Certificate # 7607.01

FCC TEST REPORT

(PART 24)

Applicant:	KYOCERA Corporation
Address:	Yokohama Office 2-1-1 Kagahara,Tsuzuki-ku Yokohama-shi,Kanagawa,Japan

Manufacturer or Supplier:	KYOCERA Corporation
Address:	Yokohama Office 2-1-1 Kagahara,Tsuzuki-ku Yokohama-shi,Kanagawa,Japan
Product:	Mobile Phone
Brand Name:	KYOCERA
Model Name:	EB1236
FCC ID	JOYEB1236
Date of tests	May. 13, 2026 - Jul. 02, 2026

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

☒ **FCC PART 24, Subpart E** ☒ **FCC PART 2** ☒ **ANSI/TIA/EIA-603-D**	☒ **ANSI/TIA/EIA-603-E** ☒ **ANSI C63.26-2015**

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

Prepared by Carl Xie Engineer / Mobile Department	Approved by Simon Wang Manager / Mobile Department
Carl Xie	Simon Wang
Date: Jul. 02, 2026	Date: Jul. 02, 2026

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
RF260626B002	Original release	Jul. 02, 2026

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 24 & Part 2			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**Test lab***
§2.1046	Conducted Output Power	Compliance	A
§24.232(c)	Equivalent Isotropic Radiated Power	Compliance	A
§2.1055 §24.235	Frequency Stability	Compliance	A
§2.1049	Occupied Bandwidth	Compliance	A
§24.232(d)	Peak to average ratio*	Compliance	A
§24.238(a)(b)	Band Edge Measurements	Compliance	A
§2.1051 §24.238(a)(b)	Conducted Spurious Emissions	Compliance	A
§2.1053 §24.238(a)(b)	Radiated Spurious Emissions	Compliance	A

* Refer to KDB 971168 D01 Power Meas License Digital Systems v03r01.

***Test Lab Information Reference**

Lab A:

BOOMWAVE TEST (SHENZHEN) CO., LTD.

Lab Address:

Room B38, Warehouse A5(Chiwan No.1), No.3 Chiwan 4th Road, Chiwan Community, Zhaoshang Street, Nanshan District, Shenzhen, Guangdong, P.R. CHINA

Accredited Test Lab Cert 7607.01

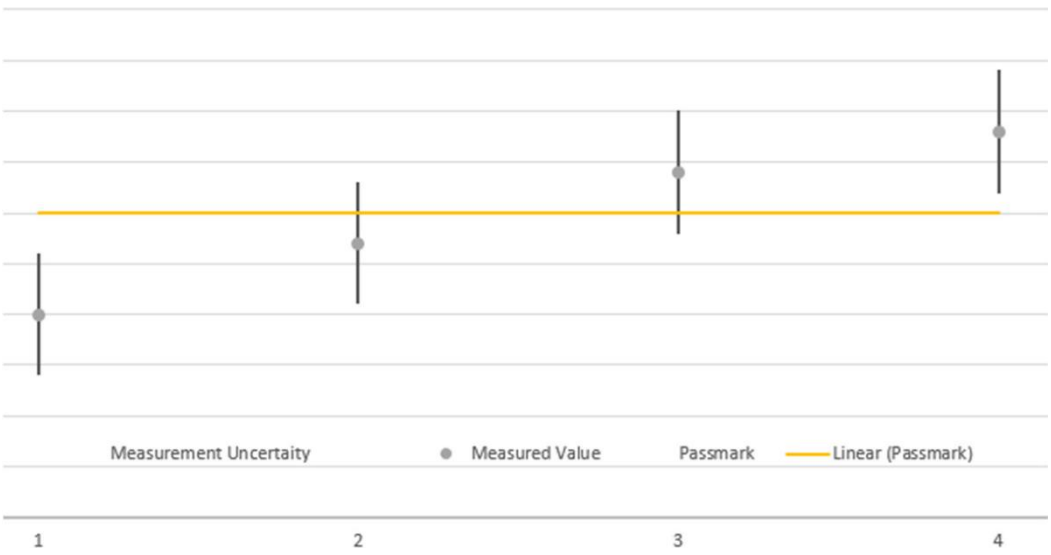
The FCC Site Registration No. is 646781; The Designation No. is CN1429.

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	UNCERTAINTY
Frequency Stability	±76.97Hz
Radiated emissions (9KHz~30MHz)	±2.68dB
Radiated emissions & Radiated Power (30MHz~1GHz)	±4.98dB
Radiated emissions & Radiated Power (1GHz ~6GHz)	±4.70dB
Radiated emissions (6GHz ~18GHz)	±4.60dB
Radiated emissions (18GHz ~40GHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Band Edge Measurements	±4.70dB
Peak to average ratio	±0.76dB

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.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	2025/7/3	2027/7/2
BiConiLog Antenna	ETS-LINDGREN	3143B	161965	2025/7/17	2027/7/16
Horn Antenna	SCHWARZBECK	BBHA9120D	3297	2025/9/27	2027/9/26
Horn Antenna	STEATITE	QWH-SL-18-40-K-SG QMS-00361	15433	2025/7/19	2027/7/18
Preamplifier	Tonscend	TPA184045	AP24L8060388	2025/7/3	2027/7/2
MXE EMI Receiver	keysight	N9038B	MY50018017	2025/7/1	2027/6/30
MXG Vector Signal Generator	Keysight	N5183B	MY59100137	2025/6/30	2027/6/29
Preamplifier	Tonscend	TPA001330	806JSAPO40804251015	2025/6/30	2027/6/29
Preamplifier	Tonscend	TPA011845	AP24L8060392	2025/6/30	2027/6/29
Attenuator 6DB	SHX	TS2-6-6-A	230927166	2025/6/30	2027/6/29
Attenuator 6DB	SHX	TS2-6-6-A	230927165	2025/6/30	2027/6/29
Active Receive Loop Antenna	SCHWARZBECK	FMZB 1519 B	00173	2025/6/30	2027/6/29
Temp. & Humi. Recorder	Kejian	HTC-01	157246	2025/7/2	2027/7/1
HIGH pass FILTER_1-18	EWT	EWT-57-0222	EWT-57-0222	2025/6/30	2027/6/29
HIGH pass FILTER_7-18	EWT	EWT-57-0223	EWT-57-0223	2025/6/30	2027/6/29
HIGH pass FILTER_3-18	EWT	EWT-57-0221	EWT-57-0221	2025/6/30	2027/6/29
DC~1GHz Lowpass Filter	EWT	EWT-56-0649	EWT-56-0649	2025/7/3	2027/7/2
Cable 1	N/A	N/A	N/A	2025/9/28	2027/9/27
Cable 2	N/A	N/A	N/A	2025/9/28	2027/9/27
Cable 3	N/A	N/A	N/A	2025/9/28	2027/9/27
Wireless communication integrated tester	Rohde&Schwarz	CMW500	182016	2025/6/30	2027/6/29
EXA Signal Analyzer	KEYSIGHT	N9010B	MY62170156	2025/6/30	2027/6/29
RF Control Unit	Tonscend	JS0806-1	21K8060504	2025/6/16	2027/6/15
DC Power Supply	AGILENT	HMP2020	100598	2025/7/1	2027/6/30
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-1	2025/6/30	2027/6/29
10dB attenuator	JFW INDUSTRIES INC	50HF-010-SMA	50HF-010-SMA-2	2025/6/30	2027/6/29
hygrothermograph	Anymetrers	----	TH101B	2025/7/22	2027/7/21
Temperature Box	zhongkemeiqi	MA22040172	MQ-DTH50F-2	2025/7/1	2027/6/30
power divider	WOKEN	71688	204-003180-01	2025/6/30	2027/6/29

NOTE:

1. The calibration interval of the above test instruments is 24 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 646781; The Designation No. is CN1429.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Mobile Phone	
BRAND NAME	KYOCERA	
MODEL NAME	EB1236	
NOMINAL VOLTAGE	3.89Vdc	
MODULATION TYPE	**GSM/GPRS:** GMSK **WCDMA:** QPSK, 16QAM **LTE Band 2:** QPSK, 16QAM, 64QAM	
FREQUENCY RANGE	**GPRS**	1850.2MHz ~ 1909.8MHz
	WCDMA Band 2	1852.4MHz ~ 1907.6MHz
	LTE Band 2 Channel Bandwidth: 1.4MHz	1850.7MHz ~ 1909.3MHz
	LTE Band 2 Channel Bandwidth: 3MHz	1851.5MHz ~ 1908.5MHz
	LTE Band 2 Channel Bandwidth: 5MHz	1852.5MHz ~ 1907.5MHz
	LTE Band 2 Channel Bandwidth: 10MHz	1855.0MHz ~ 1905.0MHz
	LTE Band 2 Channel Bandwidth: 15MHz	1857.5MHz ~ 1902.5MHz
	LTE Band 2 Channel Bandwidth: 20MHz	1860.0MHz ~ 1900.0MHz
AX. EIRP POWER	**GSM/GPRS**	799.83mW
	WCDMA	211.84mW
	LTE Band 2 Channel Bandwidth: 1.4MHz	191.87mW
	LTE Band 2 Channel Bandwidth: 3MHz	191.87mW
	LTE Band 2 Channel Bandwidth: 5MHz	190.99mW
	LTE Band 2 Channel Bandwidth: 10MHz	191.87mW
	LTE Band 2 Channel Bandwidth: 15MHz	190.99mW
	LTE Band 2 Channel Bandwidth: 20MHz	194.09mW
EMISSION DESIGNATOR	**GPRS**	247KGXW
	WCDMA	4M16F9W

	LTE Band 2 Channel Bandwidth: 1.4MHz	QPSK: 1M11G7D
		16QAM: 1M11W7D
		64QAM: 1M11W7D
	LTE Band 2 Channel Bandwidth: 3MHz	QPSK: 2M70G7D
		16QAM: 2M71W7D
		64QAM: 2M70W7D
	LTE Band 2 Channel Bandwidth: 5MHz	QPSK: 4M53G7D
		16QAM: 4M52W7D
		64QAM: 4M53W7D
	LTE Band 2 Channel Bandwidth: 10MHz	QPSK: 9M02G7D
		16QAM: 9M01W7D
		64QAM: 9M05W7D
	LTE Band 2 Channel Bandwidth: 15MHz	QPSK: 13M5G7D
		16QAM: 13M5W7D
		64QAM: 13M5W7D
	LTE Band 2 Channel Bandwidth: 20MHz	QPSK: 18M0G7D
		16QAM: 18M1W7D
		64QAM: 18M1W7D
ANTENNA GAIN	☒Provided by client	
	GSM1900	-0.5dBi
	WCDMA II	-0.5dBi
	LTE B2	-0.5dBi
ANTENNA TYPE	Monopole	
HW VERSION	DMT2	
SW VERSION	V0.252EX.0052.a	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	
EXTREME TEMPERATURE	-20℃-60℃	
EXTREME VOLTAGE	3.501V-4.279V	

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 one completed transmitter and one/two receivers.

MODULATION MODE	TX FUNCTION
GSM/GPRS	1TX/1RX
WCDMA	1TX/2RX
LTE	1TX/2RX

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
4. According to the Statement of differences provided by the applicant, the procurement of memory from multiple suppliers. EB1236 source MCP(ROM and RAM) from two different vendors each and use them interchangeably. MCP is procured from Micron and Samsung.

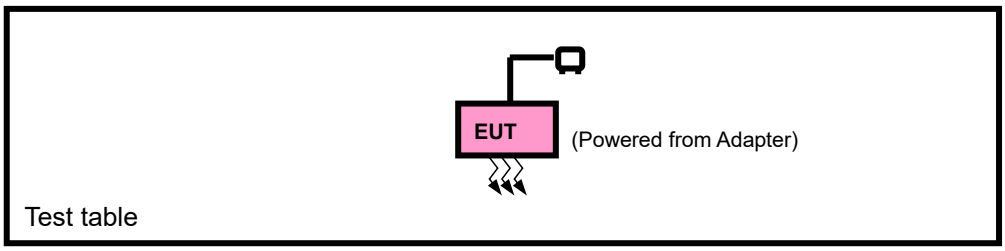
   MCP(ROM and RAM)

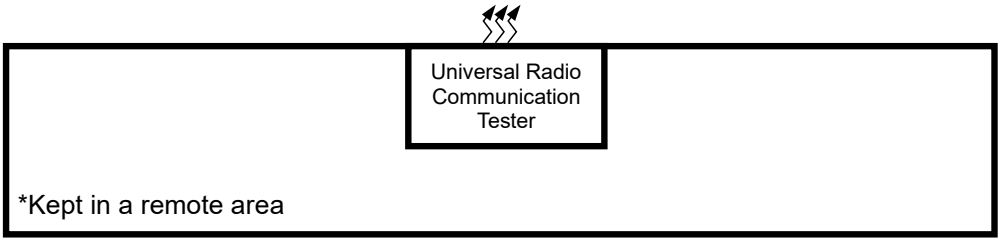
   Micron: MT30AZZZCD94TKXL-023 W.237

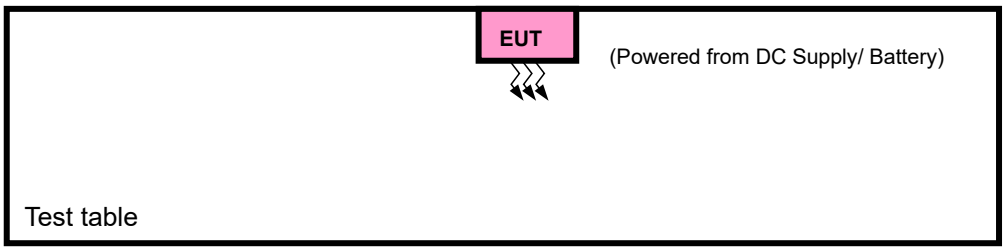
   Samsung: KM9YC001XM-B627

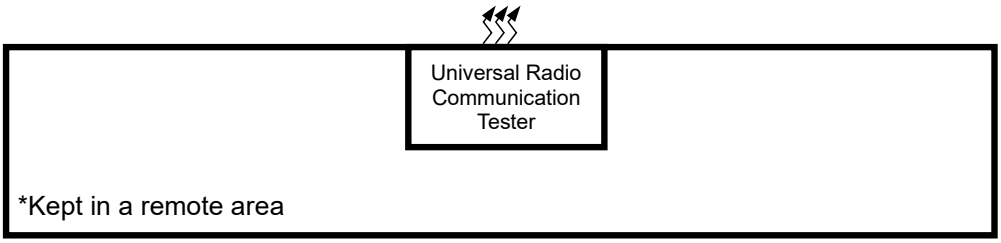
2.2 CONFIGURATION OF SYSTEM UNDER TEST

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
2	Adapter	Juniper	MK-P301EXC	N/A	N/A
3	Earphone	Xiaomi	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	PC USB Line: Unshielded, Detachable, 1.0m;

2.4 TEST ITEM AND TEST CONFIGURATION

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 EIRP and radiated emission was found when positioned on X-plane for GSM/EDGE/ LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
A	EUT + Adapter with GSM or WCDMA or LTE link
B	EUT + DC Supply with GSM or WCDMA or LTE link

GSM MODE				
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	EIRP	512 to 810	512, 661, 810	GSM,EDGE
B	FREQUENCY STABILITY	512 to 810	512, 661, 810	GSM,EDGE
A	OCCUPIED BANDWIDTH	512 to 810	512, 661, 810	GSM,EDGE
A	PEAK TO AVERAGE RATIO	512 to 810	512, 661, 810	GSM,EDGE
A	BAND EDGE	512 to 810	512, 810	GSM,EDGE
A	CONDCUDETED EMISSION	512 to 810	512, 661, 810	GSM,EDGE
A	RADIATED EMISSION	512 to 810	512, 661, 810	GSM,EDGE

WCDMA				
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
A	EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
B	FREQUENCY STABILITY	9262 to 9538	9262, 9400, 9538	WCDMA
A	OCCUPIED BANDWIDTH	9262 to 9538	9262, 9400, 9538	WCDMA
A	PEAK TO AVERAGE RATIO	9262 to 9538	9262, 9400, 9538	WCDMA
A	BAND EDGE	9262 to 9538	9262, 9538	WCDMA
A	CONDCUDETED EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA
A	RADIATED EMISSION	9262 to 9538	9262, 9400, 9538	WCDMA

LTE BAND 2 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18700 to 19100	18700, 18900, 19100	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset

Note: 1.This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

LTE BAND 2 MODE						
EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	CHANNEL BANDWIDTH	MODULATION	MODE
A	EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
		18700 to 19100	18700, 18900, 19100	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset
B	FREQUENCY STABILITY	18650 to 19150	18650, 19150	10MHz	QPSK	100 RB / 0 RB offset
A	OCCUPIED BANDWIDTH	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,16QAM,64QAM	6 RB / 0 RB offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK,16QAM,64QAM	15 RB / 0 RB offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK,16QAM,64QAM	25 RB / 0 RB offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK,16QAM,64QAM	50 RB / 0 RB offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK,16QAM,64QAM	75 RB / 0 RB offset
		18700 to 19100	18700, 18900, 19100	20MHz	QPSK,16QAM,64QAM	100 RB / 0 RB offset
A	PEAK TO AVERAGE RATIO	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
		18700 to 19100	18700, 18900, 19100	20MHz	QPSK,16QAM,64QAM	1 RB / 0 RB offset 100 RB / 0 RB offset
A	BAND EDGE	18607 to 19193	18607	1.4MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						6 RB / 0 RB offset
			19193	1.4MHz	QPSK,16QAM, 64QAM	1 RB / 5 RB offset
						6 RB / 0 RB offset
		18615 to 19185	18615	3MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						15 RB / 0 RB offset
			19185	3MHz	QPSK,16QAM, 64QAM	1 RB / 14 RB offset
						15 RB / 0 RB offset
		18625 to 19175	18625	5MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						25 RB / 0 RB offset

			19175	5MHz	QPSK,16QAM, 64QAM	1 RB / 24 RB offset
						25 RB / 0 RB offset
		18650 to 19150	18650	10MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						50 RB / 0 RB offset
			19150	10MHz	QPSK,16QAM, 64QAM	1 RB / 49 RB offset
						50 RB / 0 RB offset
		18675 to 19125	18675	15MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						75 RB / 0 RB offset
			19125	15MHz	QPSK,16QAM, 64QAM	1 RB / 74 RB offset
						75 RB / 0 RB offset
		18700 to 19100	18700	20MHz	QPSK,16QAM, 64QAM	1 RB / 0 RB offset
						100 RB / 0 RB offset
			19100	20MHz	QPSK,16QAM, 64QAM	1 RB / 99 RB offset
						100 RB / 0 RB offset
A	CONDCUDETED EMISSION	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK	1 RB / 0 RB offset
		18615 to 19185	18615, 18900, 19185	3MHz	QPSK	1 RB / 0 RB offset
		18625 to 19175	18625, 18900, 19175	5MHz	QPSK	1 RB / 0 RB offset
		18650 to 19150	18650, 18900, 19150	10MHz	QPSK	1 RB / 0 RB offset
		18675 to 19125	18675, 18900, 19125	15MHz	QPSK	1 RB / 0 RB offset
		18700 to 19100	18700, 18900, 19100	20MHz	QPSK	1 RB / 0 RB offset
A	RADIATED EMISSION	18700 to 19100	18700, 18900, 19100	20MHz	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**
ERP	23deg. C, 70%RH	DC 3.89V By Battery	Carl Xie
FREQUENCY STABILITY	23deg. C, 70%RH	DC 3.89V By Battery	Alan Yu
OCCUPIED BANDWIDTH	23deg. C, 70%RH	DC 3.89V By Battery	Alan Yu
BAND EDGE	23deg. C, 70%RH	DC 3.89V By Battery	Alan Yu
CONDCUDETED EMISSION	23deg. C, 70%RH	DC 3.89V By Battery	Alan Yu
RADIATED EMISSION	23deg. C, 70%RH	DC 3.89V By Battery	Carl Xie
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	DC 3.89V By Battery	Alan Yu

2.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency.

2.6 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 24

KDB 971168 D01 Power Meas License Digital Systems v03r01

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

Mobile and portable stations are limited to 2 watts EIRP.

