	-13	-36.32
				2121		-45.97	-13	-32.97
		5	**713.4**	**1426.8**	**Vertical**	**-47.40**	**-13**	**-34.40**
				2140.2		**-52.60**	**-13**	**-39.60**
				1426.8	**Horizontal**	**-41.74**	**-13**	**-28.74**
				2140.2		**-47.67**	**-13**	**-34.67**

Band	Modulation	Cell BW	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit (dBm)	Margin (dB)
85	16-QAM	5	700.5	1401	Vertical	-53.90	-13	-40.90
				2101.5		-50.69	-13	-37.69
				2802		-55.57	-13	-42.57
				1401	Horizontal	-53.75	-13	-40.75
				2101.5		-44.60	-13	-31.60
				2802		-55.48	-13	-42.48
		5	707	1414	Vertical	-51.10	-13	-38.10
				2121		-49.91	-13	-36.91
				1414	Horizontal	-48.31	-13	-35.31
				2121		-47.38	-13	-34.38
		5	713.4	1426.8	Vertical	-48.43	-13	-35.43
				2140.2		-50.85	-13	-37.85
				1426.8	Horizontal	-45.74	-13	-32.74
				2140.2		-50.05	-13	-37.05

GSM Test Results

Band	Modulation	Slot	Channel	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit	Margin
GSM 850	GPRS	4	128	824.2	1648.4	Vertical	-59.64	-13	-46.64
					2472.6		-57.11	-13	-44.11
					1648.4	Horizontal	-61.34	-13	-48.34
					2472.6		-57.08	-13	-44.08
		1	190	836.6	1673.2	Vertical	-60.92	-13	-47.92
					2509.8		-57.13	-13	-44.13
					1673.2	Horizontal	-58.18	-13	-45.18
					2509.8		-57.19	-13	-44.19
		4	251	848.8	1697.6	Vertical	-60.12	-13	-47.12
					2546.4		-56.99	-13	-43.99
					1697.6	Horizontal	-60.70	-13	-47.70
					2546.4		-56.76	-13	-43.76

Band	Modulation	Slot	Channel	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit	Margin
GSM 850	EGPRS	**4**	**128**	**824.2**	**1648.4**	**Vertical**	**-61.55**	**-13**	**-48.55**
					2472.6		**-56.92**	**-13**	**-43.92**
					1648.4	**Horizontal**	**-61.23**	**-13**	**-48.23**
					2472.6		**-56.03**	**-13**	**-43.03**
		1	190	836.6	1673.2	Vertical	-58.10	-13	-45.10
					2509.8		-57.01	-13	-44.01
					1673.2	Horizontal	-60.97	-13	-47.97
					2509.8		-57.82	-13	-44.82
		1	251	848.8	1697.6	Vertical	-61.35	-13	-48.35
					2546.4		-56.84	-13	-43.84
					1697.6	Horizontal	-60.73	-13	-47.73
					2546.4		-57.68	-13	-44.68

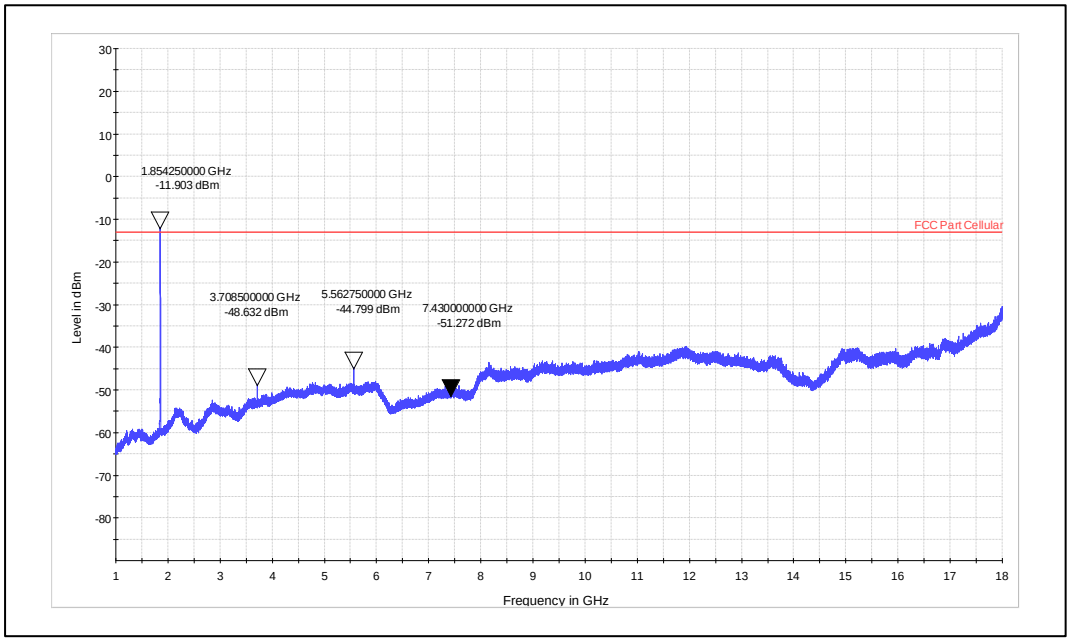
Band	Modulation	Slot	Channel	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit	Margin
GSM 1900	GPRS	**2**	**512**	**1850.2**	**3700.40**	**Vertical**	**-53.94**	**-13**	**-40.94**
					5550.60		**-49.76**	**-13**	**-36.76**
					3700.40	**Horizontal**	**-53.20**	**-13**	**-40.20**
					5550.60		**-49.81**	**-13**	**-36.81**
		4	661	1880	3760.00	Vertical	-53.50	-13	-40.50
					5640.00		-50.00	-13	-37.00
					3760.00	Horizontal	-53.46	-13	-40.46
					5640.00		-50.73	-13	-37.73
		4	810	1909.8	3819.60	Vertical	-52.57	-13	-39.57
					5729.40		-50.56	-13	-37.56
					3819.60	Horizontal	-52.96	-13	-39.96
					5729.40		-50.48	-13	-37.48

Band	Modulation	Slot	Channel	Channel Frequency (MHz)	Measured Frequency (MHz	Antenna Polarization	Emission Level (dBm)	Limit	Margin
GSM 1900	EGPRS	2	512	1850.2	3700.4	Vertical	-53.82	-13	-40.8
					5550.6		-50.88	-13	-37.9
					3700.4	Horizontal	-53.89	-13	-40.9
					5550.6		-49.88	-13	-36.9
		3	661	1880	3760	Vertical	-53.02	-13	-40.0
					5640		-49.91	-13	-36.9
					3760	Horizontal	-53.56	-13	-40.6
					5640		-50.35	-13	-37.4
		3	810	1909.8	3819.6	Vertical	-53.25	-13	-40.3
					5729.4		-50.24	-13	-37.2
					3819.6	Horizontal	-53.03	-13	-40.0
					5729.4		-50.02	-13	-37.0

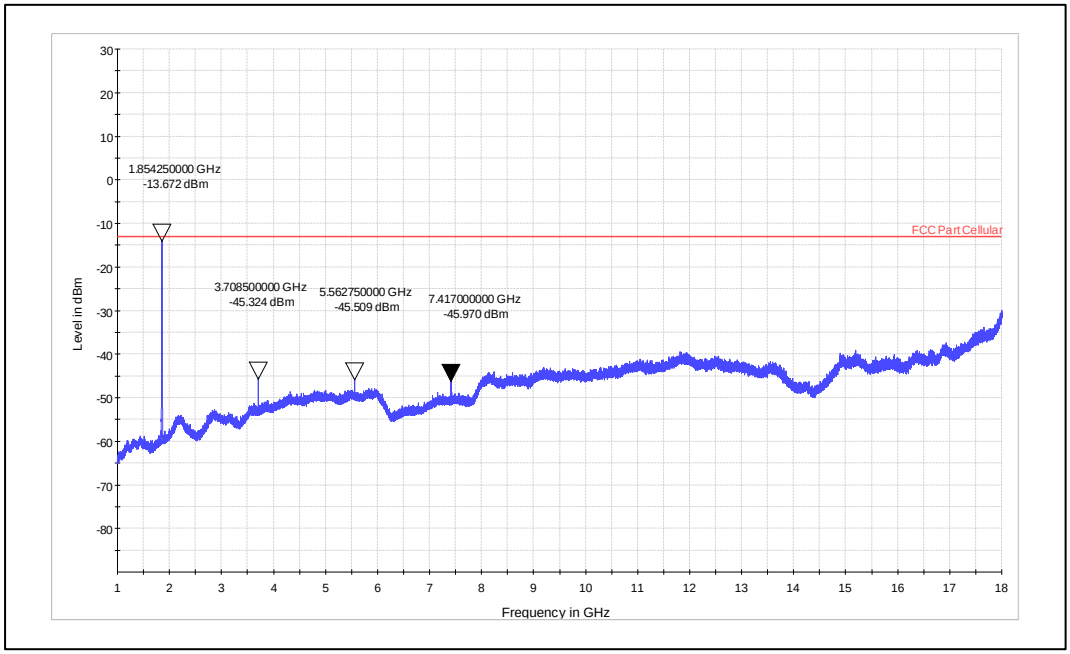
Worst Case Plots:

LTE Band 2

Channel Frequency: 1857.5MHz_QPSK



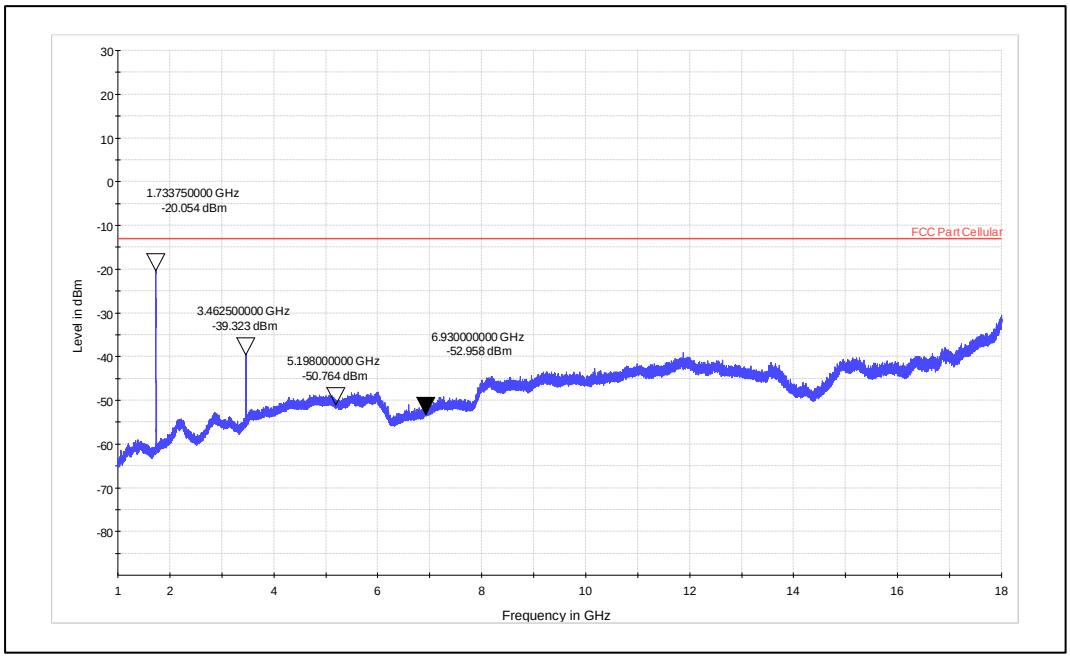
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



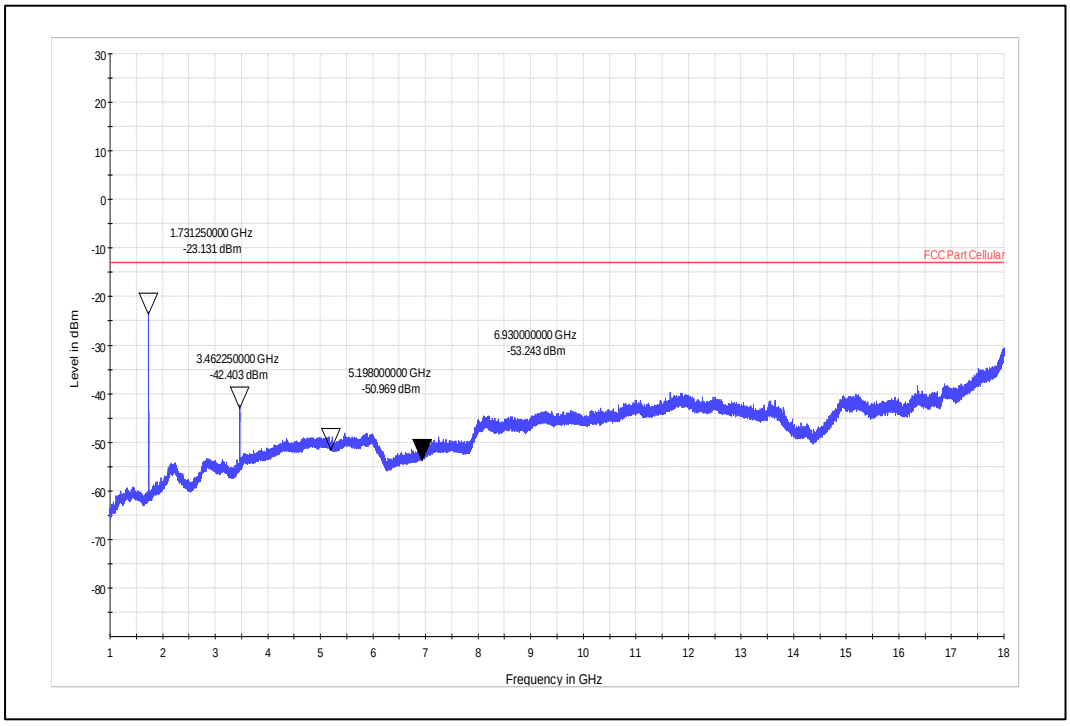
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 4

