



TEST REPORT

REPORT NUMBER: I23W00045-LTE RF

ON

Type of Equipment: 4G Smart Phone
Type of Designation: MobiWire H6322, Altice S35
Brand Name: MobiWire, Altice
Manufacturer: MobiWire SAS
FCC ID: QPN-H6322

ACCORDING TO

FCC 47 CFR Part 24; FCC 47 CFR Part 22; FCC 47 CFR Part 2; FCC 47 CFR Part 27

Chongqing Academy of Information and Communications Technology

Month date, year

October 8, 2023

Signature

Director

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of Chongqing Academy of Information and Communications Technology.



Report No.: I23W00045-LTE RF

Revision Version

Report Number	Revision	Date
I23W00045-LTE RF	00	2023-09-18
I23W00045-LTE RF	01	2023-10-08

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



CONTENTS

1.	Test Laboratory.....	5
1.1.	Testing Location.....	5
1.2.	Testing Environment	5
1.3.	Project data	5
1.4.	Signature.....	5
2.	Client Information	6
2.1.	Applicant Information.....	6
2.2.	Manufacturer Information	6
3.	Equipment under Test (EUT) and Ancillary Equipment (AE).....	7
3.1.	About EUT	7
3.2.	Internal Identification of EUT used during the test	7
3.3.	Outline of Equipment under Test	8
3.4.	Internal Identification of AE used during the test	8
4.	Reference Documents.....	9
4.1.	Documents supplied by applicant.....	9
4.2.	Reference Documents for testing.....	9
5.	Test Equipments Utilized.....	10
5.1.	RF Test System	10
5.2.	RSE Test System	10
5.3.	Climate Chamber.....	11
5.4.	Anechoic chamber Vibration table.....	11
5.5.	Test software.....	11
6.	Test Results.....	12
6.1.	Summary of Test Results.....	12
6.2.	Output Power	13
6.3.	Peak-to-Average Power Ratio	35

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF

6.4.	99% Occupied Bandwidth	37
6.5.	-26dB Emission Bandwidth.....	49
6.6.	Frequency Stability.....	61
6.7.	Conducted Spurious Emission.....	66
6.8.	Band Edge Compliance	72
6.9.	EMISSION LIMIT	83
	Annex A EUT Photos.....	93
	Annex B Deviations from Prescribed Test Methods.....	94

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

1. Test Laboratory

1.1. Testing Location

Name:	Chongqing Academy of Information and Communications Technology
Identifier Number:	CN0044
Designation Number:	CN1239
Address:	Building C, Technology Innovation Center, No.8, Yuma Road, Chayuan New Area, Nan'an District, Chongqing, People's Republic of China
Postal Code:	401336
Telephone:	0086-23-88069965
Fax:	0086-23-88608777


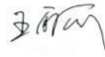
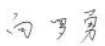
1.2. Testing Environment

Normal Temperature:	15-35°C
Relative Humidity:	30-60%

1.3. Project data

Testing Start Date:	2023-08-15
Testing End Date:	2023-08-24

1.4. Signature

	2023-10-08
Junxin Dong (Prepared this test report)	Date
	2023-10-08
Lili Wang (Reviewed this test report)	Date
	2023-10-08
Luoyong Xiang Director of the laboratory (Approved this test report)	Date

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

2. Client Information

2.1. Applicant Information

Company Name:	MobiWire SAS
Address /Post:	107 Boulevard de la Mission Marchand 92400 Courbevoie,France
City:	Courbevoie
Country:	France
Telephone:	+33625028368
Fax:	N/A
Email:	olivier.tiennault@mobiwire.com
Contact Person:	Olivier Tiennault

2.2. Manufacturer Information

Company Name:	MobiWire SAS
Address /Post:	107 Boulevard de la Mission Marchand 92400 Courbevoie,France
City:	Courbevoie
Country:	France
Telephone:	+33625028368
Fax:	N/A
Email:	olivier.tiennault@mobiwire.com
Contact Person:	Olivier Tiennault

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	4G Smart Phone
Model name	MobiWire H6322, Altice S35
Brand name	MobiWire, Altice
GSM Frequency Band	GSM:850/ 900/ 1800/1900
WCDMA Frequency Band	WCDMA:B1/B2/B5/B8
LTE Frequency Band	LTE:B1/2/3/4/5/7/8/20/28/38/41
BLUETOOTH Frequency Band	2402MHz-2480MHz
WLAN Frequency Band	Wi-Fi 2.4G:802.11b/g/n, Wi-Fi 5G U-NII-1/ U-NII-2a/U-NII-2c/U-NII-3:802.11a/n/ac
Type of LTE modulation	QPSK/16QAM
Power Class 2	N/A
Power Class 3	LTE:B1/2/3/4/5/7/8/20/28/38/41
Extreme Temperature	-10/+55°C
Nominal Voltage	3.85V
Extreme High Voltage	4.4V
Extreme Low Voltage	3.6V

Note: Photographs of EUT are shown in ANNEX A of this test report.

Note: High and low voltage values in extreme condition test are given by manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
S1	354365420300609 354365420300617	V01	Mobiwire_H6322_V01	2023-08-15
S2	354365420300385 354365420300393	V01	Mobiwire_H6322_V01	2023-08-15
S3	354365420300641 354365420300658	V01	Mobiwire_H6322_V01	2023-08-15

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX:0086-23-88608777

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Outline of Equipment under Test

Technology	Band	UL Freq.(MHz)	DL Freq.(MHz)	Note
4G	2	1850-1910	1930-1990	--
	4	1710-1755	2110-2155	--
	5	824-849	869-894	--
	7	2500-2570	2620-2690	--
	38	2570-2620	2570-2620	--
	41	2496-2690	2496-2690	--

3.4. Internal Identification of AE used during the test

AE ID*	Description	dB*
AE1	RF cable	0.5

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Documents supplied by applicant

PICS/PIXIT, referring to Annex B for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC 47 CFR Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	--
FCC 47 CFR Part 22	PUBLIC MOBILE SERVICES	--
FCC 47 CFR Part 24	PERSONAL COMMUNICATIONS SERVICES	--
FCC 47 CFR Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	--

5. Test Equipments Utilized

5.1. RF Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacturer	Cal. Interval	Cal.Due Date
1	Spectrum analyzer	FSQ 26	201137/026	--	--	R&S	1 Year	2023-06-29
								2024-06-28
2	Spectrum analyzer	FSW26	104280	--	--	R&S	1 Year	2023-06-29
								2024-06-28
3	DC Power Supply	3303D	801128	--	--	Topward	1 Year	2023-06-29
								2024-06-28
4	Universal Radio Communication Tester	CMW500	152395	--	--	R&S	1 Year	2023-06-29
								2024-06-28

5.2. RSE Test System

No.	Equipment	Model	SN	HW Version	SW Version	Manufacturer	Cal. Interval	Cal.Due Date
1	EMI Test Receiver	ESU40	100307	--	--	R&S	1 Year	2023-06-29
								2024-06-28
2	TRILOG Broadband Antenna	VULB9163	9163-586	--	--	Schwarzbeck	1 Year	2022-10-20
								2023-10-29
3	Horn antenna	9120D	1083	--	--	Schwarzbeck	2 Year	2022-10-25
								2024-12-14
4	Horn antenna	DATE 1152	LM7127	--	--	ETS	2 Year	2022-09-07
								2024-09-06
5	Horn antenna	DATE 1012	LM5945	--	--	ETS	2 Year	2022-09-07
								2024-09-06
6	Amplifier1	SCU-08F1		--	--	R&S	1 Year	2023-06-

