



FCC TEST REPORT (PART 90)

Applicant:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer or Supplier	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Product	Mobile Phone
Brand Name	POCO
Model Name	25053PC47G
FCC ID	2AFZZPC47G
Date of tests	Feb. 13, 2025-Mar. 26, 2025

The tests have been carried out according to the requirements of the following standard:

- | | |
|---|--|
| <input checked="" type="checkbox"/> FCC Part 90, Subpart R, S | <input checked="" type="checkbox"/> ANSI/TIA/EIA-603-E |
| <input checked="" type="checkbox"/> ANSI/TIA/EIA-603- D | <input checked="" type="checkbox"/> ANSI C63.26-2015 |
| <input checked="" type="checkbox"/> FCC Part 2 | |

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
Date: Mar. 26, 2025	Date: Mar. 26, 2025

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSZ-QBJ2501200112RF06	Original release	Mar. 26, 2025



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 90 & Part 2		
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT
§2.1046 §90.635(b)	Conducted Output Power	PASS
§2.1055 §90.213	Frequency Stability	PASS
§2.1049 §90.209	Occupied Bandwidth	PASS
§2.1051 §90.691	Emission Masks	PASS
§2.1051 §90.691	Conducted Spurious Emissions	PASS
§2.1053 §90.691	Radiated Spurious Emissions	PASS

***Test Lab Information Reference**

Lab A:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

The FCC Site Registration No. is 434559; The Designation No. is CN1325.

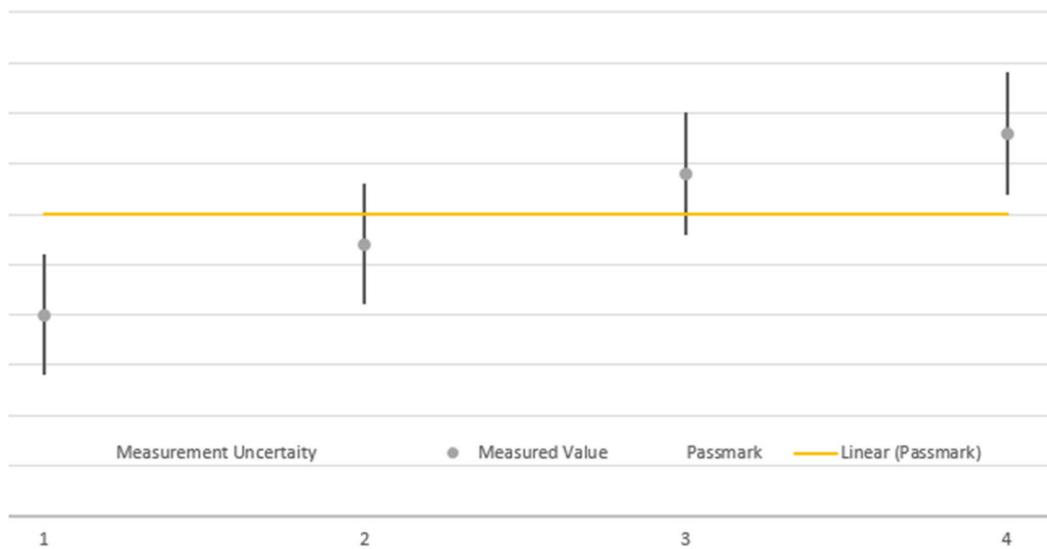


1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.66dB
Radiated emissions	9KHz ~ 30MHz	2.68dB
	30MHz ~ 1GHz	3.26dB
	1GHz ~ 18GHz	4.48dB
	18GHz ~ 40GHz	4.12dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.



1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Pre-Amplifier	R&S	SCU18F1	100815	Aug.29,24	Aug.28,26
Pre-Amplifier	R&S	SCU08F1	101028	Sep.15,24	Sep.14,26
Vector Signal Generator	R&S	SMBV100B	102176	Feb.15,24	Feb.14,26
Signal Generator	R&S	SMB100A	182185	Feb.15,24	Feb.14,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.25,22	Nov.24,25
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.25,22	Nov.24,25
EMI TEST Receiver	R&S	ESR26	101734	Feb.24,24	Feb.23,26
EMI TEST Receiver	R&S	ESW44	101973	Feb.24,24	Feb.23,26
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Feb.27,24	Feb.26,26
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.21,24	Aug.20,26
Horn Antenna (18GHz-40GHz)	Steatite Q-par Antennas	QMS 00880	23486	Feb.22,24	Feb.21,26
Horn Antenna	Steatite Q-par Antennas	QMS 00208	23485	Aug.21,24	Aug.20,26
Loop Antenna	SCHWARZ	HFH2-Z2/Z2E	100976	Feb.22,24	Feb.21,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.26,24	Jun.25,26
Test Software	EMC32	EMC32	N/A	N/A	N/A
Test Software	ELEKTRA	ELEKTRA4.32	N/A	N/A	N/A
Open Switch and Control Unit	R&S	OSP220	101964	Sep.30,24	Sep.39,26
DC Source	HYELEC	HY3010B	551016	Aug.30,24	Aug.29,26
Hygrothermograph	DELI	20210528	SZ014	Sep.05,24	Sep.04,26
PC	LENOVO	E14	HRSW0024	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-7.00M	N/A	N/A	N/A
TMC-AMI18843A(CABLE)	R&S	HF290-NMNM-4.00M	N/A	N/A	N/A
CABLE	R&S	W13.02	N/A	Apr.26,24	Oct.25,25
CABLE	R&S	W12.14	N/A	Apr.26,24	Oct.25,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.26,24	Oct.25,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.26,24	Oct.25,25
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26

NOTE:

1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 434559; The Designation No. is CN1325.



2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Mobile Phone		
BRAND NAME	POCO		
MODEL NAME	25053PC47G		
NOMINAL VOLTAGE	5/3.6-20V dc (adapter or host equipment) 3.93Vdc (Li-ion, battery)		
MODULATION TECHNOLOGY	LTE	QPSK, 16QAM, 64QAM, 256QAM	
FREQUENCY RANGE	LTE Band 26 (Channel Bandwidth: 1.4MHz)	814.7MHz ~ 823.3MHz	
	LTE Band 26 (Channel Bandwidth: 3MHz)	815.5MHz ~ 822.5MHz	
	LTE Band 26 (Channel Bandwidth: 5MHz)	816.5MHz ~ 821.5MHz	
	LTE Band 26 (Channel Bandwidth: 10MHz)	819MHz	
EMISSION DESIGNATOR	LTE Band 26 (Channel Bandwidth: 1.4MHz)	QPSK: 1M10G7D 16QAM: 1M09W7D	
	LTE Band 26 (Channel Bandwidth: 3MHz)	QPSK: 2M70G7D 16QAM: 2M70W7D	
	LTE Band 26 (Channel Bandwidth: 5MHz)	QPSK: 4M49G7D 16QAM: 4M49W7D	
	LTE Band 26 (Channel Bandwidth: 10MHz)	QPSK: 8M97G7D 16QAM: 8M96W7D	
MAX. EIRP POWER	LTE Band 26 (Channel Bandwidth: 1.4MHz)	121.90mW	
	LTE Band 26 (Channel Bandwidth: 3MHz)	120.50mW	
	LTE Band 26 (Channel Bandwidth: 5MHz)	121.34mW	
	LTE Band 26 (Channel Bandwidth: 10MHz)	122.74mW	
ANTENNA GAIN	B26	ANT0	-2.15dBi
		ANT1	-3.02dBi
ANTENNA TYPE	PIFA		
HW VERSION	13510O10U		
SW VERSION	Xiaomi HyperOS 2.0		
I/O PORTS	Refer to user's manual		
DATA CABLE	USB cable1: non-shielded cable, with w/o ferrite core, 1.0 meter USB cable2: non-shielded cable, with w/o ferrite core, 1.0 meter		



EXTREME TEMPERATURE	0°C-40°C
EXTREME VOLTAGE	3.8V-4.3V

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. The EUT incorporates a SISO function. Physically, the EUT provides two completed transmitter and two receivers.

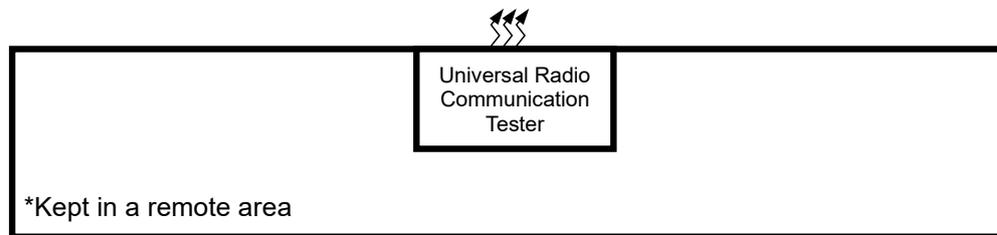
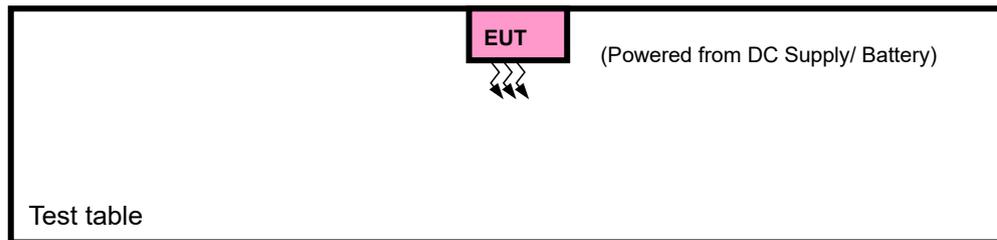
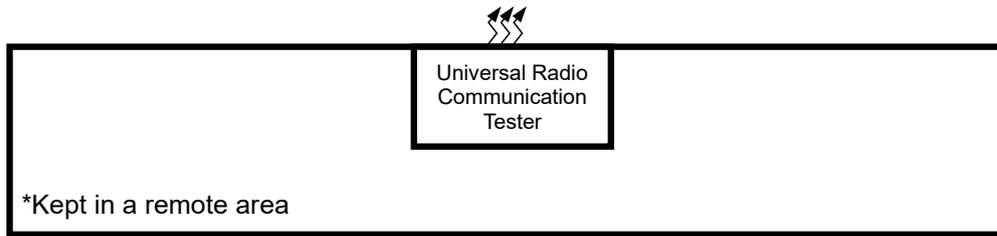
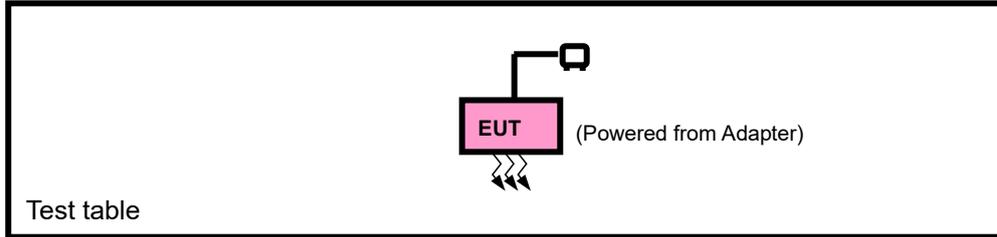
MODULATION MODE	TX FUNCTION
LTE	2TX/2RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



2.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST





2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop	Lenovo	ThinkPad E14	HRSW00024	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB cable1: non-shielded cable, with w/o ferrite core, 1.0 meter
2	USB cable2: non-shielded cable, with w/o ferrite core, 1.0 meter



2.4 DESCRIPTION OF TEST MODES

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case in ERP/EIRP and radiated emission was found when positioned on X-plane for LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter + USB Cable with LTE link
B	EUT + DC Supply with LTE link

LTE BAND 26 MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	ERP	26697 to 26783	26697, 23330, 26783	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset
		26705 to 26775	26705, 23330, 26775	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset
		26715 to 26765	26715, 23330, 26765	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset
		23330	23330	10MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset
B	FREQUENCY STABILITY	23330	23330	10MHz	QPSK	50 RB / 0 RB offset
A	OCCUPIED BANDWIDTH	26697 to 26783	26697, 23330, 26783	1.4MHz	QPSK, 16QAM	6 RB / 0 RB offset
		26705 to 26775	26705, 23330, 26775	3MHz	QPSK, 16QAM	15 RB / 0 RB offset
		26715 to 26765	26715, 23330, 26765	5MHz	QPSK, 16QAM	25 RB / 0 RB offset
		23330	23330	10MHz	QPSK, 16QAM	50 RB / 0 RB offset
A	BAND EDGE	26697 to 26783	26697	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset 6 RB / 0 RB offset
			26783	1.4MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 5 RB offset 6 RB / 0 RB offset
		26705 to 26775	26705	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset 15 RB / 0 RB offset
			26775	3MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 14 RB offset 15 RB / 0 RB offset
		26715 to 26765	26715	5MHz	QPSK, 16QAM, 64QAM, 256QAM	1 RB / 0 RB offset



			26765	5MHz	QPSK, 16QAM, 64QAM, 256QAM	25 RB / 0 RB offset
						1 RB / 24 RB offset
		23330	23330	10MHz	QPSK, 16QAM, 64QAM, 256QAM	25 RB / 0 RB offset
						1 RB / 0 RB offset
			23330	10MHz	QPSK, 16QAM, 64QAM, 256QAM	50 RB / 0 RB offset
						1 RB / 49 RB offset
A	CONDUCTED EMISSION	26697 to 26783	26697, 23330, 26783	1.4MHz	QPSK	1 RB / 0 RB offset
		26705 to 26775	26705, 23330, 26775	3MHz	QPSK	1 RB / 0 RB offset
		26715 to 26765	26715, 23330, 26765	5MHz	QPSK	1 RB / 0 RB offset
		23330	23330	10MHz	QPSK	1 RB / 0 RB offset
A	PEAK-TO-AVERAGE RATIO	23330	23330	10MHz	QPSK	1 RB / 0 RB offset
A	RADIATED EMISSION	26697 to 26783	23330	1.4MHz	QPSK	1 RB / 0 RB offset
		26705 to 26775	23330	3MHz	QPSK	1 RB / 0 RB offset
		26715 to 26765	26715, 23330, 26765	5MHz	QPSK	1 RB / 0 RB offset
		23330	23330	10MHz	QPSK	1 RB / 0 RB offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

TEST CONDITION			
TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
EIRP(ERP)	24deg. C, 60%RH	DC 3.93V By Battery	Hanwen Xu
FREQUENCY STABILITY	24deg. C, 61%RH	DC 3.93V By Battery	Hanwen Xu
OCCUPIED BANDWIDTH	24deg. C, 61%RH	DC 3.93V By Battery	Hanwen Xu
BAND EDGE	24deg. C, 61%RH	DC 3.93V By Battery	Hanwen Xu
CONDUCTED EMISSION	24deg. C, 61%RH	DC 3.93V By Battery	Hanwen Xu
RADIATED EMISSION	23deg. C, 70%RH	AC 120V/60Hz	Hanwen Xu



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2

FCC 47 CFR Part 90

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

NOTE: All test items have been performed and recorded as per the above standards.



3 TEST TYPES AND RESULTS

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Per FCC Part 90.635(a)(b)

The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

3.1.2 TEST PROCEDURES

EIRP / ERP MEASUREMENT:

Per KDB 971168 D01 Power Meas License Digital Systems v03r01 or subclause 5.2.5.5 of ANSI C63.26-2015, the relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_{\text{T}} - L_{\text{C}}$$

Where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively

(expressed in the same units as P_{Meas} , typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

G_{T} = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

L_{C} = signal attenuation in the connecting cable between the transmitter and antenna, in dB

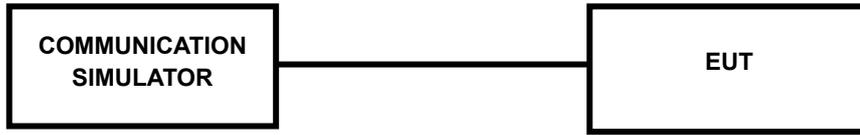
CONDUCTED POWER MEASUREMENT:

- The EUT was set up for the maximum power with LTE link data modulation and link up with simulator.
- Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



3.1.3 TEST SETUP

CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).