Channel Frequency: 1732.5MHz_QPSK

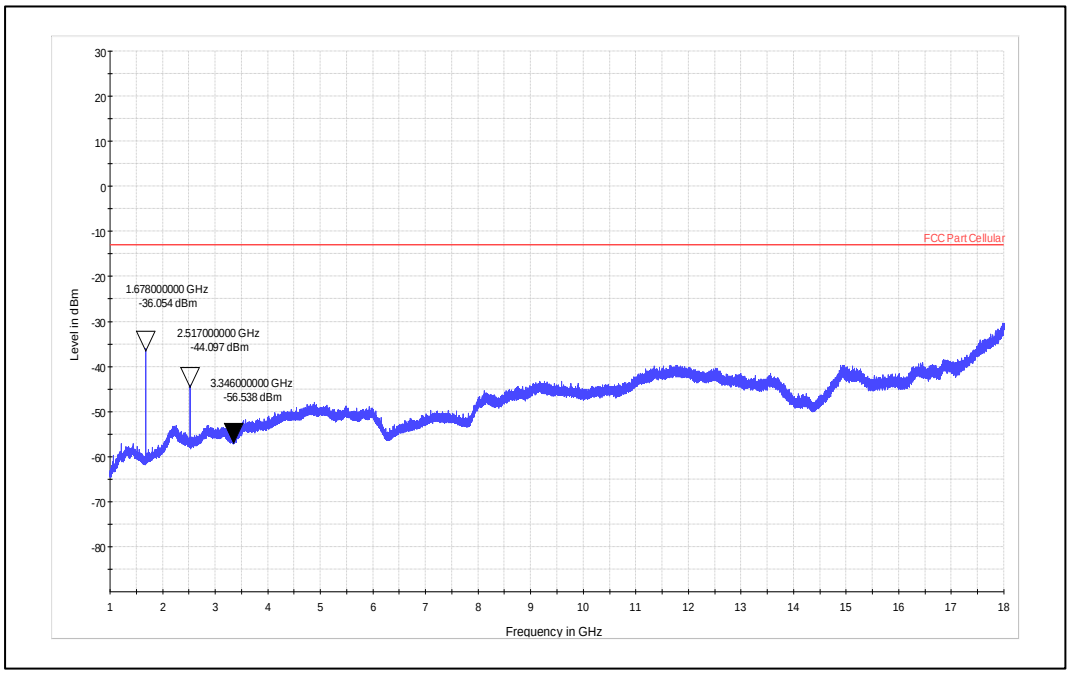


Frequency Range: 1GHz-18GHz **Polarization: Vertical**

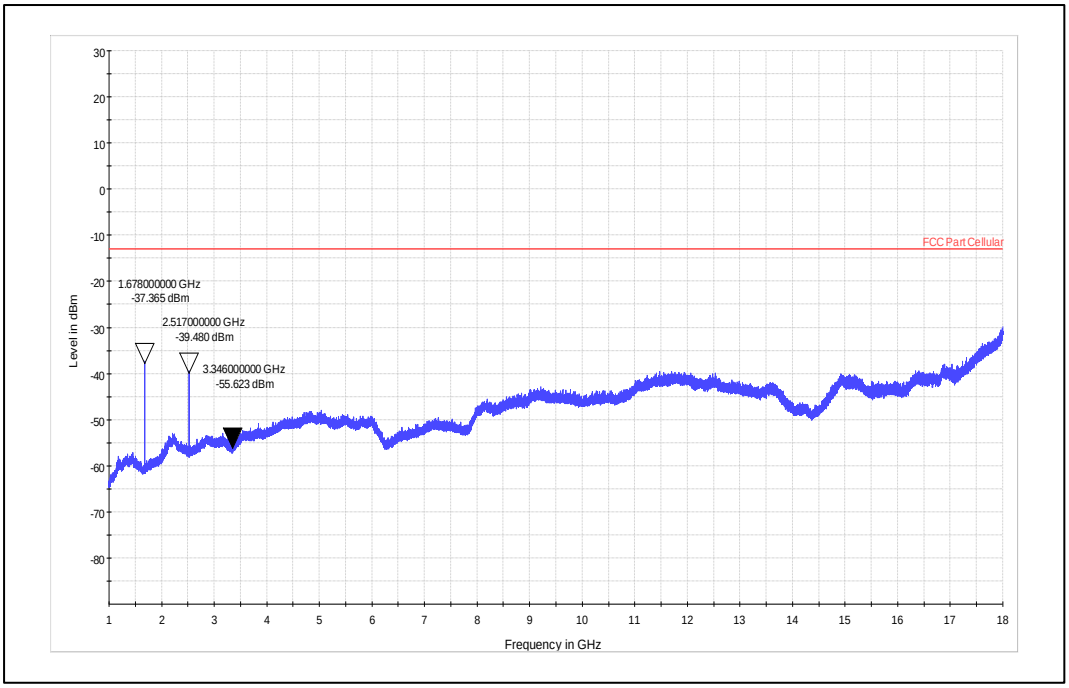


Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 5
Channel Frequency: 836.5MHz_16QAM



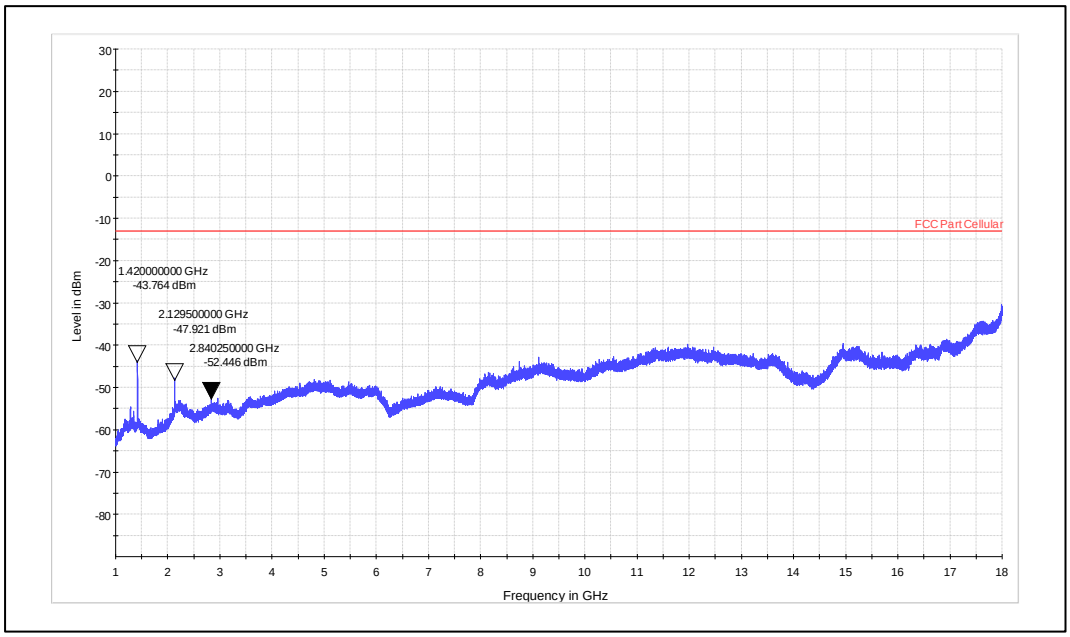
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



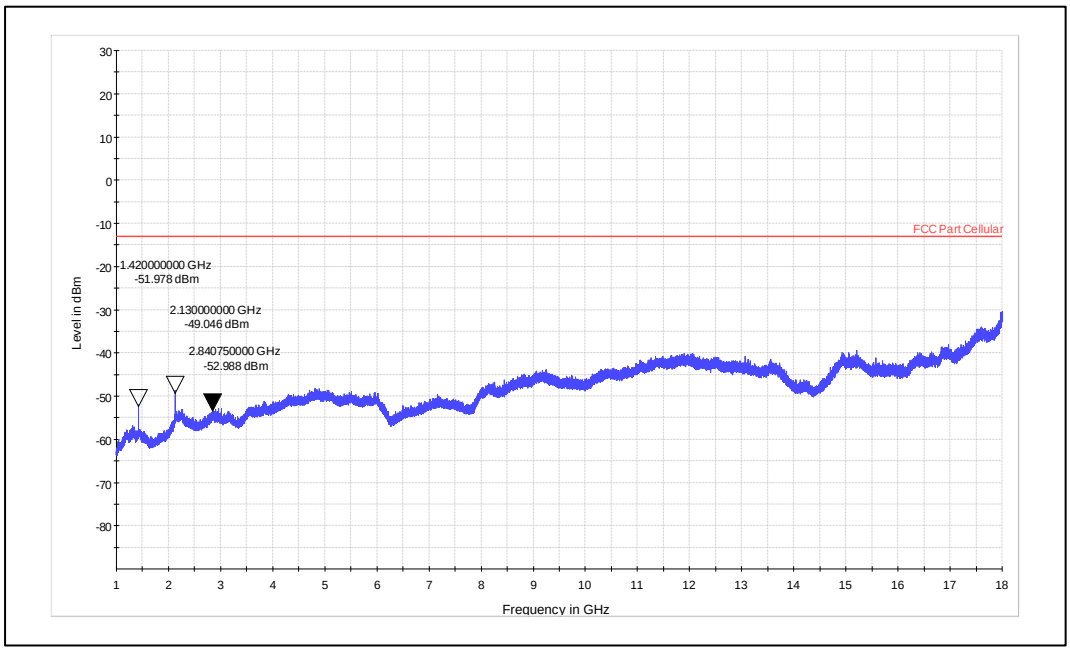
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 12