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

			832002 7					29 2024-06-28
7	Amplifier2	SCU-18F	180093	--	--	R&S	1 Year	2023-06-29 2024-06-28

5.3. Climate Chamber

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
1	Climate chamber	SH-241	92010759	--	1 Year	2023-06-29 2024-06-28

5.4. Anechoic chamber Vibration table

No.	Name	Type	SN	Manufacture	Cal. Interval	Cal.Due Date
1	Fully-Anechoic Chamber	FAC 5	--	TDK	3 Year	2021-09-23 2024-09-22
2	Anechoic Chamber	SAC 10	--	TDK	3 Year	2021-08-27 2024-08-26

5.5. Test software

No.	Name	version	SN	Manufacture
1	EMC32	V 10.20.01	--	R&S

6. Test Results

6.1. Summary of Test Results

A brief summary of the tests carried out is shown as following.

FCC Rules	Name of Test	Result
2.1046/22.913(a)/24.232(c)/27.50(d)/27.50(h)	Output Power/EIRP	PASS
24.232(d)/ 22.913(d)/27.50(d)	Peak-to-Average Ratio	PASS
2.1049	99%Occupied Bandwidth	PASS
24.238(a) /22.917(b)/27.53(h) /27.53(m)	-26dB Emission Bandwidth	PASS
24.238(a)/ 22.917(b) /27.53(h) /27.53(m)	Band Edge at antenna terminals	PASS
2.1055/22.235/24.235/27.54	Frequency stability	PASS
2.1057/22.917(b)/24.238(a) /27.53(h) /27.53(m)	Conducted Spurious mission	PASS
2.1051/22.917/24.238(a)/27.53(h)/27.53(m)	Emission Limit	PASS

Note: The MobiWire H6322, Altice S35, manufactured by MobiWire SAS is a new product for testing. This project has two configurations S1 (Mainly Supply) & S2 (Secondary Supply), the difference is memory, G-sensor and P/L sensor. We mainly test the S1 (Mainly Supply), and the S2 (Secondary Supply) tests the worst mode of the Radiated Emission of the S1 (Mainly Supply), and the test data of the worst mode will be reflected in the report.

The differences between S1 (Mainly Supply) & S2 (Secondary Supply) are shown in the table below:

Difference	Config 1: S1 (Mainly Supply)	Config 2: S2 (Secondary Supply)
CPU	MT8766V	MT6761V
Memory-ROM	HSEMSDS6S2B32G	KSI EMMC32G-PJ30
Memory-RAM	CXDB4ABAM-MK	micron FLXC2002G-N2
G-sensor	slan SC7A20ETR	sensortek STK8BA58
P-sensor	MN78912	Liteon LTR-569ALS-02

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.2. Output Power

Specifications:	FCC Part 2.1046/22.913(a)/24.232(c)/27.50(d)/27.50(h)
DUT Serial Number:	S1
Test conditions:	Ambient Temperature: 15°C-35°C Relative Humidity: 30%-60% Air pressure: 86-106kPa
Test Results:	Pass

During the process of testing, the EUT was controlled Rhode & Schwarz Digital Radio.

Communication tester to ensure max power transmission and proper modulation.

This result contains peak output power and EIRP measurements for the EUT. In all cases, output power is within the specified limits.

6.2.1. Method of Measurements

Method of measurements please refer to KDB971168 D01 v03 clause 5.

The EUT was set up for the max output power with pseudo random data modulation.

The power was measured with Rhode & Schwarz Spectrum Analyzer FSQ(peak).

6.2.2. Test procedures

The transmitter output port was connected to base station.

Set the EUT at maximum power through base station.

Select lowest, middle, and highest channels for each band and different modulation.

Measure maximum average power for other modulation signal.

The transmitter output power was connected to calibrated attenuator, the other end of which was connected to signal analyzer. Transmitter output power was read off the power in dBm. The power outputs at the transmitter antenna port was determined by adding the value of attenuator to the signal analyzer reading.

6.2.3. Limit

22.913(a) Mobile stations are limited to 7 watts.

24.232(c) Mobile and portable stations are limited to 2 watts.

27.50(d)(4): Fixed, mobile, and portable (hand-held) stations operating are limited to 1 watt EIRP.

Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

27.50(h): Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.62dB (k=2)

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.2.4. Test Condition

RBW	VBW	Sweep time	Span
3MHz	10MHz	Auto	50MHz

6.2.5. Test Setup



6.2.6. Measurement results

LTE B2			Maximum Conducted Power (dBm)				
Modulation	RB	RB Offset	Tune up	1.4MHz			
				Channel/Frequency(MHz)			
				18607/1850.7	18900/1880	19193/1909.3	
QPSK	1	Low	23.50	22.66	22.96	22.71	
		Middle		22.65	22.93	22.89	
		High		22.65	22.64	22.81	
	50%	Low	23.50	22.80	22.92	22.77	
		Middle		22.51	22.71	22.94	
		High		22.58	22.75	22.81	
	100%	/	22.50	21.84	21.84	21.87	
	16QAM	1	Low	22.50	22.12	22.38	22.41
			Middle		22.10	22.16	22.13
High			21.95		22.01	21.98	
50%		Low	22.50	21.80	21.78	21.75	
		Middle		21.82	21.79	21.78	
		High		21.79	21.78	21.80	
100%		/	21.50	20.89	20.89	20.86	
Modulation		RB	RB Offset	Tune up	3MHz		
					Channel/Frequency(MHz)		
	18615/1851.5				18900/1880	19185/1908.5	
QPSK	1	Low	23.50	22.68	22.96	22.74	
		Middle		22.63	22.96	22.93	
		High		22.68	22.69	22.85	
	50%	Low	22.50	21.90	21.89	21.90	

Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



		Middle		21.63	21.81	21.96
		High		21.68	21.86	21.91
	100%	/	22.50	21.84	21.88	21.90
16QAM	1	Low	22.50	22.15	22.40	22.44
		Middle		22.13	22.16	22.17
		High		21.97	22.05	22.01
	50%	Low	21.50	20.91	20.91	20.87
		Middle		20.93	20.92	20.90
		High		20.89	20.90	20.93
	100%	/	21.50	20.92	20.93	20.89
Modulation	RB	RB Offset	Tune up	5MHz		
				Channel/Frequency(MHz)		
				18625/1852.5	18900/1880	19175/1907.5
QPSK	1	Low	23.50	22.65	22.98	22.70
		Middle		22.61	22.92	22.90
		High		22.65	22.64	22.81
	50%	Low	22.50	21.87	21.95	21.86
		Middle		21.61	21.77	21.95
		High		21.66	21.84	21.87
	100%	/	22.50	21.84	21.87	21.88
16QAM	1	Low	22.50	22.12	22.36	22.41
		Middle		22.10	22.14	22.14
		High		21.94	22.03	21.97
	50%	Low	21.50	20.89	20.87	20.84
		Middle		20.90	20.87	20.86
		High		20.86	20.85	20.89
	100%	/	21.50	20.90	20.89	20.84
Modulation	RB	RB Offset	Tune up	10MHz		
				Channel/Frequency(MHz)		
				18650/1855	18900/1880	19150/1905
QPSK	1	Low	23.50	22.67	22.98	22.73
		Middle		22.64	22.97	22.94
		High		22.67	22.68	22.84
	50%	Low	22.50	21.90	21.93	21.90
		Middle		21.64	21.82	21.94
		High		21.68	21.88	21.92
	100%	/	22.50	21.88	21.89	21.92
16QAM	1	Low	22.50	22.14	22.39	22.43
		Middle		22.13	22.18	22.17
		High		21.97	22.05	22.00
	50%	Low	21.50	20.92	20.92	20.88