3.1.4 TEST RESULTS

AVERAGE CONDUCTED OUTPUT POWER (dBm)

LTE Band 26 for FCC_Ant0

BW: 1.4M

BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26697	26740	26783
		Frequency (MHz)		814.7	819	823.3
1.4M	QPSK	1	0	25.12	25.05	25.12
		1	2	25.16	25.11	25.15
		1	5	25.01	25	25
		3	0	25.01	25.1	25.06
		3	1	25.09	25.08	25.12
		3	3	24.95	24.95	25.06
	6	0	24.05	24.03	24.09	
	16QAM	1	0	24.41	24.38	24.25
		1	2	24.13	23.95	24.1
		1	5	24	24.07	24.07
		3	0	24.08	23.99	24.11
		3	1	24.07	23.95	23.9
		3	3	23.94	23.91	23.81
	64QAM	6	0	23.16	22.91	22.99
		1	0	23.31	23.16	23.12
		1	2	23.38	23.32	23.32
		1	5	23.12	23.2	22.96
		3	0	23.06	23.01	23.12
		3	1	23.05	22.96	22.98
	256QAM	3	3	22.96	22.97	22.91
		6	0	22.03	22.09	21.92
		1	0	20.41	20.23	20.27
		1	2	20.19	20.1	20.05
		1	5	20.42	20.31	20.33
		3	0	20.1	20.15	20.03
		3	1	20.19	20.03	20.08
		3	3	20.03	20.01	19.92
		6	0	20.11	20.06	19.92



BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26705	26740	26775
		Frequence (MHz)		815.5	819	822.5
3M	QPSK	1	0	24.98	24.96	25.01
		1	7	25.11	25.06	25.09
		1	14	24.94	24.95	24.95
		8	0	24	24.12	24.08
		8	3	24.1	24.07	24.08
		8	7	23.89	24	24.04
		15	0	23.96	23.88	23.99
	16QAM	1	0	24.24	24.27	24.2
		1	7	24.01	23.93	24.04
		1	14	23.96	23.83	23.94
		8	0	23.16	22.87	23.08
		8	3	22.93	22.99	22.83
		8	7	22.92	22.87	22.83
		15	0	22.94	22.84	22.88
	64QAM	1	0	23.17	23.12	23.08
		1	7	23.34	23.21	23.15
		1	14	23.02	23.12	23.03
		8	0	22.24	22.07	22.03
		8	3	22.14	22.01	21.94
		8	7	21.99	21.95	21.8
		15	0	21.99	21.98	21.95
	256QAM	1	0	20.17	20.12	20.1
		1	7	20.08	19.94	20.02
		1	14	20.3	20.15	20.09
		8	0	20.17	20	20.11
		8	3	20.05	20.06	20.07
		8	7	20.09	19.8	19.92
		15	0	19.98	20	19.91



BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26715	26740	26765
		Frequency (MHz)		816.5	819	821.5
5M	QPSK	1	0	25.13	25.05	25.11
		1	12	25.12	25.11	25.14
		1	24	25	25	24.91
		12	0	24.17	24.15	24.01
		12	6	24.13	24.15	24.1
		12	13	24.01	24.03	24.06
		25	0	24.17	24.03	24.01
	16QAM	1	0	24.36	24.32	24.3
		1	12	24.13	23.95	24.1
		1	24	24.13	23.98	24.07
		12	0	23.13	23	23.1
		12	6	23.13	22.96	22.96
		12	13	23.05	22.92	22.91
		25	0	23.12	22.97	22.97
	64QAM	1	0	23.18	23.2	23.03
		1	12	23.48	23.24	23.34
		1	24	23.09	23.07	23.08
		12	0	22.15	22.09	22.19
		12	6	22.1	22.14	21.98
		12	13	22.13	21.99	22.06
		25	0	22.09	22.01	22
	256QAM	1	0	20.44	20.24	20.17
		1	12	20.21	20.08	20.04
		1	24	20.39	20.3	20.25
		12	0	20.15	20.09	20.12
		12	6	20.19	20.1	20.21
		12	13	20.09	19.9	20.04
		25	0	20.08	20	20.03



BW	MCS Index	RB Size	RB Offset		Mid		
		Channel				26740	
		Frequence (MHz)				819	
10M	QPSK	1	0		25.16		
		1	24		25.19		
		1	49		25.11		
		25	0		24.16		
		25	12		24.28		
		25	25		24.25		
		50	0		24.26		
	16QAM	1	0		24.38		
		1	24		24.19		
		1	49		24.12		
		25	0		23.15		
		25	12		23.06		
		25	25		23		
		50	0		23.22		
	64QAM	1	0		23.33		
		1	24		23.49		
		1	49		23.13		
		25	0		22.3		
		25	12		22.19		
		25	25		22.1		
		50	0		22.19		
	256QAM	1	0		20.36		
		1	24		20.21		
		1	49		20.42		
		25	0		20.26		
		25	12		20.15		
		25	25		20.12		
		50	0		20.11		



LTE Band 26 for FCC_Ant1

BW: 1.4M

BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26697	26740	26783
		Frequency (MHz)		814.7	819	823.3
1.4M	QPSK	1	0	24.87	25	24.98
		1	2	25.02	25.03	24.97
		1	5	24.76	24.76	24.81
		3	0	24.67	24.69	24.8
		3	1	24.74	24.79	24.71
		3	3	24.66	24.66	24.75
		6	0	23.8	23.91	23.92
	16QAM	1	0	23.9	24	23.85
		1	2	23.99	24.07	23.87
		1	5	23.78	23.89	23.89
		3	0	23.65	23.67	23.63
		3	1	23.85	23.71	23.74
		3	3	23.63	23.68	23.61
		6	0	22.85	22.82	22.83
	64QAM	1	0	22.95	22.95	22.92
		1	2	23.14	23.11	23.08
		1	5	22.81	22.87	22.78
		3	0	22.96	22.86	22.82
		3	1	22.99	22.99	22.89
		3	3	22.8	22.67	22.76
		6	0	21.82	21.74	21.87
	256QAM	1	0	20.13	20.12	20.02
		1	2	20.21	20.19	20.18
		1	5	20.02	20.01	19.97
		3	0	19.9	19.89	19.74
		3	1	19.94	19.91	19.91
		3	3	19.86	19.79	19.86
		6	0	19.88	19.82	19.95



BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26705	26740	26775
		Frequency (MHz)		815.5	819	822.5
3M	QPSK	1	0	24.99	24.89	24.99
		1	7	25.03	25	24.92
		1	14	24.74	24.8	24.83
		8	0	23.81	23.85	23.87
		8	3	23.93	23.98	23.9
		8	7	23.8	23.82	23.91
		15	0	23.87	23.82	23.87
	16QAM	1	0	23.89	23.96	23.88
		1	7	24.04	24.07	23.85
		1	14	23.78	23.78	23.76
		8	0	22.77	22.87	22.74
		8	3	22.85	22.86	22.82
		8	7	22.84	22.87	22.65
		15	0	22.88	22.84	22.73
	64QAM	1	0	22.89	22.83	22.92
		1	7	23.23	23.16	23.08
		1	14	22.9	22.78	22.85
		8	0	22.07	22.06	21.99
		8	3	22.04	22.02	22.05
		8	7	21.9	21.82	21.77
		15	0	21.93	21.76	21.86
	256QAM	1	0	20.1	20.11	20.07
		1	7	20.18	20.16	20.1
		1	14	20.03	19.88	20.02
		8	0	19.85	19.83	19.71
		8	3	19.99	19.93	19.84
		8	7	19.87	19.85	19.93
		15	0	19.78	19.83	19.89



BW	MCS Index	RB Size	RB Offset	Low	Mid	High
		Channel		26715	26740	26765
		Frequency (MHz)		816.5	819	821.5
5M	QPSK	1	0	24.92	24.86	24.77
		1	12	24.83	25.08	24.96
		1	24	24.73	24.86	24.78
		12	0	23.78	23.76	23.84
		12	6	23.8	23.9	23.89
		12	13	23.75	23.71	23.86
		25	0	23.75	23.78	23.83
	16QAM	1	0	23.83	23.89	23.89
		1	12	23.95	23.89	23.85
		1	24	23.77	23.8	23.71
		12	0	22.75	22.79	22.54
		12	6	22.78	22.77	22.86
		12	13	22.67	22.73	22.49
		25	0	22.86	22.78	22.64
	64QAM	1	0	22.81	22.83	22.8
		1	12	23.11	22.91	23.04
		1	24	22.77	22.65	22.83
		12	0	21.93	22	22.02
		12	6	22.04	22	21.83
		12	13	21.82	21.58	21.65
		25	0	21.88	21.72	21.83
	256QAM	1	0	20.1	20.03	19.99
		1	12	20.02	20.1	20.04
		1	24	19.88	19.86	19.86
		12	0	19.79	19.66	19.58
		12	6	19.84	19.84	19.73
		12	13	19.71	19.83	19.93
		25	0	19.76	19.69	19.88



BW	MCS Index	RB Size	RB Offset		Mid		
		Channel				26740	
		Frequency (MHz)				819	
10M	QPSK	1	0		25.08		
		1	24		25.15		
		1	49		25.12		
		25	0		24.12		
		25	12		24.24		
		25	25		24.17		
		50	0		24.15		
	16QAM	1	0		24.09		
		1	24		24.08		
		1	49		24.05		
		25	0		22.93		
		25	12		23.07		
		25	25		22.96		
		50	0		23.1		
	64QAM	1	0		22.99		
		1	24		23.32		
		1	49		23.03		
		25	0		22.22		
		25	12		22.29		
		25	25		22.03		
		50	0		22.03		
	256QAM	1	0		20.17		
		1	24		20.32		
		1	49		20.15		
		25	0		20.07		
		25	12		20		
		25	25		20.05		
		50	0		20.01		



ERP

Part90_LTE Band 26_Ant0

BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
10M-QPSK	26740	819	25.19	-2.15	20.89	122.74	100
10M-16QAM	26740	819	24.38	-2.15	20.08	101.86	100
10M-64QAM	26740	819	23.49	-2.15	19.19	82.99	100
10M-256QAM	26740	819	20.42	-2.15	16.12	40.93	100
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
5M-QPSK	26715	816.5	25.13	-2.15	20.83	121.06	100
	26740	819	25.11	-2.15	20.81	120.50	100
	26765	821.5	25.14	-2.15	20.84	121.34	100
5M-16QAM	26715	816.5	24.36	-2.15	20.06	101.39	100
	26740	819	24.32	-2.15	20.02	100.46	100
	26765	821.5	24.30	-2.15	20.00	100.00	100
5M-64QAM	26715	816.5	23.48	-2.15	19.18	82.79	100
	26740	819	23.24	-2.15	18.94	78.34	100
	26765	821.5	23.34	-2.15	19.04	80.17	100
5M-256QAM	26715	816.5	20.44	-2.15	16.14	41.11	100
	26740	819	20.30	-2.15	16.00	39.81	100
	26765	821.5	20.25	-2.15	15.95	39.36	100



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BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
3M-QPSK	26705	815.5	25.11	-2.15	20.81	120.50	100
	26740	819	25.06	-2.15	20.76	119.12	100
	26775	822.5	25.09	-2.15	20.79	119.95	100
3M-16QAM	26705	815.5	24.24	-2.15	19.94	98.63	100
	26740	819	24.27	-2.15	19.97	99.31	100
	26775	822.5	24.20	-2.15	19.90	97.72	100
3M-64QAM	26705	815.5	23.34	-2.15	19.04	80.17	100
	26740	819	23.21	-2.15	18.91	77.80	100
	26775	822.5	23.15	-2.15	18.85	76.74	100
3M- 256QAM	26705	815.5	20.30	-2.15	16.00	39.81	100
	26740	819	20.15	-2.15	15.85	38.46	100
	26775	822.5	20.11	-2.15	15.81	38.11	100
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
1.4M-QPSK	26697	814.7	25.16	-2.15	20.86	121.90	100
	26740	819	25.11	-2.15	20.81	120.50	100
	26783	823.3	25.15	-2.15	20.85	121.62	100
1.4M- 16QAM	26697	814.7	24.41	-2.15	20.11	102.57	100
	26740	819	24.38	-2.15	20.08	101.86	100
	26783	823.3	24.25	-2.15	19.95	98.86	100
1.4M- 64QAM	26697	814.7	23.38	-2.15	19.08	80.91	100
	26740	819	23.32	-2.15	19.02	79.80	100
	26783	823.3	23.32	-2.15	19.02	79.80	100
1.4M- 256QAM	26697	814.7	20.42	-2.15	16.12	40.93	100
	26740	819	20.31	-2.15	16.01	39.90	100
	26783	823.3	20.33	-2.15	16.03	40.09	100



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BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
10M-QPSK	26740	819	25.15	-3.02	19.98	99.54	100
10M-16QAM	26740	819	24.09	-3.02	18.92	77.98	100
10M-64QAM	26740	819	23.32	-3.02	18.15	65.31	100
10M-256QAM	26740	819	20.32	-3.02	15.15	32.73	100
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
5M-QPSK	26715	816.5	24.92	-3.02	19.75	94.41	100
	26740	819	25.08	-3.02	19.91	97.95	100
	26765	821.5	24.96	-3.02	19.79	95.28	100
5M-16QAM	26715	816.5	23.95	-3.02	18.78	75.51	100
	26740	819	23.89	-3.02	18.72	74.47	100
	26765	821.5	23.89	-3.02	18.72	74.47	100
5M-64QAM	26715	816.5	23.11	-3.02	17.94	62.23	100
	26740	819	22.91	-3.02	17.74	59.43	100
	26765	821.5	23.04	-3.02	17.87	61.24	100
5M-256QAM	26715	816.5	20.10	-3.02	14.93	31.12	100
	26740	819	20.10	-3.02	14.93	31.12	100
	26765	821.5	20.04	-3.02	14.87	30.69	100
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)



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3M-QPSK	26705	815.5	25.03	-3.02	19.86	96.83	100
	26740	819	25.00	-3.02	19.83	96.16	100
	26775	822.5	24.99	-3.02	19.82	95.94	100
3M-16QAM	26705	815.5	24.04	-3.02	18.87	77.09	100
	26740	819	24.07	-3.02	18.90	77.62	100
	26775	822.5	23.88	-3.02	18.71	74.30	100
3M-64QAM	26705	815.5	23.23	-3.02	18.06	63.97	100
	26740	819	23.16	-3.02	17.99	62.95	100
	26775	822.5	23.08	-3.02	17.91	61.80	100
3M-256QAM	26705	815.5	20.18	-3.02	15.01	31.70	100
	26740	819	20.16	-3.02	14.99	31.55	100
	26775	822.5	20.10	-3.02	14.93	31.12	100
BW [MHz] Modulation	Channel	Frequency (MHz)	Conducted Power (dBm)	Gain (dB)	ERP (dBm)	ERP (mW)	Limit (W)
1.4M-QPSK	26697	814.7	25.02	-3.02	19.85	96.61	100
	26740	819	25.03	-3.02	19.86	96.83	100
	26783	823.3	24.98	-3.02	19.81	95.72	100
1.4M-16QAM	26697	814.7	23.99	-3.02	18.82	76.21	100
	26740	819	24.07	-3.02	18.90	77.62	100
	26783	823.3	23.89	-3.02	18.72	74.47	100
1.4M-64QAM	26697	814.7	23.14	-3.02	17.97	62.66	100
	26740	819	23.11	-3.02	17.94	62.23	100
	26783	823.3	23.08	-3.02	17.91	61.80	100
1.4M-256QAM	26697	814.7	20.21	-3.02	15.04	31.92	100
	26740	819	20.19	-3.02	15.02	31.77	100
	26783	823.3	20.18	-3.02	15.01	31.70	100

REMARKS: ERP Output Power (dBm) = EIRP (dBm) -2.15(dB).



3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

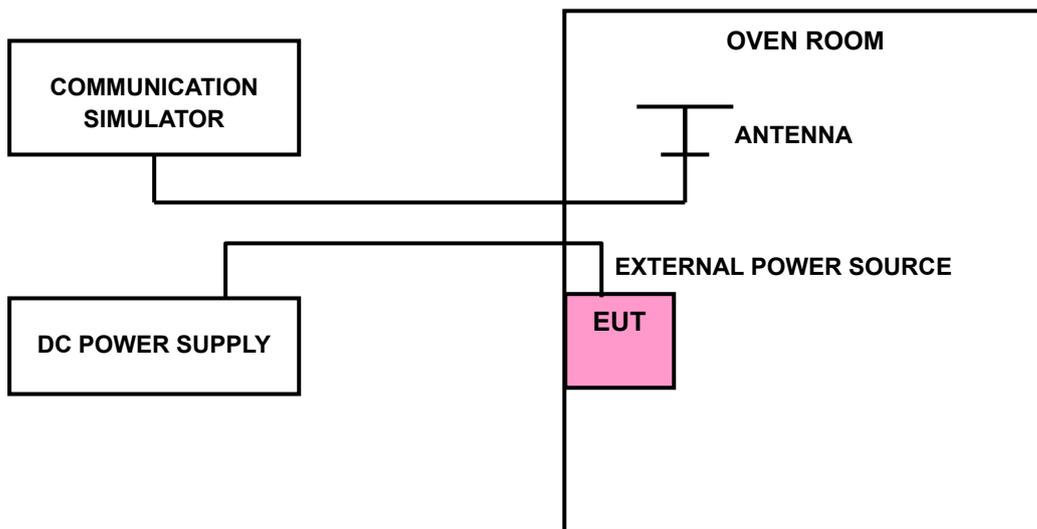
The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 parts per million or better when AFC is locked to a base station, and 5 parts per million or better when AFC is not locked

3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

NOTE: The frequency error was recorded frequency error from the communication simulator.

3.2.3 TEST SETUP





3.2.4 TEST RESULTS

Please Refer to Appendix of this test report.