Channel Frequency: 707.5MHz_QPSK



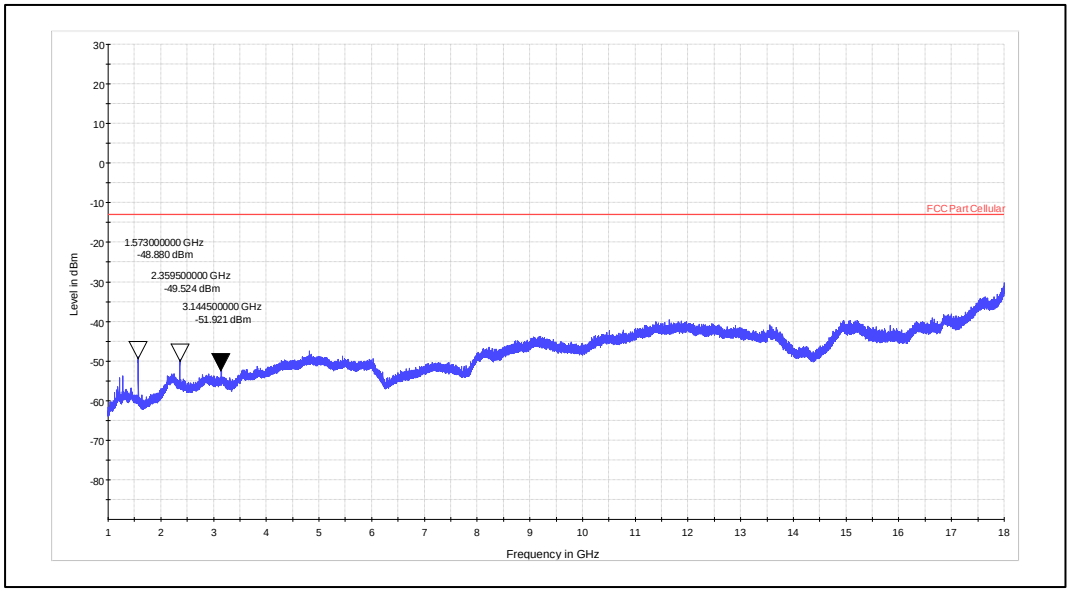
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



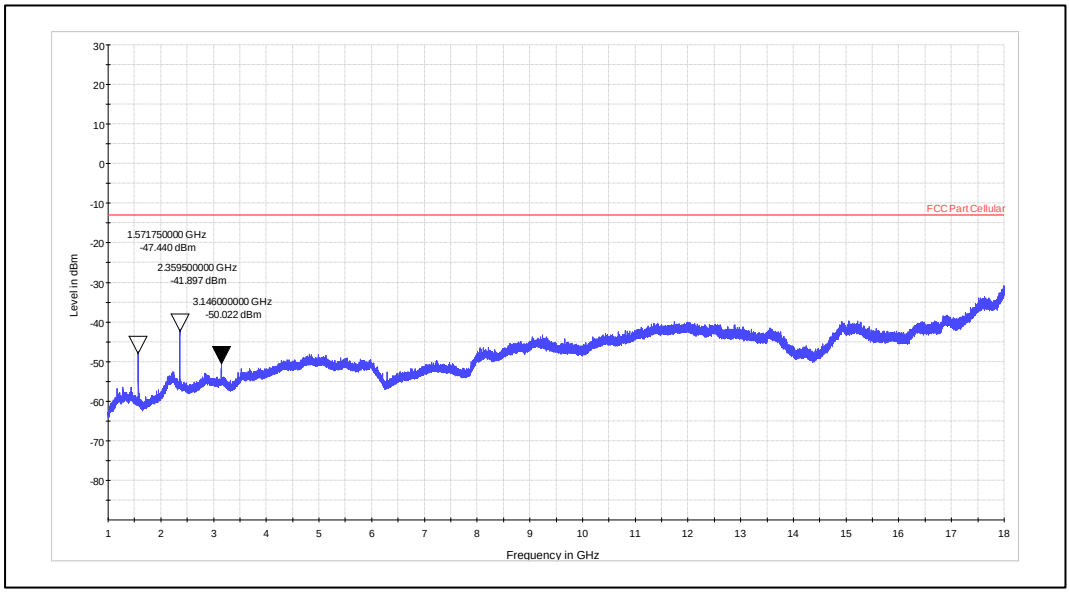
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 13

Channel Frequency: 784.4MHz_QPSK



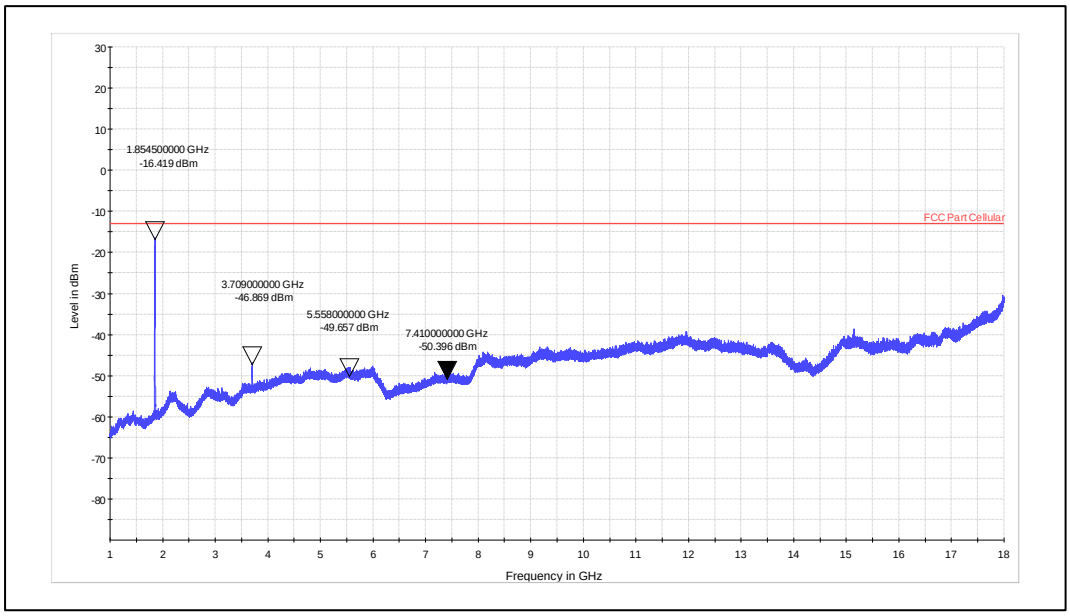
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



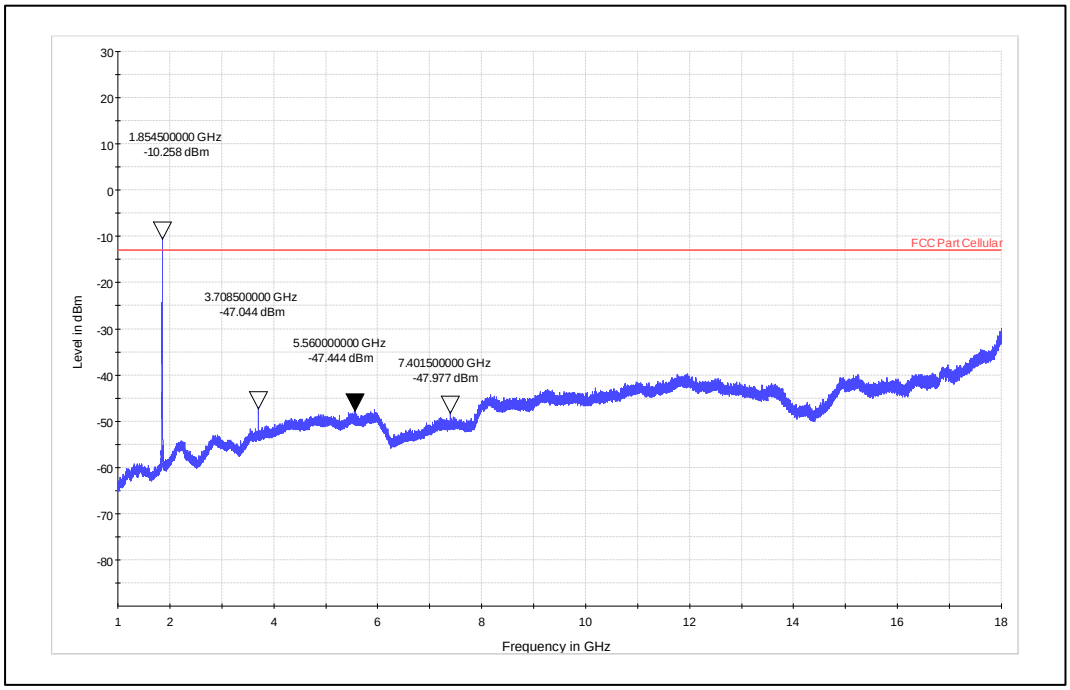
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 25