3.1.2 TEST PROCEDURES

EIRP 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 determing the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

ERP or EIRP = $P_{Meas} + G_T - L_C$

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);

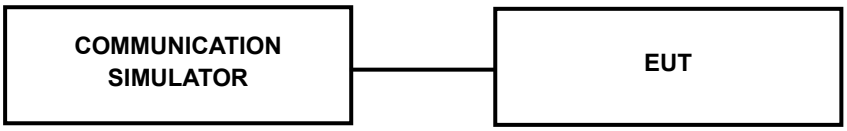
L_C = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with WCDMA 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

EIRP / ERP Measurement:
CONDUCTED POWER MEASUREMENT:



3.1.4 TEST RESULTS

CONDUCTED OUTPUT POWER (dBm) :

Band	GSM1900					
	Burst Averaged Power			Frame Averaged Power		
Channel	512	661	810	512	661	810
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8
GSM	29.20	29.49	29.48	20.20	20.49	20.48
GPRS 1Tx Slot	29.22	29.53	29.51	20.22	20.53	20.51
GPRS 2Tx Slot	26.95	27.06	27.09	20.95	21.06	21.09
GPRS 3Tx Slot	24.98	25.18	25.27	20.72	20.92	21.01
GPRS 4Tx Slot	23.42	23.70	23.77	20.42	20.70	20.77

Band	WCDMA II		
TX Channel	9262	9400	9538
Rx Channel	9662	9800	9938
Frequency (MHz)	1852.4	1880	1907.6
RMC 12.2K	23.71	23.70	23.76
HSDPA Subtest-1	23.02	22.80	22.79
HSDPA Subtest-2	22.50	22.28	22.23
HSDPA Subtest-3	22.49	22.32	22.26
HSDPA Subtest-4	22.77	22.79	22.77
HSUPA Subtest-1	22.30	21.99	21.92
HSUPA Subtest-2	20.87	20.70	20.67
HSUPA Subtest-3	21.79	21.62	21.54
HSUPA Subtest-4	20.45	20.29	20.22
HSUPA Subtest-5	21.80	21.59	21.55

LTE Band 2						
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High
		Channel		18700	18900	19100
		Frequency (MHz)		1860	1880	1900
20	QPSK	1	0	23.24	23.30	23.32
		1	50	**23.33**	**23.37**	**23.38**
		1	99	23.26	23.34	23.23
		50	0	22.41	22.39	22.46
		50	25	**22.44**	**22.41**	**22.64**
		50	50	22.38	22.36	22.37
		100	0	22.16	22.30	**22.32**
	16QAM	1	0	22.60	22.56	22.65
		1	50	22.54	22.61	22.48
		1	99	22.60	22.66	22.53
		50	0	21.39	21.27	21.46
		50	25	21.45	21.39	21.58
		50	50	21.37	21.41	21.35
		100	0	21.41	21.28	21.43
	64QAM	1	0	21.51	21.61	21.49
		1	50	21.63	21.67	21.54
		1	99	21.45	21.43	21.68
		50	0	20.37	20.25	20.41
		50	25	20.44	20.43	20.49
		50	50	20.46	20.38	20.30
		100	0	20.38	20.33	20.45
BW [MHz]	Modulation	Channel		18675	18900	19125
		Frequency (MHz)		1857.5	1880	1902.5
15	QPSK	1	0	23.23	23.19	23.31
		1	37	23.25	23.27	23.28
		1	74	23.18	23.24	23.18
		36	0	22.30	22.36	22.39
		36	19	22.34	22.37	22.50
		36	39	22.35	22.26	22.30
		75	0	22.11	22.20	22.30
	16QAM	1	0	22.46	22.51	22.58
		1	37	22.41	22.58	22.42
		1	74	22.46	22.59	22.49
		36	0	21.28	21.16	21.32
		36	19	21.33	21.38	21.43
		36	39	21.35	21.40	21.23
		75	0	21.31	21.20	21.30
	64QAM	1	0	21.39	21.49	21.47
		1	37	21.55	21.59	21.53
		1	74	21.38	21.39	21.67

		36	0	20.32	20.17	20.39
		36	19	20.40	20.40	20.43
		36	39	20.42	20.32	20.25
		75	0	20.26	20.26	20.36
BW [MHz]	**Modulation**	**Channel**		**18650**	**18900**	**19150**
		Frequency (MHz)		**1855**	**1880**	**1905**
10	QPSK	1	0	23.19	23.19	23.19
		1	24	23.32	23.33	23.30
		1	49	23.21	23.21	23.17
		25	0	22.35	22.26	22.35
		25	12	22.35	22.32	22.52
		25	25	22.31	22.35	22.35
		50	0	22.04	22.28	22.31
	16QAM	1	0	22.49	22.42	22.62
		1	24	22.41	22.59	22.44
		1	49	22.56	22.59	22.42
		25	0	21.27	21.23	21.36
		25	12	21.38	21.32	21.47
		25	25	21.23	21.39	21.29
		50	0	21.37	21.19	21.38
	64QAM	1	0	21.47	21.46	21.40
		1	24	21.60	21.60	21.45
		1	49	21.33	21.34	21.64
		25	0	20.34	20.19	20.32
		25	12	20.32	20.31	20.46
		25	25	20.43	20.30	20.20
		50	0	20.29	20.24	20.40
BW [MHz]	**Modulation**	**Channel**		**18625**	**18900**	**19175**
		Frequency (MHz)		**1852.5**	**1880**	**1907.5**
5	QPSK	1	0	23.16	23.28	23.27
		1	12	23.30	23.27	23.31
		1	24	23.15	23.30	23.21
		12	0	22.28	22.32	22.39
		12	6	22.35	22.33	22.51
		12	13	22.23	22.28	22.32
		25	0	22.07	22.21	22.24
	16QAM	1	0	22.53	22.54	22.53
		1	12	22.53	22.52	22.37
		1	24	22.45	22.57	22.39
		12	0	21.35	21.20	21.43
		12	6	21.31	21.25	21.53
		12	13	21.25	21.32	21.28
		25	0	21.30	21.16	21.38
	64QAM	1	0	21.38	21.47	21.41
		1	12	21.48	21.53	21.48

		1	24	21.31	21.34	21.64
		12	0	20.22	20.22	20.36
		12	6	20.31	20.42	20.37
		12	13	20.43	20.33	20.24
		25	0	20.36	20.18	20.36
BW [MHz]	**Modulation**	**Channel**		**18615**	**18900**	**19185**
		Frequency (MHz)		**1851.5**	**1880**	**1908.5**
3	QPSK	1	0	23.15	23.25	23.23
		1	7	23.31	23.29	23.29
		1	14	23.16	23.33	23.20
		8	0	22.29	22.26	22.42
		8	3	22.34	22.28	22.51
		8	7	22.23	22.22	22.31
		15	0	22.14	22.23	22.31
	16QAM	1	0	22.48	22.49	22.56
		1	7	22.47	22.56	22.40
		1	14	22.56	22.65	22.47
		8	0	21.24	21.18	21.37
		8	3	21.42	21.36	21.47
		8	7	21.36	21.36	21.21
		15	0	21.29	21.15	21.31
	64QAM	1	0	21.49	21.59	21.43
		1	7	21.54	21.58	21.48
		1	14	21.37	21.32	21.62
		8	0	20.25	20.16	20.33
		8	3	20.40	20.35	20.43
		8	7	20.43	20.33	20.26
		15	0	20.23	20.25	20.44
BW [MHz]	**Modulation**	**Channel**		**18607**	**18900**	**19193**
		Frequency (MHz)		**1850.7**	**1880**	**1909.3**
1.4	QPSK	1	0	23.14	23.28	23.19
		1	2	23.26	23.30	23.25
		1	5	23.13	23.33	23.15
		3	0	23.15	23.08	23.27
		3	1	23.20	23.16	23.33
		3	3	23.11	23.11	23.06
		6	0	22.06	22.18	22.19
	16QAM	1	0	22.50	22.47	22.54
		1	2	22.44	22.56	22.36
		1	5	22.54	22.54	22.46
		3	0	22.20	22.03	22.26
		3	1	22.22	22.16	22.25
		3	3	22.08	22.14	22.02
		6	0	21.27	21.23	21.36
	64QAM	1	0	21.47	21.53	21.48

		1	2	21.58	21.59	21.50
		1	5	21.34	21.32	21.65
		3	0	21.13	21.05	21.20
		3	1	21.18	21.23	21.20
		3	3	21.19	21.09	21.10
		6	0	20.31	20.23	20.31

EIRP POWER (dBm)REMARKS:

GSM1900_Ant0							
Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
GPRS	512	1850.2	29.22	-0.5	28.72	744.73	2
	661	1880	29.53	-0.5	29.03	799.83	2
	810	1909.8	29.51	-0.5	29.01	796.16	2

WCDMA II_Ant0						
Channel	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
9262	1852.4	23.71	-0.5	23.21	209.41	2
9400	1880	23.70	-0.5	23.2	208.93	2
9538	1907.6	23.76	-0.5	23.26	211.84	2

LTE Band 2_Ant 0							
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
20M-QPSK	18700	1860	23.33	-0.5	22.83	191.87	2
	18900	1880	23.37	-0.5	22.87	193.64	2
	19100	1900	23.38	-0.5	22.88	194.09	2
20M-16QAM	18700	1860	22.60	-0.5	22.10	162.18	2
	18900	1880	22.66	-0.5	22.16	164.44	2
	19100	1900	22.65	-0.5	22.15	164.06	2
20M-64QAM	18700	1860	21.63	-0.5	21.13	129.72	2
	18900	1880	21.67	-0.5	21.17	130.92	2
	19100	1900	21.68	-0.5	21.18	131.22	2
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
15M-QPSK	18675	1857.5	23.25	-0.5	22.75	188.36	2
	18900	1880	23.27	-0.5	22.77	189.23	2
	19125	1902.5	23.31	-0.5	22.81	190.99	2
15M-16QAM	18675	1857.5	22.46	-0.5	21.96	157.04	2
	18900	1880	22.59	-0.5	22.09	161.81	2
	19125	1902.5	22.58	-0.5	22.08	161.44	2
15M-64QAM	18675	1857.5	21.55	-0.5	21.05	127.35	2
	18900	1880	21.59	-0.5	21.09	128.53	2
	19125	1902.5	21.67	-0.5	21.17	130.92	2
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
10M-QPSK	18650	1855	23.32	-0.5	22.82	191.43	2
	18900	1880	23.33	-0.5	22.83	191.87	2
	19150	1905	23.30	-0.5	22.80	190.55	2
10M-16QAM	18650	1855	22.56	-0.5	22.06	160.69	2
	18900	1880	22.59	-0.5	22.09	161.81	2
	19150	1905	22.62	-0.5	22.12	162.93	2
10M-64QAM	18650	1855	21.60	-0.5	21.10	128.82	2
	18900	1880	21.60	-0.5	21.10	128.82	2
	19150	1905	21.64	-0.5	21.14	130.02	2
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
5M-QPSK	18625	1852.5	23.30	-0.5	22.80	190.55	2
	18900	1880	23.30	-0.5	22.80	190.55	2
	19175	1907.5	23.31	-0.5	22.81	190.99	2
5M-16QAM	18625	1852.5	22.53	-0.5	22.03	159.59	2

	18900	1880	22.57	-0.5	22.07	161.06	2
	19175	1907.5	22.53	-0.5	22.03	159.59	2
5M-64QAM	18625	1852.5	21.48	-0.5	20.98	125.31	2
	18900	1880	21.53	-0.5	21.03	126.77	2
	19175	1907.5	21.64	-0.5	21.14	130.02	2
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
3M-QPSK	18615	1851.5	23.31	-0.5	22.81	190.99	2
	18900	1880	23.33	-0.5	22.83	191.87	2
	19185	1908.5	23.29	-0.5	22.79	190.11	2
3M-16QAM	18615	1851.5	22.56	-0.5	22.06	160.69	2
	18900	1880	22.65	-0.5	22.15	164.06	2
	19185	1908.5	22.56	-0.5	22.06	160.69	2
3M-64QAM	18615	1851.5	21.54	-0.5	21.04	127.06	2
	18900	1880	21.59	-0.5	21.09	128.53	2
	19185	1908.5	21.62	-0.5	21.12	129.42	2
BW [MHz] Modulation	**Channel**	**Frequency (MHz)**	**Conducted Power (dBm)**	**Gain (dB)**	**EIRP (dBm)**	**EIRP (mW)**	**Limit (W)**
1.4M-QPSK	18607	1850.7	23.26	-0.5	22.76	188.80	2
	18900	1880	23.33	-0.5	22.83	191.87	2
	19193	1909.3	23.33	-0.5	22.83	191.87	2
1.4M-16QAM	18607	1850.7	22.54	-0.5	22.04	159.96	2
	18900	1880	22.56	-0.5	22.06	160.69	2
	19193	1909.3	22.54	-0.5	22.04	159.96	2
1.4M-64QAM	18607	1850.7	21.58	-0.5	21.08	128.23	2
	18900	1880	21.59	-0.5	21.09	128.53	2
	19193	1909.3	21.65	-0.5	21.15	130.32	2

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

3.2 FREQUENCY STABILITY MEASUREMENT

3.2.1 LIMITS OF FREQUENCY STABILIITY MEASUREMENT

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.2.2 TEST PROCEDURE

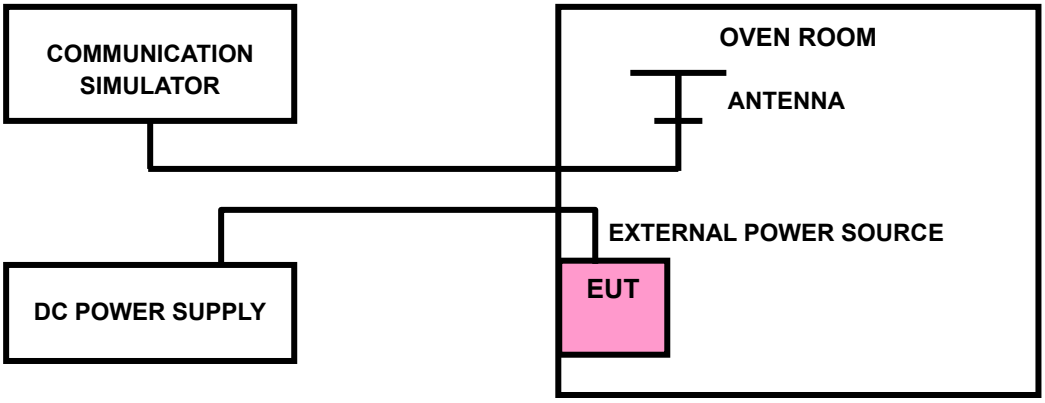
a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.

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 ±0.5℃ 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.

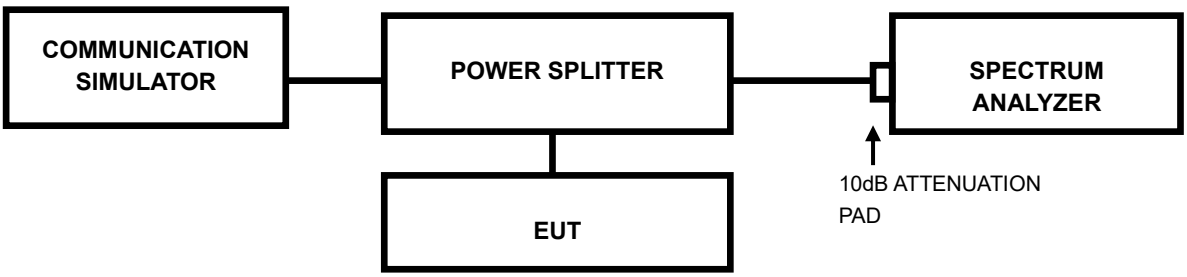
Note: VL = Low voltage(3.501V); VN/NV = Normal voltage(3.89V); VH = High voltage(4.279V); NT = Normal temperature (25℃)

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

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

3.3.4 TEST RESULTS

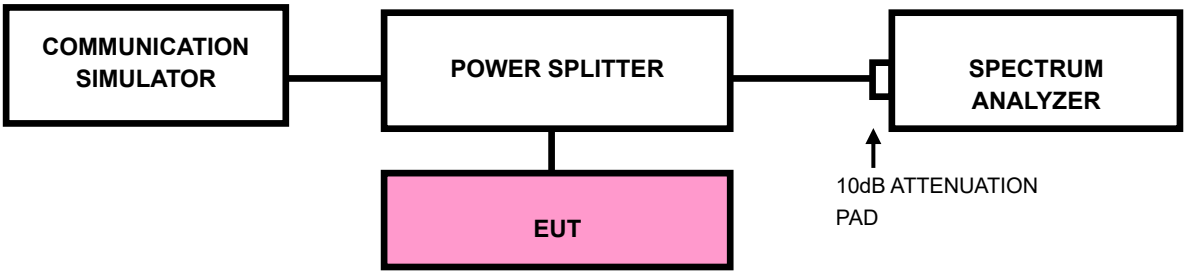
Please Refer to Appendix of this test report.

3.4 BAND EDGE MEASUREMENTC

3.4.1 LIMITS OF BAND EDGE MEASUREMENT

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.4.2 TEST SETUP



3.4.3 TEST PROCEDURES

a) All measurements were done at low and high operational frequency range

b) Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.

c) Tune the analyzer to the nominal center frequency of the emission bandwidth

(EBW)

d) .Set the resolution bandwidth (RBW) ≧ 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.

e) Beyond the 1MHz band from the band edge, RBW=1MHz was used.

f) Set the video bandwidth (VBW) to ≧3 x RBW.

g) Select the average power (RMS) display detector.

h) Set the number of measurement points to ≧ 1001.

i) Use auto-coupled sweep time.

j) Perform the measurement over an interval of time when the transmission is continuous and at its maximum power level.

k) The RF fundamental frequency should be excluded against the limit line in the operating frequency band and use RBW is 10KHz or 100KHz.

l) 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

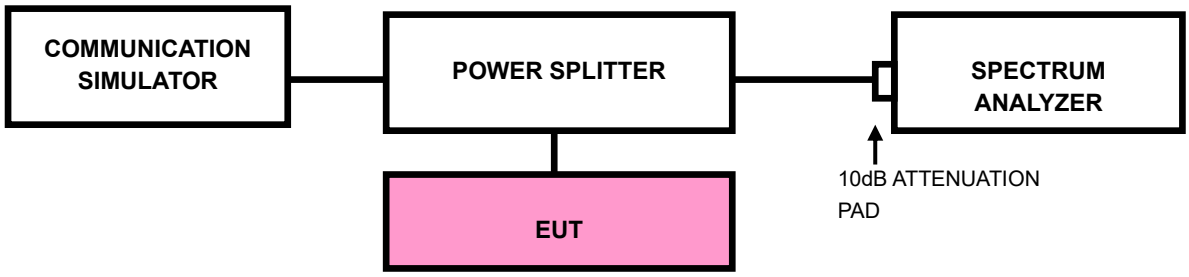
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

3.5.2 TEST PROCEDURE

a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.

b. Measuring frequency range is from 30MHz 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

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to –13dBm.

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 = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.

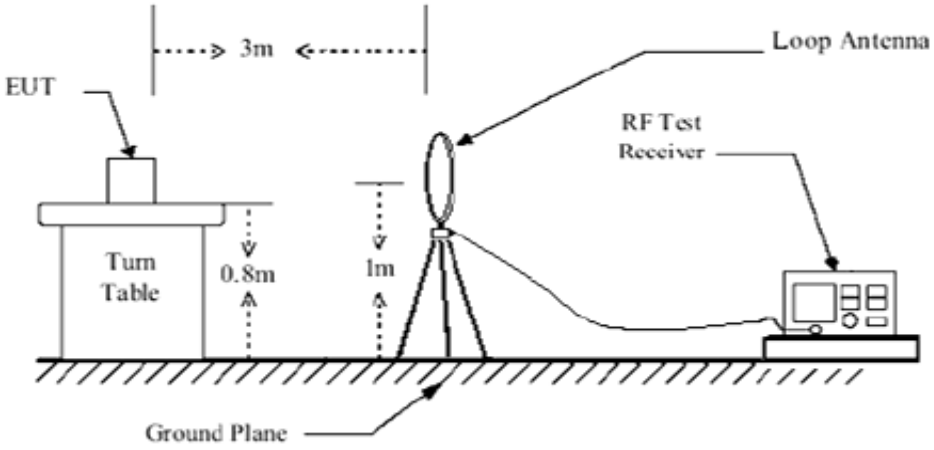
NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.6.3 DEVIATION FROM TEST STANDARD

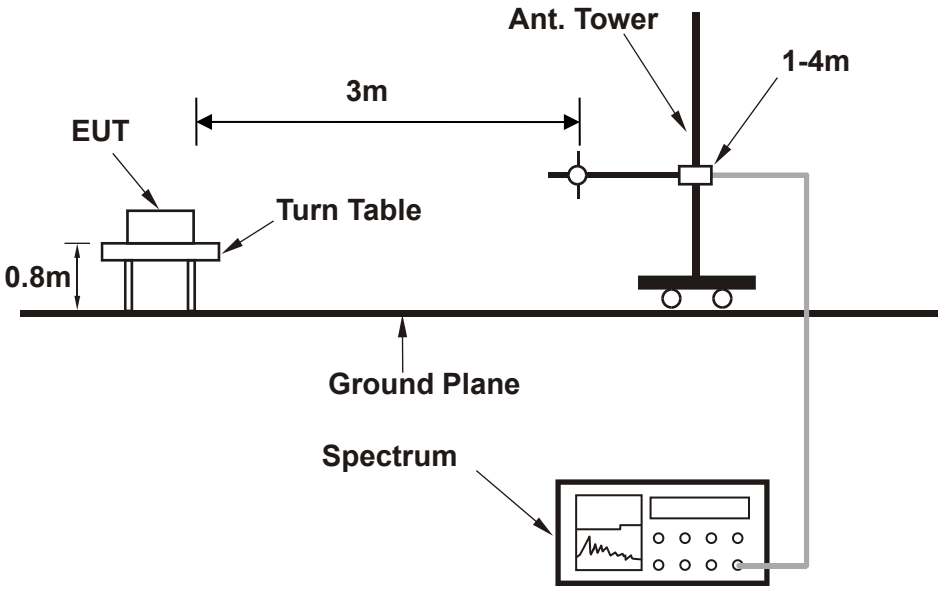
No deviation

3.6.4 TEST SETUP

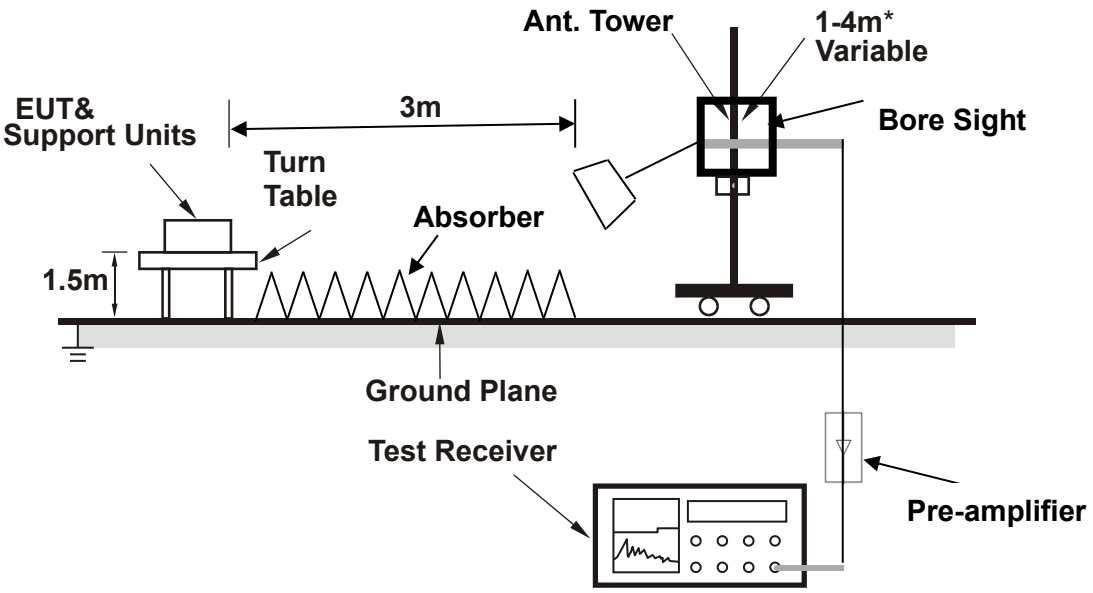
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.6.5 TEST RESULTS