Note: VL = Low voltage(3.6V); VN/NV = Normal voltage(3.87V); VH = High voltage(4.45V);
NT = Normal temperature (25°C)

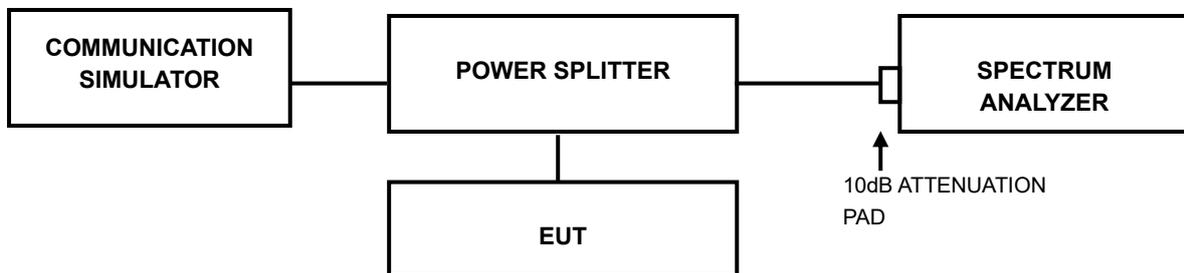


3.3 OCCUPIED BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

3.3.2 TEST SETUP



3.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

3.3.4 TEST RESULTS

Please Refer to Appendix of this test report.



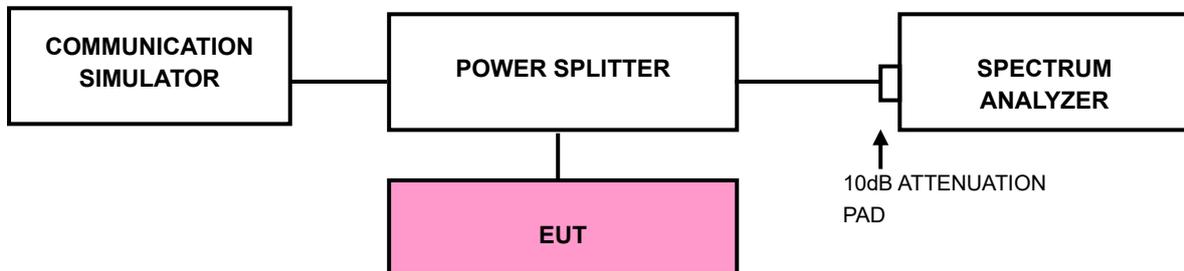
3.4 EMISSION MASK MEASUREMENT

3.4.1 LIMITS OF EMISSION MASK MEASUREMENT

According to FCC part 90.691 shall be tested the emission mask. For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \text{ Log}_{10}(f/6.1)$ decibels or $50 + 10 \text{ Log}_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \text{ Log}_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

3.4.2 TEST SETUP





3.4.3 TEST PROCEDURES

- a) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- b) Tune the analyzer to the nominal center frequency of the emission bandwidth (EBW).
- c) Set the resolution bandwidth (RBW) $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
- d) Beyond the 1MHz band from the band edge, RBW=1MHz was used.
- e) Set the video bandwidth (VBW) to $\geq 3 \times$ RBW.
- f) Select the average power (RMS) display detector.
- g) Set the number of measurement points to ≥ 1001 .
- h) Use auto-coupled sweep time.
- i) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.
- j) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.
- k) Record the max trace plot into the test report.

3.4.4 TEST RESULTS

Please Refer to Appendix of this test report.



3.5 CONDUCTED SPURIOUS EMISSIONS

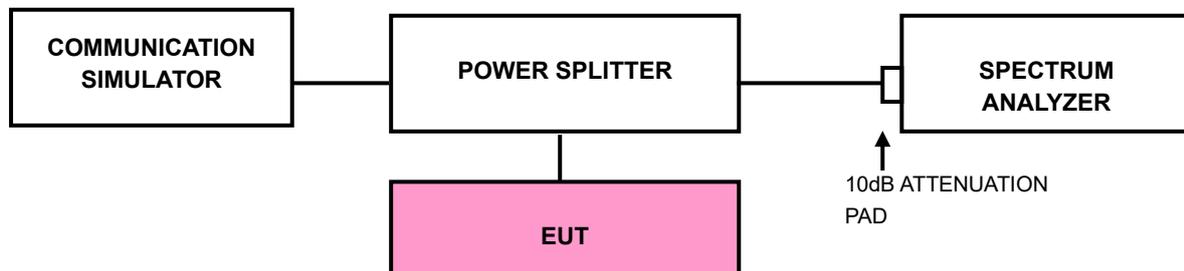
3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13dBm

3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at middle operational frequency range.
- b. Measuring frequency range is from 9kHz up to a frequency including its 10th harmonic. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

3.5.3 TEST SETUP





3.5.4 TEST RESULTS

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Please Refer to Appendix of this test report.



3.6 RADIATED EMISSION MEASUREMENT

3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

(1) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB. The limit of emission equal to -13 dBm

(2) For operations in the 763–775 MHz and 793–805 MHz bands, all emissions including harmonics in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

3.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G
- c. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,
 $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15\text{dBi}$.

NOTE: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

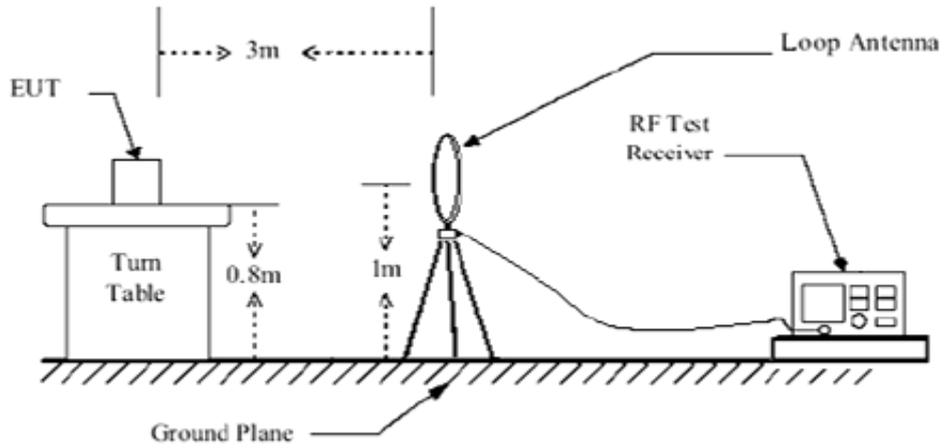
3.6.3 DEVIATION FROM TEST STANDARD

No deviation

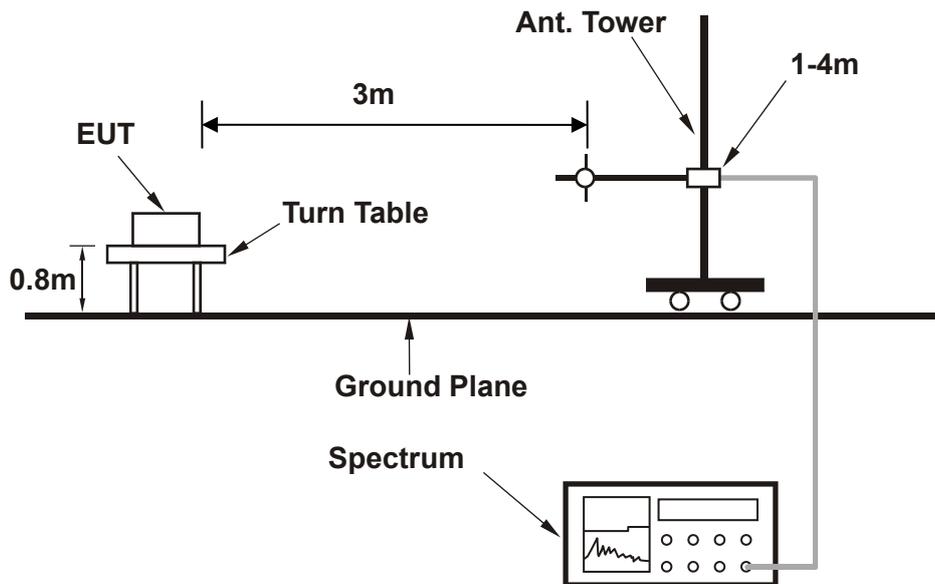


3.6.4 TEST SETUP

<Below 30MHz>

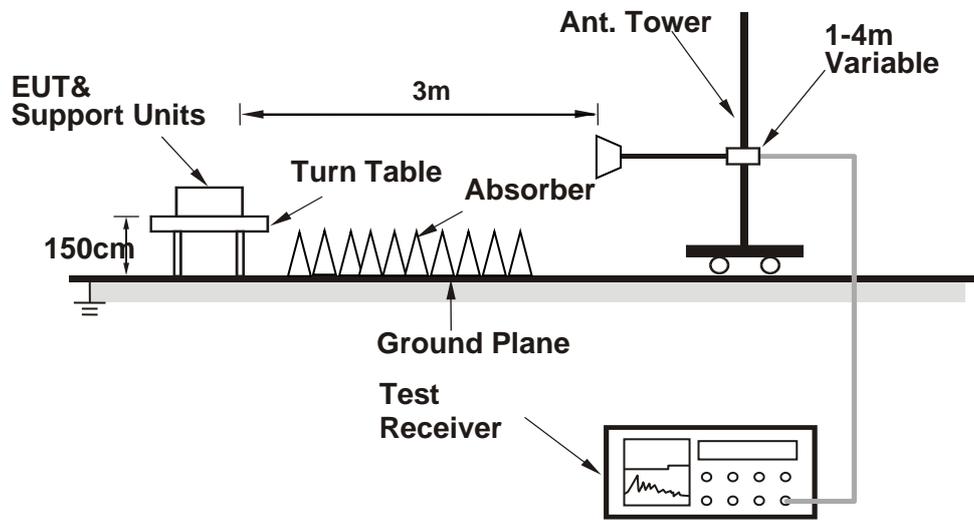


< Frequency Range 30MHz~1GHz >





< Frequency Range above 1GHz >



For the actual test configuration, please refer to the attached file (Test Setup Photo).



3.6.5 TEST RESULTS

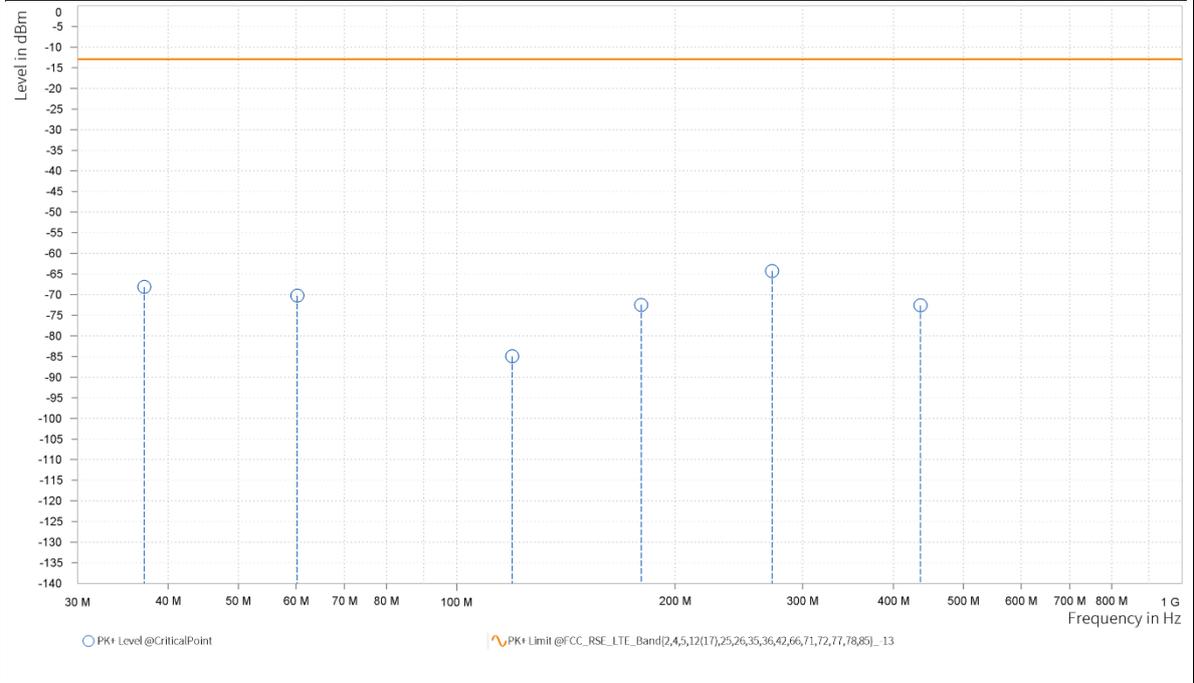
BELOW 1GHz WORST-CASE DATA

NOTE : The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

LTE Band 26 CHANNEL BANDWIDTH: 10MHz / QPSK			
MODE	TX channel 26740	FREQUENCY RANGE	30 MHz ~ 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V 60HZ
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	37.100	-68.12	-13.00	55.12	0.14	H	348.7	1.00
1	60.300	-70.26	-13.00	57.26	-5.69	H	90.1	1.00
1	119.200	-84.95	-13.00	71.95	-11.71	H	348.7	1.00
1	179.650	-72.48	-13.00	59.48	-8.23	H	121.7	2.00
1	272.000	-64.27	-13.00	51.27	-1.61	H	207.2	1.00
1	436.100	-72.59	-13.00	59.59	2.23	H	64.2	2.00

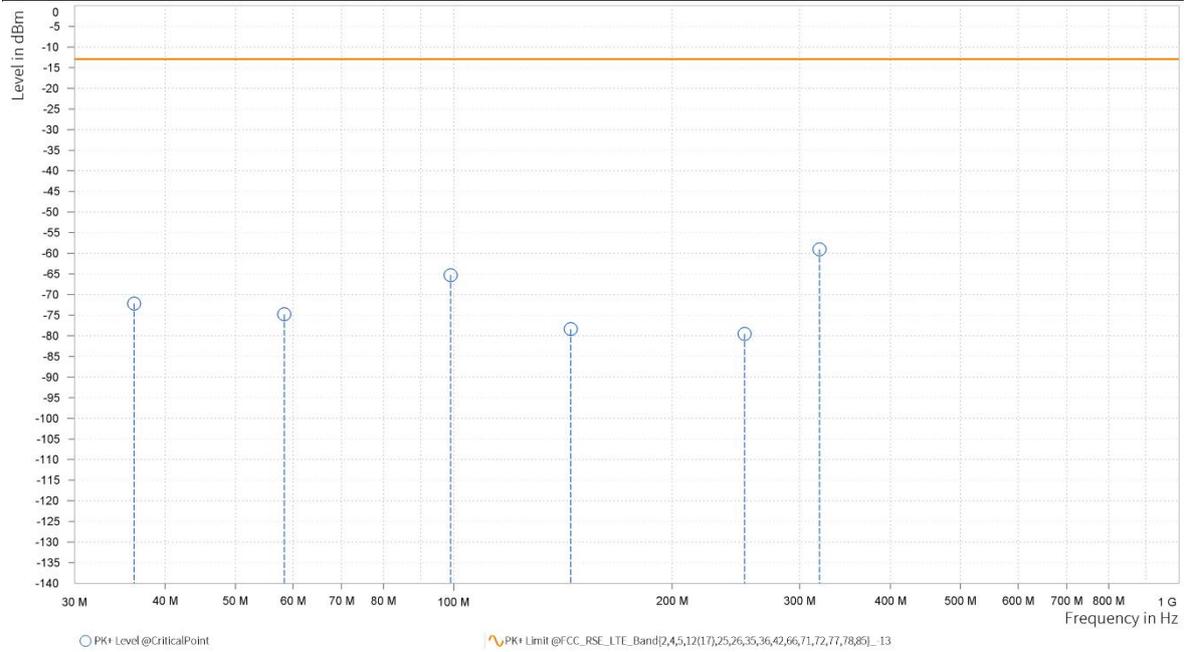




MODE	TX channel 26740	FREQUENCY RANGE	30 MHz ~ 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V 60HZ
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	36.250	-72.16	-13.00	59.16	-9.07	V	177.4	1.00
1	58.350	-74.79	-13.00	61.79	-3.50	V	1	2.00
1	99.000	-65.30	-13.00	52.30	5.05	V	5	1.00
1	145.050	-78.40	-13.00	65.40	-12.38	V	349.4	1.00
1	251.750	-79.52	-13.00	66.52	-5.88	V	151.5	2.00
1	319.400	-59.03	-13.00	46.03	-2.07	V	91.8	2.00





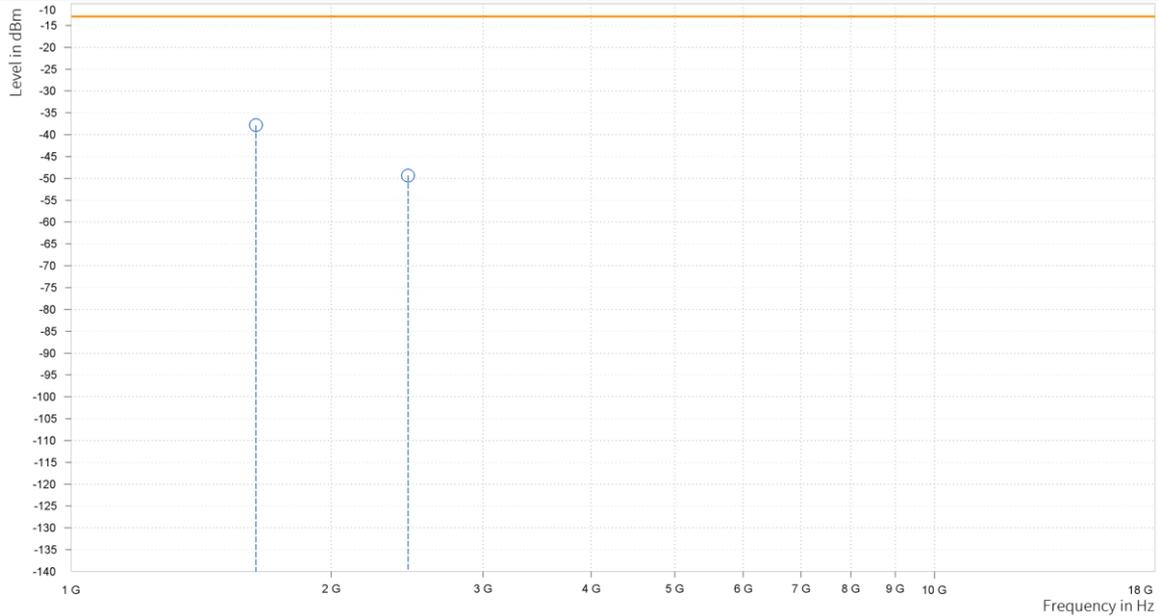
ABOVE 1GHz

Note: For higher frequency, the emission is too low to be detected.