Channel Frequency: 1882.5MHz_16QAM



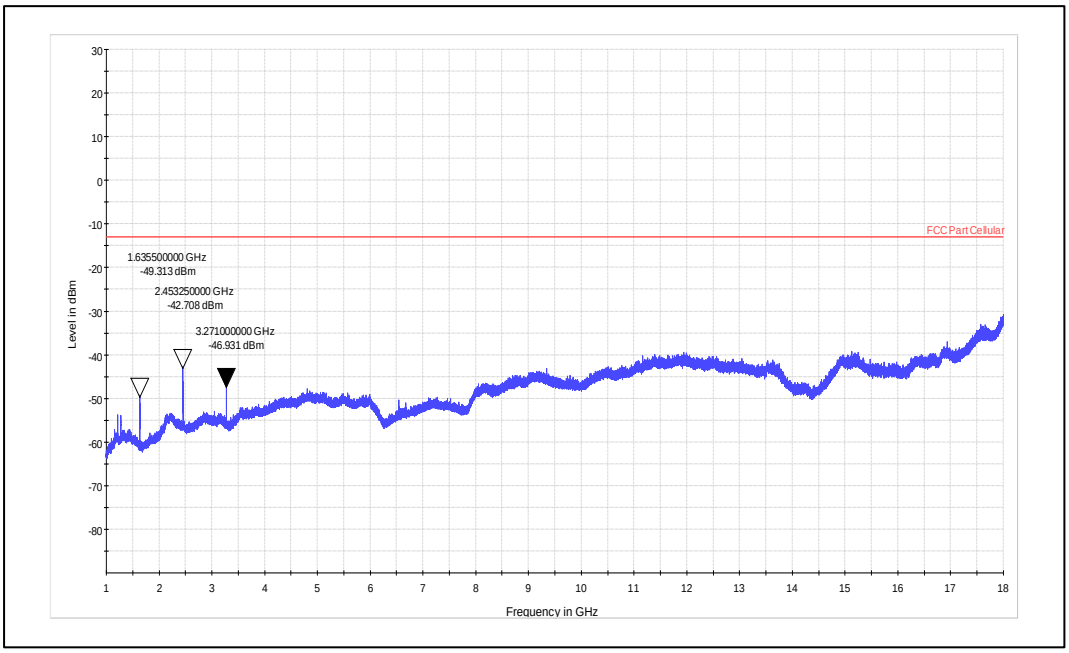
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



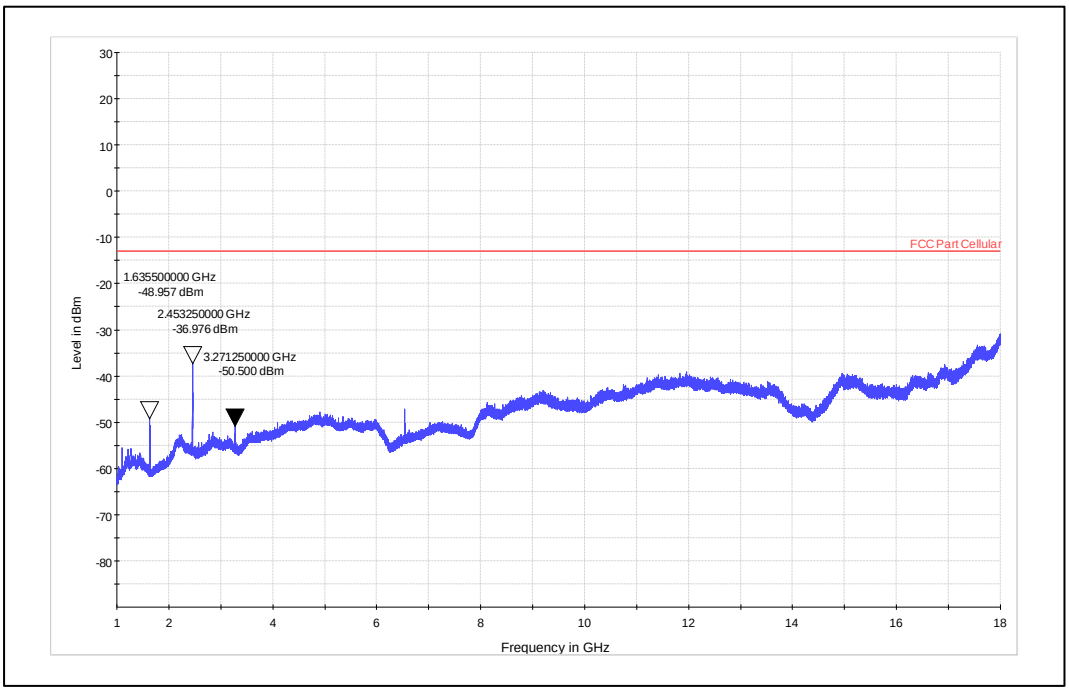
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 26

Channel Frequency: 816.5MHz_16QAM



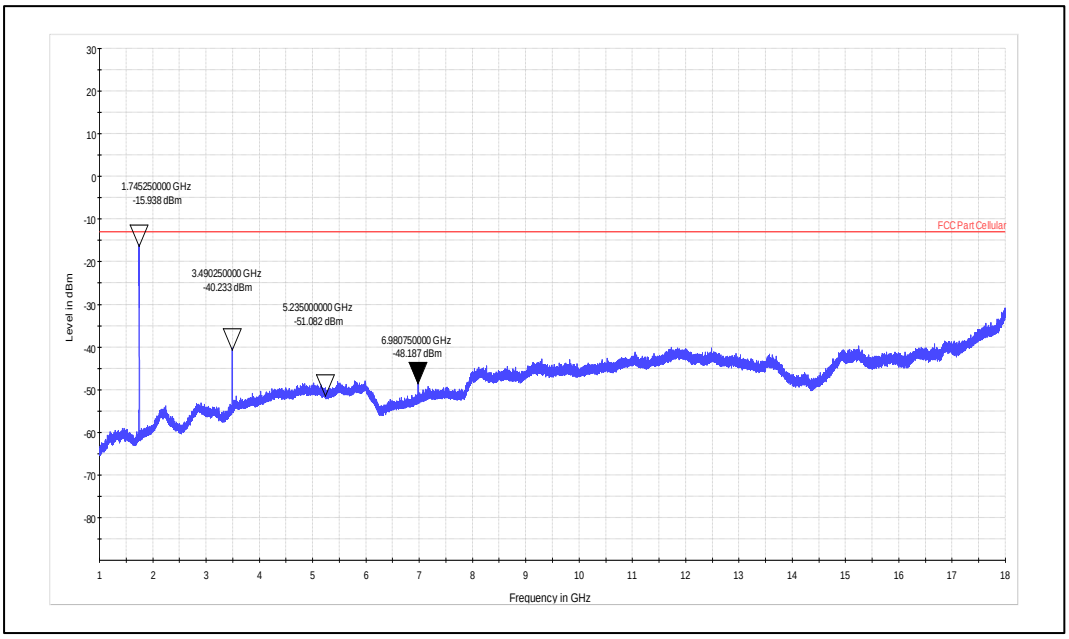
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