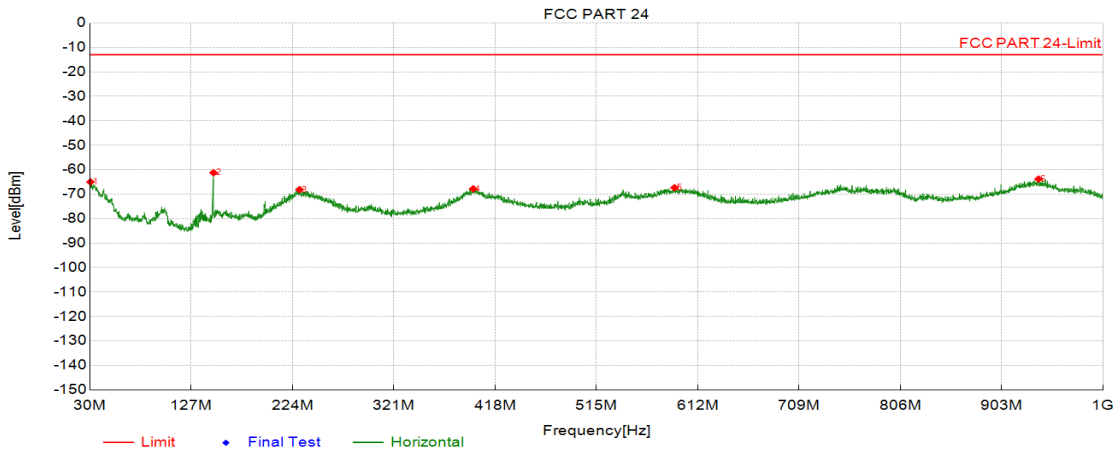
NOTE ：The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA

PCS 1900 CHANNEL BANDWIDTH			
MODE	TX channel 810	**FREQUENCY RANGE**	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	30.7762	-62.84	-64.98	-2.14	-13.00	51.98	Horizon	PK	PASS
2	148.5577	-44.40	-61.22	-16.82	-13.00	48.22	Horizon	PK	PASS
3	230.8302	-63.45	-68.13	-4.68	-13.00	55.13	Horizon	PK	PASS
4	397.1214	-65.37	-67.80	-2.43	-13.00	54.80	Horizon	PK	PASS
5	589.802	-66.20	-67.36	-1.16	-13.00	54.36	Horizon	PK	PASS
6	938.1016	-67.22	-63.82	3.40	-13.00	50.82	Horizon	PK	PASS

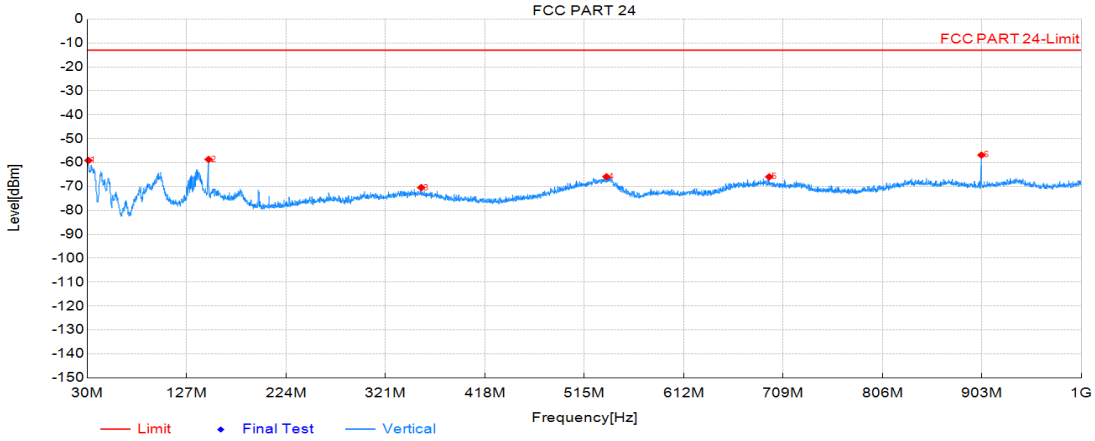


MODE	TX channel 810	FREQUENCY RANGE	30 MHz – 1GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	31.3583	-49.89	-59.10	-9.21	-13.00	46.10	Vertical	PK	PASS
2	148.5577	-48.77	-58.67	-9.90	-13.00	45.67	Vertical	PK	PASS
3	355.9852	-63.31	-70.45	-7.14	-13.00	57.45	Vertical	PK	PASS
4	536.6353	-65.99	-65.91	0.08	-13.00	52.91	Vertical	PK	PASS
5	695.3591	-65.49	-65.96	-0.47	-13.00	52.96	Vertical	PK	PASS
6	902.3985	-56.61	-56.85	-0.24	-13.00	43.85	Vertical	PK	PASS



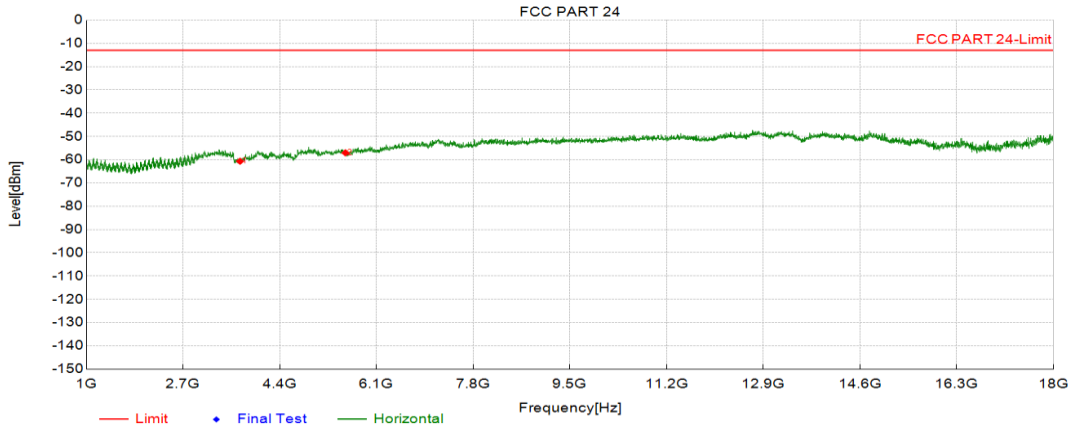
ABOVE 1GHz DATA			

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

PCS 1900			
MODE	TX channel 512	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

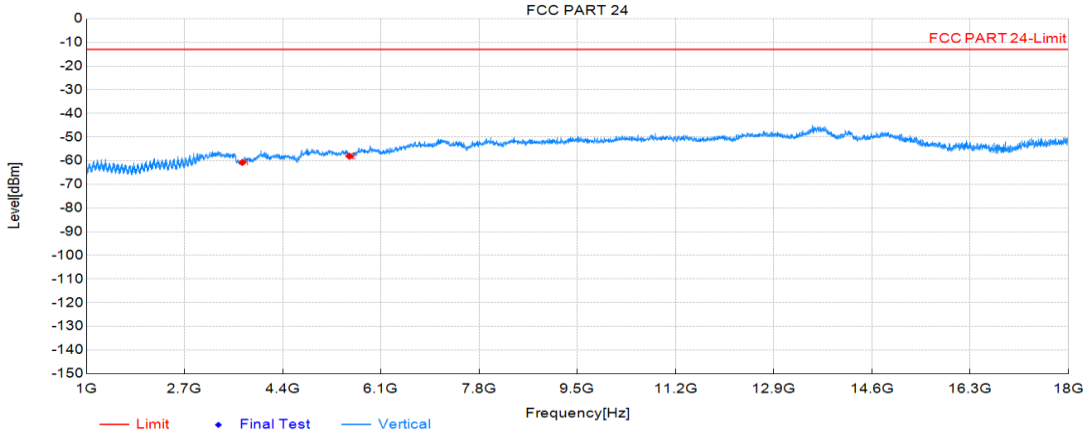
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3702.1404	-59.15	-60.66	-1.51	-13.00	47.66	Horizon	PK	PASS
2	5553.5107	-61.24	-57.03	4.21	-13.00	44.03	Horizon	PK	PASS



MODE	TX channel 512	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3702.1404	-59.23	-60.71	-1.48	-13.00	47.71	Vertical	PK	PASS
2	5553.5107	-62.04	-58.10	3.94	-13.00	45.10	Vertical	PK	PASS

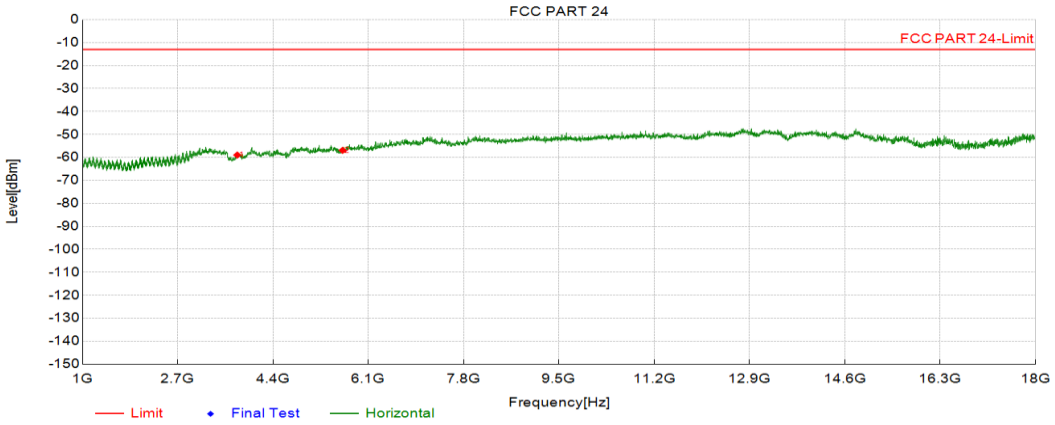


MODE	TX channel 661	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

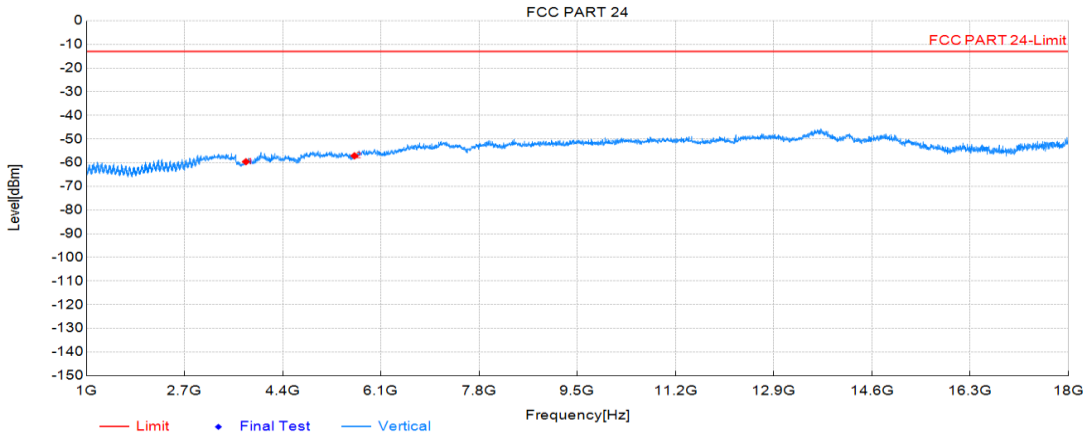
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3762.1524	-57.87	-58.94	-1.07	-13.00	45.94	Horizon	PK	PASS
2	5640.5281	-61.53	-56.91	4.62	-13.00	43.91	Horizon	PK	PASS



MODE	TX channel 661	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3762.1524	-58.52	-59.59	-1.07	-13.00	46.59	Vertical	PK	PASS
2	5640.5281	-61.59	-57.10	4.49	-13.00	44.10	Vertical	PK	PASS

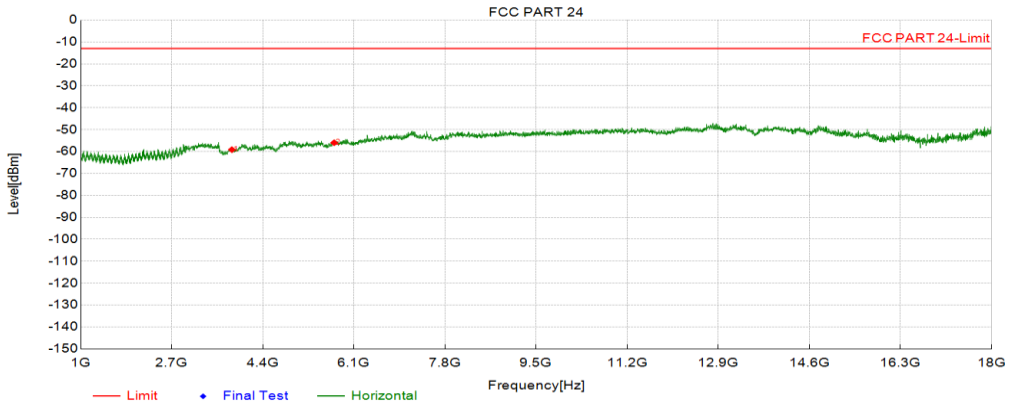


MODE	TX channel 810	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

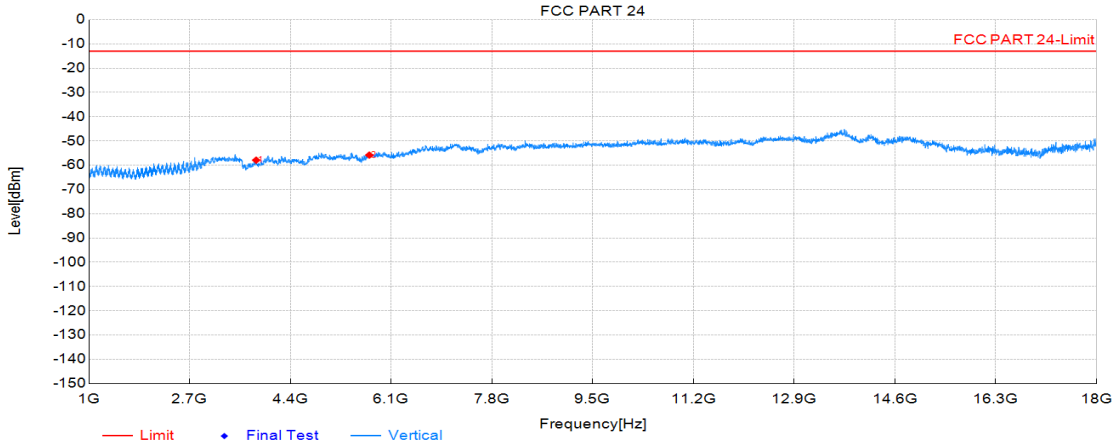
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3822.1644	-58.45	-59.12	-0.67	-13.00	46.12	Horizon	PK	PASS
2	5730.5461	-61.39	-55.96	5.43	-13.00	42.96	Horizon	PK	PASS



MODE	TX channel 810	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3822.1644	-57.20	-57.91	-0.71	-13.00	44.91	Vertical	PK	PASS
2	5730.5461	-61.34	-55.82	5.52	-13.00	42.82	Vertical	PK	PASS

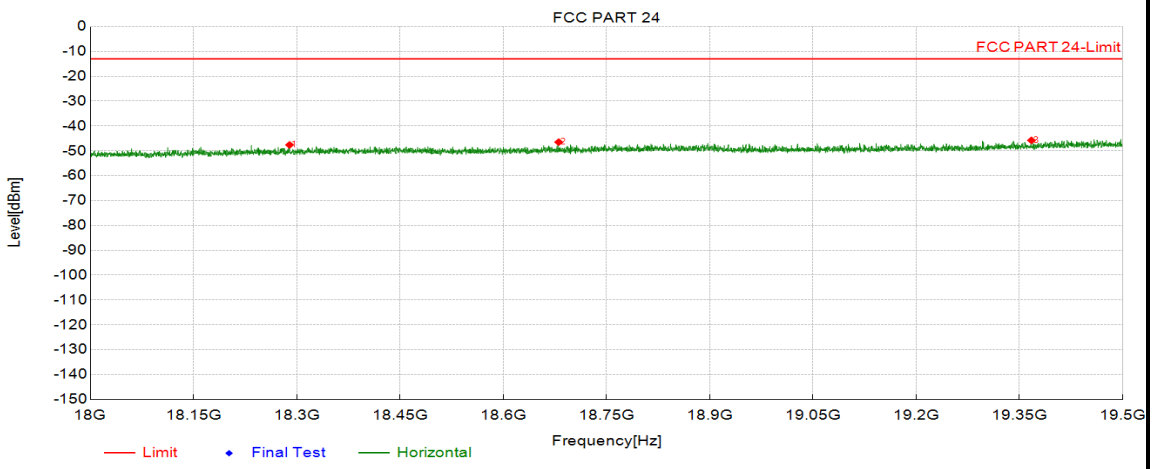


PCS1900			
MODE	TX channel 810	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

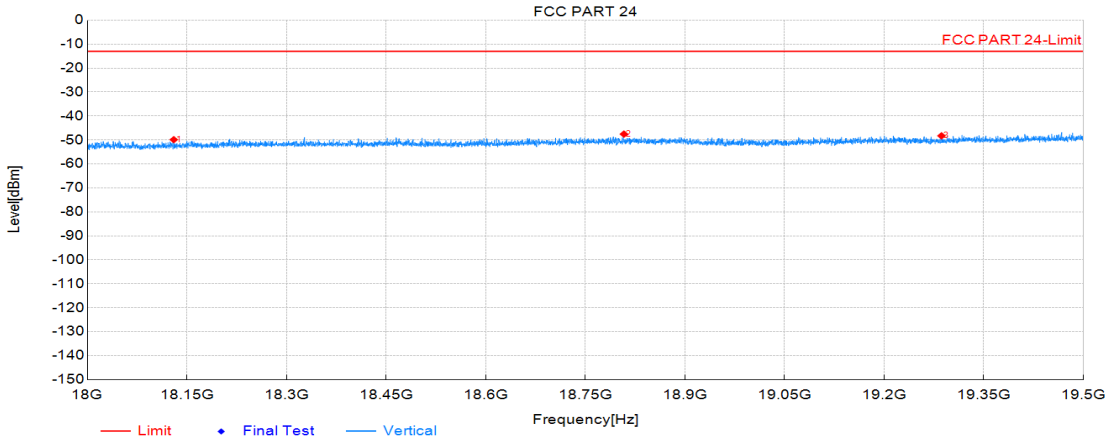
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18289.557	-55.39	-47.59	7.80	-13.00	34.59	Horizon	PK	PASS
2	18680.536	-54.45	-46.47	7.98	-13.00	33.47	Horizon	PK	PASS
3	19367.373	-54.90	-45.77	9.13	-13.00	32.77	Horizon	PK	PASS



MODE	TX channel 810	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

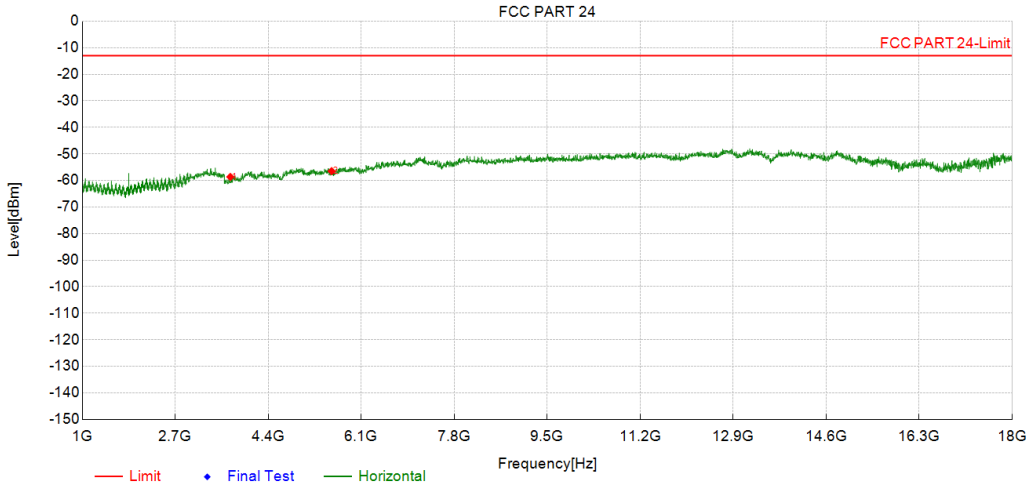
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18130.226	-56.13	-49.86	6.27	-13.00	36.86	Vertical	PK	PASS
2	18808.061	-54.68	-47.53	7.15	-13.00	34.53	Vertical	PK	PASS
3	19286.357	-55.72	-48.26	7.46	-13.00	35.26	Vertical	PK	PASS



WCDMA Band II			
MODE	TX channel 9262	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

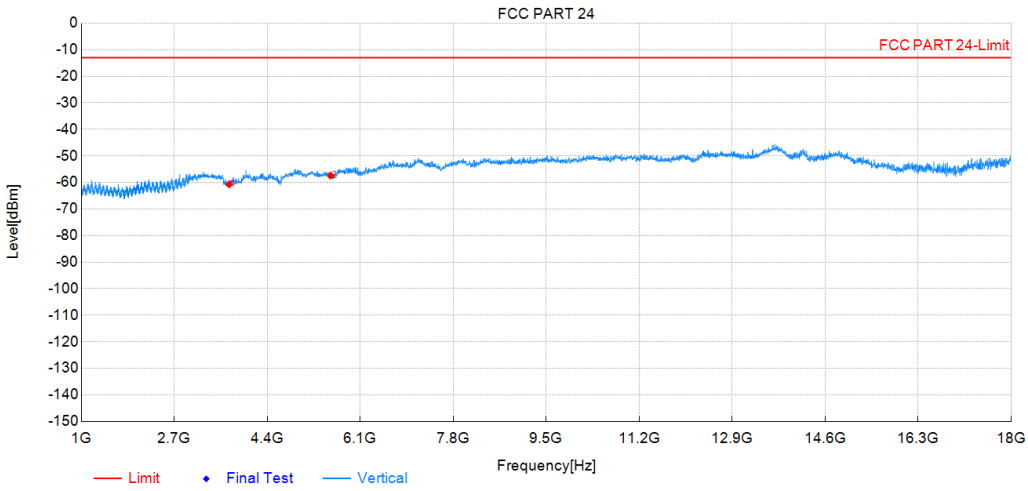
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3706.3413	-57.18	-58.65	-1.47	-13.00	45.65	Horizon	PK	PASS
2	5558.0116	-60.68	-56.46	4.22	-13.00	43.46	Horizon	PK	PASS