LTE BAND 26			
CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,637.000	-37.84	-13.00	24.84	14.44	H	273.8	2.00
3	2,455.110	-49.35	-13.00	36.35	20.33	H	333.1	2.00

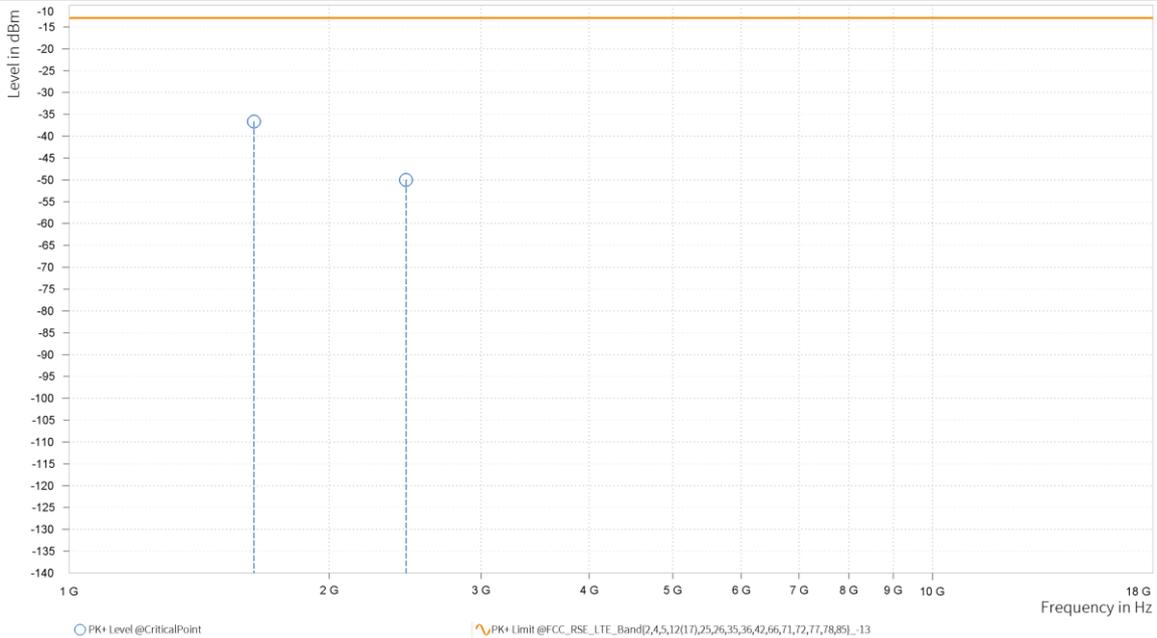




CHANNEL BANDWIDTH	1.4MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,637.000	-36.62	-13.00	23.62	14.48	V	169	2.00
3	2,455.110	-49.98	-13.00	36.98	20.34	V	331.1	2.00

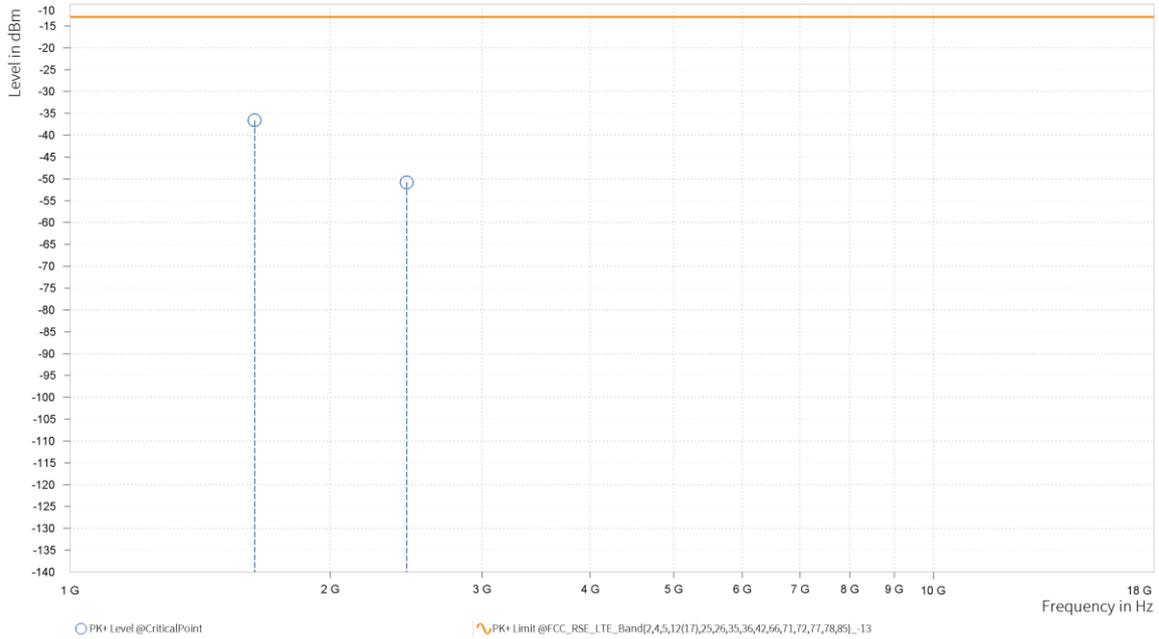




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,635.500	-36.60	-13.00	23.60	14.42	H	170.4	2.00
3	2,452.950	-50.81	-13.00	37.81	20.35	H	333.8	2.00

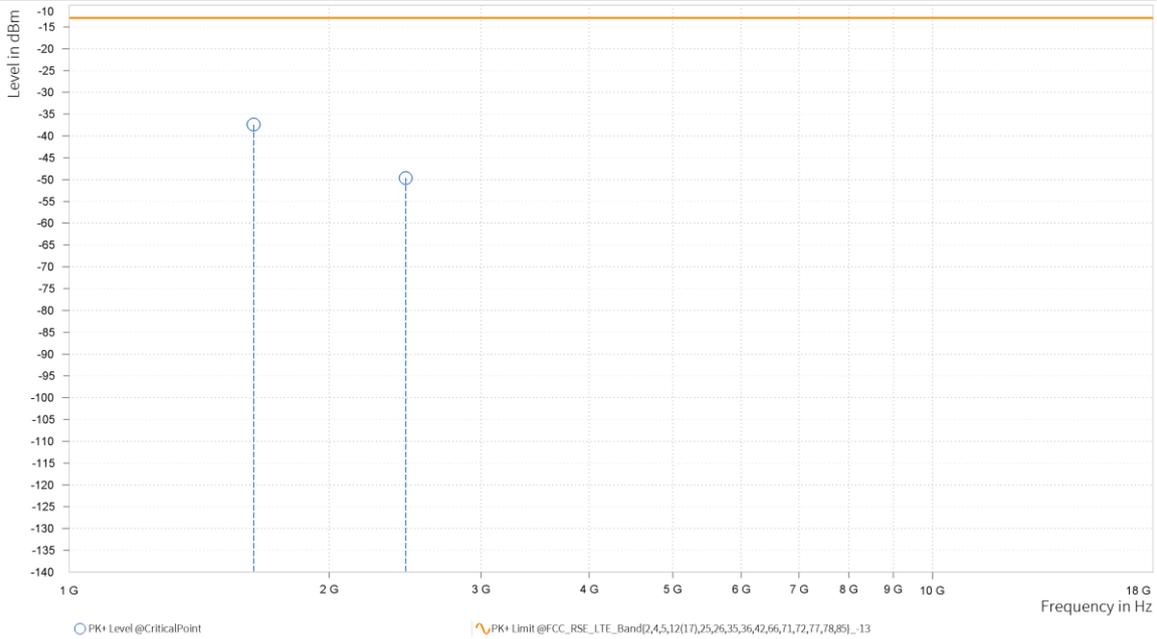




CHANNEL BANDWIDTH	3MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,635.500	-37.41	-13.00	24.41	14.49	V	171.1	2.00
3	2,452.950	-49.64	-13.00	36.64	20.33	V	282.2	2.00

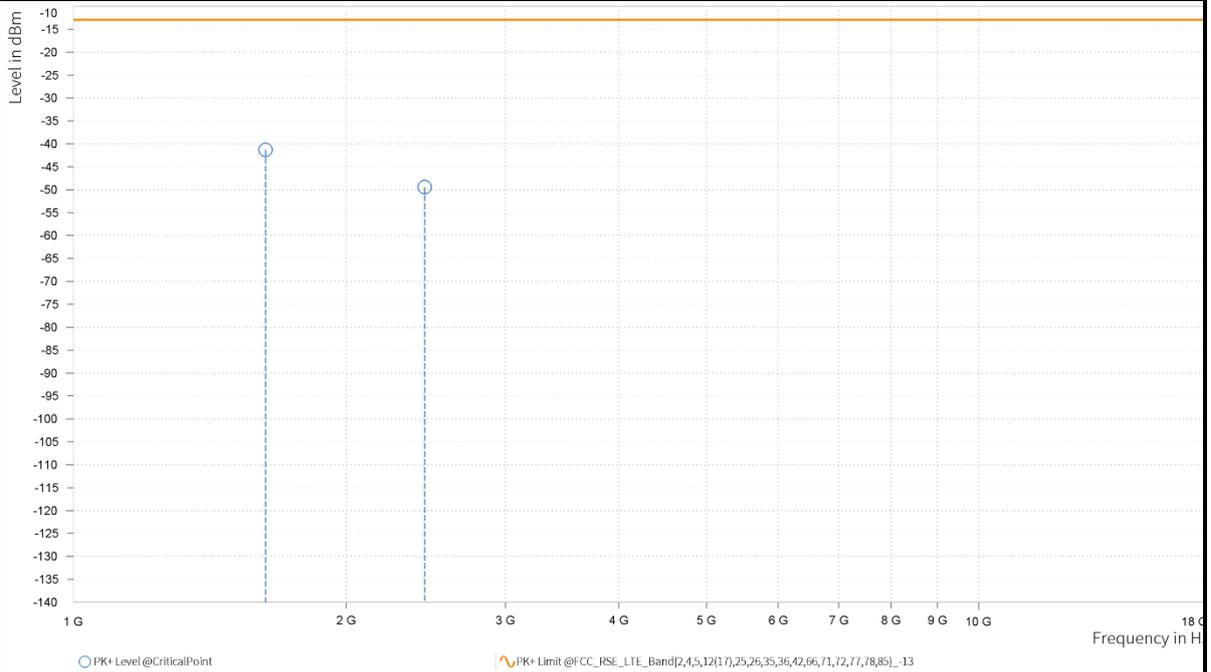




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 26715
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.000	-41.28	-13.00	28.28	14.28	H	171.8	1.00
3	2,443.500	-49.46	-13.00	36.46	20.46	H	1	2.00

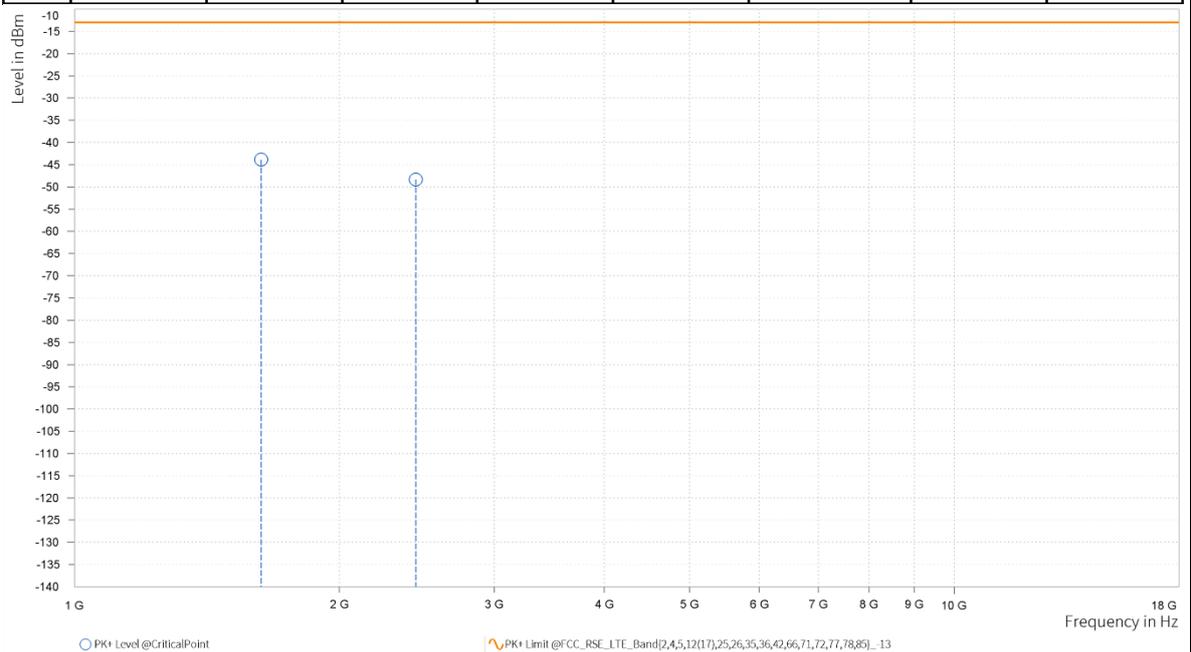




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 26715
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.500	-43.87	-13.00	30.87	14.48	V	359.1	1.00
3	2,443.500	-48.31	-13.00	35.31	20.27	V	63.5	2.00

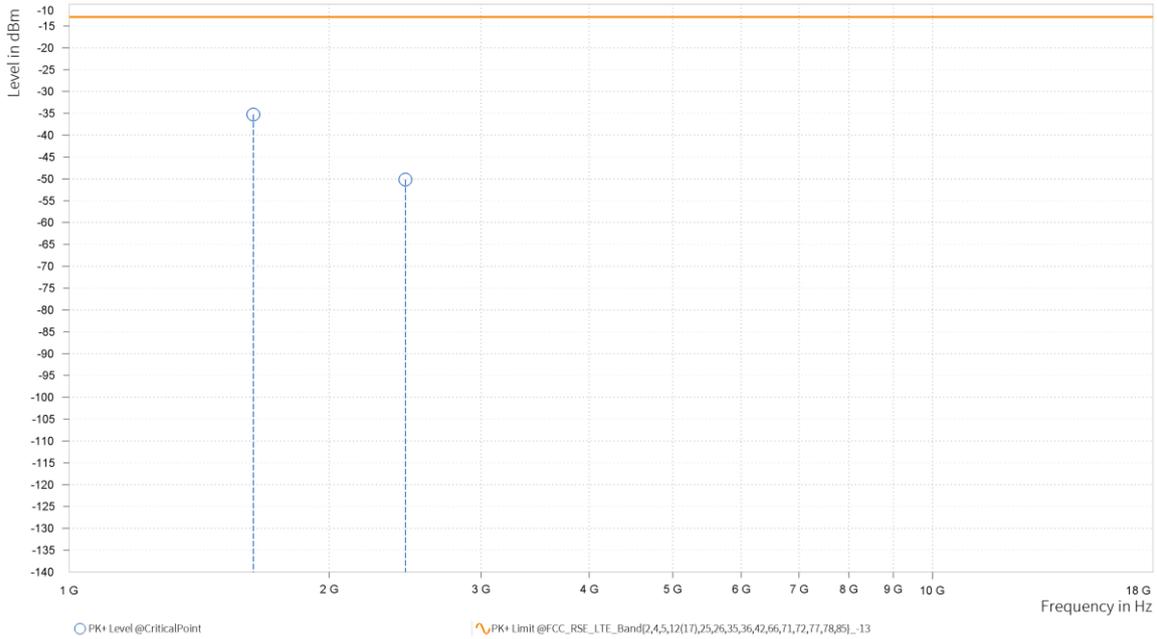




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,634.000	-35.27	-13.00	22.27	14.39	H	171.1	2.00
3	2,450.500	-50.14	-13.00	37.14	20.38	H	178.2	2.00