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



		Middle		20.92	20.91	20.89	
		High		20.89	20.90	20.93	
	100%	/	21.50	20.93	20.94	20.88	
Modulation	RB	RB Offset	Tune up	15MHz			
				Channel/Frequency(MHz)			
				18675/1857.5	18900/1880	19125/1902.5	
QPSK	1	Low	23.50	22.66	22.95	22.71	
		Middle		22.62	22.96	22.91	
		High		22.64	22.63	22.80	
	50%	Low	22.50	21.88	21.95	21.87	
		Middle		21.61	21.77	21.87	
		High		21.65	21.85	21.88	
	100%	/	22.50	21.86	21.85	21.87	
	16QAM	1	Low	22.50	22.09	22.37	22.41
			Middle		22.11	22.15	22.15
High			21.94		22.01	21.97	
50%		Low	21.50	20.89	20.90	20.85	
		Middle		20.89	20.86	20.85	
		High		20.87	20.86	20.90	
100%		/	21.50	20.90	20.89	20.84	
Modulation		RB	RB Offset	Tune up	20MHz		
					Channel/Frequency(MHz)		
	18700/1860				18900/1880	19100/1900	
QPSK	1	Low	23.50	22.63	22.91	22.68	
		Middle		22.61	22.99	22.89	
		High		22.62	22.62	22.77	
	50%	Low	22.50	21.85	21.95	21.83	
		Middle		21.59	21.96	21.87	
		High		21.62	21.97	21.84	
	100%	/	22.50	21.83	21.80	21.83	
	16QAM	1	Low	22.50	22.27	22.33	22.36
			Middle		22.07	22.13	22.11
High			21.92		21.98	21.95	
50%		Low	21.50	20.86	20.86	20.82	
		Middle		20.86	20.84	20.82	
		High		20.84	20.81	20.86	
100%		/	21.50	20.88	20.85	20.81	

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

LTE B4			Maximum Conducted Power (dBm)				
Modulation	RB	RB Offset	Tune up	1.4MHz			
				Channel/Frequency(MHz)			
				19957/1710.7	20175/1732.5	20393/1754.3	
QPSK	1	Low	23.50	22.61	22.70	22.62	
		Middle		22.53	22.83	22.57	
		High		22.50	22.50	22.45	
	50%	Low	23.50	22.69	22.74	22.53	
		Middle		22.59	22.76	22.58	
		High		22.63	22.74	22.58	
	100%	/	22.50	21.65	21.75	21.63	
	16QAM	1	Low	22.50	21.72	21.71	21.63
			Middle		21.70	21.81	21.71
High			21.61		21.50	21.62	
50%		Low	22.50	21.59	21.66	21.72	
		Middle		21.57	21.62	21.63	
		High		21.54	21.65	21.59	
100%		/	21.50	20.61	20.76	20.74	
Modulation		RB	RB Offset	Tune up	3MHz		
					Channel/Frequency(MHz)		
	19965/1711.5				20175/1732.5	20385/1753.5	
QPSK	1	Low	23.50	22.63	22.74	22.65	
		Middle		22.51	22.86	22.61	
		High		22.53	22.55	22.49	
	50%	Low	22.50	21.79	21.86	21.66	
		Middle		21.71	21.86	21.70	
		High		21.73	21.85	21.68	
	100%	/	22.50	21.65	21.79	21.66	
	16QAM	1	Low	22.50	21.75	21.73	21.66
			Middle		21.73	21.81	21.75
High			21.63		21.54	21.65	
50%		Low	21.50	20.70	20.79	20.84	
		Middle		20.68	20.75	20.75	
		High		20.64	20.77	20.72	
100%		/	21.50	20.64	20.80	20.77	
Modulation		RB	RB Offset	Tune up	5MHz		
					Channel/Frequency(MHz)		
	19975/1712.5				20175/1732.5	20375/1752.5	
QPSK	1	Low	23.50	22.60	22.72	22.61	
		Middle		22.49	22.82	22.58	
		High		22.50	22.50	22.45	

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



	50%	Low	22.50	21.76	21.81	21.62
		Middle		21.69	21.82	21.65
		High		21.71	21.83	21.64
	100%	/	22.50	21.65	21.78	21.64
16QAM	1	Low	22.50	21.72	21.69	21.63
		Middle		21.70	21.79	21.72
		High		21.60	21.52	21.61
	50%	Low	21.50	20.68	20.75	20.81
		Middle		20.65	20.70	20.71
		High		20.61	20.72	20.68
	100%	/	21.50	20.62	20.76	20.72
	Modulation	RB	RB Offset	Tune up	10MHz	
Channel/Frequency(MHz)						
20000/1715					20175/1732.5	20350/1750
QPSK	1	Low	23.50	22.62	22.73	22.64
		Middle		22.52	22.87	22.62
		High		22.52	22.54	22.48
	50%	Low	22.50	21.79	21.86	21.66
		Middle		21.72	21.87	21.69
		High		21.73	21.87	21.69
	100%	/	22.50	21.69	21.80	21.68
	16QAM	1	Low	22.50	21.74	21.72
Middle			21.73		21.83	21.75
High			21.63		21.54	21.64
50%		Low	21.50	20.71	20.80	20.85
		Middle		20.67	20.74	20.74
		High		20.64	20.77	20.72
100%		/	21.50	20.65	20.81	20.76
Modulation		RB	RB Offset	Tune up	15MHz	
	Channel/Frequency(MHz)					
	20025/1717.5				20175/1732.5	20325/1747.5
QPSK	1	Low	23.50	22.61	22.69	22.62
		Middle		22.50	22.86	22.59
		High		22.49	22.49	22.44
	50%	Low	22.50	21.77	21.82	21.63
		Middle		21.69	21.82	21.65
		High		21.70	21.84	21.65
	100%	/	22.50	21.67	21.76	21.63
	16QAM	1	Low	22.50	21.69	21.70
Middle			21.71		21.80	21.73
High			21.60		21.50	21.61

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Modulation	RB	RB Offset	Tune up	20MHz		
				Channel/Frequency(MHz)		
				20050/1720	20175/1732.5	20300/1745
	50%	Low	21.50	20.68	20.78	20.82
		Middle		20.64	20.69	20.70
		High		20.62	20.73	20.69
	100%	/	21.50	20.62	20.76	20.72
QPSK	1	Low	23.50	22.69	22.76	22.70
		Middle		22.60	22.93	22.68
		High		22.58	22.59	22.52
	50%	Low	22.50	21.85	21.88	21.70
		Middle		21.78	21.89	21.73
		High		21.78	21.90	21.72
	100%	/	22.50	21.75	21.82	21.70
16QAM	1	Low	22.50	21.82	21.77	21.69
		Middle		21.78	21.89	21.80
		High		21.69	21.58	21.70
	50%	Low	21.50	20.76	20.85	20.90
		Middle		20.72	20.78	20.78
		High		20.70	20.79	20.76
	100%	/	21.50	20.71	20.83	20.80