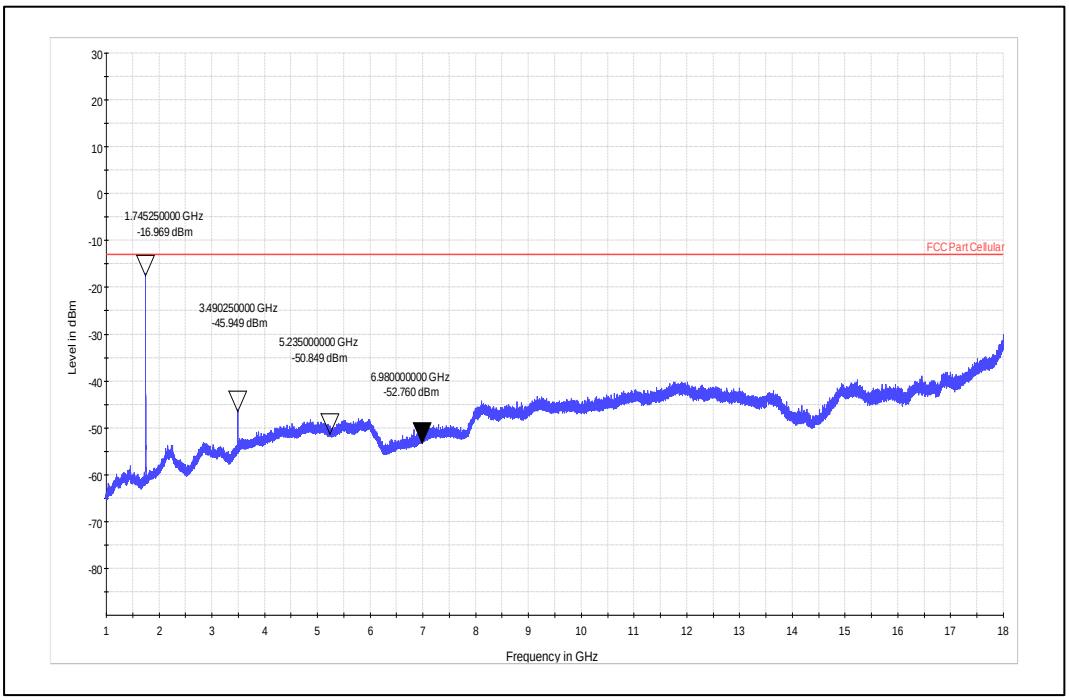
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 66

Channel Frequency: 1745MHz_QPSK



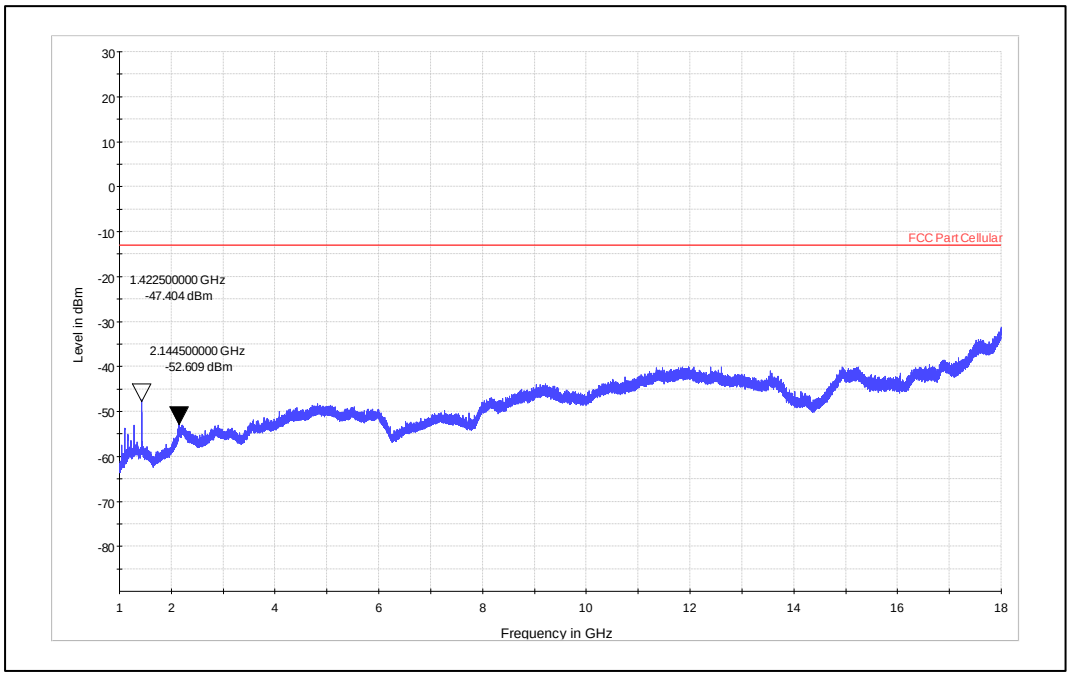
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



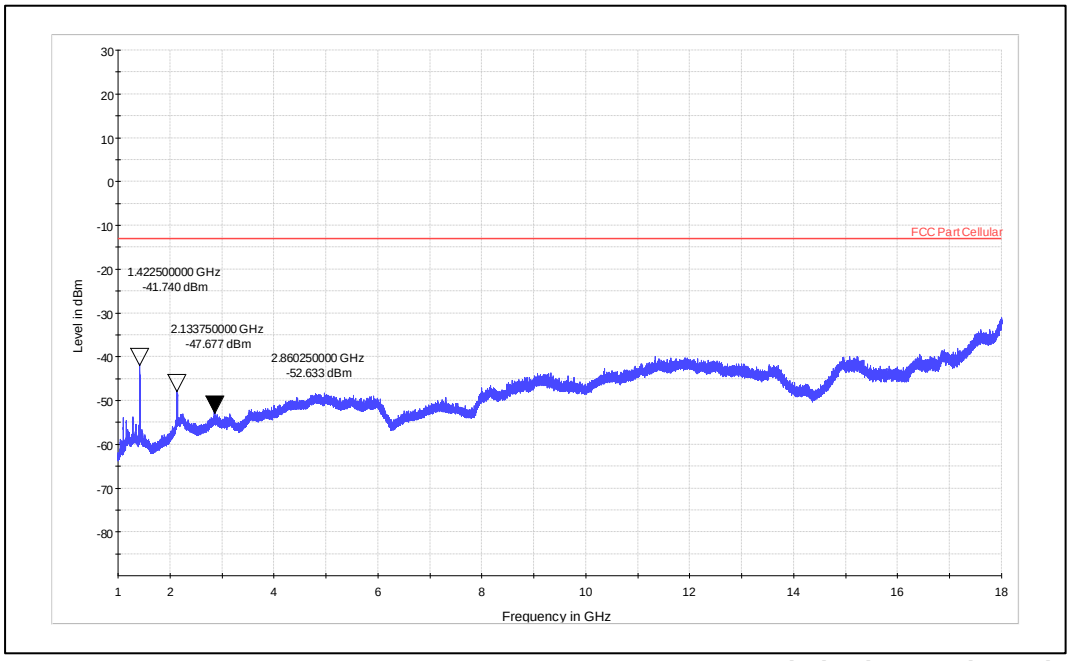
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