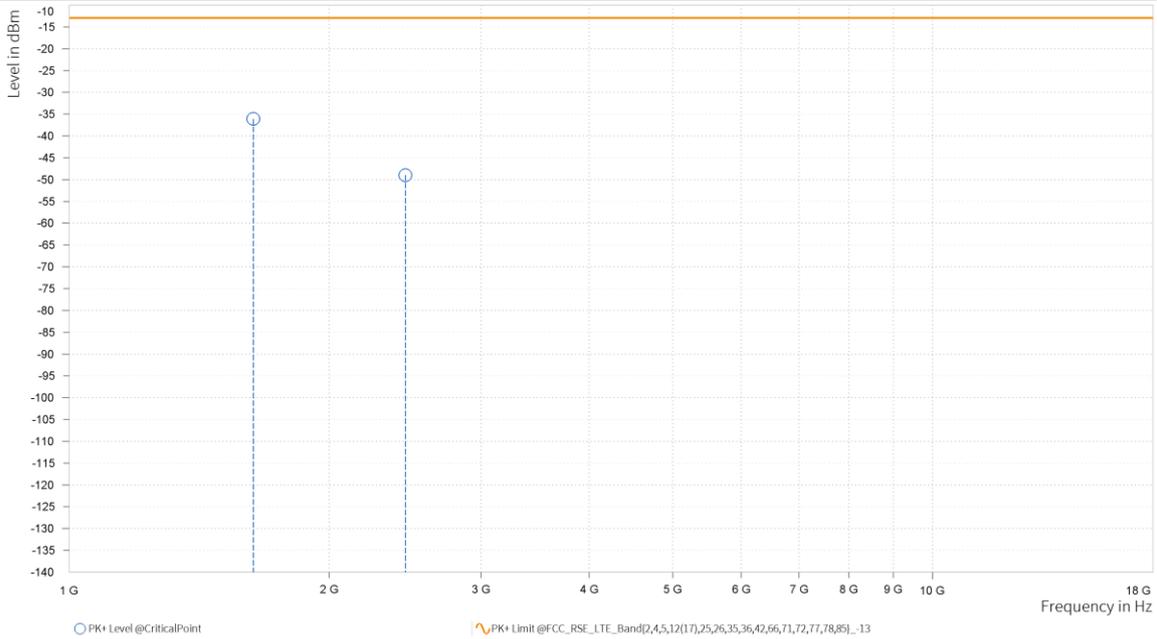




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,634.000	-36.08	-13.00	23.08	14.49	V	170.5	2.00
3	2,450.500	-48.99	-13.00	35.99	20.31	V	284.4	2.00

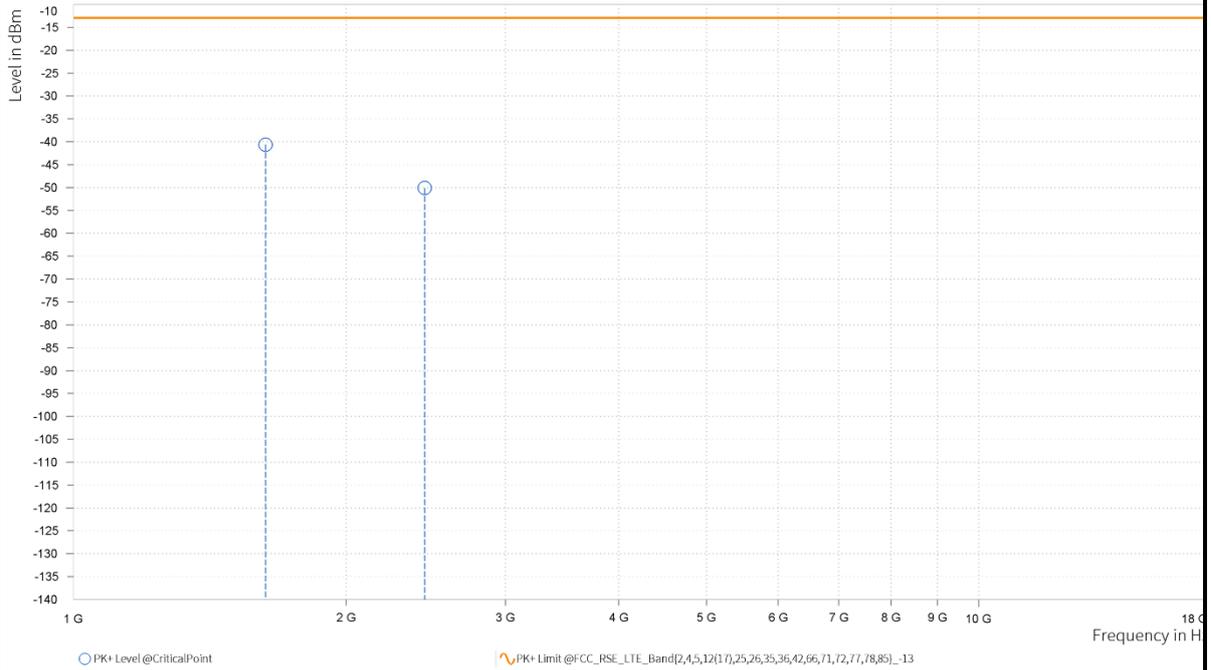




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 26765
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.000	-40.65	-13.00	27.65	14.28	H	172.6	1.00
3	2,443.500	-50.10	-13.00	37.10	20.46	H	1	2.00

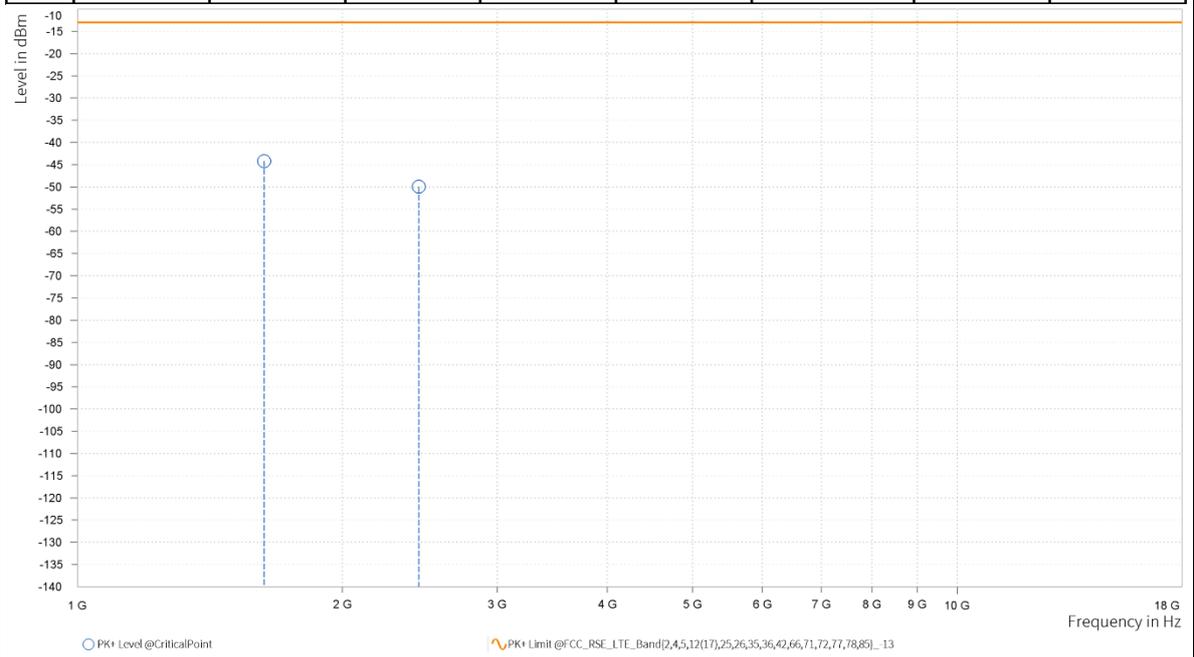




CHANNEL BANDWIDTH	5MHz / QPSK	MODE	TX channel 26765
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.000	-44.19	-13.00	31.19	14.48	V	278.7	1.00
3	2,443.500	-49.96	-13.00	36.96	20.27	V	339.6	2.00

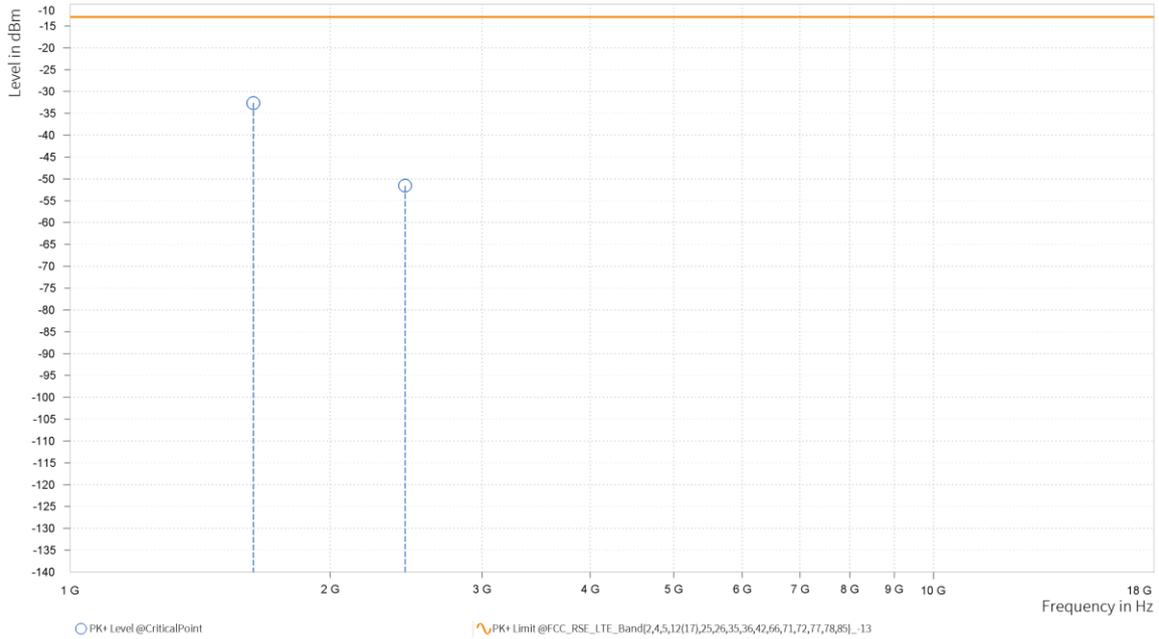




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.000	-32.65	-13.00	19.65	14.28	H	169.7	2.00
3	2,443.500	-51.54	-13.00	38.54	20.46	H	1	2.00

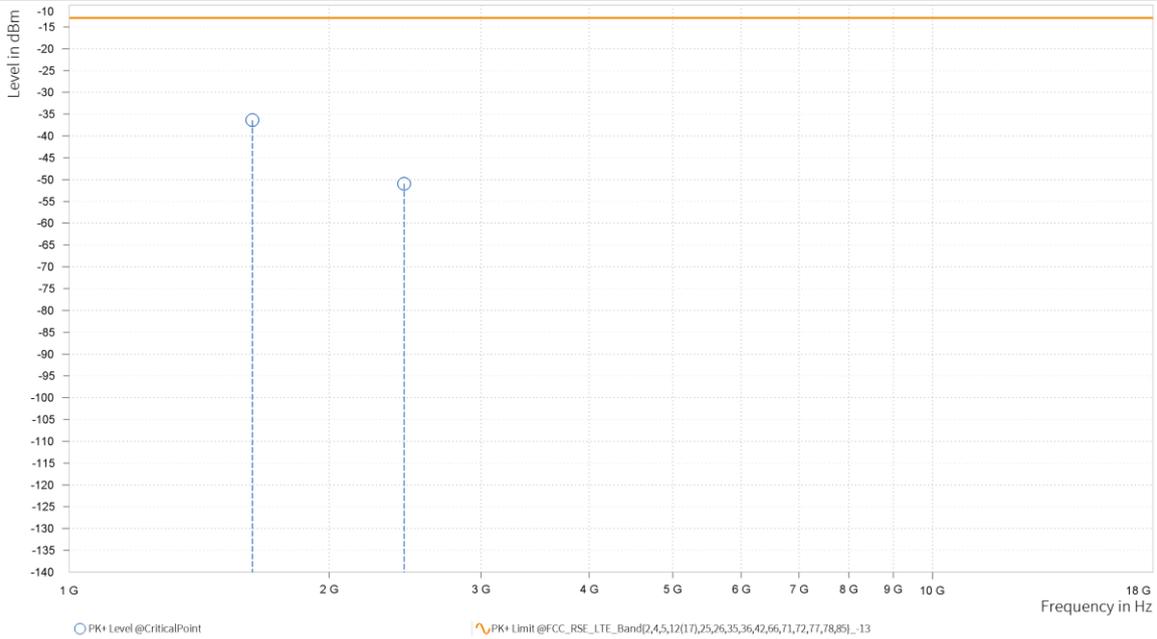




CHANNEL BANDWIDTH	10MHz / QPSK	MODE	TX channel 23330
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	AC 120V 60HZ	TESTED BY	Hanwen Xu

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBm]	PK+ Limit [dBm]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
2	1,629.500	-36.39	-13.00	23.39	14.48	V	168.3	2.00
3	2,443.500	-50.93	-13.00	37.93	20.27	V	278	2.00



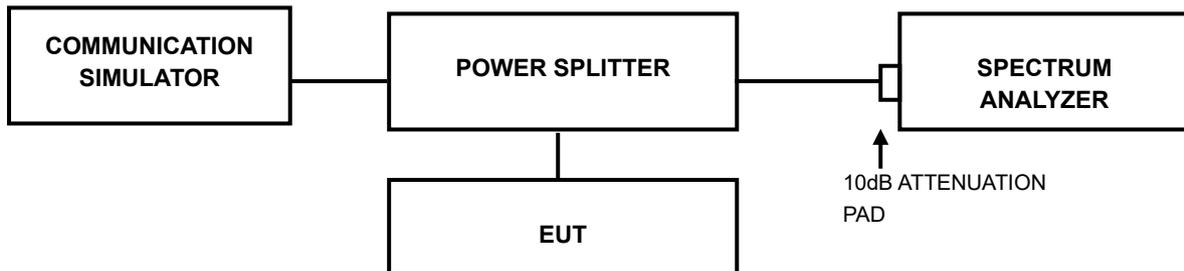


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.7.4 TEST RESULTS

Please Refer to Appendix of this test report.



BUREAU VERITAS Test Report No.: PSZ-QBJ2501200112RF06

4 INFORMATION ON THE TESTING LABORATORIES

We, Huarui 7layers High Technology (Suzhou) Co., Ltd. ,were founded in 2020 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

If you have any comments, please feel free to contact us at the following:

Suzhou EMC/RF Lab:

Tel: +86 (0557) 368 1008



BUREAU Test Report No.: PSZ-QBJ2501200112RF06
VERITAS

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.