LTE B5			Maximum Conducted Power (dBm)			
Modulation	RB	RB Offset	Tune up	1.4MHz		
				Channel/Frequency(MHz)		
				20407	20525	20643
QPSK	1	Low	22.00	21.65	21.69	21.53
		Middle		21.52	21.66	21.55
		High		21.58	21.52	21.57
	50%	Low	22.00	21.50	21.56	21.50
		Middle		21.55	21.56	21.51
		High		21.58	21.56	21.55
	100%	/	21.00	20.59	20.58	20.61
16QAM	1	Low	21.00	20.84	20.88	20.93
		Middle		20.82	20.88	20.91
		High		20.97	21.00	20.96
	50%	Low	21.00	20.60	20.52	20.61
		Middle		20.64	20.58	20.68
		High		20.49	20.55	20.58
	100%	/	20.00	19.53	19.60	19.67

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Modulation	RB	RB Offset	Tune up	3MHz			
				Channel/Frequency(MHz)			
				20415	20525	20635	
QPSK	1	Low	22.00	21.66	21.68	21.55	
		Middle		21.51	21.70	21.60	
		High		21.60	21.56	21.60	
	50%	Low	21.00	20.60	20.68	20.63	
		Middle		20.68	20.67	20.62	
		High		20.68	20.67	20.66	
	100%	/	21.00	20.63	20.63	20.66	
	16QAM	1	Low	21.00	20.86	20.89	20.95
			Middle		20.85	20.90	20.95
High			20.99		21.04	20.98	
50%		Low	20.00	19.72	19.66	19.74	
		Middle		19.74	19.70	19.79	
		High		19.59	19.67	19.71	
100%		/	20.00	19.57	19.65	19.69	
Modulation		RB	RB Offset	Tune up	5MHz		
					Channel/Frequency(MHz)		
	20425				20525	20625	
QPSK	1	Low	22.00	21.65	21.68	21.53	
		Middle		21.49	21.69	21.57	
		High		21.57	21.51	21.56	
	50%	Low	21.00	20.58	20.64	20.60	
		Middle		20.65	20.62	20.58	
		High		20.65	20.66	20.62	
	100%	/	21.00	20.61	20.59	20.61	
	16QAM	1	Low	21.00	20.81	20.87	20.93
			Middle		20.83	20.87	20.93
High			20.96		21.00	20.95	
50%		Low	20.00	19.69	19.64	19.71	
		Middle		19.71	19.65	19.75	
		High		19.57	19.63	19.68	
100%		/	20.00	19.54	19.60	19.65	
Modulation		RB	RB Offset	Tune up	10MHz		
					Channel/Frequency(MHz)		
	20450/829				20525/836.5	20600/844	
QPSK	1	Low	22.00	21.62	21.64	21.50	
		Middle		21.68	21.71	21.55	
		High		21.55	21.50	21.53	
	50%	Low	21.00	20.55	20.59	20.52	

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



		Middle		20.62	20.67	20.51
		High		20.63	20.69	20.55
	100%	/	21.00	20.58	20.54	20.57
16QAM	1	Low	21.00	20.77	20.83	20.88
		Middle		20.79	20.85	20.89
		High		20.94	20.97	20.93
	50%	Low	20.00	19.66	19.60	19.68
		Middle		19.68	19.63	19.72
		High		19.54	19.58	19.64
	100%	/	20.00	19.52	19.56	19.62

LTE B7			Maximum Conducted Power (dBm)			
Modulation	RB	RB Offset	Tune up	5MHz		
				Channel/Frequency(MHz)		
				20775/2502.5	21100/2535	21425/2567.5
QPSK	1	Low	24.00	22.60	22.98	22.63
		Middle		22.97	22.95	23.02
		High		23.02	22.86	22.88
	50%	Low	23.00	22.02	21.89	21.77
		Middle		22.13	22.32	22.01
		High		22.31	22.07	22.05
	100%	/	23.00	22.12	22.14	22.23
16QAM	1	Low	23.00	22.32	21.99	22.09
		Middle		22.30	22.24	22.31
		High		21.87	21.97	22.05
	50%	Low	22.00	20.85	20.90	20.94
		Middle		21.02	20.96	21.06
		High		20.93	20.98	21.08
	100%	/	22.00	20.94	20.99	21.01
Modulation	RB	RB Offset	Tune up	10MHz		
				Channel/Frequency(MHz)		
				20800/2505	21100/2535	21400/2565
QPSK	1	Low	24.00	22.62	22.99	22.66
		Middle		23.00	23.00	23.04
		High		23.04	22.90	22.91
	50%	Low	23.00	22.05	21.94	21.81
		Middle		22.16	22.32	22.05
		High		22.33	22.11	22.10
	100%	/	23.00	22.16	22.16	22.27
16QAM	1	Low	23.00	22.34	22.02	22.11

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Modulation	RB	RB Offset		Tune up	15MHz			
		Low	High		Channel/Frequency(MHz)			
					20825/2507.5	21100/2535	21375/2562.5	
QPSK	1	Middle		22.33	22.28	22.34		
		High		21.90	21.99	22.08		
		Low	22.00	20.88	20.95	20.98		
	50%	Middle		21.04	21.00	21.09		
		High		20.96	21.03	21.12		
		Low	22.00	20.97	21.04	21.05		
	100%	/						
	16QAM	1	Low	24.00	22.61	22.95	22.64	
			Middle		22.98	22.99	23.03	
High				23.01	22.85	22.87		
50%		Low	23.00	22.03	21.90	21.78		
		Middle		22.13	22.32	22.01		
		High		22.30	22.08	22.06		
100%		/		22.14	22.12	22.22		
16QAM		1	Low	23.00	22.29	22.00	22.09	
			Middle		22.31	22.25	22.32	
	High			21.87	21.95	22.05		
	50%	Low	22.00	20.85	20.93	20.95		
		Middle		21.01	20.95	21.05		
		High		20.94	20.99	21.09		
	100%	/		20.94	20.99	21.01		
	Modulation	RB	RB Offset		Tune up	20MHz		
			Low	High		Channel/Frequency(MHz)		
					20850/2510	21100/2535	21350/2560	
QPSK	1	Low	24.00	22.58	22.91	22.61		
		Middle		22.97	23.05	22.95		
		High		22.99	22.84	22.84		
	50%	Low	23.00	22.00	21.85	21.74		
		Middle		22.11	22.33	21.98		
		High		22.27	22.34	22.02		
	100%	/		22.11	22.07	22.18		
	16QAM	1	Low	23.00	21.92	21.96	22.04	
			Middle		22.27	22.23	22.28	
High				21.85	21.92	22.03		
50%		Low	22.00	20.82	20.89	20.92		
		Middle		20.98	20.93	21.02		
		High		20.91	20.94	21.05		
100%		/		20.92	20.95	20.98		