LTE Band 85

Channel Frequency: 713.5MHz_QPSK



Frequency Range: 1GHz-18GHz **Polarization: Vertical**

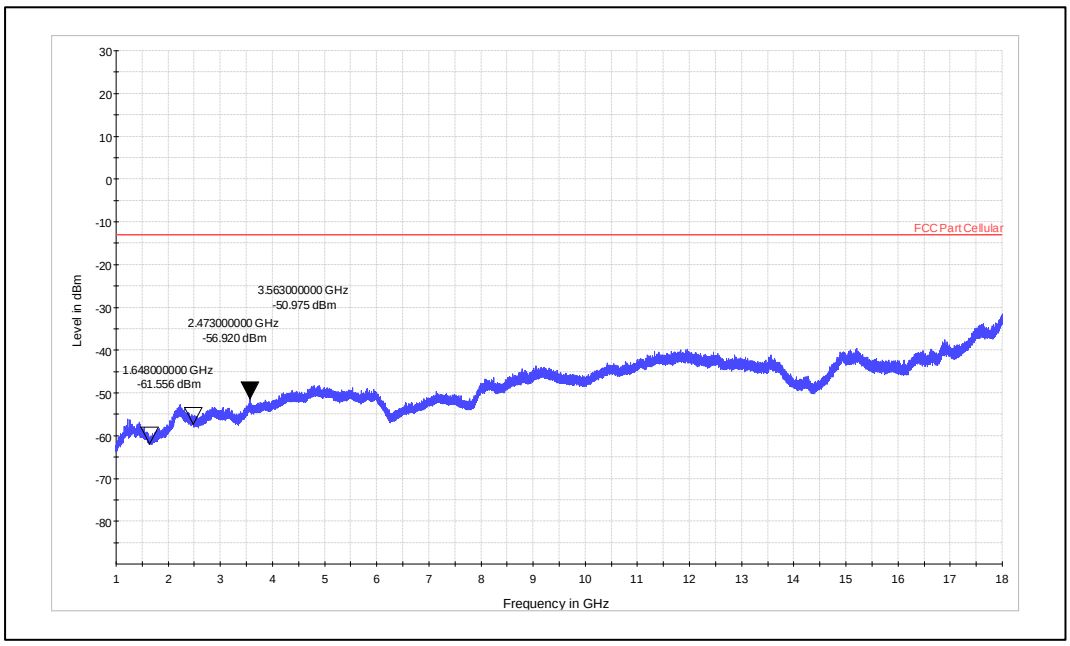


Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

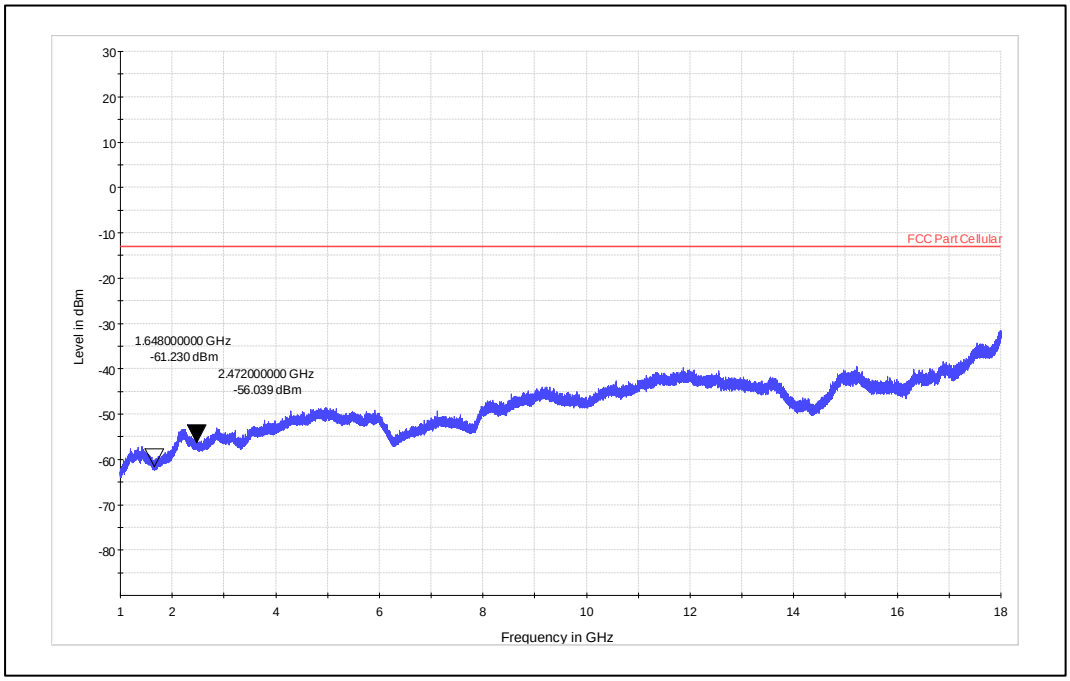
GSM Worst Case Plots

GSM-1900 EGPRS

Channell Freqeuncy: 824.2MHz



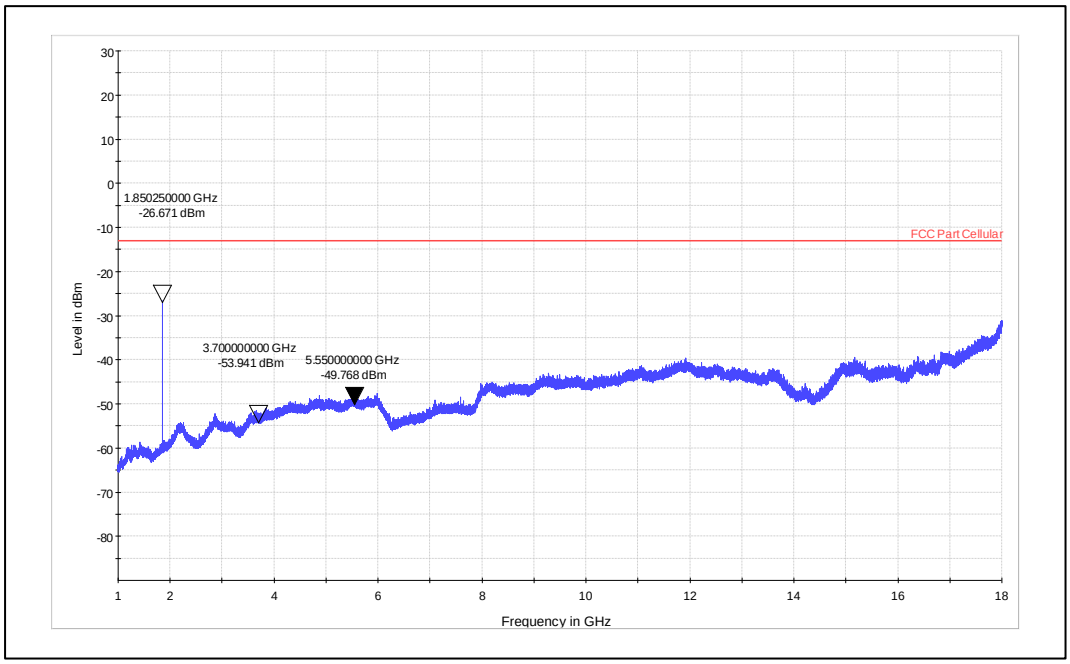
Frequency Range: 1GHz-18GHz **Polarization: Vertical**



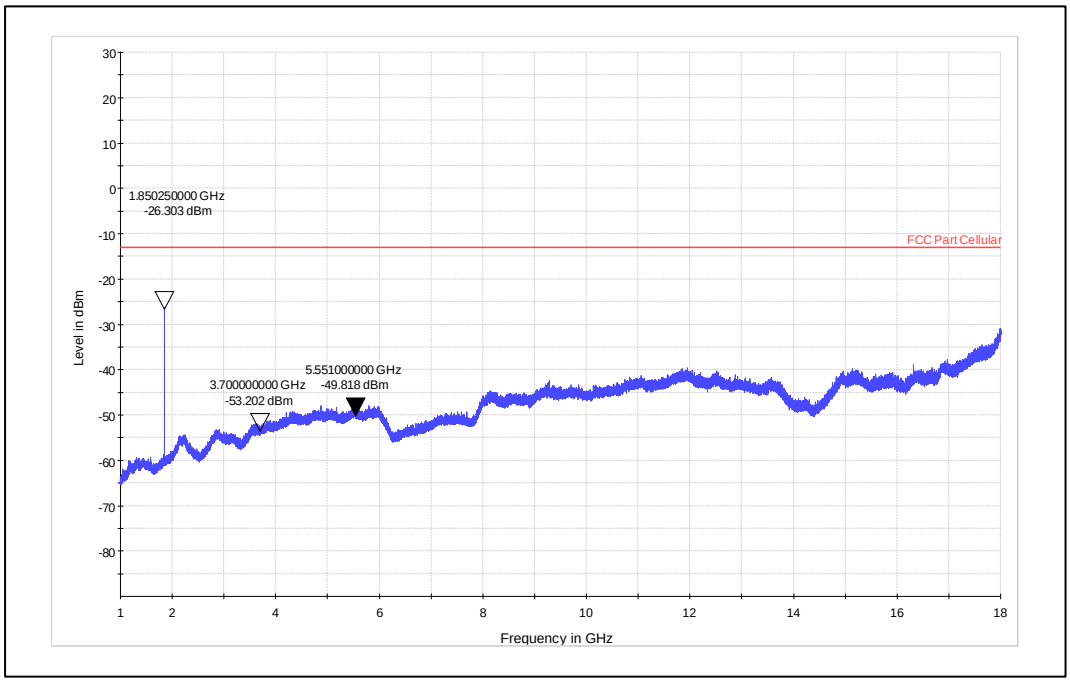
Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