MODE	TX channel 9262	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

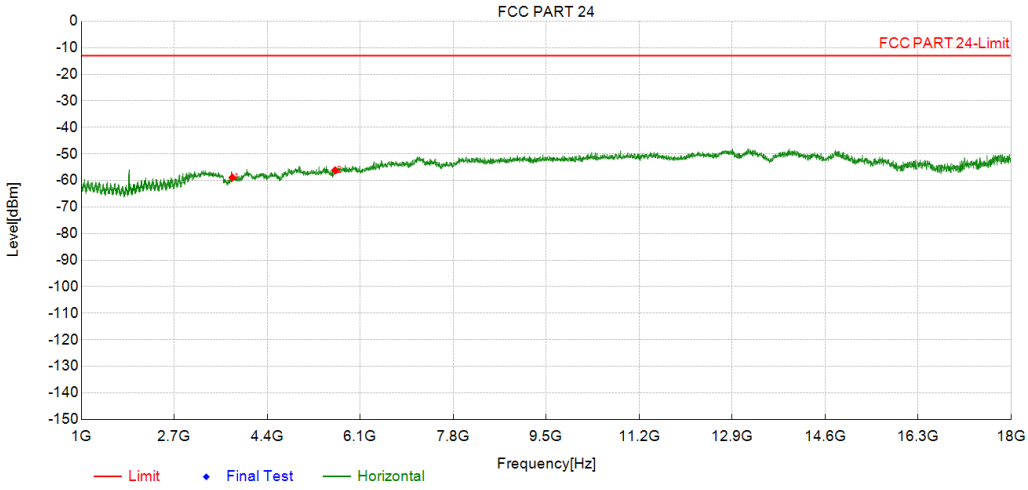
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3706.3413	-59.21	-60.66	-1.45	-13.00	47.66	Vertical	PK	PASS
2	5558.0116	-61.35	-57.41	3.94	-13.00	44.41	Vertical	PK	PASS



MODE	TX channel 9400	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3762.4525	-57.82	-58.89	-1.07	-13.00	45.89	Horizon	PK	PASS
2	5640.5281	-60.78	-56.16	4.62	-13.00	43.16	Horizon	PK	PASS

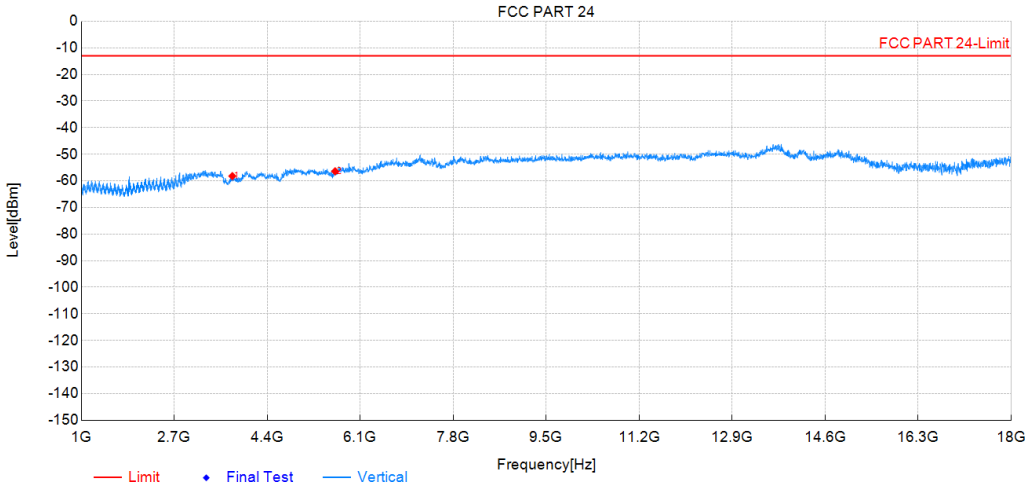


MODE	TX channel 9400	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3762.4525	-57.13	-58.20	-1.07	-13.00	45.20	Vertical	PK	PASS
2	5640.5281	-60.88	-56.39	4.49	-13.00	43.39	Vertical	PK	PASS

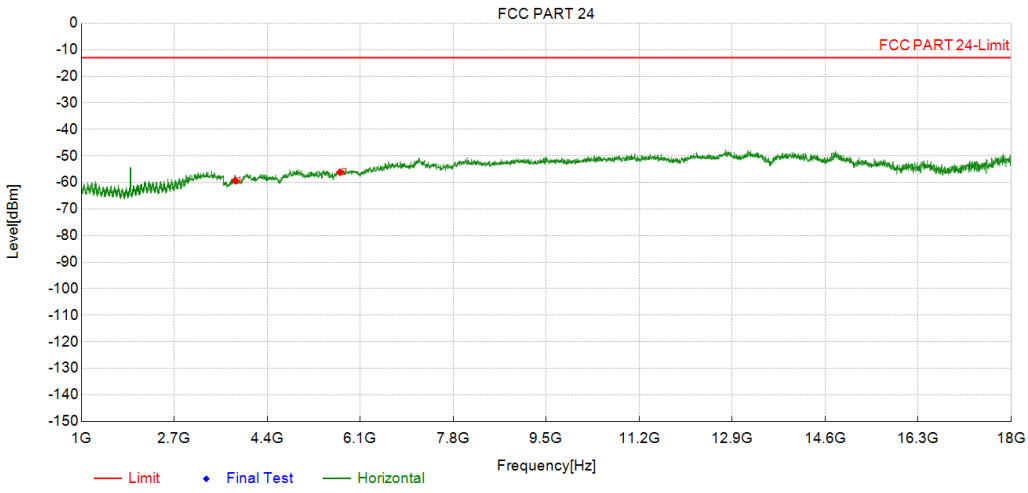


MODE	TX channel 9538	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3818.5637	-58.57	-59.28	-0.71	-13.00	46.28	Horizon	PK	PASS
2	5729.6459	-61.59	-56.18	5.41	-13.00	43.18	Horizon	PK	PASS

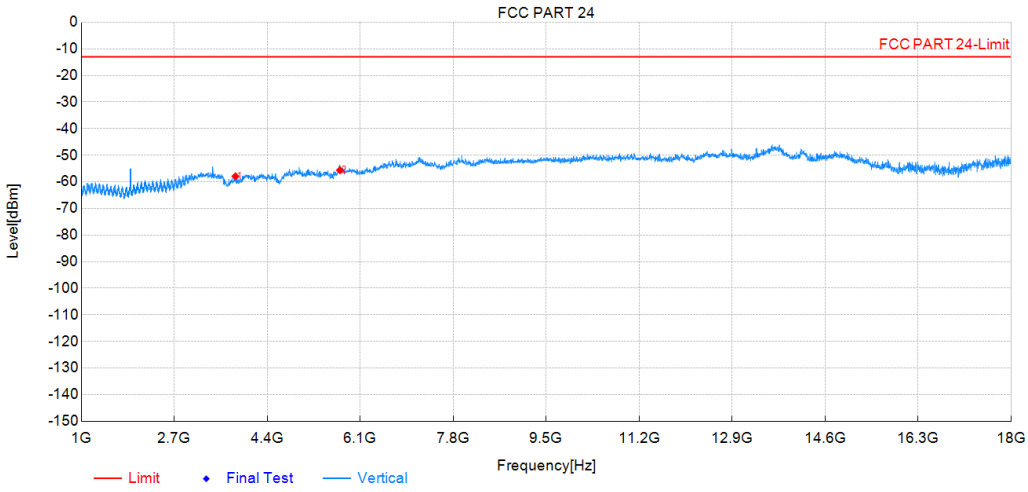


MODE	TX channel 9538	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3818.5637	-57.17	-57.90	-0.73	-13.00	44.90	Vertical	PK	PASS
2	5729.6459	-61.12	-55.62	5.50	-13.00	42.62	Vertical	PK	PASS

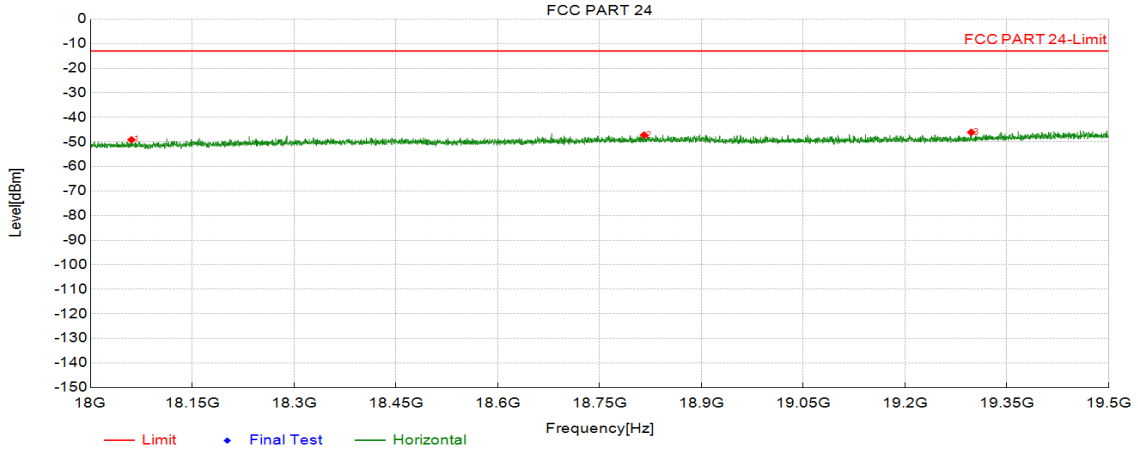


WCDMA BAND II			
MODE	TX channel 9538	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

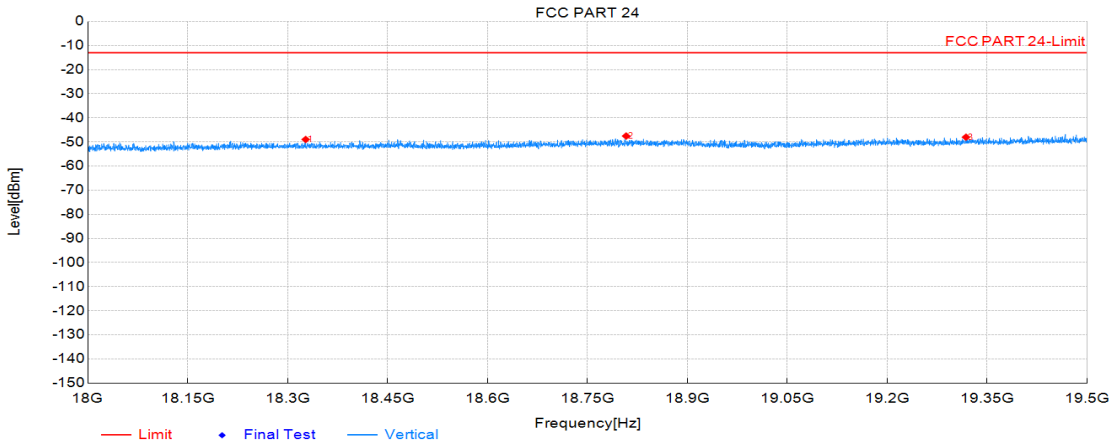
Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18060.612	-56.26	-49.12	7.14	-13.00	36.12	Horizon	PK	PASS
2	18815.563	-55.63	-47.22	8.41	-13.00	34.22	Horizon	PK	PASS
3	19297.459	-54.98	-46.10	8.88	-13.00	33.10	Horizon	PK	PASS



MODE	TX channel 9538	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M



Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18327.065	-55.53	-48.96	6.57	-13.00	35.96	Vertical	PK	PASS
2	18808.061	-54.68	-47.53	7.15	-13.00	34.53	Vertical	PK	PASS
3	19318.163	-55.44	-48.00	7.44	-13.00	35.00	Vertical	PK	PASS

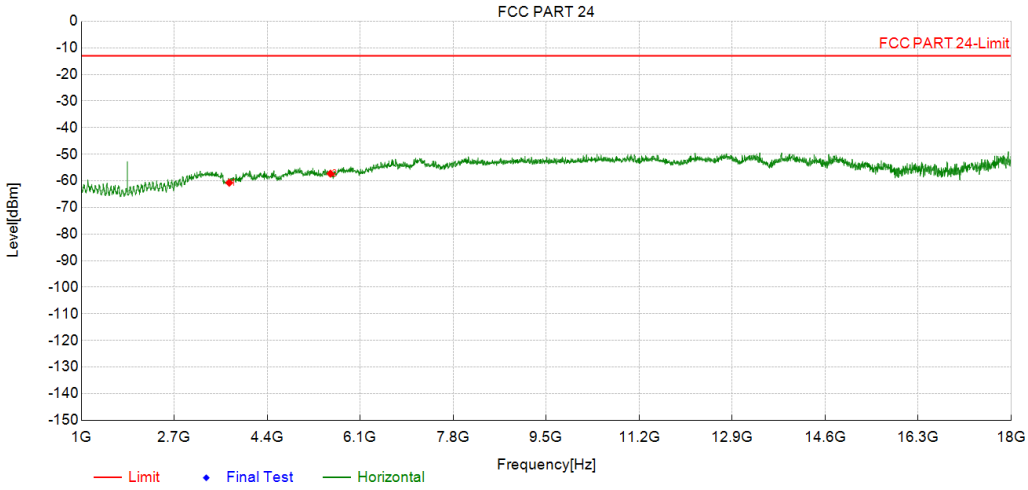
LTE Band 2

CHANNEL BANDWIDTH	20MHz / QPSK	**MODE**	TX channel 18700
FREQUENCY RANGE	Above 1000MHz	**ENVIRONMENTAL CONDITIONS**	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	**TESTED BY**	Carl Xie

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

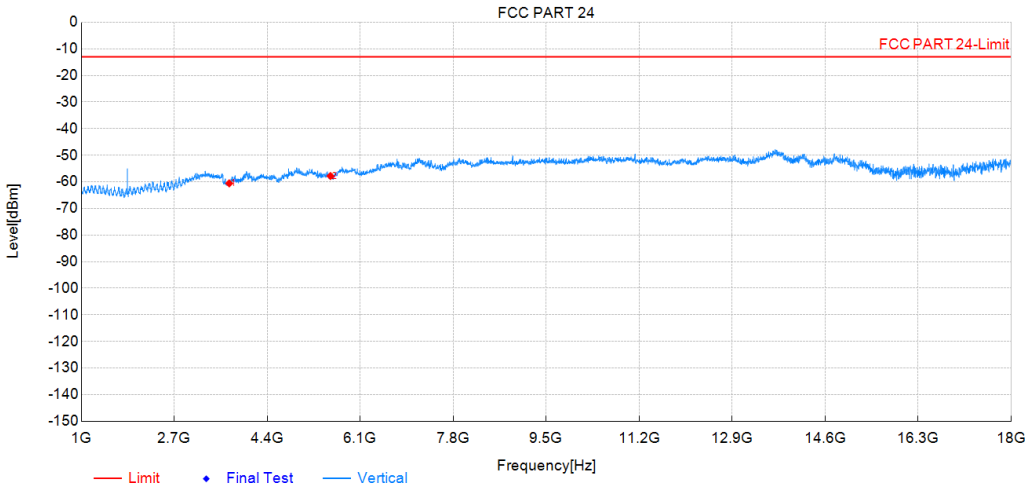
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3705.241	-59.22	-60.70	-1.48	-13.00	47.70	Horizon	PK	PASS
2	5555.6111	-61.49	-57.27	4.22	-13.00	44.27	Horizon	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 18700
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

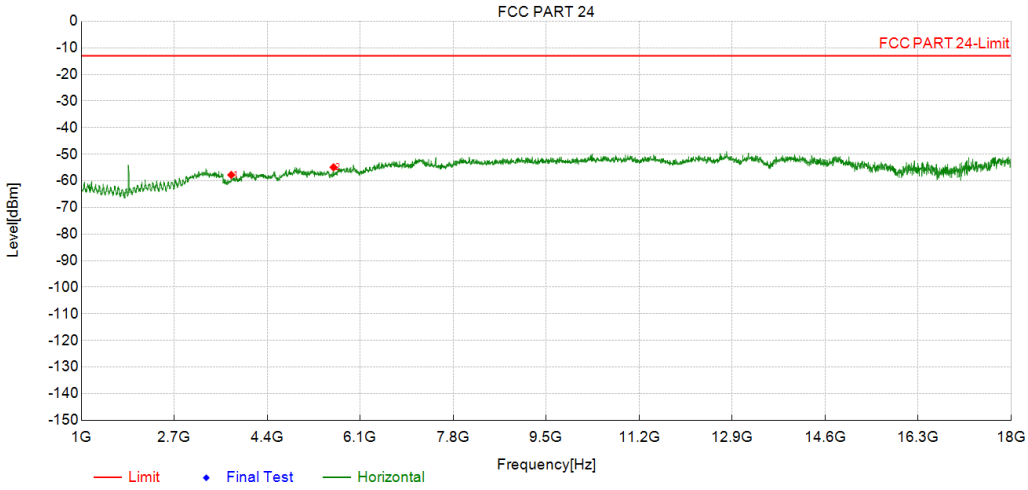
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3705.241	-59.13	-60.56	-1.43	-13.00	47.56	Vertical	PK	PASS
2	5555.6111	-61.73	-57.79	3.94	-13.00	44.79	Vertical	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 18900
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

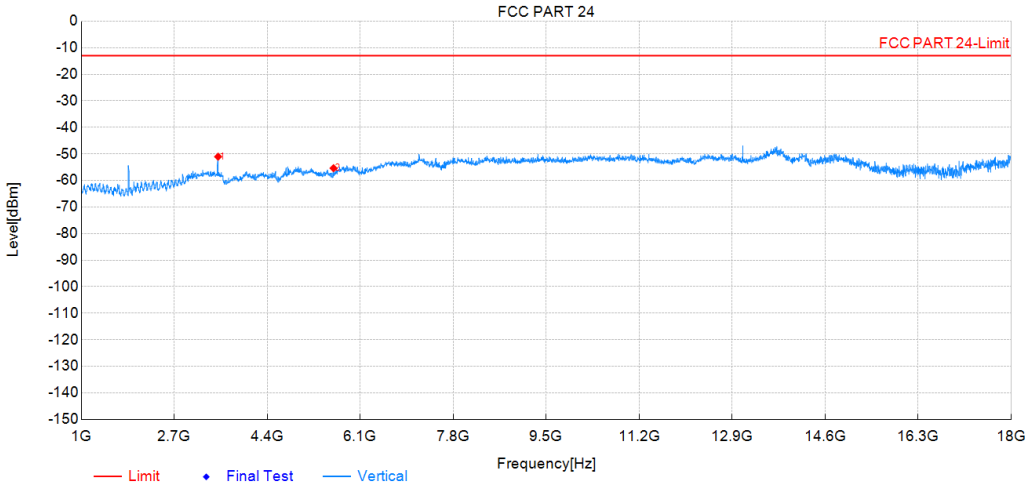
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3742.2484	-56.54	-57.76	-1.22	-13.00	44.76	Horizon	PK	PASS
2	5611.1222	-59.28	-54.89	4.39	-13.00	41.89	Horizon	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 18900
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3501.7003	-48.82	-51.03	-2.21	-13.00	38.03	Vertical	PK	PASS
2	5611.1222	-59.49	-55.35	4.14	-13.00	42.35	Vertical	PK	PASS

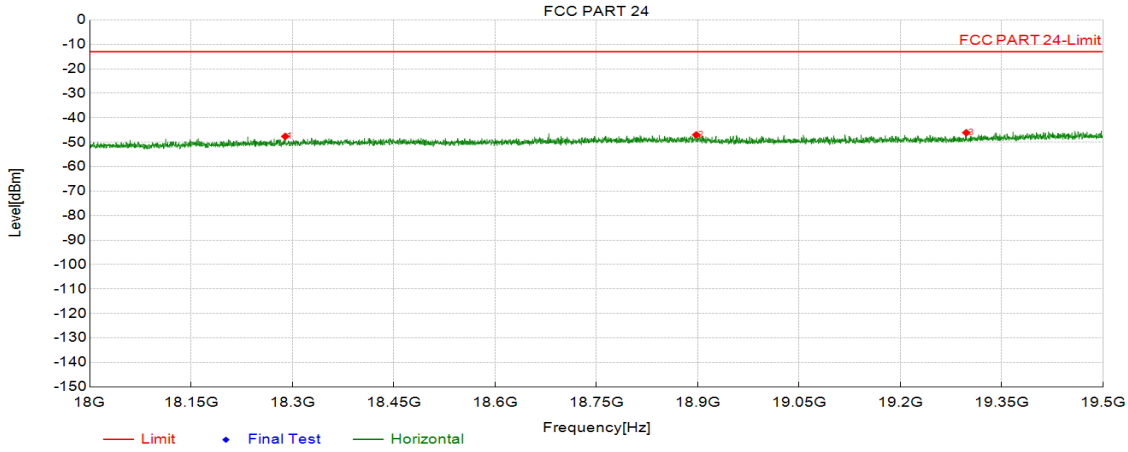


LTE BAND II			
MODE	TX channel 18900	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	120Vac 60HZ
TESTED BY	Carl Xie		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Data List

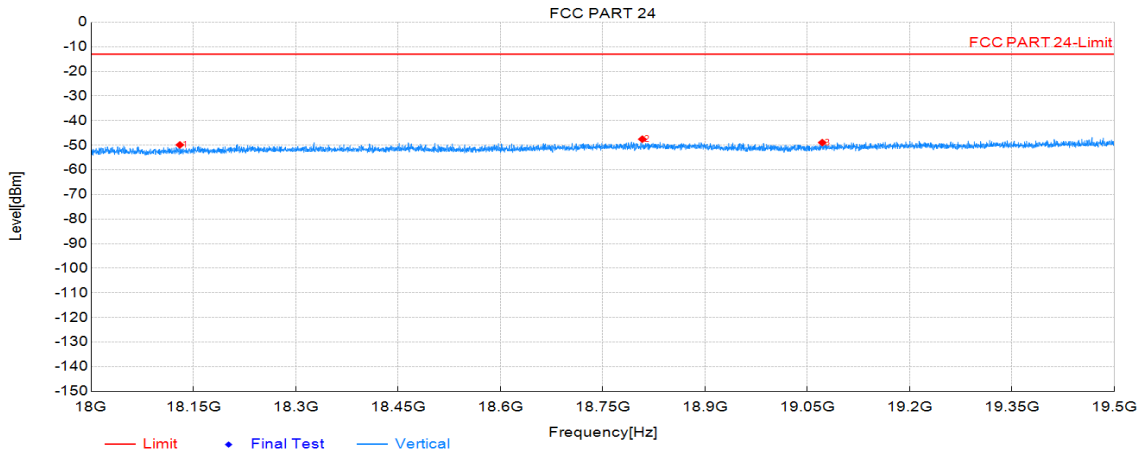
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18289.557	-55.39	-47.59	7.80	-13.00	34.59	Horizon	PK	PASS
2	18897.779	-55.16	-46.95	8.21	-13.00	33.95	Horizon	PK	PASS
3	19297.459	-54.98	-46.10	8.88	-13.00	33.10	Horizon	PK	PASS



MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	120Vac 60HZ
TESTED BY	Carl Xie		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