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

LTE B38			Maximum Conducted Power (dBm)			
Modulation	RB	RB Offset	Tune up	5MHz		
				Channel/Frequency(MHz)		
				37775/2572.5	38000/2595	38225/2617.5
QPSK	1	Low	24.50	23.03	22.94	23.00
		Middle		23.08	23.11	23.51
		High		22.97	22.90	23.38
	50%	Low	23.50	21.86	21.74	22.28
		Middle		22.00	21.96	22.30
		High		22.05	22.08	22.05
	100%	/	23.50	22.09	21.97	22.18
16QAM	1	Low	23.50	22.24	22.35	22.23
		Middle		22.22	22.32	22.20
		High		22.15	22.15	22.11
	50%	Low	22.50	21.22	20.98	21.10
		Middle		21.20	21.08	21.06
		High		21.07	21.04	21.07
	100%	/	22.50	21.08	21.03	21.05
Modulation	RB	RB Offset	Tune up	10MHz		
				Channel/Frequency(MHz)		
				37800/2575	38000/2595	38200/2615
QPSK	1	Low	24.50	23.03	22.94	22.89
		Middle		23.08	23.11	23.40
		High		22.97	22.96	23.27
	50%	Low	23.50	21.86	21.88	22.17
		Middle		22.00	21.96	22.19
		High		22.05	22.08	22.08
	100%	/	23.50	22.09	21.97	22.13
16QAM	1	Low	23.50	22.38	22.27	22.23
		Middle		22.28	22.24	22.20
		High		22.21	22.15	22.11
	50%	Low	22.50	21.22	20.98	21.10
		Middle		21.12	21.08	21.06
		High		21.07	21.04	21.07
	100%	/	22.50	21.08	21.03	21.05
Modulation	RB	RB Offset	Tune up	15MHz		
				Channel/Frequency(MHz)		
				37825/2577.5	38000/2595	38175/2612.5
QPSK	1	Low	24.50	23.03	22.94	22.89
		Middle		23.08	23.11	23.37
		High		22.97	22.96	23.27

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



	50%	Low	23.50	21.86	21.80	22.17
		Middle		22.00	21.88	22.19
		High		22.05	22.00	22.08
	100%	/	23.50	22.09	21.89	22.21
16QAM	1	Low	23.50	22.19	22.16	22.20
		Middle		22.09	22.17	22.11
		High		22.02	22.12	22.00
	50%	Low	22.50	21.11	21.00	21.01
		Middle		21.20	21.22	21.12
		High		21.15	21.18	21.15
	100%	/	22.50	21.11	21.15	21.09
	Modulation	RB	RB Offset	Tune up	20MHz	
Channel/Frequency(MHz)						
37850/2580					38000/2595	38150/2610
QPSK	1	Low	24.50	23.14	23.05	23.00
		Middle		23.19	23.22	23.43
		High		23.08	23.07	23.30
	50%	Low	23.50	21.97	21.91	22.20
		Middle		22.11	21.99	22.22
		High		22.16	22.11	22.11
	100%	/	23.50	22.20	22.00	22.24
	16QAM	1	Low	23.50	22.30	22.27
Middle			22.20		22.24	22.20
High			22.13		22.15	22.11
50%		Low	22.50	21.14	20.98	21.10
		Middle		21.12	21.14	21.12
		High		21.07	21.10	21.13
100%		/	22.50	21.08	21.09	21.11

LTE B41			Maximum Conducted Power (dBm)					
Modulation	RB	RB Offset	Tune up	5MHz				
				Channel/Frequency(MHz)				
				39675/2498.5	40148/2545.8	40620/2593	41093/2640.3	41565/2687.5
QPSK	1	Low	24.50	23.37	23.47	23.43	23.43	23.61
		Middle		23.68	23.58	23.76	23.68	23.75
		High		23.59	23.47	23.51	23.53	23.68
	50%	Low	23.50	22.47	22.52	22.46	22.69	22.60
		Middle		22.51	22.56	22.54	22.63	22.74
		High		22.62	22.57	22.58	22.62	22.76

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

	100 %	/	23.50	22.43	22.57	22.59	22.69	22.72	
16QAM	1	Low	23.50	22.63	22.68	22.49	22.55	22.65	
		Middle		22.61	22.64	22.70	22.46	22.35	
		High		22.58	22.59	22.58	22.57	22.28	
	50%	Low	22.50	21.10	20.92	21.06	21.03	21.30	
		Middle		21.18	21.05	21.18	21.12	21.22	
		High		21.12	21.16	21.20	21.21	21.13	
	100 %	/	22.50	21.13	21.14	21.21	21.14	21.15	
	Modulation	RB	RB Offset	Tune up	10MHz				
					Channel/Frequency(MHz)				
39700/2501					40160/2547	40620/2593	41080/2639	41540/2685	
QPSK	1	Low	24.50	23.39	23.48	23.46	23.44	23.64	
		Middle		23.71	23.63	23.80	23.73	23.79	
		High		23.61	23.51	23.54	23.57	23.71	
	50%	Low	23.50	22.50	22.57	22.50	22.74	22.64	
		Middle		22.54	22.61	22.58	22.68	22.78	
		High		22.64	22.61	22.63	22.66	22.81	
	100 %	/	23.50	22.47	22.59	22.63	22.71	22.76	
	16QAM	1	Low	23.50	22.65	22.71	22.51	22.58	22.67
			Middle		22.64	22.68	22.73	22.50	22.38
High			22.61		22.61	22.61	22.59	22.31	
50%		Low	22.50	21.13	20.97	21.10	21.08	21.34	
		Middle		21.20	21.09	21.21	21.16	21.25	
		High		21.15	21.21	21.24	21.26	21.17	
100 %		/	22.50	21.16	21.19	21.25	21.19	21.19	
Modulation		RB	RB Offset	Tune up	15MHz				
					Channel/Frequency(MHz)				
	39725/2503.5				40173/2548.3	40620/2593	41068/2637.8	41515/2682.5	
QPSK	1	Low	24.50	23.38	23.44	23.44	23.40	23.62	
		Middle		23.69	23.62	23.77	23.72	23.76	
		High		23.58	23.46	23.50	23.52	23.67	
	50%	Low	23.50	22.48	22.53	22.47	22.70	22.61	
		Middle		22.51	22.56	22.54	22.63	22.74	
		High		22.61	22.58	22.59	22.63	22.77	
	100 %	/	23.50	22.45	22.55	22.58	22.67	22.71	
	16QAM	1	Low		22.60	22.69	22.49	22.56	22.65