6 APPENDIX

LTE BAND26

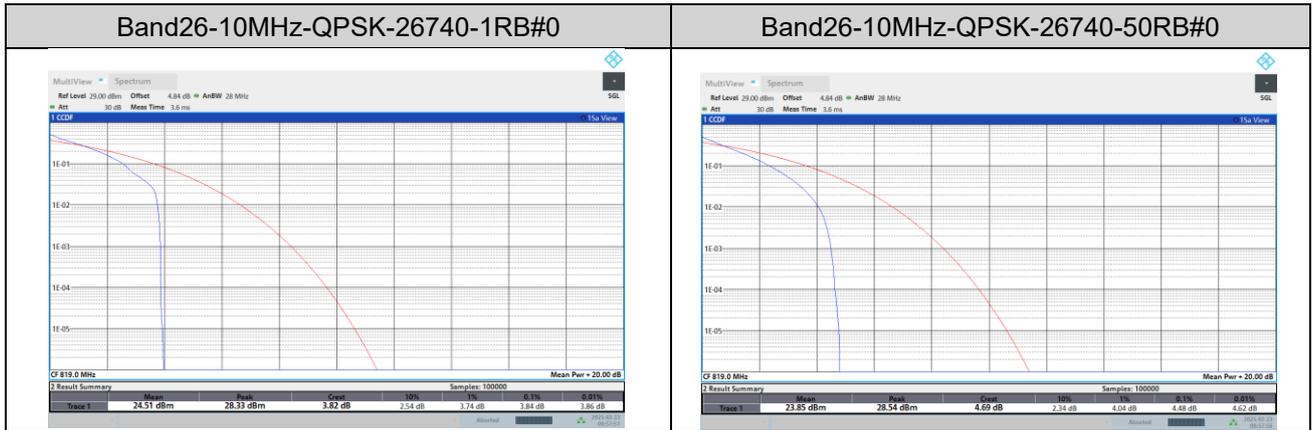
PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band26	10MHz	QPSK	26740	1RB#0	3.84	13	PASS
Band26	10MHz	QPSK	26740	50RB#0	4.48	13	PASS



Test Graphs





BUREAU VERITAS Test Report No.: PSZ-QBJ2501200112RF06

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

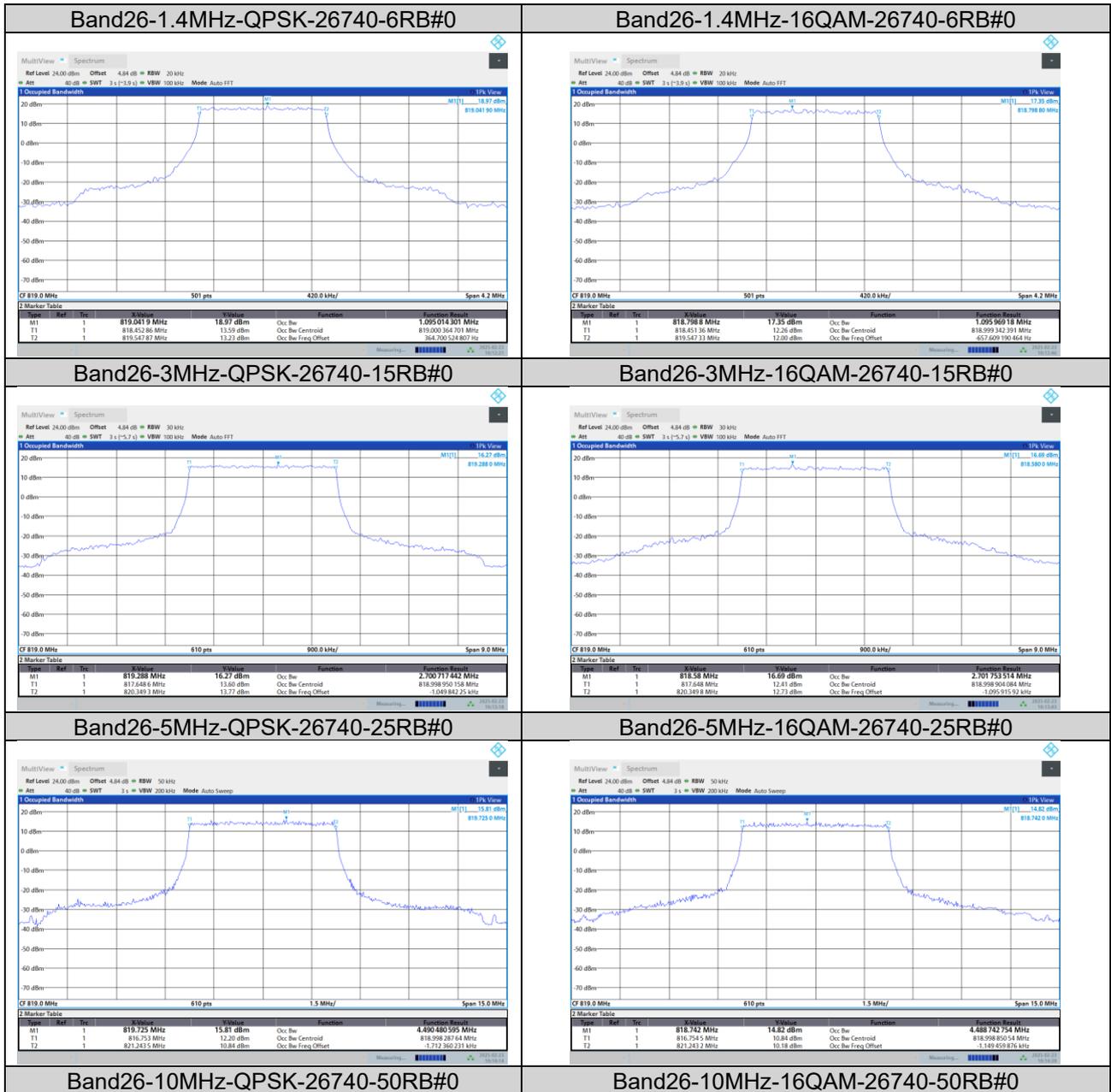
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band26	1.4MHz	QPSK	26740	6RB#0	1.095	1.34	PASS
Band26	1.4MHz	16QAM	26740	6RB#0	1.096	1.36	PASS
Band26	3MHz	QPSK	26740	15RB#0	2.701	3.02	PASS
Band26	3MHz	16QAM	26740	15RB#0	2.702	3.04	PASS
Band26	5MHz	QPSK	26740	25RB#0	4.490	4.97	PASS
Band26	5MHz	16QAM	26740	25RB#0	4.489	5.04	PASS
Band26	10MHz	QPSK	26740	50RB#0	8.967	9.86	PASS
Band26	10MHz	16QAM	26740	50RB#0	8.961	9.77	PASS



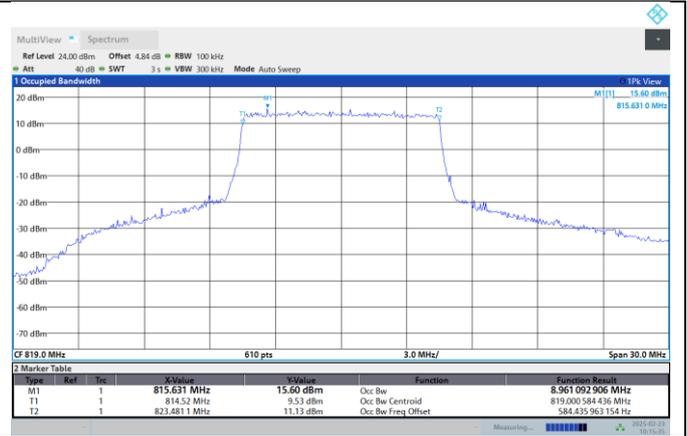
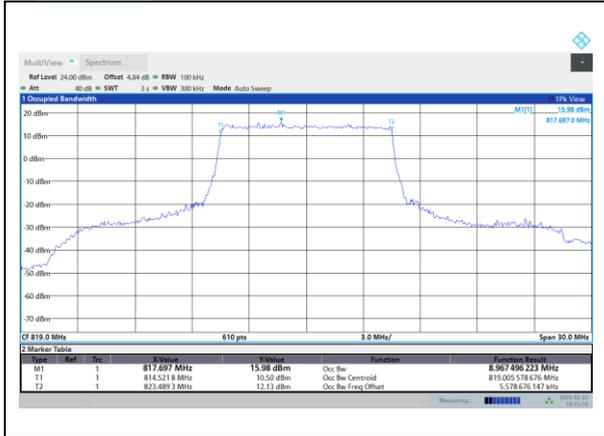
Test Graphs

Occupied Bandwidth





BUREAU VERITAS Test Report No.: PSZ-QBJ2501200112RF06



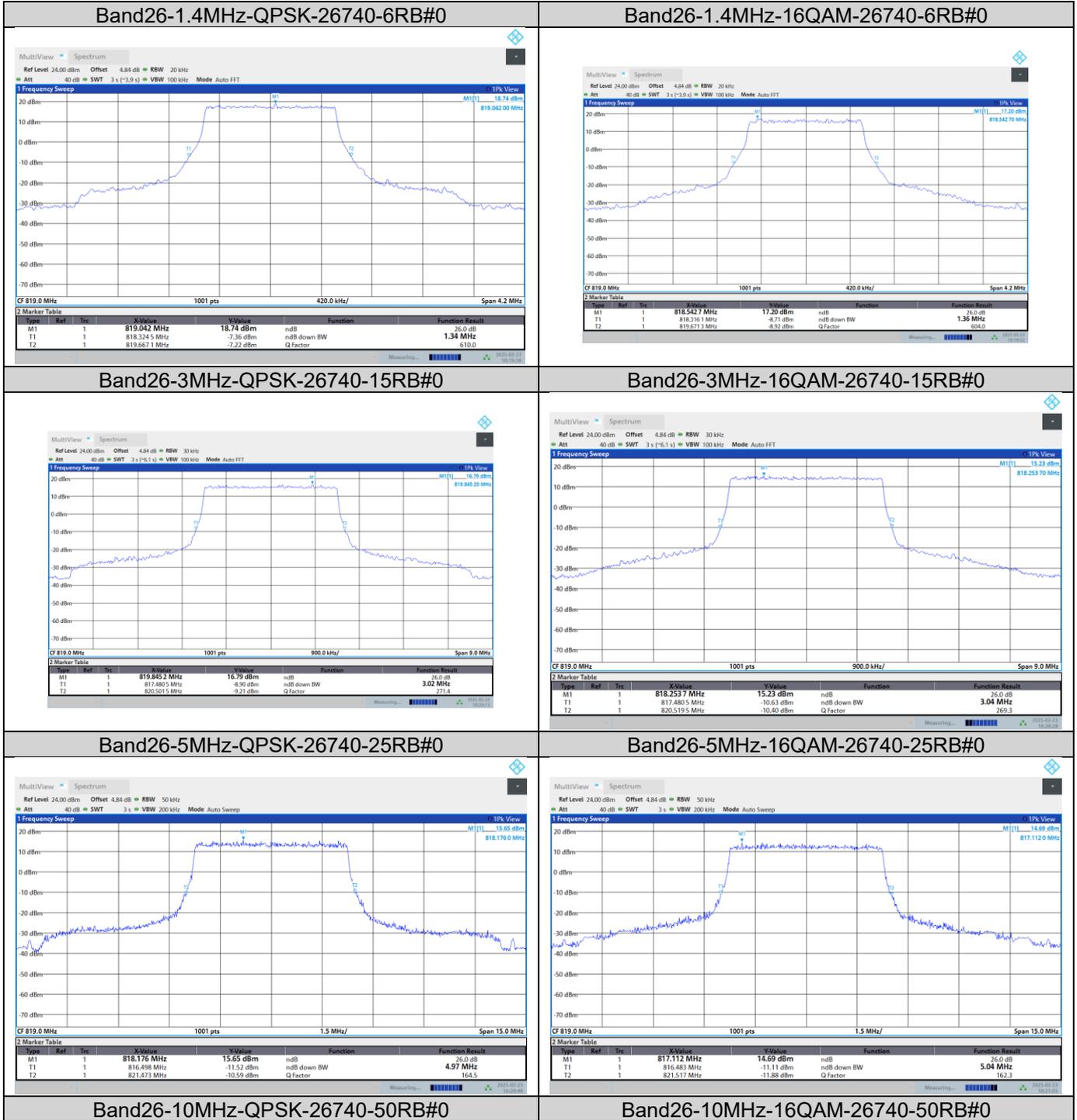
Huarui 7layers High Technology
(Suzhou) Co., Ltd.

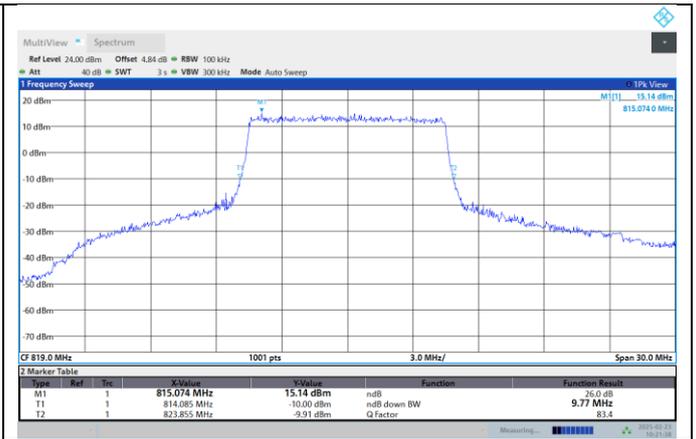
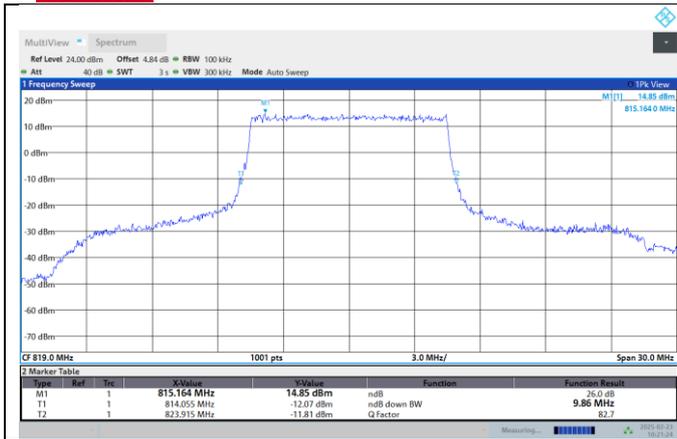
Tower N, Innovation Center, 88 Zuyi Road, High-tech District,
Suzhou City, Anhui Province

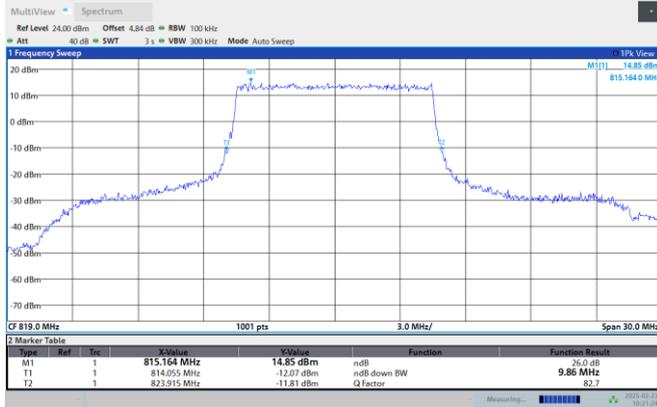
Tel: +86 (0557)
368 1008



26dB Bandwidth







BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band26	1.4MHz	QPSK	26697	1RB#0	See Graph	PASS
Band26	1.4MHz	QPSK	26697	6RB#0	See Graph	PASS
Band26	1.4MHz	QPSK	26783	1RB#5	See Graph	PASS
Band26	1.4MHz	QPSK	26783	6RB#0	See Graph	PASS
Band26	1.4MHz	16QAM	26697	1RB#0	See Graph	PASS
Band26	1.4MHz	16QAM	26697	6RB#0	See Graph	PASS
Band26	1.4MHz	16QAM	26783	1RB#5	See Graph	PASS
Band26	1.4MHz	16QAM	26783	6RB#0	See Graph	PASS
Band26	1.4MHz	64QAM	26697	1RB#0	See Graph	PASS
Band26	1.4MHz	64QAM	26697	6RB#0	See Graph	PASS
Band26	1.4MHz	64QAM	26783	1RB#5	See Graph	PASS
Band26	1.4MHz	64QAM	26783	6RB#0	See Graph	PASS
Band26	1.4MHz	256QAM	26697	1RB#0	See Graph	PASS
Band26	1.4MHz	256QAM	26697	6RB#0	See Graph	PASS
Band26	1.4MHz	256QAM	26783	1RB#5	See Graph	PASS
Band26	1.4MHz	256QAM	26783	6RB#0	See Graph	PASS
Band26	3MHz	QPSK	26705	1RB#0	See Graph	PASS
Band26	3MHz	QPSK	26705	15RB#0	See Graph	PASS
Band26	3MHz	QPSK	26775	1RB#14	See Graph	PASS
Band26	3MHz	QPSK	26775	15RB#0	See Graph	PASS
Band26	3MHz	16QAM	26705	1RB#0	See Graph	PASS
Band26	3MHz	16QAM	26705	15RB#0	See Graph	PASS
Band26	3MHz	16QAM	26775	1RB#14	See Graph	PASS
Band26	3MHz	16QAM	26775	15RB#0	See Graph	PASS
Band26	3MHz	64QAM	26705	1RB#0	See Graph	PASS
Band26	3MHz	64QAM	26705	15RB#0	See Graph	PASS
Band26	3MHz	64QAM	26775	1RB#14	See Graph	PASS
Band26	3MHz	64QAM	26775	15RB#0	See Graph	PASS
Band26	3MHz	256QAM	26705	1RB#0	See Graph	PASS
Band26	3MHz	256QAM	26705	15RB#0	See Graph	PASS
Band26	3MHz	256QAM	26775	1RB#14	See Graph	PASS
Band26	3MHz	256QAM	26775	15RB#0	See Graph	PASS
Band26	5MHz	QPSK	26715	1RB#0	See Graph	PASS
Band26	5MHz	QPSK	26715	25RB#0	See Graph	PASS