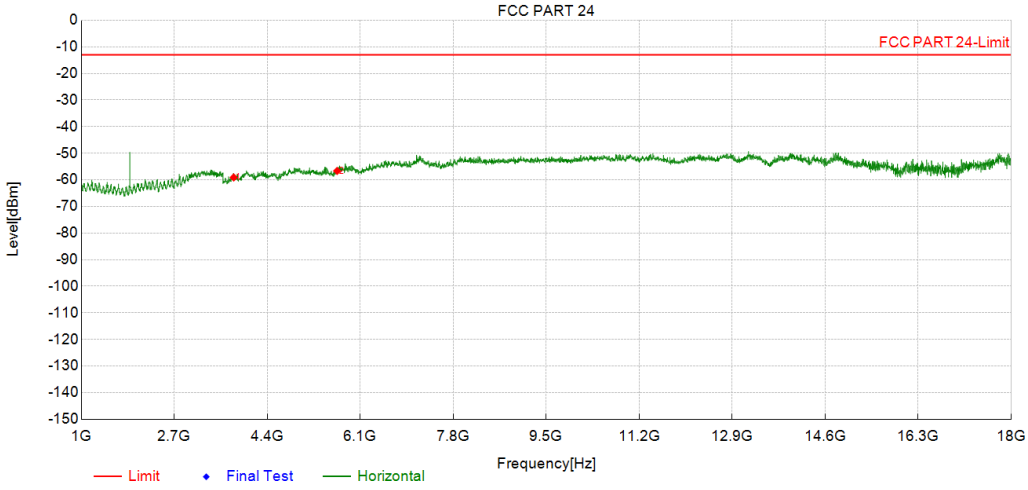
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	18130.226	-56.13	-49.86	6.27	-13.00	36.86	Vertical	PK	PASS
2	18808.061	-54.68	-47.53	7.15	-13.00	34.53	Vertical	PK	PASS
3	19071.814	-55.63	-48.92	6.71	-13.00	35.92	Vertical	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 19100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

Data List

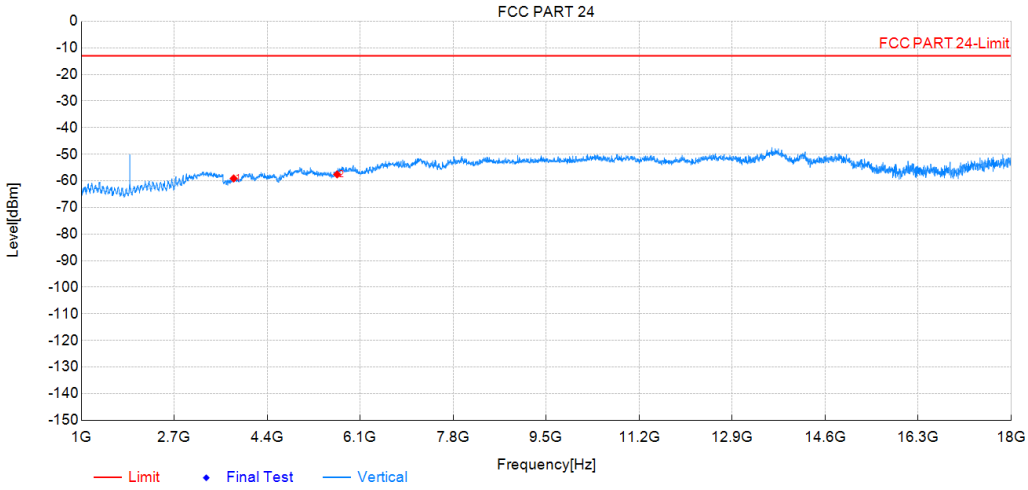
NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3786.6573	-58.22	-59.09	-0.87	-13.00	46.09	Horizon	PK	PASS
2	5677.7355	-61.59	-56.64	4.95	-13.00	43.64	Horizon	PK	PASS



CHANNEL BANDWIDTH	20MHz / QPSK	MODE	TX channel 19100
FREQUENCY RANGE	Above 1000MHz	ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH
INPUT POWER	120Vac 60HZ	TESTED BY	Carl Xie
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

Data List

NO.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
1	3786.6573	-58.20	-59.10	-0.90	-13.00	46.10	Vertical	PK	PASS
2	5677.7355	-62.51	-57.58	4.93	-13.00	44.58	Vertical	PK	PASS

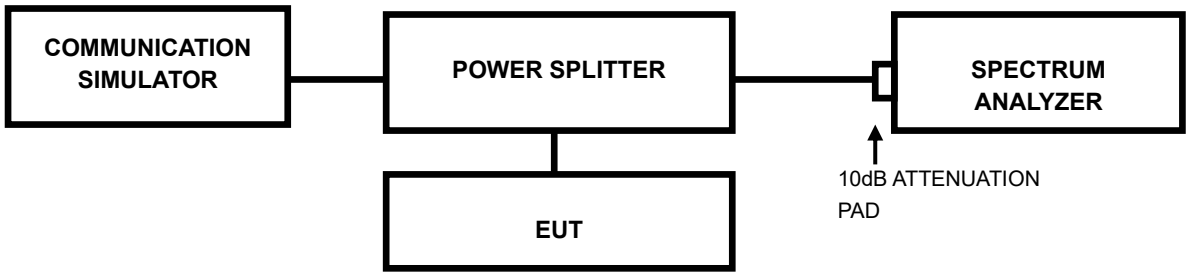


3.7 PEAK TO AVERAGE RATIO

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 ≥ 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.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

5 INFORMATION ON THE TESTING LABORATORIES

We, BOOMWAVE TEST (SHENZHEN) CO., LTD., were founded in 2025 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

BOOMWAVE TEST (SHENZHEN) CO., LTD.
Lab Address:
Room B38, Warehouse A5(Chiwan No.1), No.3 Chiwan 4th Road, Chiwan Community, Zhaoshang Street, Nanshan District, Shenzhen, Guangdong, P.R. CHINA

Accredited Test Lab Cert 7607.01

Shenzhen EMC/RF Lab:
Mobile: +86 15118052731
Email: shimin.wang@boomwavelab.com

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

No any modifications are made to the EUT by the lab during the test.

7 Appendix

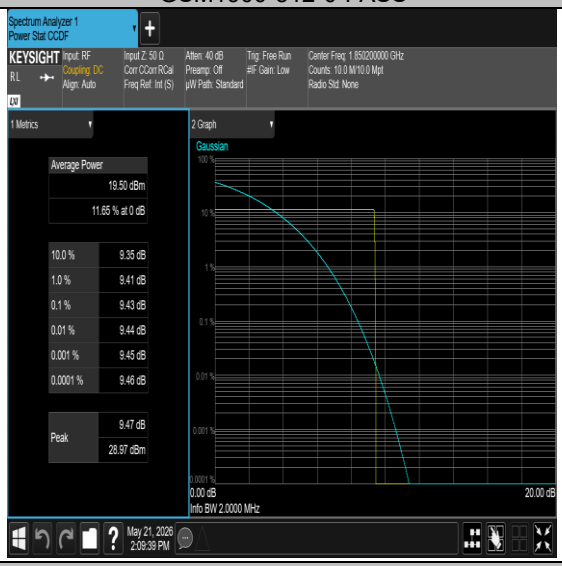
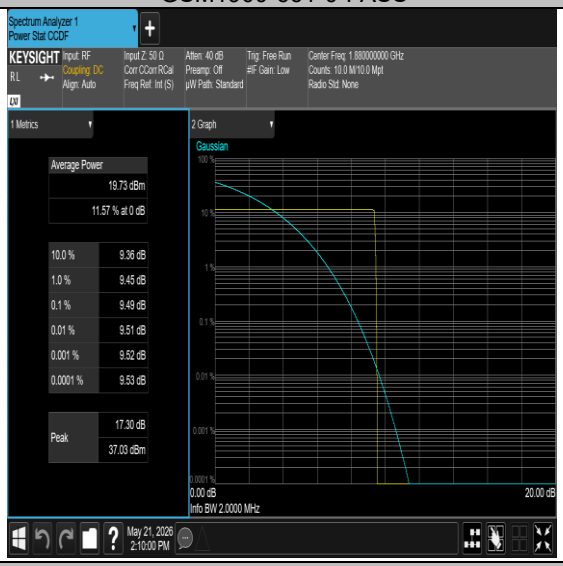
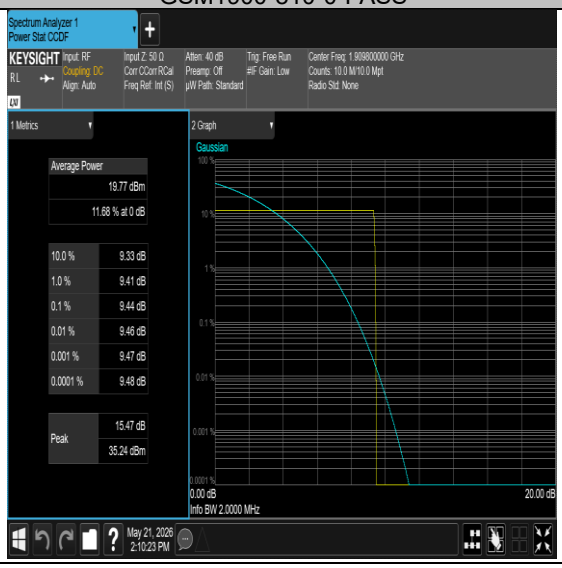
GSM1900

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	9.43	13	PASS
GSM1900	661	9.49	13	PASS
GSM1900	810	9.44	13	PASS

Test Graphs

GSM1900-512-0-PASS	GSM1900-661-0-PASS
	
GSM1900-810-0-PASS	
	

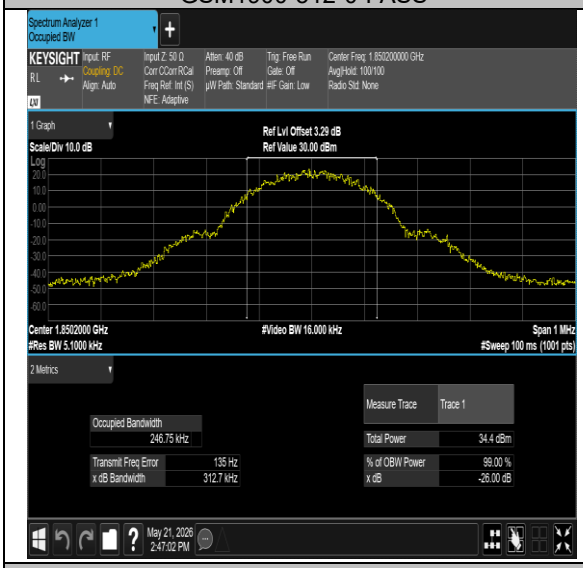
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

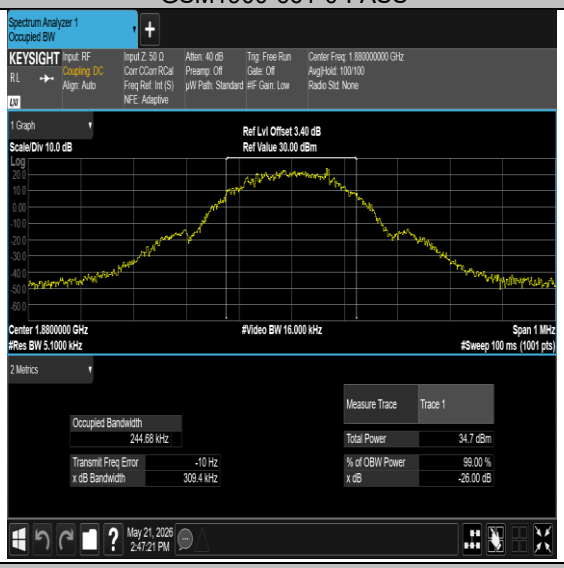
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.24675	0.3127	---	PASS
GSM1900	661	0.24468	0.3094	---	PASS
GSM1900	810	0.24592	0.3108	---	PASS

Test Graphs

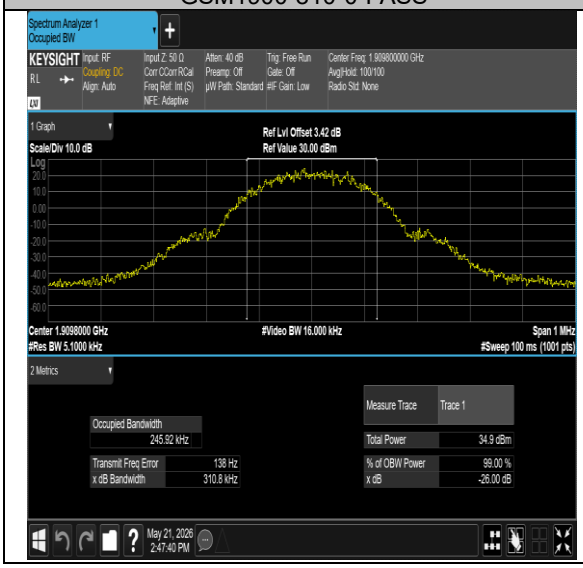
GSM1900-512-0-PASS



GSM1900-661-0-PASS



GSM1900-810-0-PASS

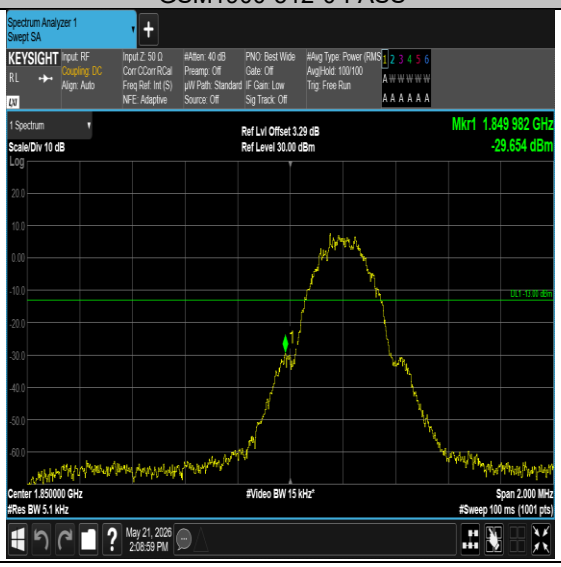
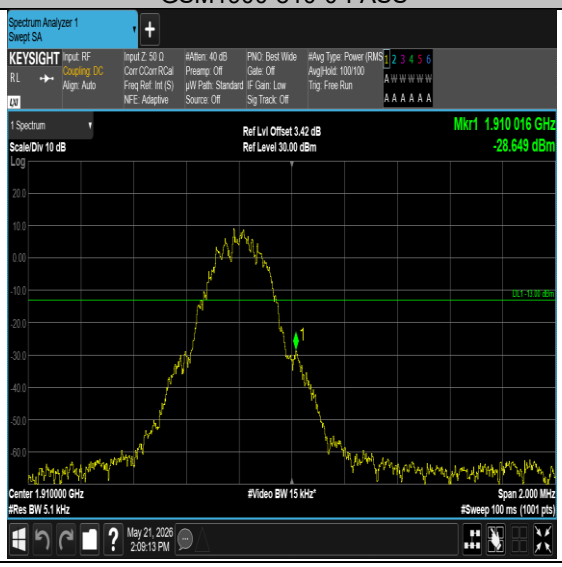


BAND EDGE

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1849.98	-29.65	-13	PASS
GSM1900	810	1910.02	-28.65	-13	PASS

Test Graphs

GSM1900-512-0-PASS	GSM1900-810-0-PASS
	

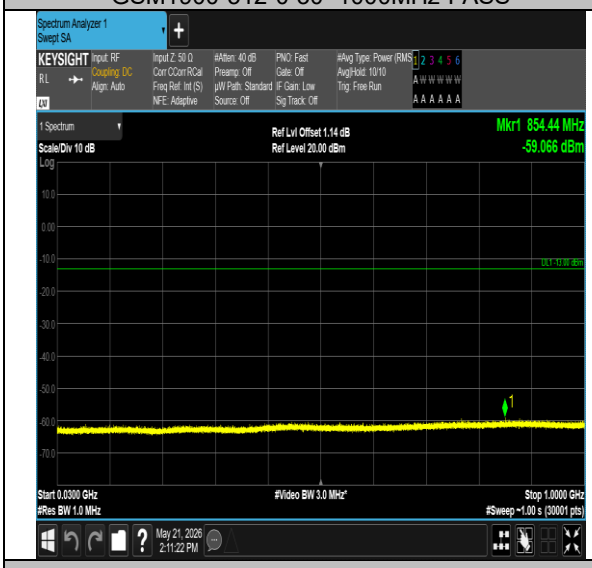
CONDUCTED SPURIOUS EMISSION

Test Result

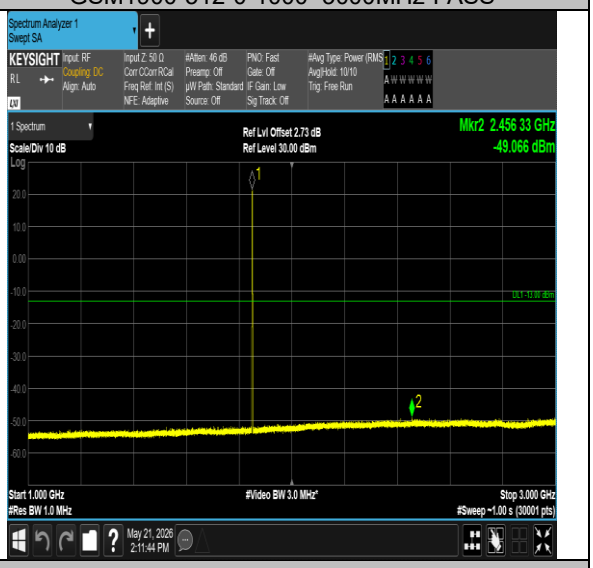
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	30~1000MHz	854.44	-59.07	-13	PASS
GSM1900	512	1000~3000MHz	2456.33	-49.07	-13	PASS
GSM1900	512	3000~20000MHz	3700.4	-47.59	-13	PASS
GSM1900	661	30~1000MHz	818.97	-58.99	-13	PASS
GSM1900	661	1000~3000MHz	2692.2	-48.73	-13	PASS
GSM1900	661	3000~20000MHz	3759.9	-47.39	-13	PASS
GSM1900	810	30~1000MHz	884.89	-59.63	-13	PASS
GSM1900	810	1000~3000MHz	2598.67	-49.27	-13	PASS
GSM1900	810	3000~20000MHz	3819.97	-41.05	-13	PASS