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Modulation	RB	RB Offset	Tune up	20MHz					
				Channel/Frequency(MHz)					
				39750/2506	40185/2549.5	40620/2593	41055/2636.5	41490/2680	
QPSK	1	Low	23.50	22.62	22.65	22.71	22.47	22.36	
		Middle		22.58	22.57	22.58	22.55	22.28	
		High		21.10	20.95	21.07	21.06	21.31	
	50%	Low	22.50	21.17	21.04	21.17	21.11	21.21	
		Middle		21.13	21.17	21.21	21.22	21.14	
		High		21.13	21.14	21.21	21.14	21.15	
	100%	/	22.50	21.13	21.14	21.21	21.14	21.15	
	16QAM	1	Low	24.50	23.24	23.30	23.30	23.26	23.48
			Middle		23.72	23.71	23.89	23.69	23.78
High			23.52		23.32	23.44	23.38	23.53	
50%		Low	23.50	22.42	22.39	22.41	22.64	22.47	
		Middle		22.63	22.68	22.70	22.59	22.66	
		High		22.55	22.52	22.71	22.57	22.63	
100%		/	23.50	22.39	22.49	22.52	22.53	22.65	
16QAM		1	Low	23.50	22.32	22.51	22.38	22.38	22.46
			Middle		22.44	22.49	22.61	22.31	22.18
	High		22.42		22.40	22.50	22.38	22.12	
	50%	Low	22.50	21.27	21.11	21.24	21.22	21.48	
		Middle		21.34	21.22	21.34	21.29	21.38	
		High		21.30	21.32	21.37	21.37	21.30	
	100%	/	22.50	21.31	21.30	21.38	21.30	21.32	

6.2.7. EIRP

Maximum of Antenna Gain:

No.	Item(s)	Data
1	2	0.12dBi
2	4	-0.39dBi
3	5	0.2 dBi
4	7	1.5 dBi
5	38	1.53 dBi

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



6	41	1.53 dBi
Note: The data of gain is provided by the customer may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.		

LTE Band 2- EIRP 24. 232(b)**Limits:** ≤33dBm (2W)**LTE Band 2_1.4MHz_QPSK**

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	22.92	33.00	H
1880	23.08	33.00	H
1909.3	23.06	33.00	H

LTE Band 2_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	22.80	33.00	H
1880	23.08	33.00	H
1908.5	23.05	33.00	H

LTE Band 2_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	22.77	33.00	H
1880	23.10	33.00	H
1907.5	23.02	33.00	H

LTE Band 2_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	22.79	33.00	H
1880	23.10	33.00	H
1905	23.06	33.00	H

LTE Band 2_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	22.78	33.00	H
1880	23.08	33.00	H
1902.5	23.03	33.00	H

LTE Band 2_20 MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	22.75	33.00	H
1880	23.11	33.00	H
1900	23.01	33.00	H

LTE Band 2_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	22.24	33.00	H
1880	22.50	33.00	H

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



1909.3	22.53	33.00	H
--------	-------	-------	---

LTE Band 2_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	22.27	33.00	H
1880	22.52	33.00	H
1908.5	22.56	33.00	H

LTE Band 2_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	22.24	33.00	H
1880	22.48	33.00	H
1907.5	22.53	33.00	H

LTE Band 2_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	22.26	33.00	H
1880	22.51	33.00	H
1905	22.55	33.00	H

LTE Band 2_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	22.23	33.00	H
1880	22.49	33.00	H
1902.5	22.53	33.00	H

LTE Band 2_20 MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	22.39	33.00	H
1880	22.45	33.00	H
1900	22.48	33.00	H

LTE Band 4- EIRP 27.50(d)**Limits:** ≤30dBm (1W)**LTE Band 4_1.4MHz_QPSK**

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1710.7	22.30	30.00	H
1732.5	22.44	30.00	H
1754.3	22.23	30.00	H

LTE Band 4_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1711.5	22.24	30.00	H
1732.5	22.47	30.00	H
1753.5	22.26	30.00	H

LTE Band 4_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
----------------	-----------	------------	--------------

Chongqing Academy of Information and Communication TechnologyAddress: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX:0086-23-88608777

1712.5	22.21	30.00	H
1732.5	22.43	30.00	H
1752.5	22.22	30.00	H

LTE Band 4_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1715	22.23	30.00	H
1732.5	22.48	30.00	H
1750	22.25	30.00	H

LTE Band 4_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1717.5	22.22	30.00	H
1732.5	22.47	30.00	H
1747.5	22.23	30.00	H

LTE Band 4_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1720	22.30	30.00	H
1732.5	22.54	30.00	H
1745	22.31	30.00	H

LTE Band 4_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1710.7	21.33	30.00	H
1732.5	21.42	30.00	H
1754.3	21.33	30.00	H

LTE Band 4_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1711.5	21.36	30.00	H
1732.5	21.42	30.00	H
1753.5	21.36	30.00	H

LTE Band 4_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1712.5	21.33	30.00	H
1732.5	21.40	30.00	H
1752.5	21.33	30.00	H

LTE Band 4_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1715	21.35	30.00	H
1732.5	21.44	30.00	H
1750.5	21.36	30.00	H

LTE Band 4_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
----------------	-----------	------------	--------------

Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777



1717.5	21.32	30.00	H
1732.5	21.41	30.00	H
1747.5	21.34	30.00	H

LTE Band 4_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1720	21.43	30.00	H
1732.5	21.50	30.00	H
1745	21.41	30.00	H

LTE Band 5- ERP/EIRP 22.913(a)**Limits:** ≤38.45dBm (7W)**LTE Band 5_1.4MHz_QPSK**

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
824.70	19.70	21.85	38.45	H
836.50	19.74	21.89	38.45	H
848.30	19.62	21.77	38.45	H

LTE Band 5_3MHz_QPSK

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
825.50	19.71	21.86	38.45	H
836.50	19.75	21.90	38.45	H
847.50	19.65	21.80	38.45	H

LTE Band 5_5MHz_QPSK

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
826.50	19.70	21.85	38.45	H
836.50	19.74	21.89	38.45	H
846.50	19.62	21.77	38.45	H

LTE Band 5_10MHz_QPSK

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
829.00	19.73	21.88	38.45	H
836.50	19.76	21.91	38.45	H
844.00	19.60	21.75	38.45	H

LTE Band 5_1.4MHz_16QAM

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
824.70	19.02	21.17	38.45	H
836.50	19.05	21.20	38.45	H
848.30	19.01	21.16	38.45	H

LTE Band 5_3MHz_16QAM

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
825.50	19.04	21.19	38.45	H
836.50	19.09	21.24	38.45	H
847.50	19.03	21.18	38.45	H

Chongqing Academy of Information and Communication TechnologyAddress: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777

LTE Band 5_5MHz_16QAM

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
826.50	19.01	21.16	38.45	H
836.50	19.05	21.20	38.45	H
846.50	19.00	21.15	38.45	H

LTE Band 5_10MHz_16QAM

Frequency(MHz)	ERP(dBm)	EIRP(dBm)	Limit(dBm)	Polarization
829.00	18.99	21.14	38.45	H
836.50	19.02	21.17	38.45	H
844.00	18.98	21.13	38.45	H

LTE Band 7- EIRP 27.50(h)(2)

Limits: ≤33 dBm (2W)

LTE Band 7_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2502.5	24.52	33.00	H
2535	24.48	33.00	H
2567.5	24.52	33.00	H

LTE Band 7_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2505	24.54	33.00	H
2535	24.50	33.00	H
2565	24.54	33.00	H

LTE Band 7_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2507.5	24.51	33.00	H
2535	24.49	33.00	H
2562.5	24.53	33.00	H

LTE Band 7_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2510	24.49	33.00	H
2535	24.55	33.00	H
2560	24.45	33.00	H