**BUREAU VERITAS** Test Report No.: PSZ-QBJ2501200112RF06

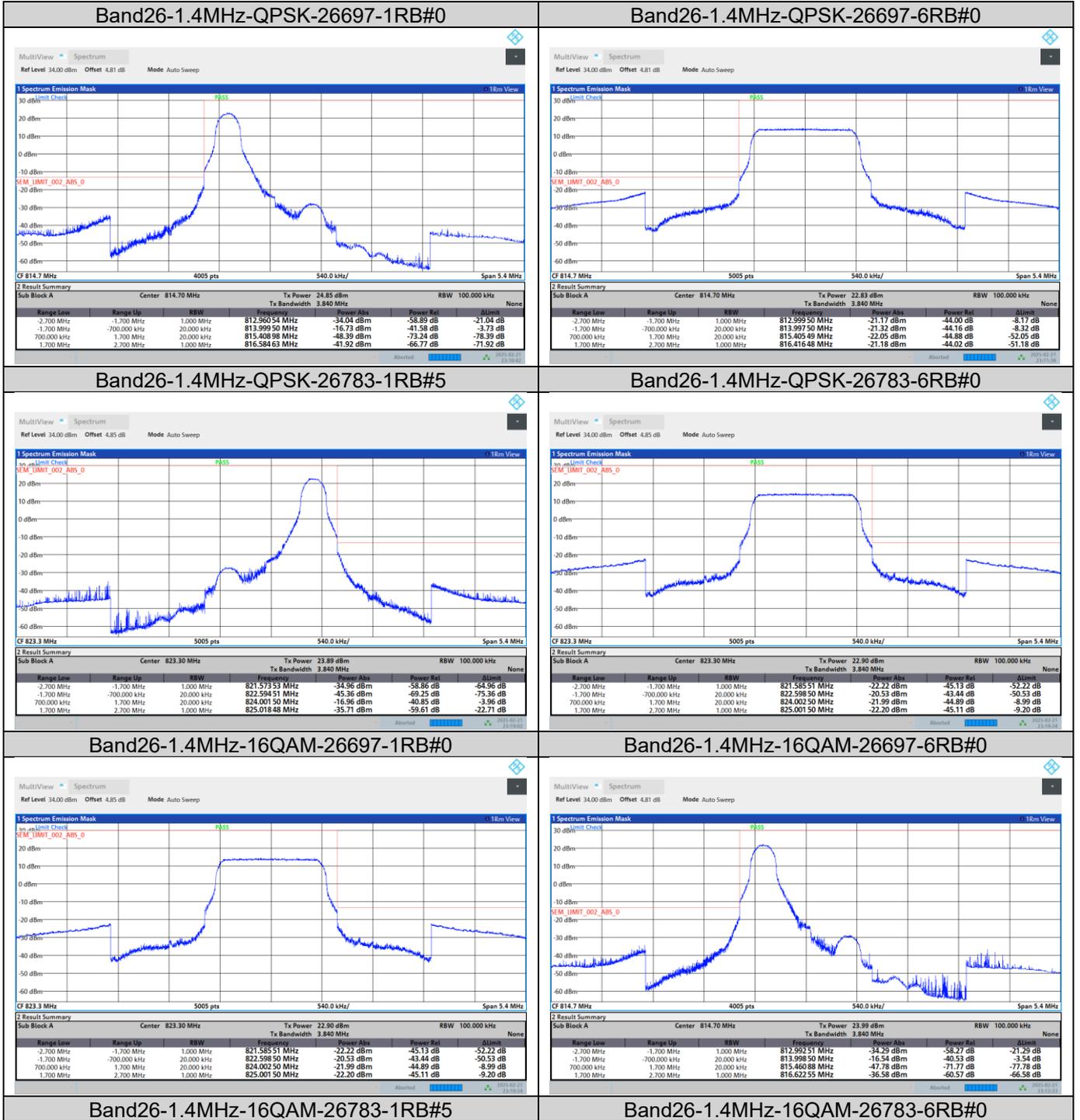
Band26	5MHz	QPSK	26765	1RB#24	See Graph	PASS
Band26	5MHz	QPSK	26765	25RB#0	See Graph	PASS
Band26	5MHz	16QAM	26715	1RB#0	See Graph	PASS
Band26	5MHz	16QAM	26715	25RB#0	See Graph	PASS
Band26	5MHz	16QAM	26765	1RB#24	See Graph	PASS
Band26	5MHz	16QAM	26765	25RB#0	See Graph	PASS
Band26	5MHz	64QAM	26715	1RB#0	See Graph	PASS
Band26	5MHz	64QAM	26715	25RB#0	See Graph	PASS
Band26	5MHz	64QAM	26765	1RB#24	See Graph	PASS
Band26	5MHz	64QAM	26765	25RB#0	See Graph	PASS
Band26	5MHz	256QAM	26715	1RB#0	See Graph	PASS
Band26	5MHz	256QAM	26715	25RB#0	See Graph	PASS
Band26	5MHz	256QAM	26765	1RB#24	See Graph	PASS
Band26	5MHz	256QAM	26765	25RB#0	See Graph	PASS
Band26	10MHz	QPSK	26740	1RB#0	See Graph	PASS
Band26	10MHz	QPSK	26740	50RB#0	See Graph	PASS
Band26	10MHz	QPSK	26740	1RB#49	See Graph	PASS
Band26	10MHz	16QAM	26740	1RB#0	See Graph	PASS
Band26	10MHz	16QAM	26740	50RB#0	See Graph	PASS
Band26	10MHz	16QAM	26740	1RB#49	See Graph	PASS
Band26	10MHz	64QAM	26740	1RB#0	See Graph	PASS
Band26	10MHz	64QAM	26740	50RB#0	See Graph	PASS
Band26	10MHz	64QAM	26740	1RB#49	See Graph	PASS
Band26	10MHz	256QAM	26740	1RB#0	See Graph	PASS
Band26	10MHz	256QAM	26740	50RB#0	See Graph	PASS
Band26	10MHz	256QAM	26740	1RB#49	See Graph	PASS



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Test Report No.: PSZ-QBJ2501200112RF06

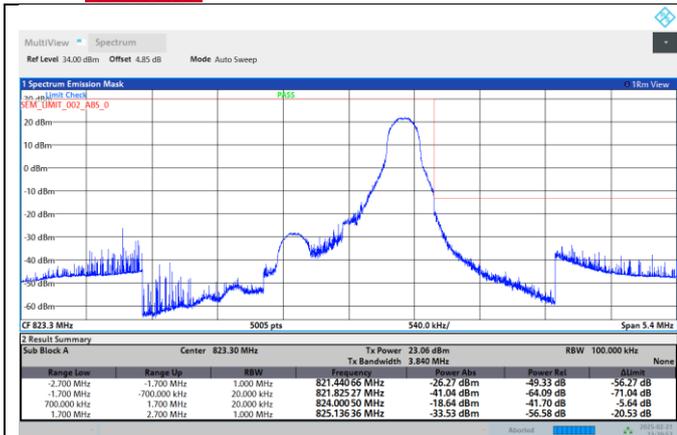
Test Graphs



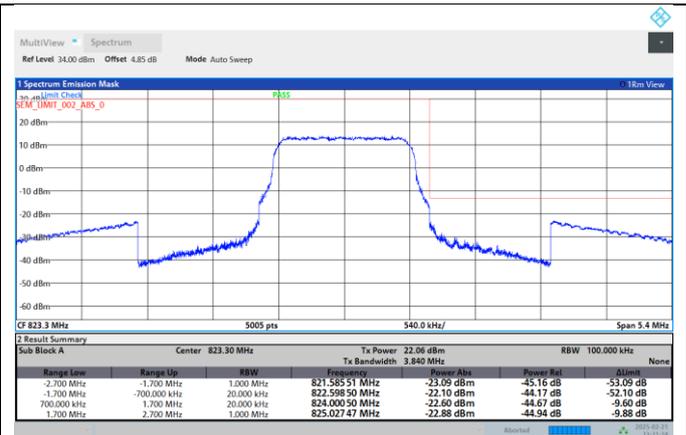
Huarui 7layers High Technology (Suzhou) Co., Ltd.

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

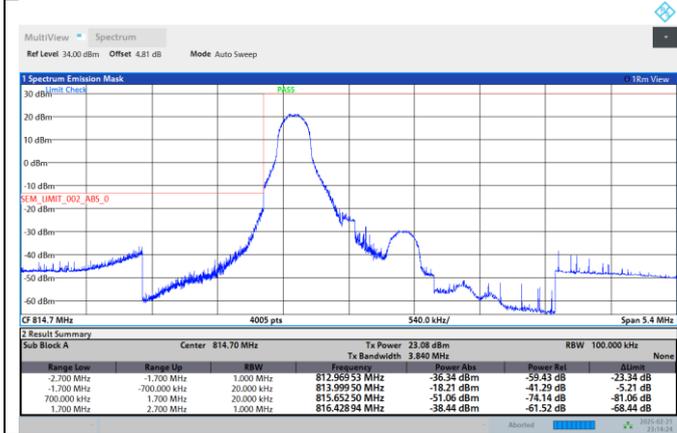
Tel: +86 (0557) 368 1008



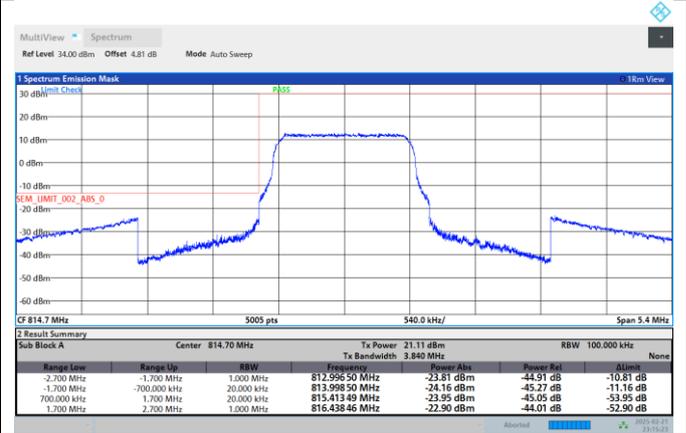
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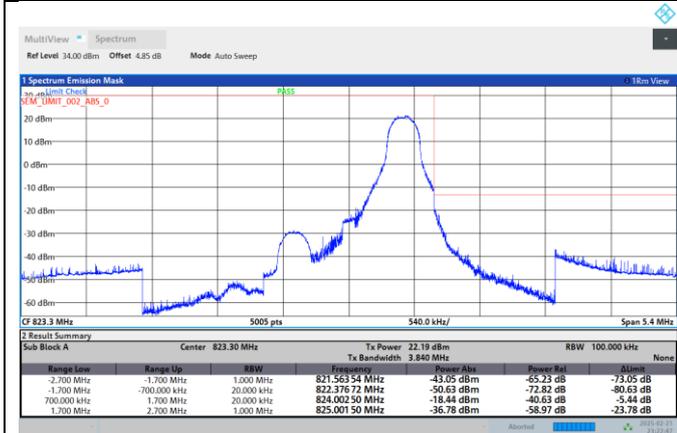
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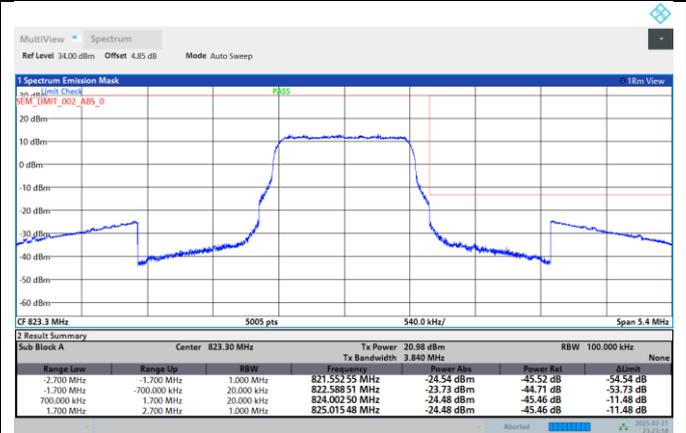
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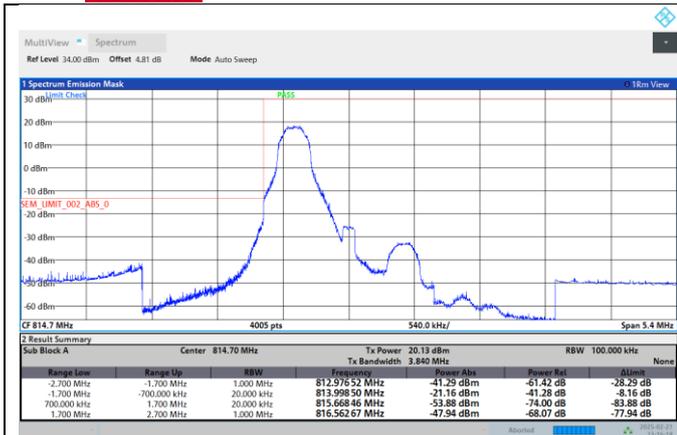


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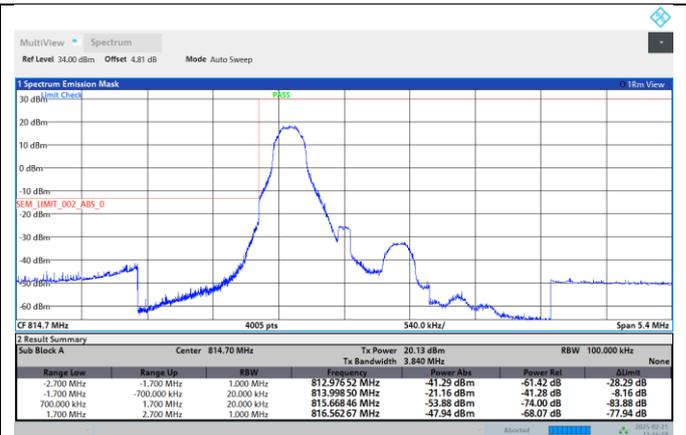


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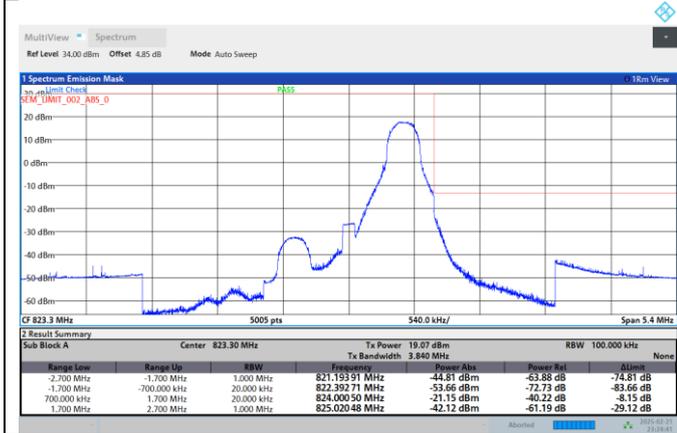
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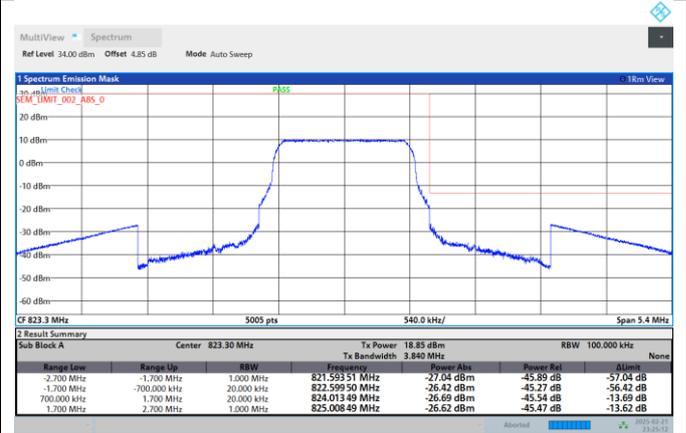
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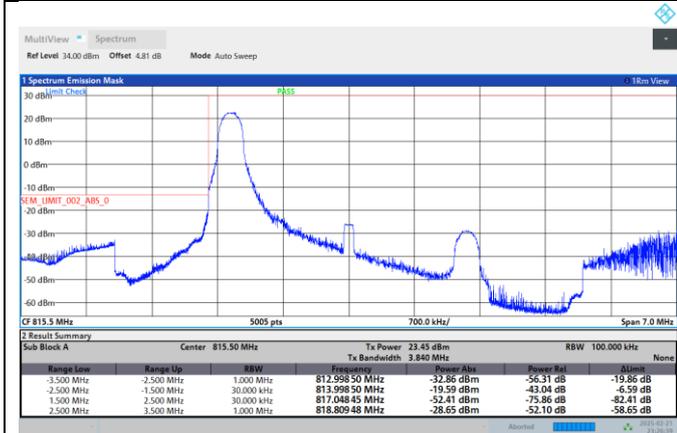
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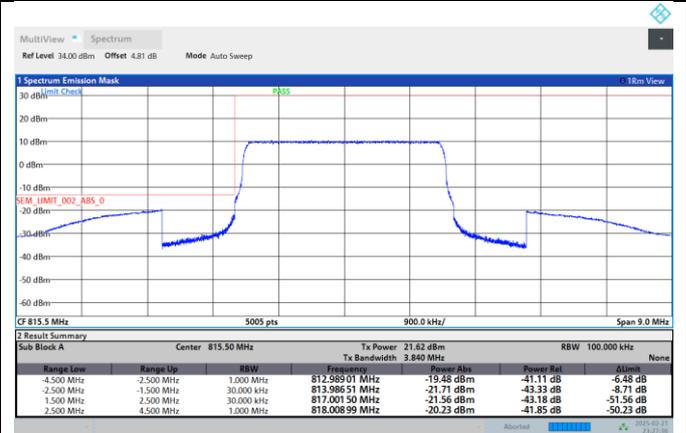
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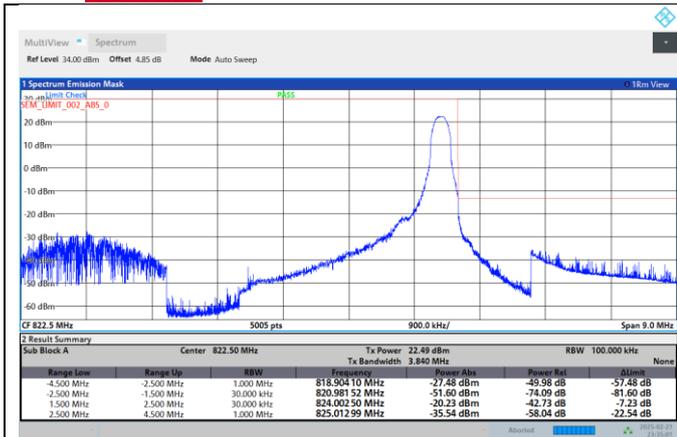