Test Graphs

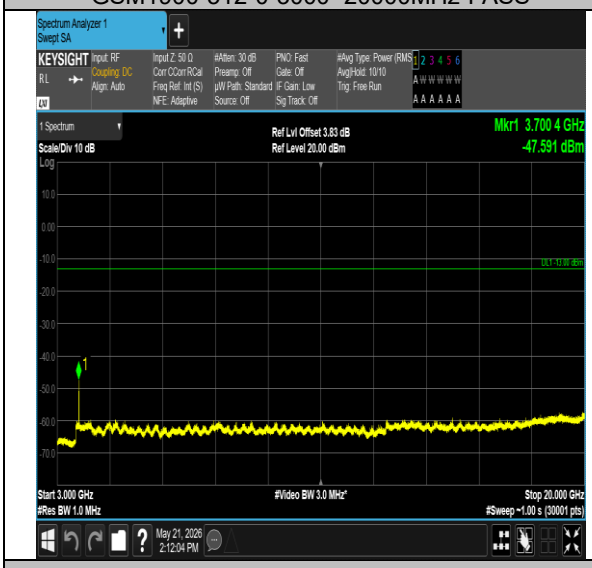
GSM1900-512-0-30~1000MHz-PASS



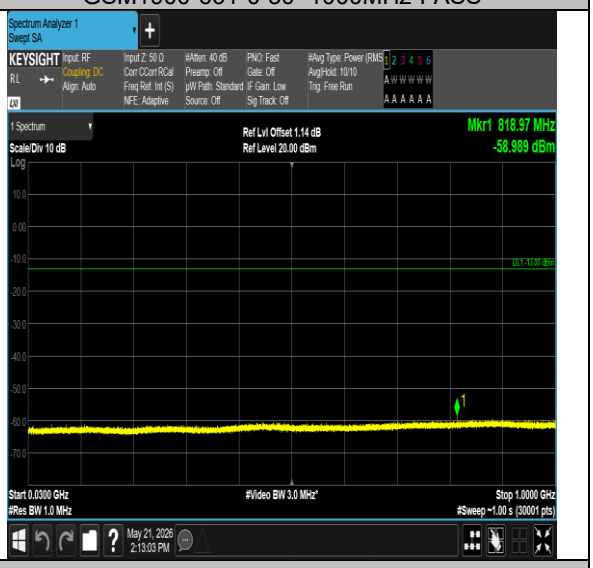
GSM1900-512-0-1000~3000MHz-PASS



GSM1900-512-0-3000~20000MHz-PASS

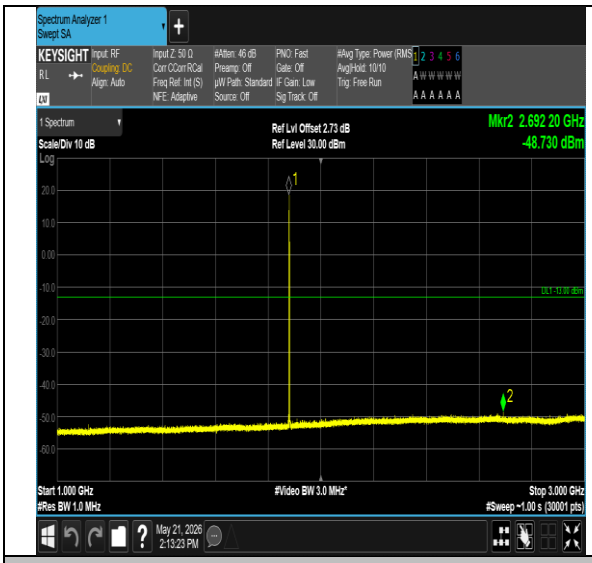


GSM1900-661-0-30~1000MHz-PASS

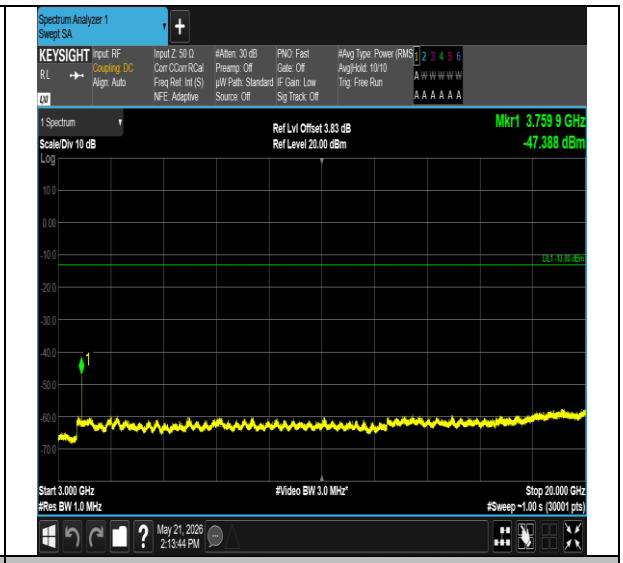


GSM1900-661-0-1000~3000MHz-PASS

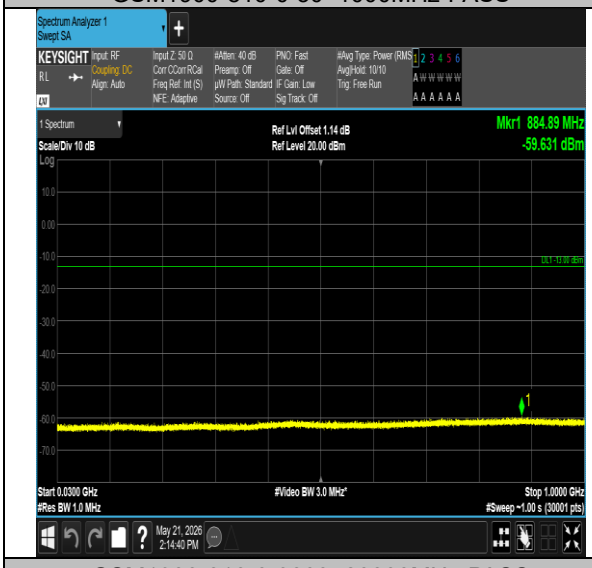
GSM1900-661-0-3000~20000MHz-PASS



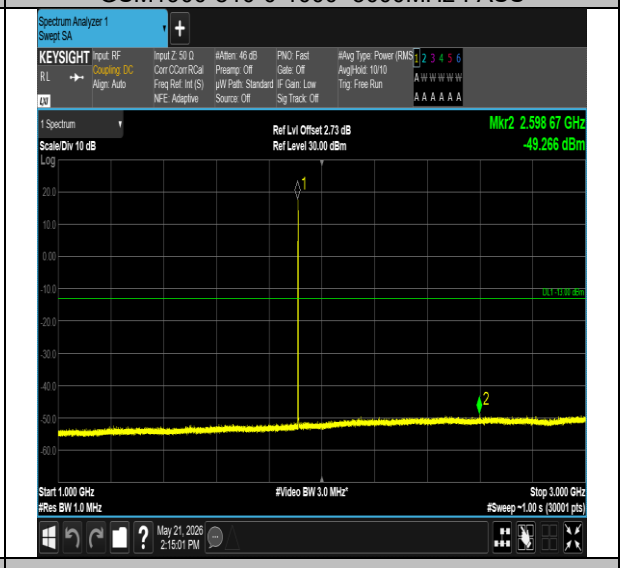
GSM1900-810-0-30~1000MHz-PASS

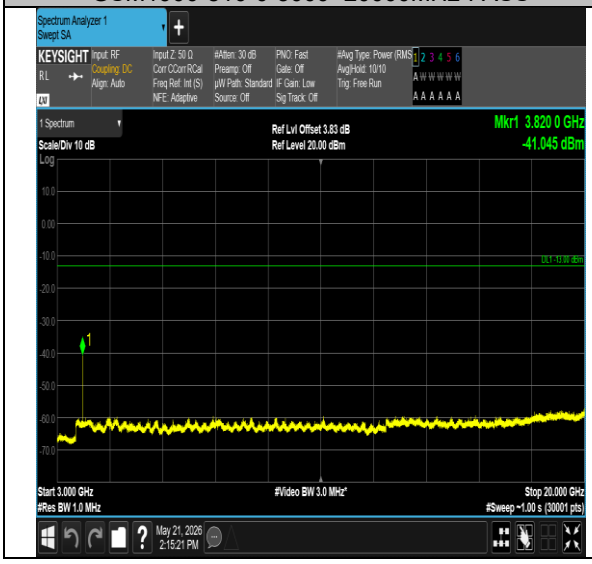


GSM1900-810-0-1000~3000MHz-PASS



GSM1900-810-0-3000~20000MHz-PASS





FREQUENCY STABILITY

Test Result

Voltage									
Band	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
GSM1900	512	VN	NT	500	0.2703	1850.000200	1850.000800	1850-1910	PASS
GSM1900	512	VL	NT	350	0.1892	1850.000100	1850.000600	1850-1910	PASS
GSM1900	512	VH	NT	700	0.3784	1850.000850	1850.000550	1850-1910	PASS
GSM1900	810	VN	NT	410	0.2147	1909.677755	1909.923065	1850-1910	PASS
GSM1900	810	VL	NT	-340	-0.1780	1909.678890	1909.920430	1850-1910	PASS
GSM1900	810	VH	NT	240	0.1257	1909.678300	1909.922180	1850-1910	PASS

Temperature									
Band	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
GSM1900	512	NV	-30	390.00	0.2108	1850.07884	1850.32194	1850-1910	PASS
GSM1900	512	NV	-20	-570.00	-0.3081	1850.078405	1850.320455	1850-1910	PASS
GSM1900	512	NV	-10	-630.00	-0.3405	1850.078375	1850.320365	1850-1910	PASS
GSM1900	512	NV	0	-330.00	-0.1784	1850.0782	1850.32114	1850-1910	PASS
GSM1900	512	NV	10	-950.00	-0.5135	1850.07691	1850.32119	1850-1910	PASS
GSM1900	512	NV	20	510.00	0.2756	1850.077965	1850.323055	1850-1910	PASS
GSM1900	512	NV	30	300.00	0.1621	1850.0785	1850.3221	1850-1910	PASS
GSM1900	512	NV	40	-600.00	-0.3243	1850.0783	1850.3205	1850-1910	PASS
GSM1900	512	NV	50	-420.00	-0.2270	1850.07794	1850.32122	1850-1910	PASS
GSM1900	810	NV	-30	-580.00	-0.3037	1909.677365	1909.921475	1850-1910	PASS
GSM1900	810	NV	-20	890.00	0.4660	1909.679185	1909.922595	1850-1910	PASS
GSM1900	810	NV	-10	270.00	0.1414	1909.678065	1909.922475	1850-1910	PASS
GSM1900	810	NV	0	1190.00	0.6231	1909.6789	1909.92348	1850-1910	PASS

GSM1900	810	NV	10	290.00	0.1518	1909.677865	1909.922715	1850-1910	PASS
GSM1900	810	NV	20	640.00	0.3351	1909.677795	1909.923485	1850-1910	PASS
GSM1900	810	NV	30	-260.00	-0.1361	1909.67852	1909.92096	1850-1910	PASS
GSM1900	810	NV	40	-400.00	-0.2094	1909.677915	1909.921285	1850-1910	PASS
GSM1900	810	NV	50	-380.00	-0.1990	1909.67828	1909.92096	1850-1910	PASS

WCDMA BAND 2

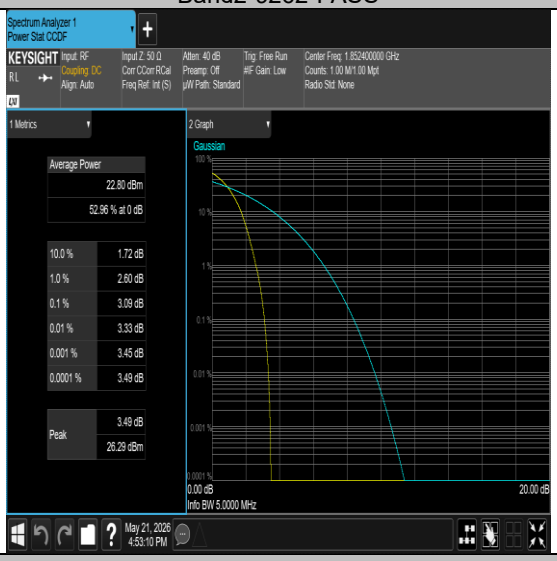
PEAK-TO-AVERAGE RATIO

Test Result

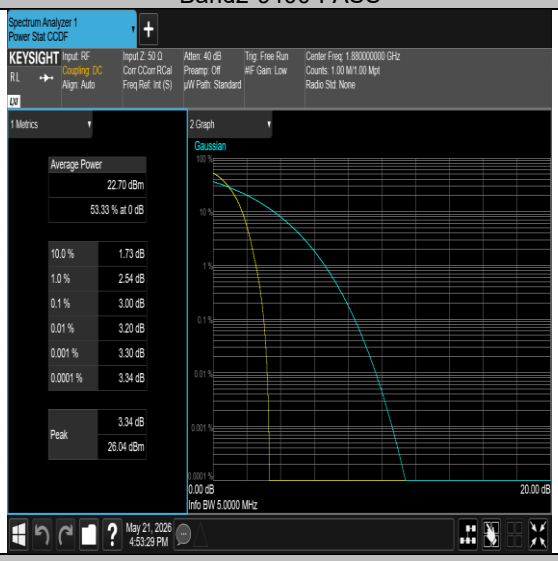
Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.09	13	PASS
Band2	9400	3	13	PASS
Band2	9538	2.9	13	PASS

Test Graphs

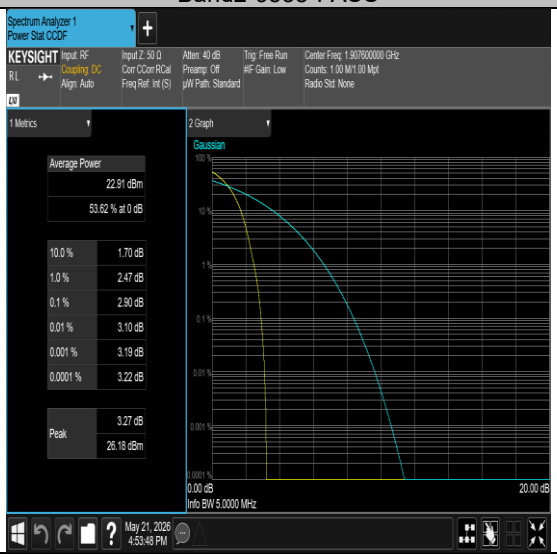
Band2-9262-PASS



Band2-9400-PASS



Band2-9538-PASS



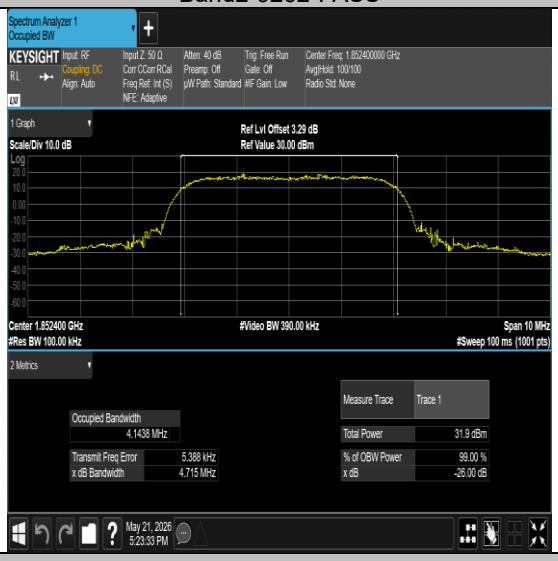
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

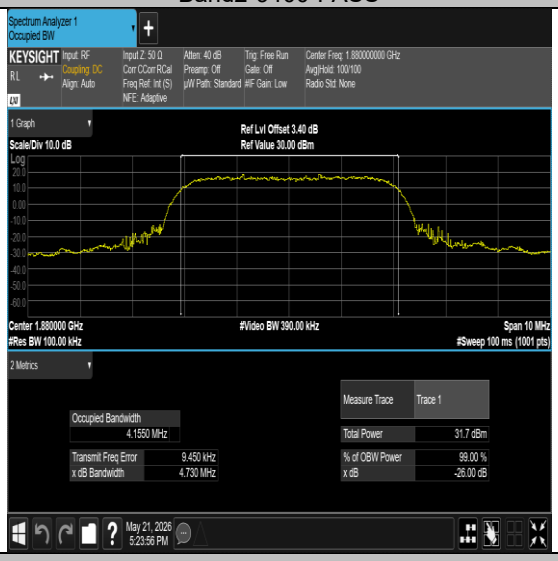
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band2	9262	4.1438	4.715	---	PASS
Band2	9400	4.1550	4.730	---	PASS
Band2	9538	4.1521	4.714	---	PASS

Test Graphs

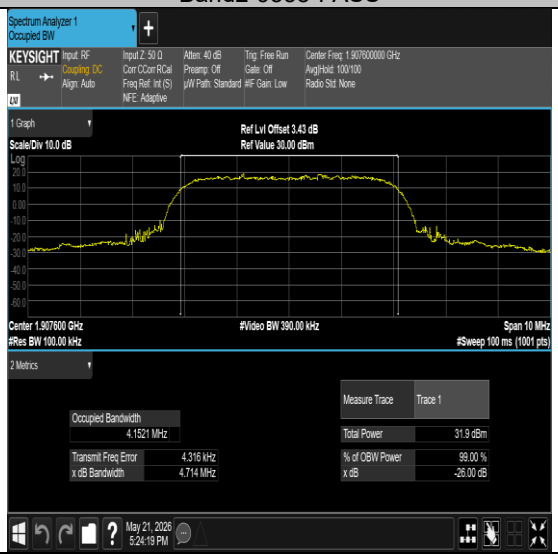
Band2-9262-PASS



Band2-9400-PASS



Band2-9538-PASS



BAND EDGE

Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band2	9262	1849.87	-27.38	-13	PASS
Band2	9538	1910.01	-26.21	-13	PASS

Test Graphs

Band2-9262-PASS

Band2-9538-PASS

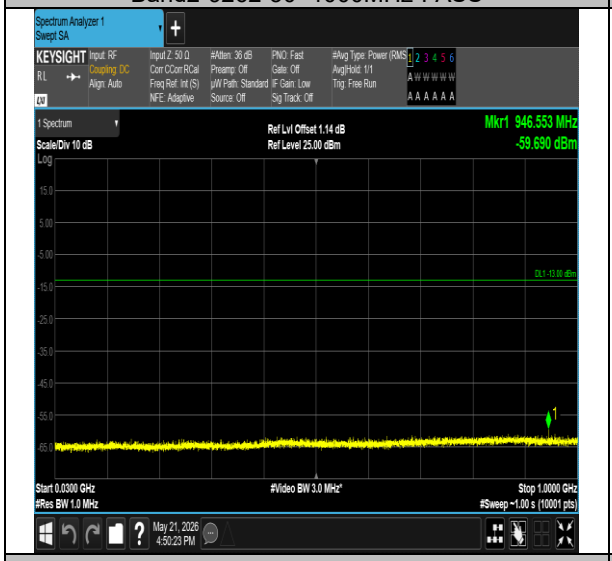
CONDUCTED SPURIOUS EMISSION

Test Result

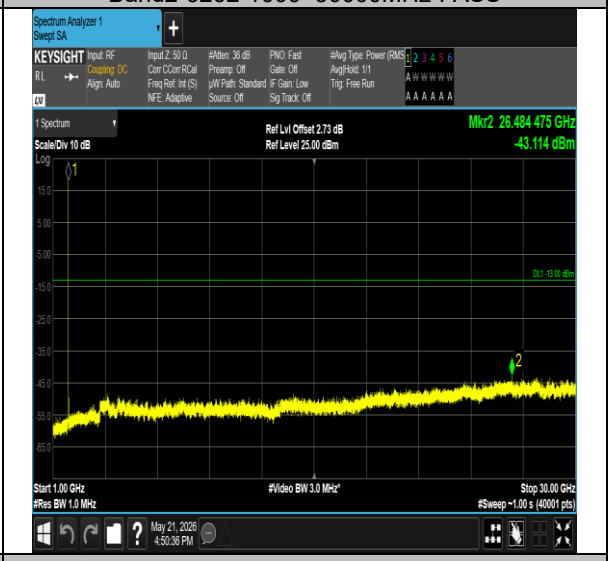
Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band2	9262	30~1000MHz	946.55	-59.69	-13	PASS
Band2	9262	1000~30000MHz	26484.48	-43.11	-13	PASS
Band2	9262	3000~20000MHz	19936.68	-45.78	-13	PASS
Band2	9400	30~1000MHz	861.97	-60.9	-13	PASS
Band2	9400	1000~30000MHz	28702.98	-43.49	-13	PASS
Band2	9400	3000~20000MHz	19718.65	-45.93	-13	PASS
Band2	9538	30~1000MHz	741.69	-60.85	-13	PASS
Band2	9538	1000~30000MHz	27730.75	-43.18	-13	PASS
Band2	9538	3000~20000MHz	19984.28	-45.36	-13	PASS