LTE Band 7_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2502.5	23.82	33.00	H
2535	23.74	33.00	H
2567.5	23.81	33.00	H

LTE Band 7_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2505	23.84	33.00	H

Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777



2535	23.78	33.00	H
2565	23.84	33.00	H

LTE Band 7_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2507.5	23.81	33.00	H
2535	23.75	33.00	H
2562.5	23.82	33.00	H

LTE Band 7_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2510	23.77	33.00	H
2535	23.73	33.00	H
2560	23.78	33.00	H

LTE Band 38- EIRP 27.50(h)(2)Limits: ≤ 33 dBm (2W)**LTE Band 38_5MHz_QPSK**

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2572.5	24.61	33.00	H
2595	24.64	33.00	H
2617.5	25.04	33.00	H

LTE Band 38_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2575	24.61	33.00	H
2595	24.64	33.00	H
2615	24.93	33.00	H

LTE Band 38_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2577.5	24.61	33.00	H
2595	24.64	33.00	H
2612.5	24.90	33.00	H

LTE Band 38_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2580	24.72	33.00	H
2595	24.75	33.00	H
2610	24.96	33.00	H

LTE Band 38_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2572.5	23.77	33.00	H
2595	23.88	33.00	H
2617.5	23.76	33.00	H

LTE Band 38_10MHz_16QAM**Chongqing Academy of Information and Communication Technology**Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2575	23.91	33.00	H
2595	23.80	33.00	H
2615	23.76	33.00	H

LTE Band 38_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2577.5	23.72	33.00	H
2595	23.70	33.00	H
2612.5	23.73	33.00	H

LTE Band 38_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2580	23.83	33.00	H
2595	23.80	33.00	H
2610	23.76	33.00	H

LTE Band 41- EIRP 27.50(h)(2)**Limits:** ≤33 dBm (2W)**LTE Band 41_5MHz_QPSK**

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2498.5	25.21	33.00	H
2593	25.29	33.00	H
2687.5	25.28	33.00	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2501	25.24	33.00	H
2593	25.33	33.00	H
2685	25.32	33.00	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2503.5	25.22	33.00	H
2593	25.30	33.00	H
2682.5	25.29	33.00	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2506	25.25	33.00	H
2593	25.42	33.00	H
2680	25.31	33.00	H

LTE Band 41_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2498.5	24.16	33.00	H
2593	24.23	33.00	H

Chongqing Academy of Information and Communication TechnologyAddress: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



2687.5	24.18	33.00	H
--------	-------	-------	---

LTE Band 41_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2501	24.18	33.00	H
2593	24.26	33.00	H
2685	24.20	33.00	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2503.5	24.15	33.00	H
2593	24.24	33.00	H
2682.5	24.18	33.00	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2506	23.97	33.00	H
2593	24.14	33.00	H
2680	23.99	33.00	H

ANALYZER SETTINGS:

RBW = VBW = 8MHz for occupied bandwidths equal to or less than 5MHz.

RBW = VBW = 20MHz for occupied bandwidths equal to or greater than 10MHz.

6.3. Peak-to-Average Power Ratio

Specifications:	CFR Part 24.232(d)/ 22.913(d)/27.50(d)
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.3.1. PAPR Limit

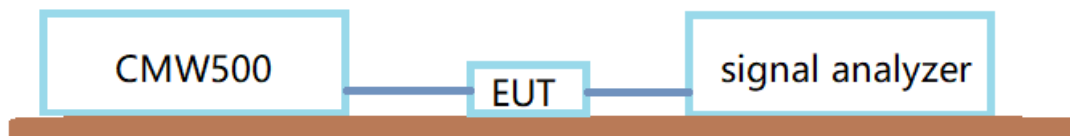
The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission. According to KDB 971168 5.7:

- a) Refer to instrument’s analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth \geq signal’s occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval to 1 ms
- e) Record the maximum PAPR level associated with a probability of 0.1%

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	0.62dB (k=2)

6.3.2. Test Setup



6.3.3. Test result

Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777



Band	Range	BandWidth	RbMode	QPSK(dBm)	Q16(dBm)
FDD02	LowRange	20	fullRB	4.97	6.25
FDD02	MidRange	20	fullRB	4.97	6.22
FDD02	HighRange	20	fullRB	4.90	6.22
FDD04	LowRange	20	fullRB	4.94	6.25
FDD04	MidRange	20	fullRB	4.97	6.25
FDD04	HighRange	20	fullRB	4.97	6.19
FDD05	LowRange	10	fullRB	5.71	6.44
FDD05	MidRange	10	fullRB	5.67	6.54
FDD05	HighRange	10	fullRB	5.74	6.47
FDD07	LowRange	20	fullRB	5.00	6.15
FDD07	MidRange	20	fullRB	5.00	6.12
FDD07	HighRange	20	fullRB	4.97	6.19
TDD38	LowRange	20	fullRB	8.14	10.67
TDD38	MidRange	20	fullRB	8.56	10.77
TDD38	HighRange	20	fullRB	9.62	10.80
TDD41	LowRange	20	fullRB	9.62	8.88
TDD41	MidRange	20	fullRB	7.63	10.74
TDD41	HighRange	20	fullRB	9.55	10.71

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.4. 99% Occupied Bandwidth

Specifications:	FCC Part 2.1049
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	500 kHz (k=2)

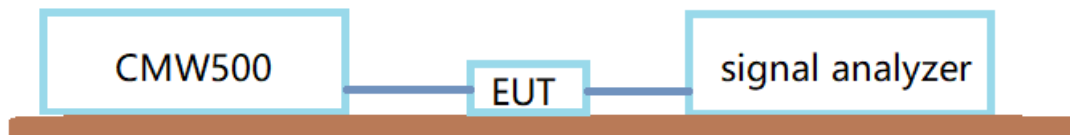
6.4.1. Test Procedure

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of the US Cellular/PCS frequency bands. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

The measurement method is from KDB 971168 4:

- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the OBW).
- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least $10\log(\text{OBW} / \text{RBW})$ below the reference level.
- Set the detection mode to peak, and the trace mode to max hold.
- Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

6.4.2. Test Setup



6.4.3. Test result

Band	Range	BandWidth	Frequency(MHz)	QPSK(MHz)	Q16(MHz)
FDD02	MidRange	1.4	1880	1.09	1.09
FDD02	MidRange	3	1880	2.68	2.68
FDD02	MidRange	5	1880	4.47	4.47
FDD02	MidRange	10	1880	8.94	8.94
FDD02	MidRange	15	1880	13.49	13.49
FDD02	MidRange	20	1880	17.98	17.98
FDD04	MidRange	1.4	1732.5	1.09	1.09
FDD04	MidRange	3	1732.5	2.69	2.69
FDD04	MidRange	5	1732.5	4.47	4.47
FDD04	MidRange	10	1732.5	8.99	8.94
FDD04	MidRange	15	1732.5	13.49	13.49
FDD04	MidRange	20	1732.5	17.89	17.98
FDD05	MidRange	1.4	836.5	1.09	1.10
FDD05	MidRange	3	836.5	2.69	2.66
FDD05	MidRange	5	836.5	4.50	4.47
FDD05	MidRange	10	836.5	8.99	8.94
FDD07	MidRange	5	2535	4.50	4.47
FDD07	MidRange	10	2535	8.94	8.94
FDD07	MidRange	15	2535	13.49	13.49
FDD07	MidRange	20	2535	17.98	17.98
TDD38	MidRange	5	2595	4.47	4.47
TDD38	MidRange	10	2595	8.99	8.94
TDD38	MidRange	15	2595	13.49	13.49
TDD38	MidRange	20	2595	17.79	17.89
TDD41	MidRange	5	2593	4.47	4.47