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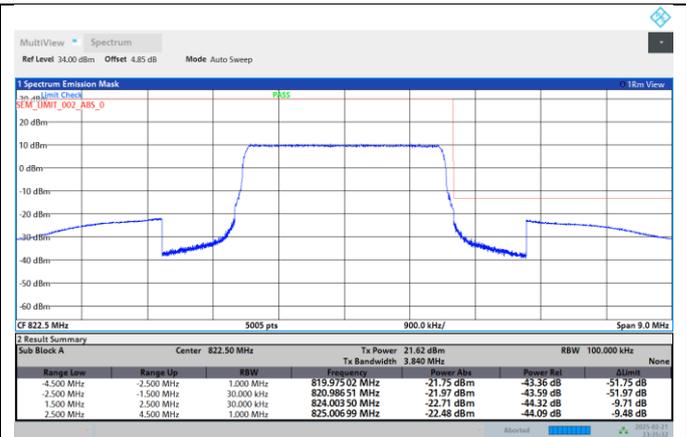


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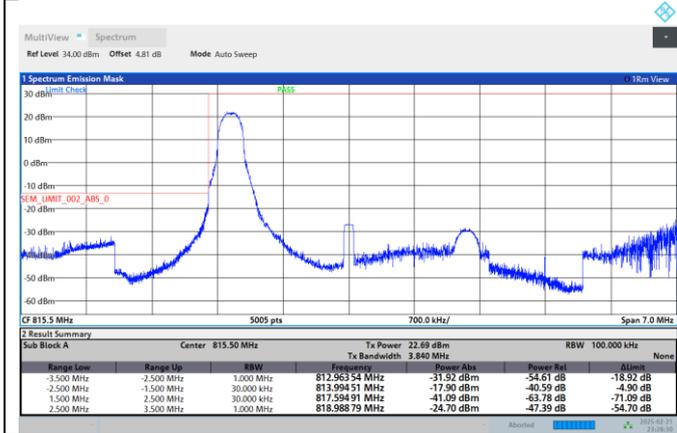
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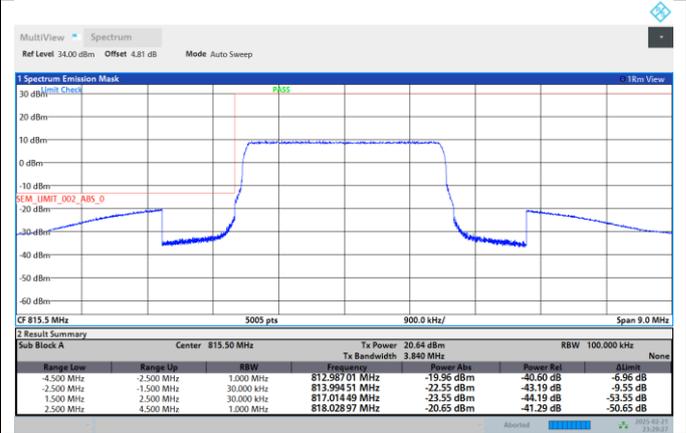
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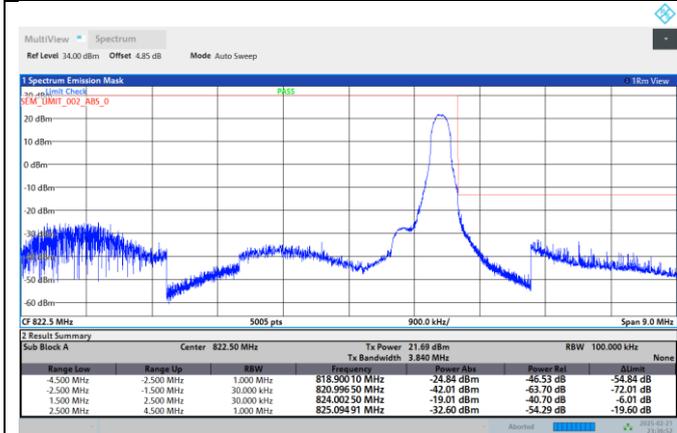
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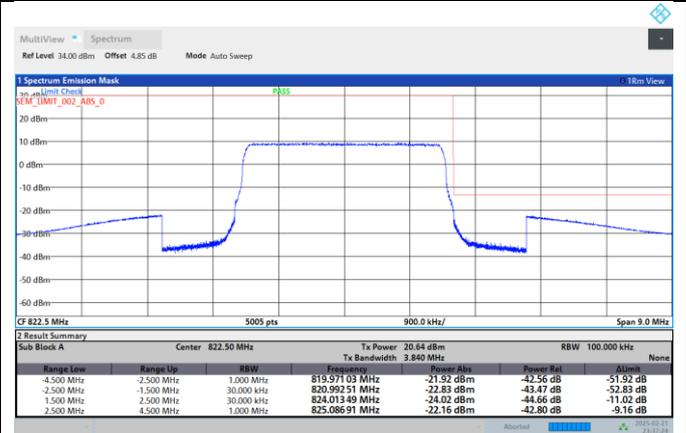
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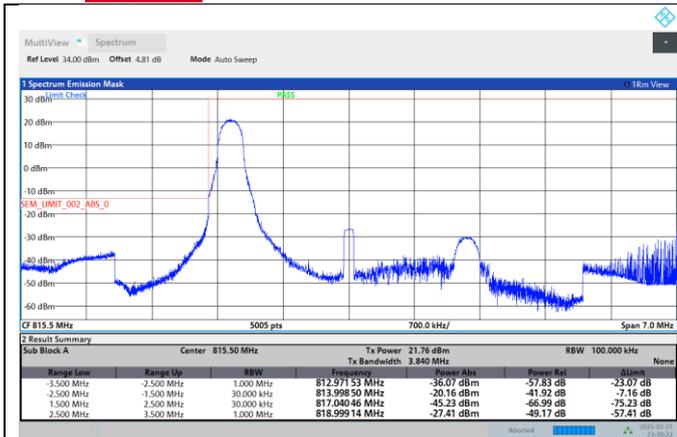


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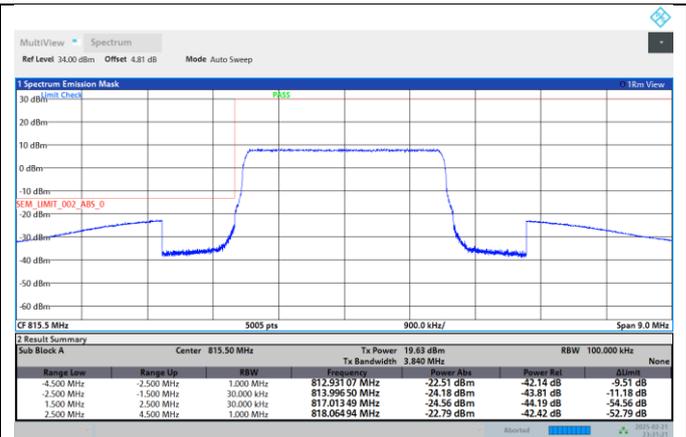
Huarui 7layers High Technology (Suzhou) Co., Ltd.

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

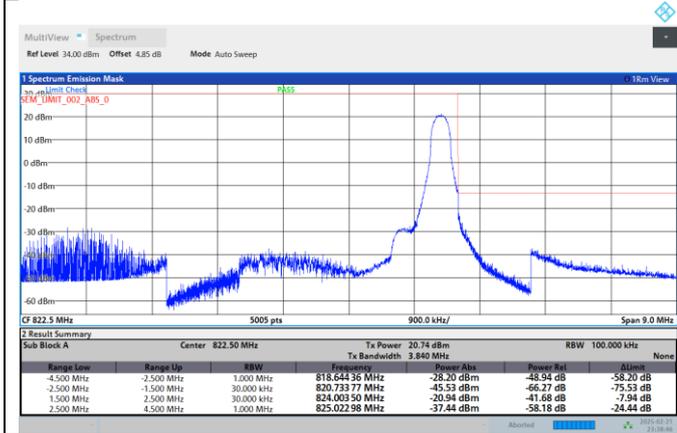
Tel: +86 (0557) 368 1008



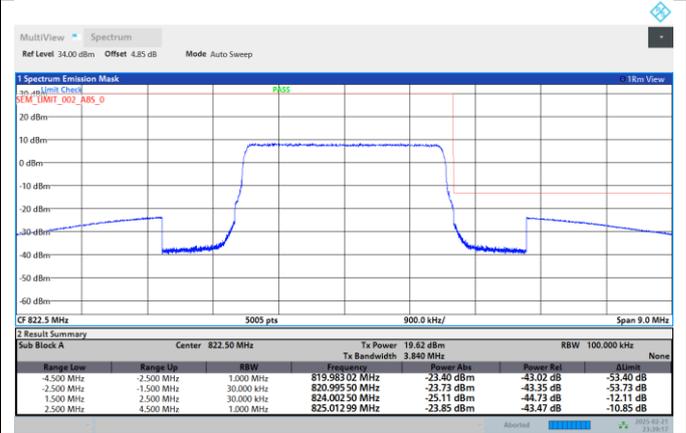
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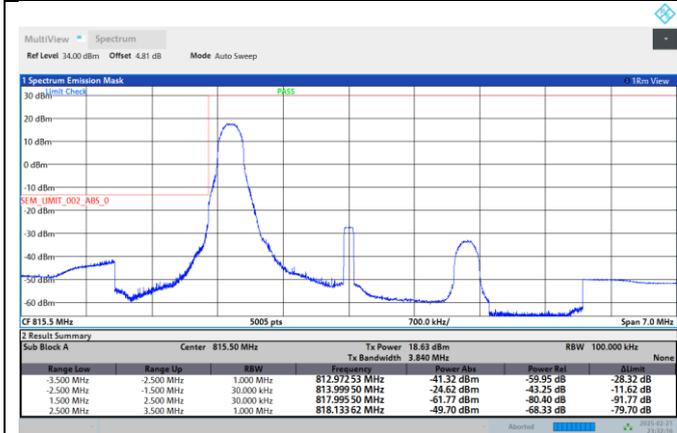
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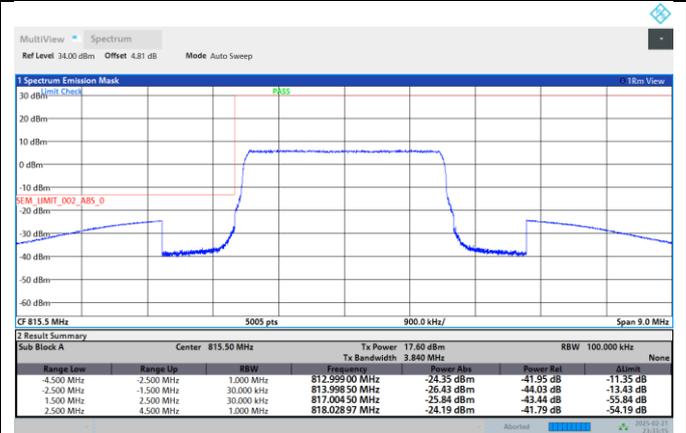
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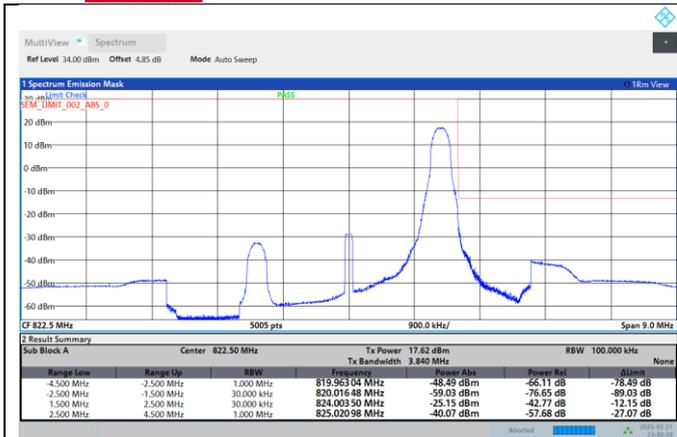


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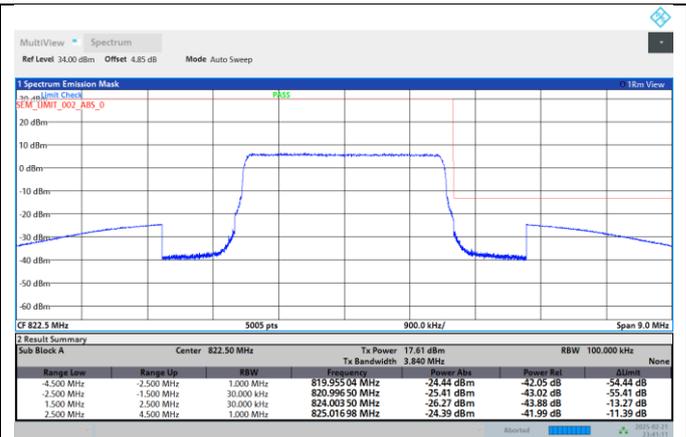


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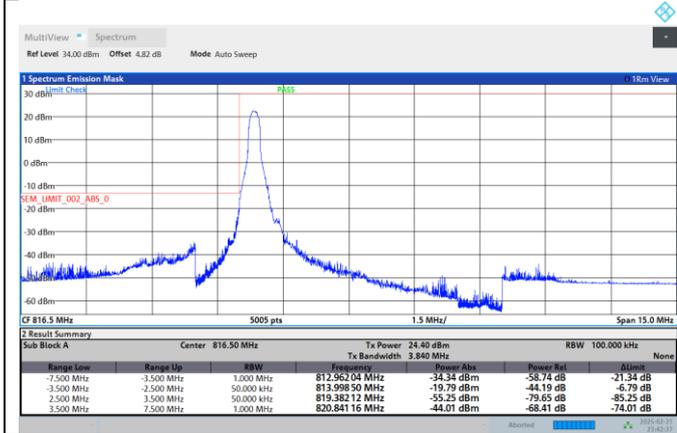
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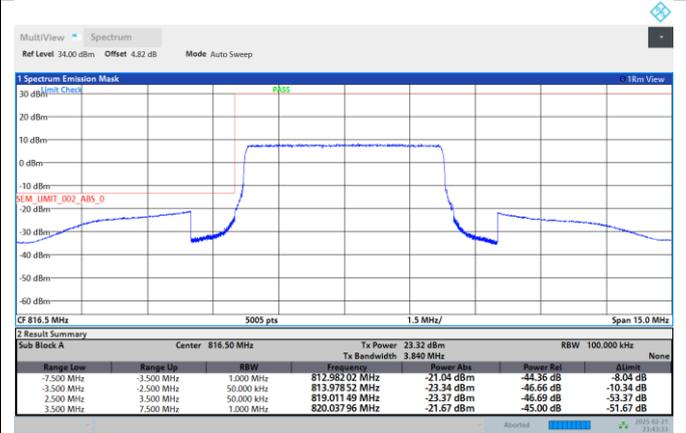
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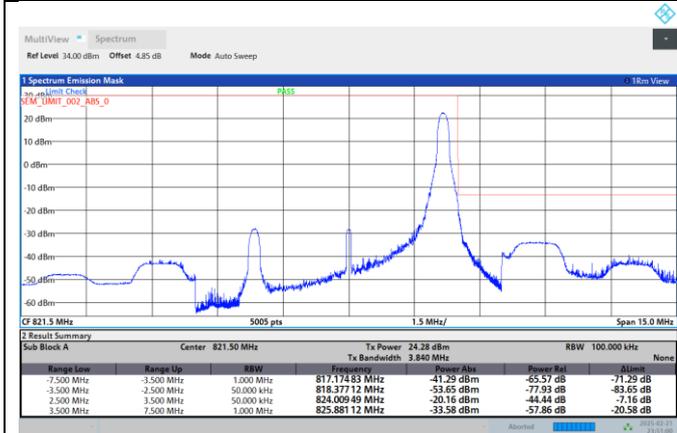
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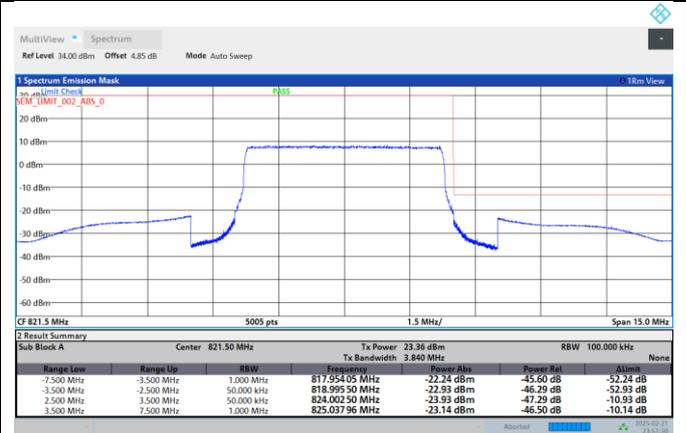
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