Test Graphs

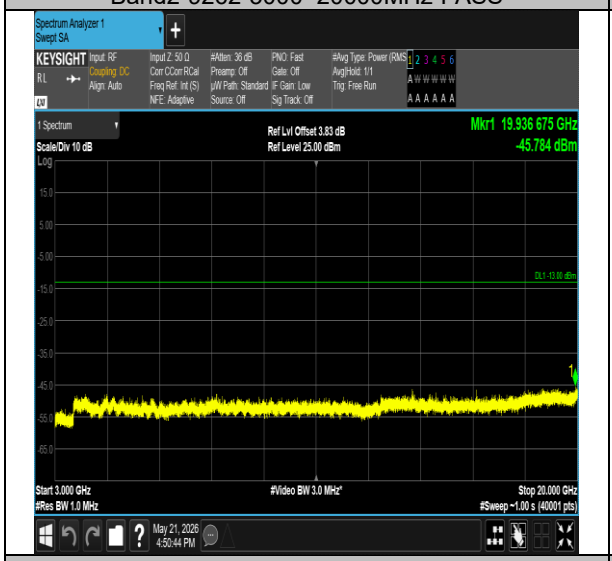
Band2-9262-30~1000MHz-PASS



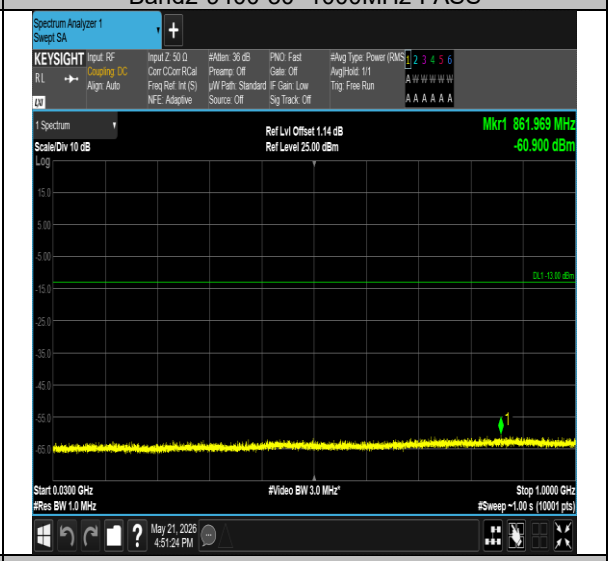
Band2-9262-1000~30000MHz-PASS



Band2-9262-3000~20000MHz-PASS

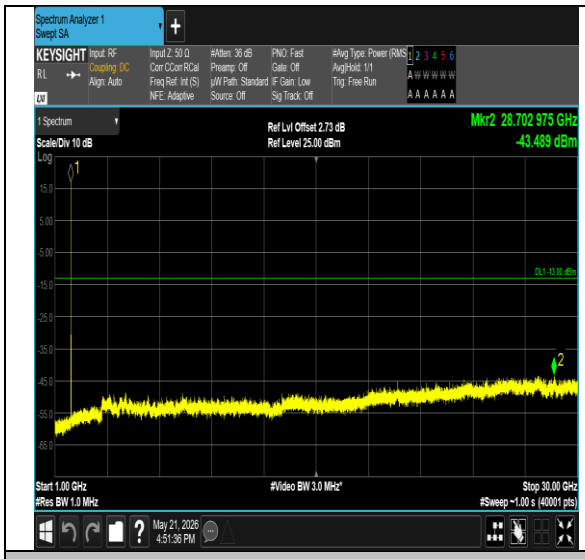


Band2-9400-30~1000MHz-PASS

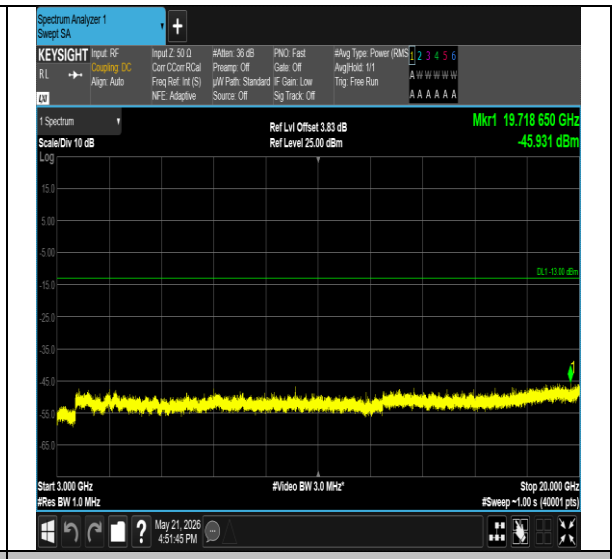


Band2-9400-1000~30000MHz-PASS

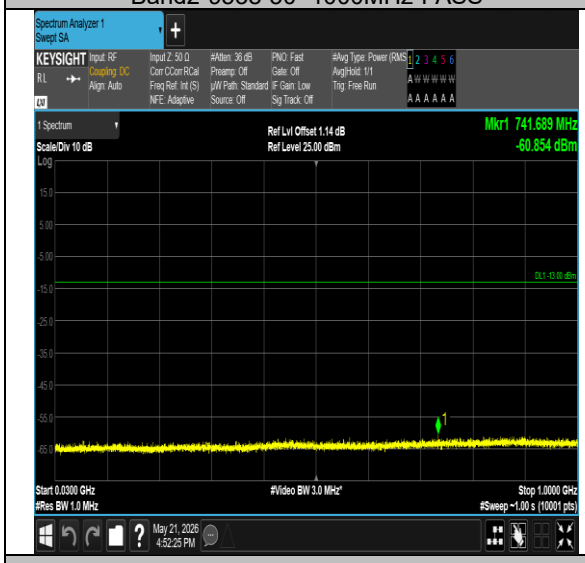
Band2-9400-3000~20000MHz-PASS



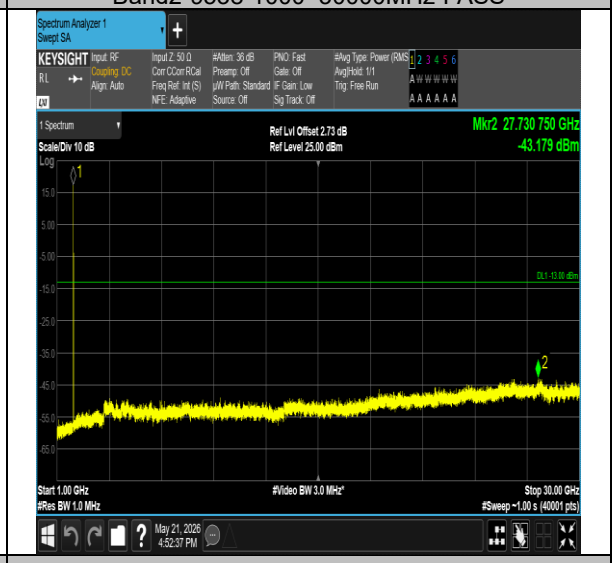
Band2-9538-30~1000MHz-PASS

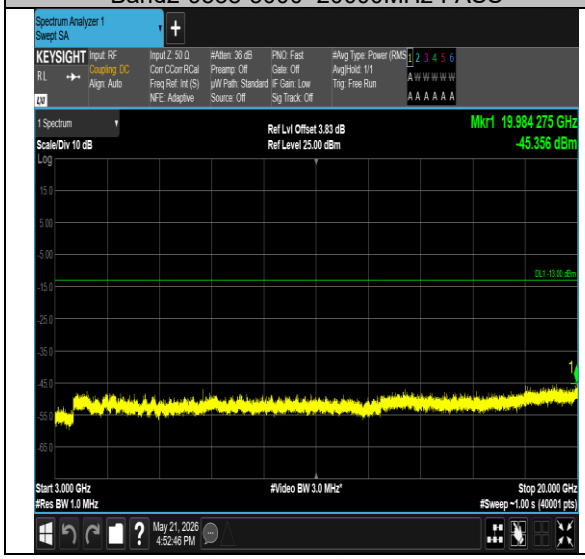


Band2-9538-1000~30000MHz-PASS



Band2-9538-3000~20000MHz-PASS





FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	VN	NT	17.57	0.009487	±2.5	PASS
Band2	9262	VL	NT	12.63	0.006820	±2.5	PASS
Band2	9262	VH	NT	18.03	0.009732	±2.5	PASS
Band2	9538	VN	NT	18.81	0.009862	±2.5	PASS
Band2	9538	VL	NT	12.82	0.006723	±2.5	PASS
Band2	9538	VH	NT	18.09	0.009481	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band2	9262	NV	-30	17.75	0.009585	±2.5	PASS
Band2	9262	NV	-20	18.60	0.010039	±2.5	PASS
Band2	9262	NV	-10	18.58	0.0100280	±2.5	PASS
Band2	9262	NV	0	13.80	0.007449	±2.5	PASS
Band2	9262	NV	10	12.58	0.006791	±2.5	PASS
Band2	9262	NV	20	13.56	0.007322	±2.5	PASS
Band2	9262	NV	30	13.02	0.007029	±2.5	PASS
Band2	9262	NV	40	12.61	0.006805	±2.5	PASS
Band2	9262	NV	50	13.61	0.0073470	±2.5	PASS
Band2	9538	NV	-30	12.91	0.006769	±2.5	PASS
Band2	9538	NV	-20	12.59	0.006599	±2.5	PASS
Band2	9538	NV	-10	17.71	0.009284	±2.5	PASS
Band2	9538	NV	0	13.09	0.006860	±2.5	PASS
Band2	9538	NV	10	18.06	0.009469	±2.5	PASS
Band2	9538	NV	20	13.37	0.007011	±2.5	PASS
Band2	9538	NV	30	12.53	0.006568	±2.5	PASS
Band2	9538	NV	40	12.72	0.006669	±2.5	PASS
Band2	9538	NV	50	17.73	0.009292	±2.5	PASS

LTE BAND 2

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

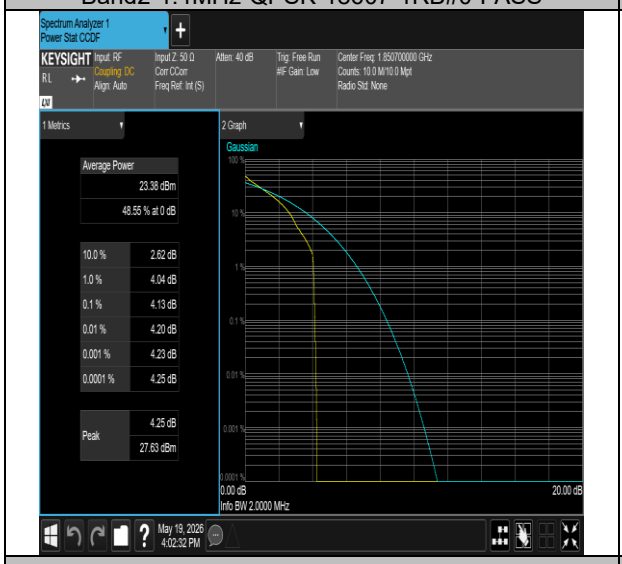
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band2	1.4MHz	QPSK	18607	1RB#0	4.13	13	PASS
Band2	1.4MHz	QPSK	18607	6RB#0	5.14	13	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	3.62	13	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	4.57	13	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	3.42	13	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	4.33	13	PASS
Band2	1.4MHz	64QAM	18607	1RB#0	5.92	13	PASS
Band2	1.4MHz	64QAM	18607	6RB#0	6.55	13	PASS
Band2	1.4MHz	64QAM	18900	1RB#0	5.44	13	PASS
Band2	1.4MHz	64QAM	18900	6RB#0	6.13	13	PASS
Band2	1.4MHz	64QAM	19193	1RB#0	5.26	13	PASS
Band2	1.4MHz	64QAM	19193	6RB#0	6.00	13	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	5.06	13	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	6.03	13	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	4.55	13	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	5.46	13	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	4.33	13	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	5.25	13	PASS
Band2	3MHz	QPSK	18615	1RB#0	4.07	13	PASS
Band2	3MHz	QPSK	18615	15RB#0	5.05	13	PASS
Band2	3MHz	QPSK	18900	1RB#0	3.63	13	PASS
Band2	3MHz	QPSK	18900	15RB#0	4.81	13	PASS
Band2	3MHz	QPSK	19185	1RB#0	3.47	13	PASS
Band2	3MHz	QPSK	19185	15RB#0	4.73	13	PASS
Band2	3MHz	64QAM	18615	1RB#0	5.93	13	PASS
Band2	3MHz	64QAM	18615	15RB#0	6.50	13	PASS
Band2	3MHz	64QAM	18900	1RB#0	5.38	13	PASS
Band2	3MHz	64QAM	18900	15RB#0	6.28	13	PASS
Band2	3MHz	64QAM	19185	1RB#0	5.31	13	PASS
Band2	3MHz	64QAM	19185	15RB#0	6.24	13	PASS
Band2	3MHz	16QAM	18615	1RB#0	5.01	13	PASS
Band2	3MHz	16QAM	18615	15RB#0	5.96	13	PASS
Band2	3MHz	16QAM	18900	1RB#0	4.53	13	PASS
Band2	3MHz	16QAM	18900	15RB#0	5.69	13	PASS
Band2	3MHz	16QAM	19185	1RB#0	4.40	13	PASS
Band2	3MHz	16QAM	19185	15RB#0	5.62	13	PASS
Band2	5MHz	QPSK	18625	1RB#0	4.00	13	PASS
Band2	5MHz	QPSK	18625	25RB#0	5.10	13	PASS
Band2	5MHz	QPSK	18900	1RB#0	3.62	13	PASS
Band2	5MHz	QPSK	18900	25RB#0	4.84	13	PASS
Band2	5MHz	QPSK	19175	1RB#0	3.64	13	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.81	13	PASS
Band2	5MHz	64QAM	18625	1RB#0	5.88	13	PASS
Band2	5MHz	64QAM	18625	25RB#0	6.48	13	PASS
Band2	5MHz	64QAM	18900	1RB#0	5.46	13	PASS
Band2	5MHz	64QAM	18900	25RB#0	6.29	13	PASS

Band2	5MHz	64QAM	19175	1RB#0	5.48	13	PASS
Band2	5MHz	64QAM	19175	25RB#0	6.28	13	PASS
Band2	5MHz	16QAM	18625	1RB#0	5.01	13	PASS
Band2	5MHz	16QAM	18625	25RB#0	6.03	13	PASS
Band2	5MHz	16QAM	18900	1RB#0	4.60	13	PASS
Band2	5MHz	16QAM	18900	25RB#0	5.75	13	PASS
Band2	5MHz	16QAM	19175	1RB#0	4.61	13	PASS
Band2	5MHz	16QAM	19175	25RB#0	5.71	13	PASS
Band2	10MHz	QPSK	18650	1RB#0	4.08	13	PASS
Band2	10MHz	QPSK	18650	50RB#0	5.01	13	PASS
Band2	10MHz	QPSK	18900	1RB#0	3.80	13	PASS
Band2	10MHz	QPSK	18900	50RB#0	4.80	13	PASS
Band2	10MHz	QPSK	19150	1RB#0	4.03	13	PASS
Band2	10MHz	QPSK	19150	50RB#0	4.91	13	PASS
Band2	10MHz	64QAM	18650	1RB#0	5.89	13	PASS
Band2	10MHz	64QAM	18650	50RB#0	6.49	13	PASS
Band2	10MHz	64QAM	18900	1RB#0	5.58	13	PASS
Band2	10MHz	64QAM	18900	50RB#0	6.34	13	PASS
Band2	10MHz	64QAM	19150	1RB#0	5.81	13	PASS
Band2	10MHz	64QAM	19150	50RB#0	6.41	13	PASS
Band2	10MHz	16QAM	18650	1RB#0	4.99	13	PASS
Band2	10MHz	16QAM	18650	50RB#0	5.92	13	PASS
Band2	10MHz	16QAM	18900	1RB#0	4.68	13	PASS
Band2	10MHz	16QAM	18900	50RB#0	5.71	13	PASS
Band2	10MHz	16QAM	19150	1RB#0	4.92	13	PASS
Band2	10MHz	16QAM	19150	50RB#0	5.80	13	PASS
Band2	15MHz	QPSK	18675	1RB#0	4.22	13	PASS
Band2	15MHz	QPSK	18675	75RB#0	5.12	13	PASS
Band2	15MHz	QPSK	18900	1RB#0	4.17	13	PASS
Band2	15MHz	QPSK	18900	75RB#0	5.14	13	PASS
Band2	15MHz	QPSK	19125	1RB#0	4.14	13	PASS
Band2	15MHz	QPSK	19125	75RB#0	5.29	13	PASS
Band2	15MHz	64QAM	18675	1RB#0	6.06	13	PASS
Band2	15MHz	64QAM	18675	75RB#0	6.54	13	PASS
Band2	15MHz	64QAM	18900	1RB#0	6.13	13	PASS
Band2	15MHz	64QAM	18900	75RB#0	6.51	13	PASS
Band2	15MHz	64QAM	19125	1RB#0	6.06	13	PASS
Band2	15MHz	64QAM	19125	75RB#0	6.68	13	PASS
Band2	15MHz	16QAM	18675	1RB#0	5.13	13	PASS
Band2	15MHz	16QAM	18675	75RB#0	6.10	13	PASS
Band2	15MHz	16QAM	18900	1RB#0	5.18	13	PASS
Band2	15MHz	16QAM	18900	75RB#0	6.05	13	PASS
Band2	15MHz	16QAM	19125	1RB#0	5.18	13	PASS
Band2	15MHz	16QAM	19125	75RB#0	6.23	13	PASS
Band2	20MHz	QPSK	18700	1RB#0	4.19	13	PASS
Band2	20MHz	QPSK	18700	100RB#0	5.10	13	PASS
Band2	20MHz	QPSK	18900	1RB#0	4.02	13	PASS
Band2	20MHz	QPSK	18900	100RB#0	4.91	13	PASS
Band2	20MHz	QPSK	19100	1RB#0	3.99	13	PASS
Band2	20MHz	QPSK	19100	100RB#0	5.09	13	PASS
Band2	20MHz	64QAM	18700	1RB#0	5.95	13	PASS
Band2	20MHz	64QAM	18700	100RB#0	6.57	13	PASS
Band2	20MHz	64QAM	18900	1RB#0	5.80	13	PASS
Band2	20MHz	64QAM	18900	100RB#0	6.38	13	PASS

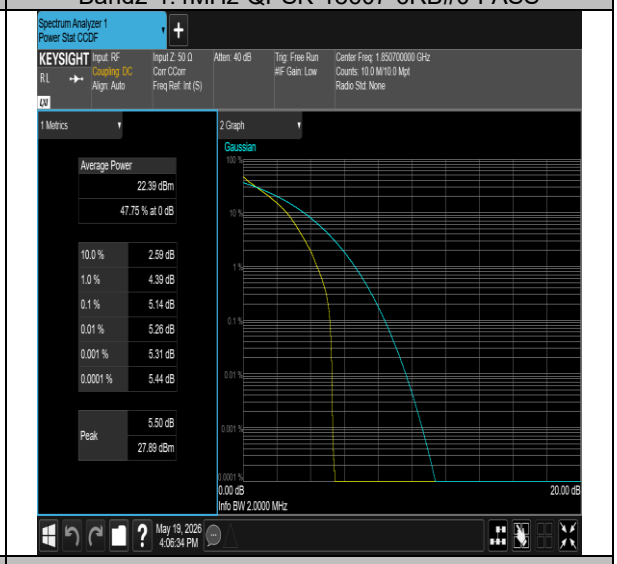
Band2	20MHz	64QAM	19100	1RB#0	5.76	13	PASS
Band2	20MHz	64QAM	19100	100RB#0	6.56	13	PASS
Band2	20MHz	16QAM	18700	1RB#0	5.09	13	PASS
Band2	20MHz	16QAM	18700	100RB#0	6.02	13	PASS
Band2	20MHz	16QAM	18900	1RB#0	4.93	13	PASS
Band2	20MHz	16QAM	18900	100RB#0	5.80	13	PASS
Band2	20MHz	16QAM	19100	1RB#0	4.90	13	PASS
Band2	20MHz	16QAM	19100	100RB#0	5.98	13	PASS