GSM-1900 EGPRS Worst Case Plots

Channel Frequency: 1850.2MHz



Frequency Range: 1GHz-18GHz **Polarization: Vertical**



Frequency Range: 1GHz-18GHz **Polarization: Horizontal**

8 CONDUCTED SPURIOUS EMISSION TEST ON AC POWER LINE

Result ***Pass***

Test Specification	:	FCC Part 15 Section 15.207 / RSS Gen Issue 5 Section 8.8
Test Method	:	ANSI C 63.10-2013
Testing Location	:	Screened room
Measurement Bandwidth	:	9kHz
Frequency Range	:	150kHz – 30MHz
Supply Voltage	:	110VAC,60Hz
Test Method	:	Reffer TEST METHODOLOGY

***Note: The product has tested with AC to DC adapter**

Limits of section 15.207

Frequency of emission (MHz)	QP Limit (dBµV)	AV Limit (dBµV/m)
0.15 – 0.5	66 – 56*	56 – 46*
0.5 – 5	56	46
5 – 30	60	50

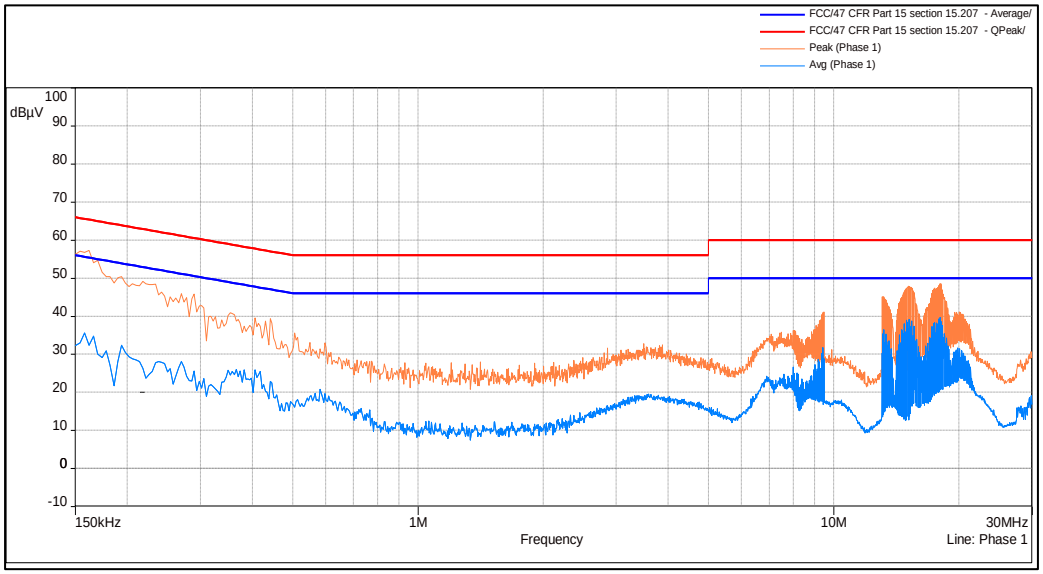
* Decreases with the logarithm of the frequency

Test Conditions:

Normal Temperature = +24°C Voltage (V norm) = 110V AC 60Hz Relative Humidity = 64%

Test Result:

Power: 110V 60Hz_LINE



Line Graph

Quasipeak:-

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Comments	Correction (dB)
0.15225	52.57	65.78	-13.21	Phase 1	Pass	19.89
0.17465	48.17	64.77	-16.59	Phase 1	Pass	19.88
9.47715	40.5	60	-19.5	Phase 1	Pass	20.07
18.09975	40.32	60	-19.68	Phase 1	Pass	20.27
15.1237	40.08	60	-19.92	Phase 1	Pass	20.21
0.2783	39.58	60.88	-21.3	Phase 1	Pass	19.86
13.096	38.44	60	-21.56	Phase 1	Pass	20.16
0.424	33.74	57.41	-23.67	Phase 1	Pass	19.88

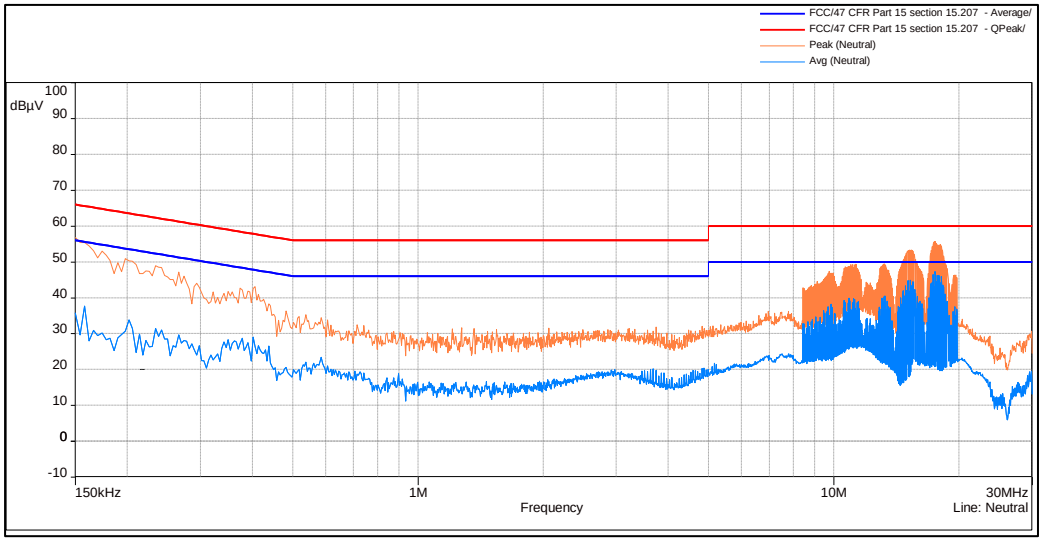
Line Table

Average:-

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Comments	Correction (dB)
0.15225	32.3	55.78	-23.48	Phase 1	Pass	19.89
0.424	22.81	47.41	-24.59	Phase 1	Pass	19.88
0.2783	25.48	50.88	-25.4	Phase 1	Pass	19.86
0.17465	29.04	54.77	-25.73	Phase 1	Pass	19.88
18.09975	23.93	50	-26.07	Phase 1	Pass	20.27
9.47715	21.57	50	-28.43	Phase 1	Pass	20.07
13.096	20.69	50	-29.31	Phase 1	Pass	20.16
15.1237	20.66	50	-29.34	Phase 1	Pass	20.21

Line Table

Power: 110V 60Hz_NEUTRAL



Neutral Graph

Quasipeak:-

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Comments	Correction (dB)
0.15225	52.7	65.78	-13.08	Neutral	Pass	19.87
15.21085	45.23	60	-14.77	Neutral	Pass	20.03
13.23195	42.77	60	-17.23	Neutral	Pass	19.98
0.1944	46.55	63.86	-17.31	Neutral	Pass	19.83
11.28295	42.13	60	-17.87	Neutral	Pass	19.93
9.74825	39.62	60	-20.38	Neutral	Pass	19.9
0.3979	37.25	57.9	-20.64	Neutral	Pass	19.77
17.48265	25.74	60	-34.26	Neutral	Pass	20.08

Neutral Table

Average:-

Frequency (MHz)	Level (dBµV)	Limit (dBµV)	Margin (dB)	Pos	Comments	Correction (dB)
11.28295	28.52	50	-21.48	Neutral	Pass	19.93
0.3979	25.77	47.9	-22.13	Neutral	Pass	19.77
13.23195	26.92	50	-23.08	Neutral	Pass	19.98
0.15225	32.37	55.78	-23.41	Neutral	Pass	19.87
0.1944	30.01	53.86	-23.86	Neutral	Pass	19.83
9.74825	24.89	50	-25.11	Neutral	Pass	19.9
17.48265	19.77	50	-30.23	Neutral	Pass	20.08
15.21085	17.05	50	-32.95	Neutral	Pass	20.03

Neutral Table

9 LIST OF TABLES

10 LIST OF FIGURES

*****END OF TEST REPORT*****