Test Graphs

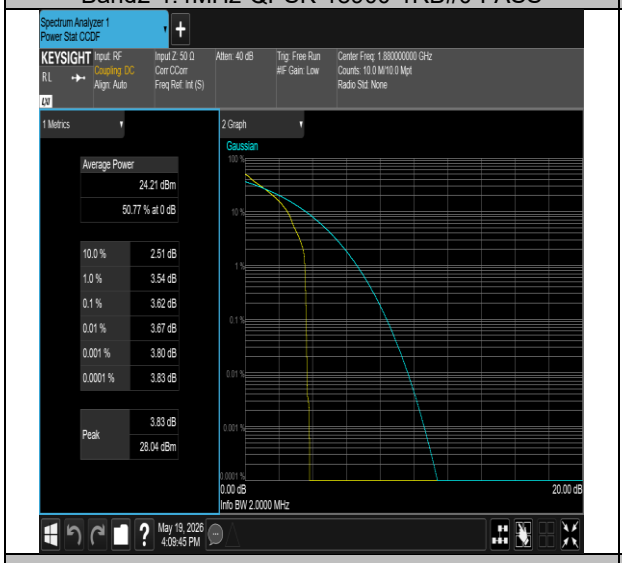
Band2-1.4MHz-QPSK-18607-1RB#0-PASS



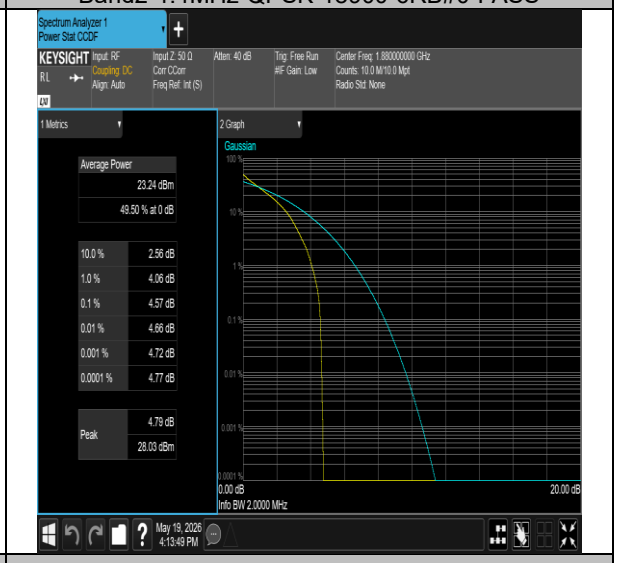
Band2-1.4MHz-QPSK-18607-6RB#0-PASS



Band2-1.4MHz-QPSK-18900-1RB#0-PASS

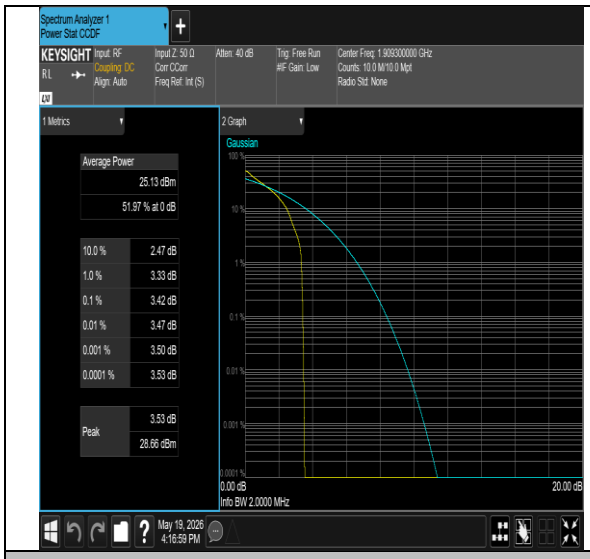


Band2-1.4MHz-QPSK-18900-6RB#0-PASS

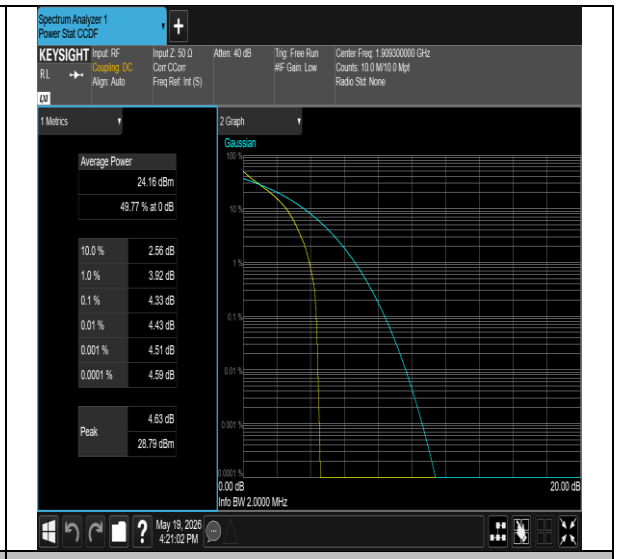


Band2-1.4MHz-QPSK-19193-1RB#0-PASS

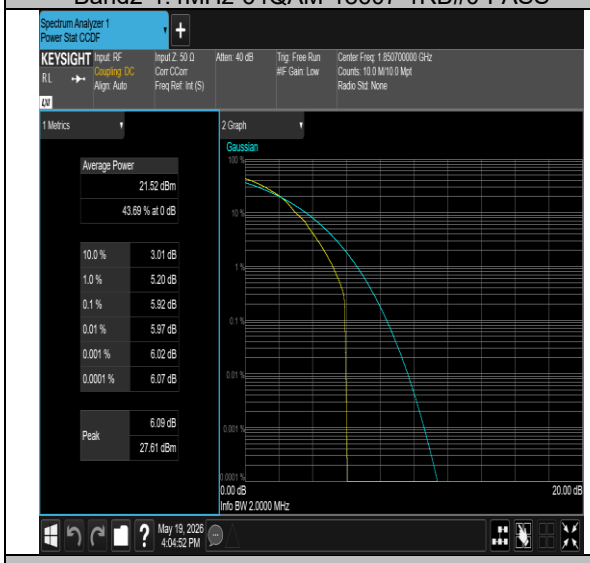
Band2-1.4MHz-QPSK-19193-6RB#0-PASS



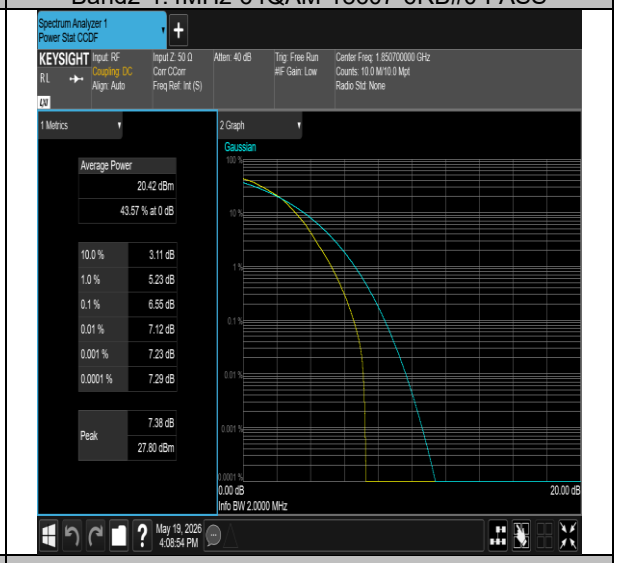
Band2-1.4MHz-64QAM-18607-1RB#0-PASS



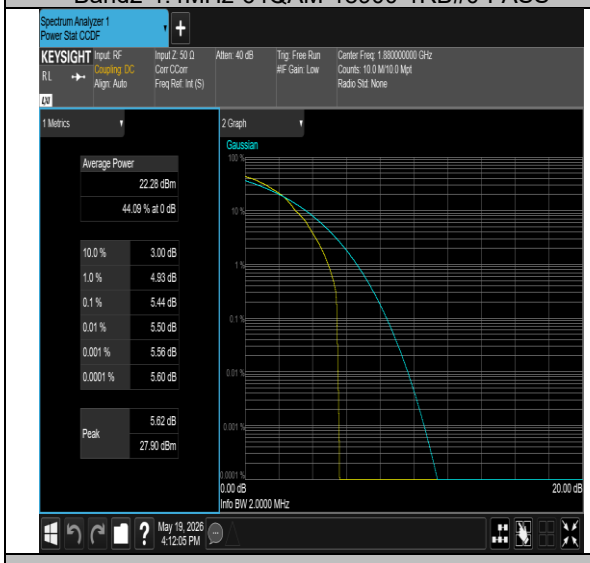
Band2-1.4MHz-64QAM-18607-6RB#0-PASS



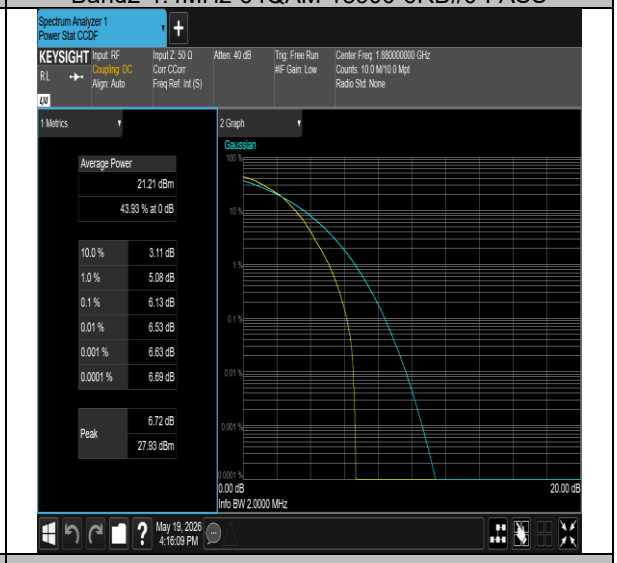
Band2-1.4MHz-64QAM-18900-1RB#0-PASS



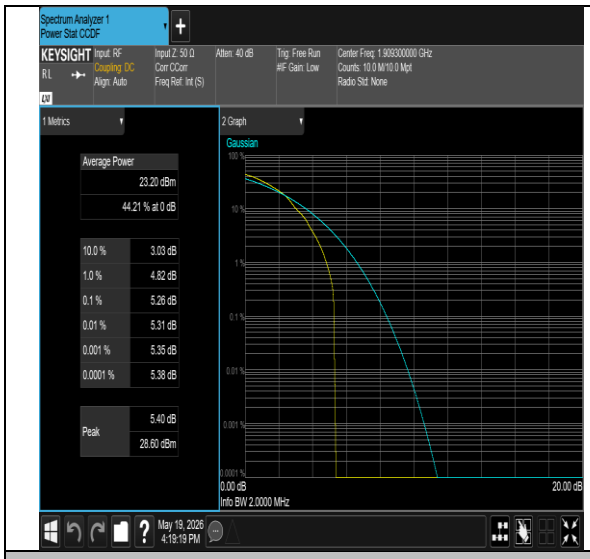
Band2-1.4MHz-64QAM-18900-6RB#0-PASS



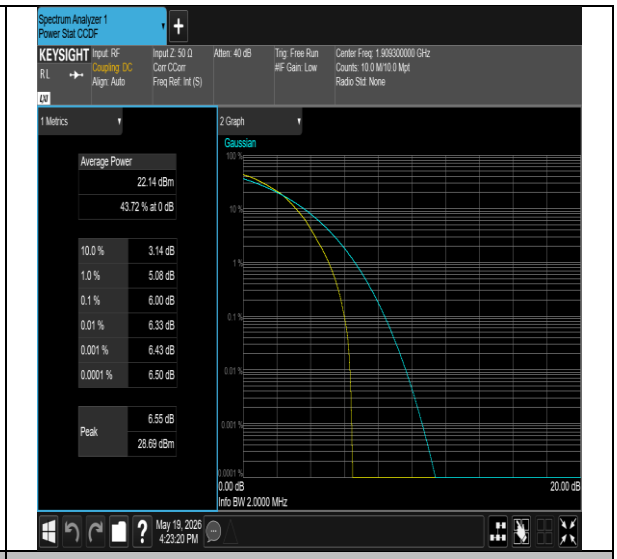
Band2-1.4MHz-64QAM-19193-1RB#0-PASS



Band2-1.4MHz-64QAM-19193-6RB#0-PASS



Band2-1.4MHz-16QAM-18607-1RB#0-PASS



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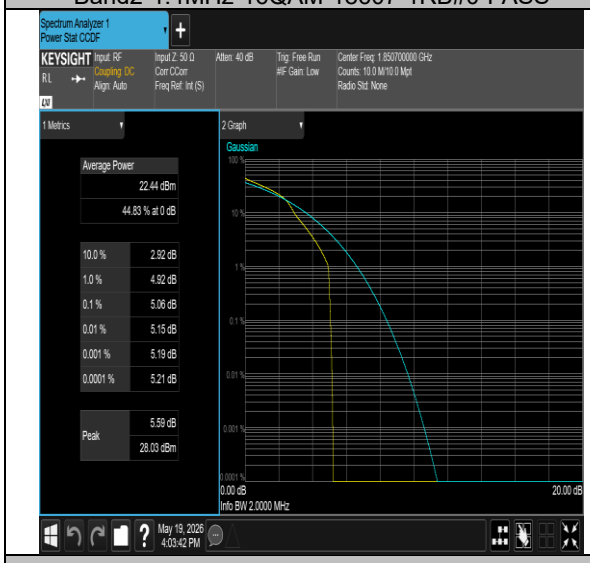

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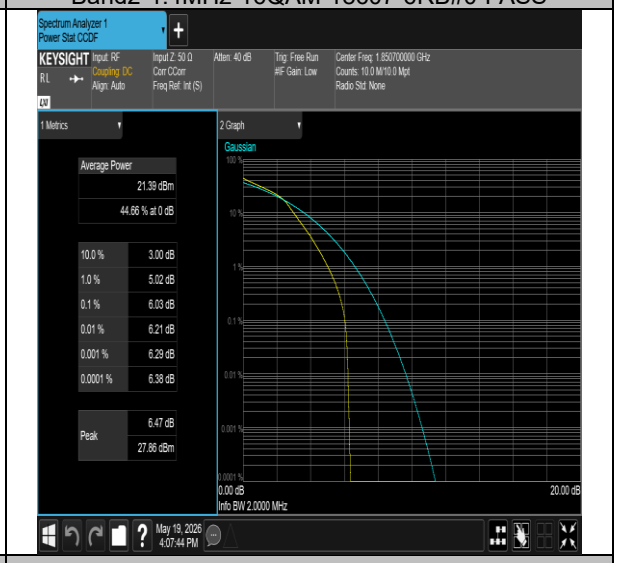

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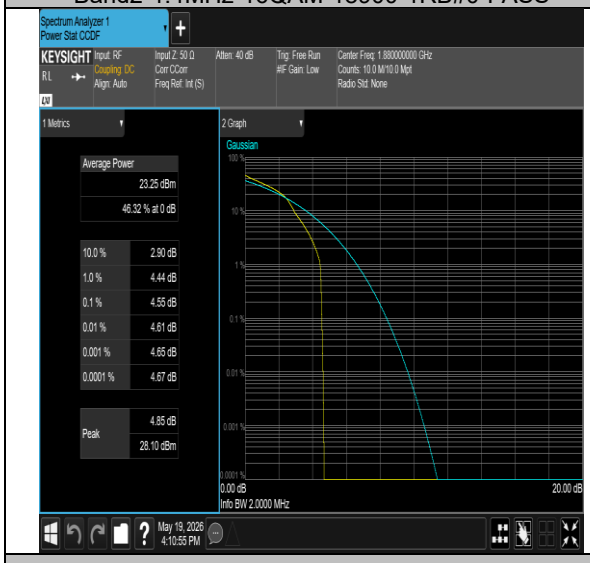
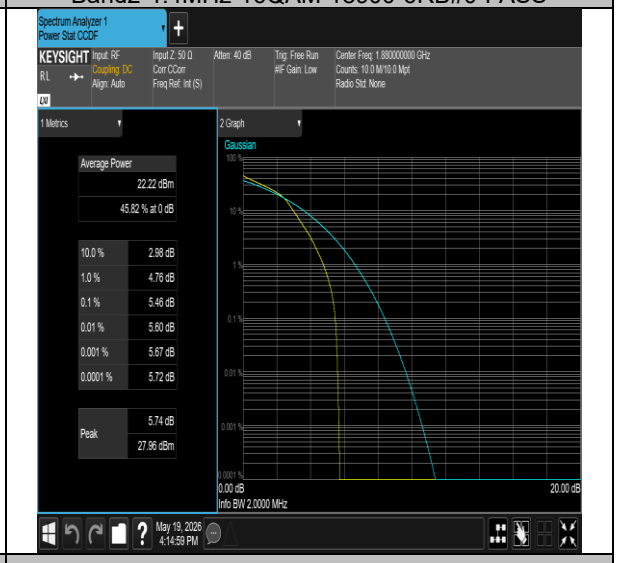


Band2-1.4MHz-16QAM-19193-1RB#0-PASS



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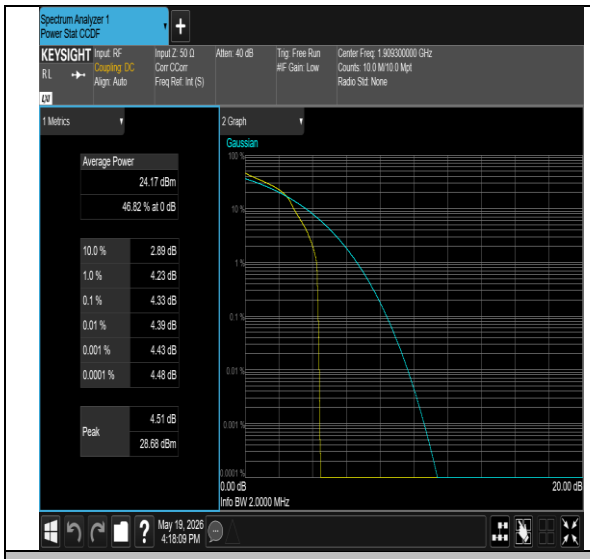
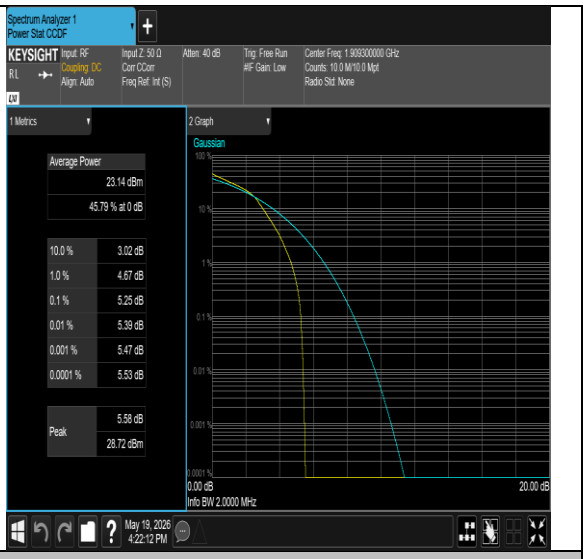
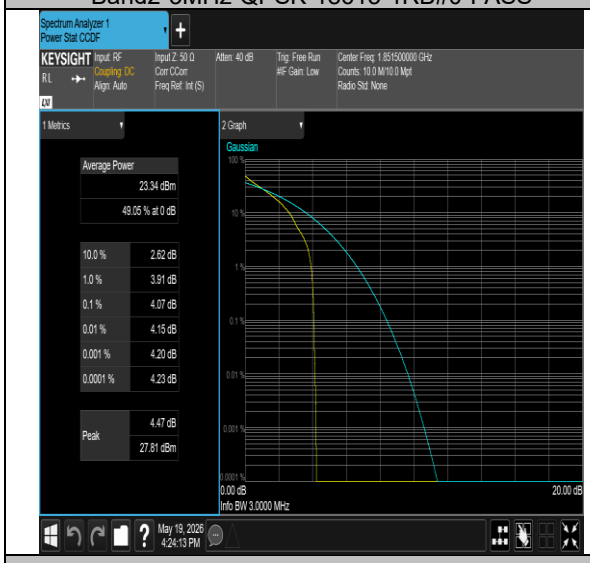


Band2-3MHz-QPSK-18615-1RB#0-PASS



Band2-3MHz-QPSK-18615-15RB#0-PASS



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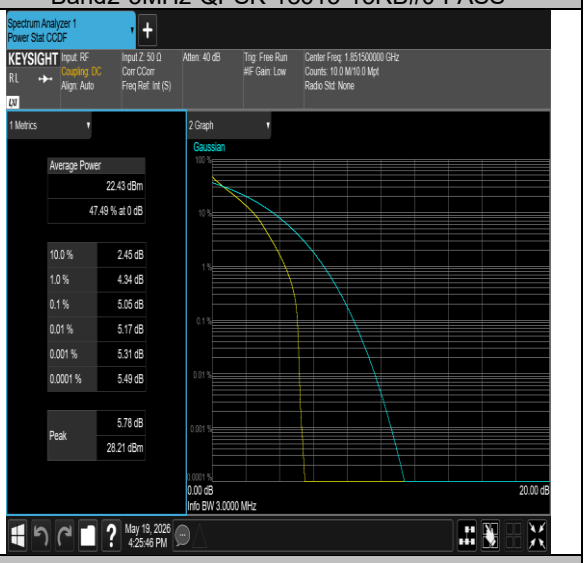

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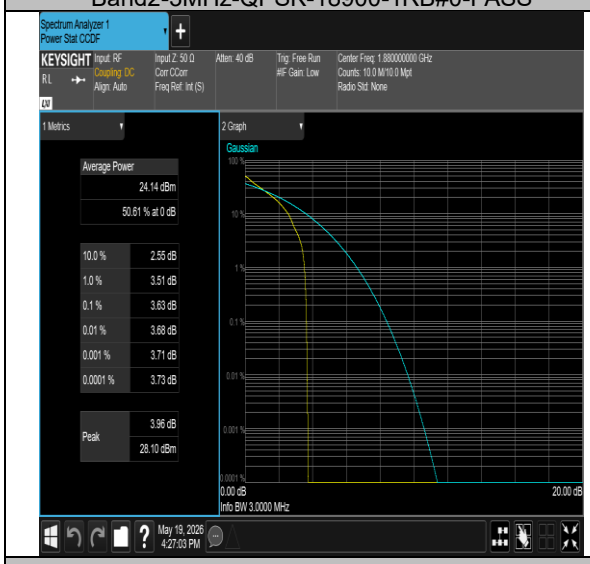
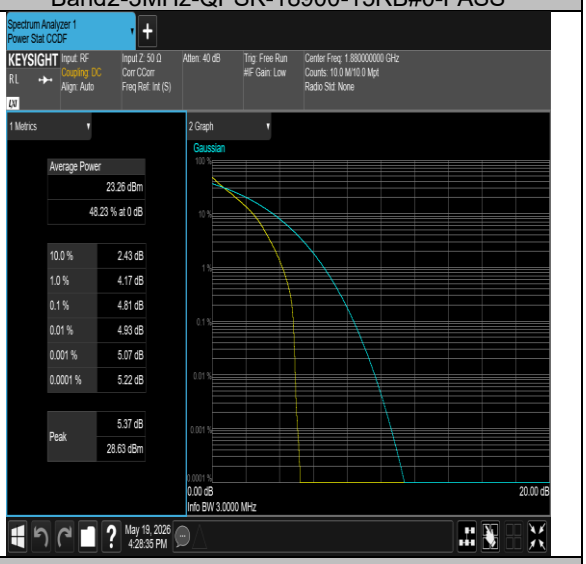


Band2-3MHz-QPSK-19185-1RB#0-PASS



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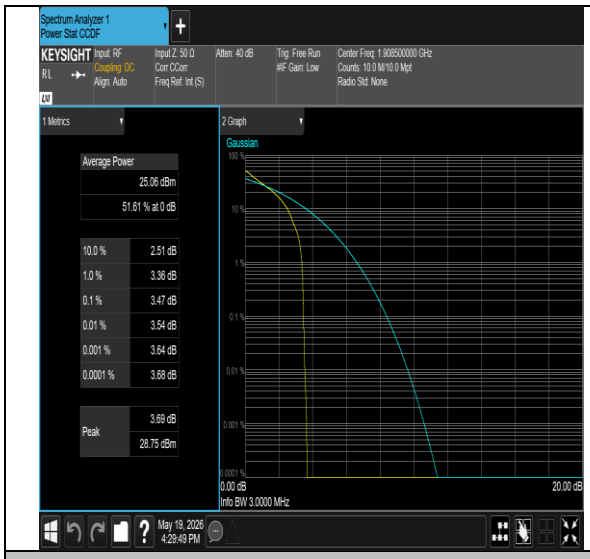
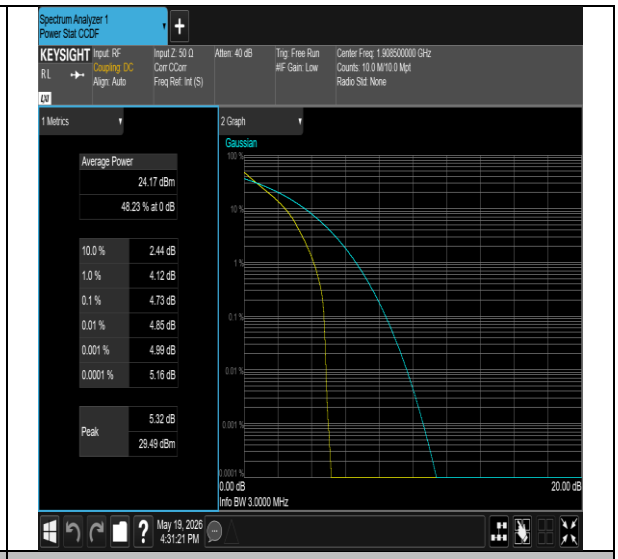


Band2-3MHz-64QAM-18615-1RB#0-PASS



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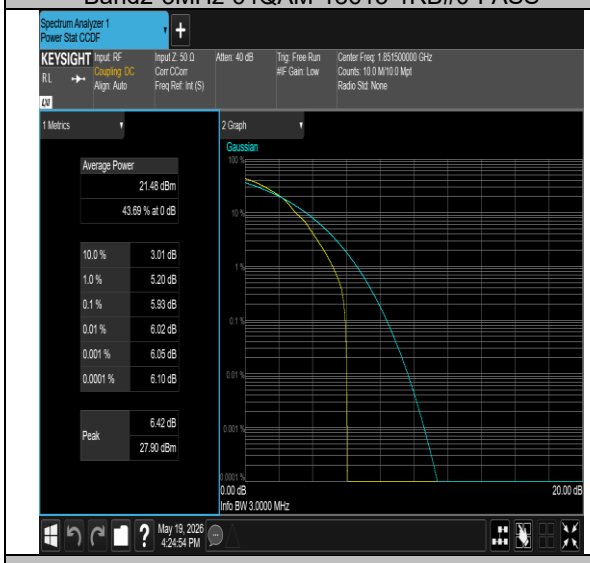
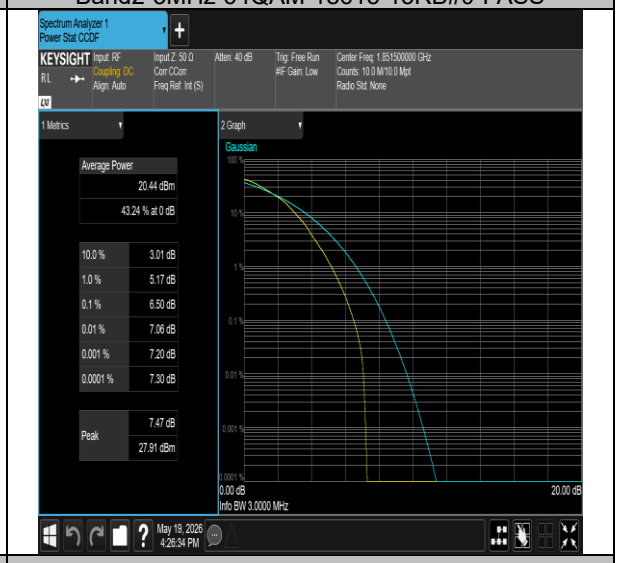
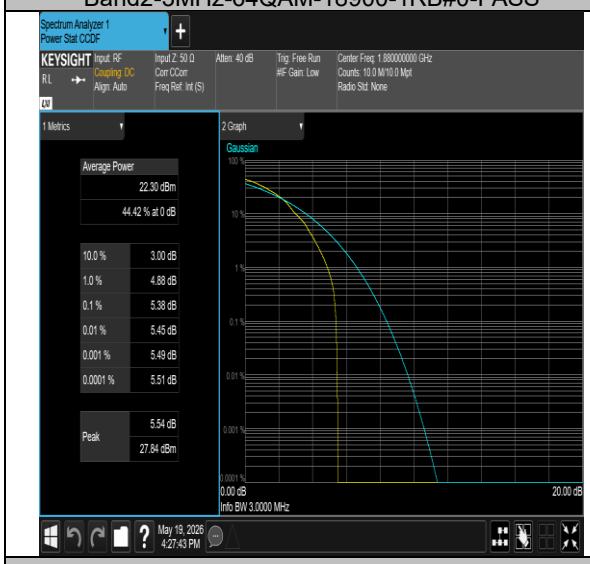


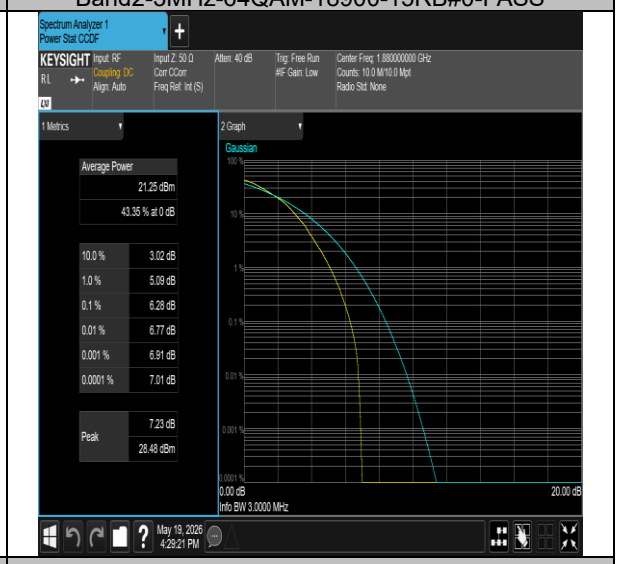
Band2-3MHz-64QAM-18900-1RB#0-PASS



Band2-3MHz-64QAM-18900-15RB#0-PASS



Band2-3MHz-64QAM-19185-1RB#0-PASS



Band2-3MHz-64QAM-19185-15RB#0-PASS