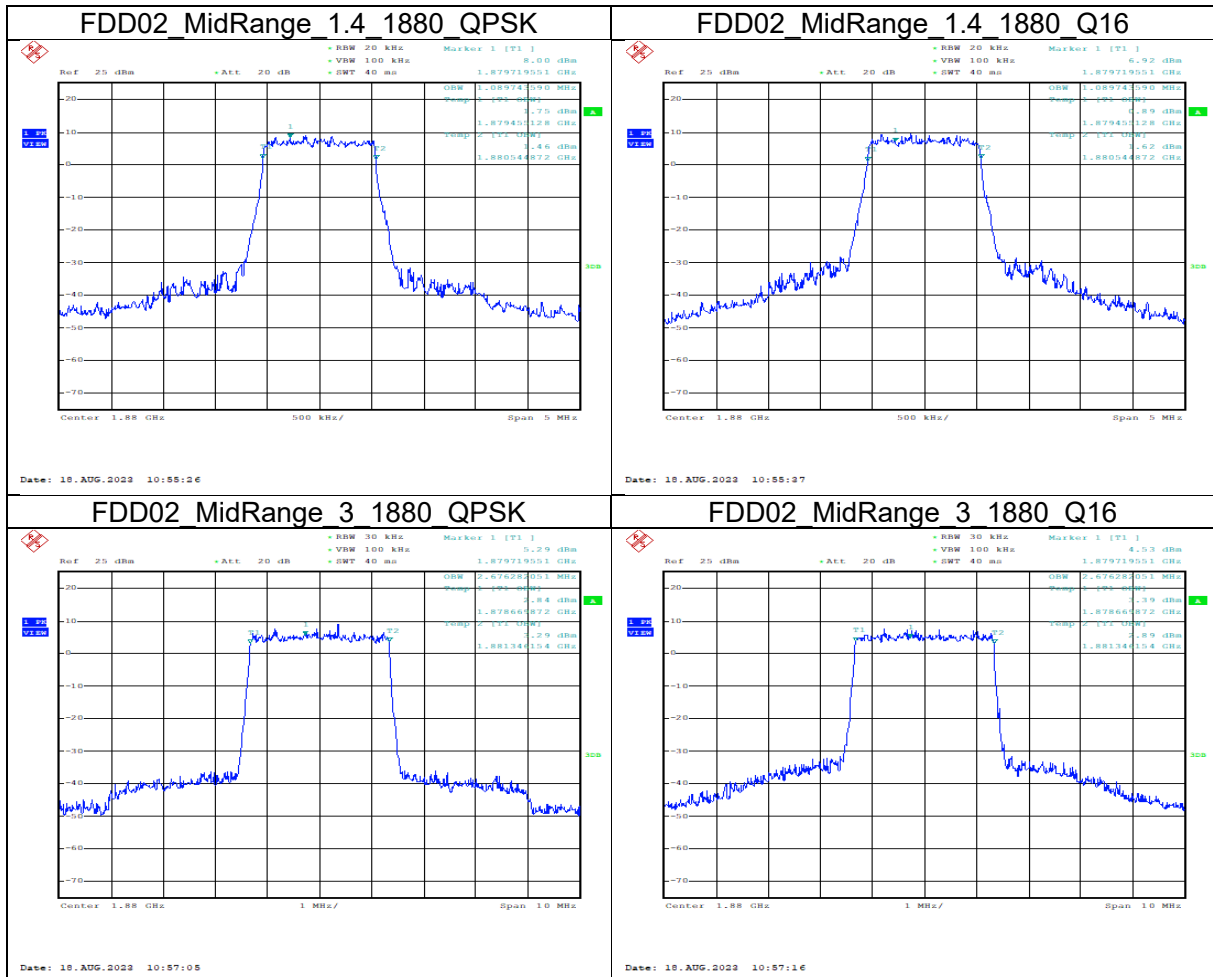
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



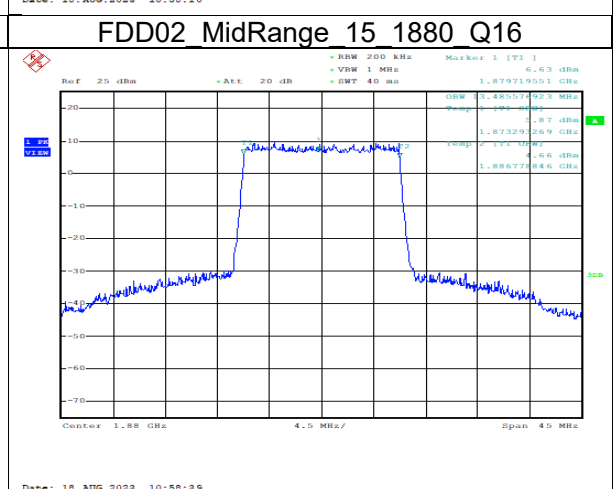
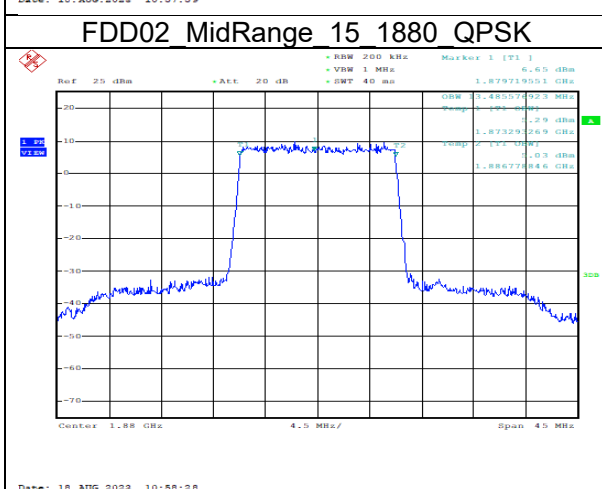
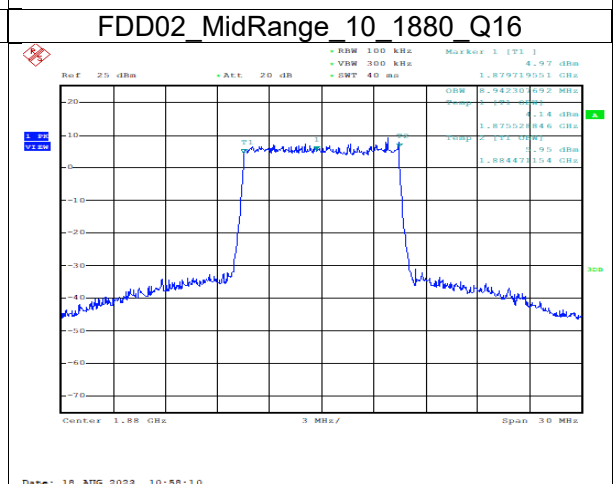
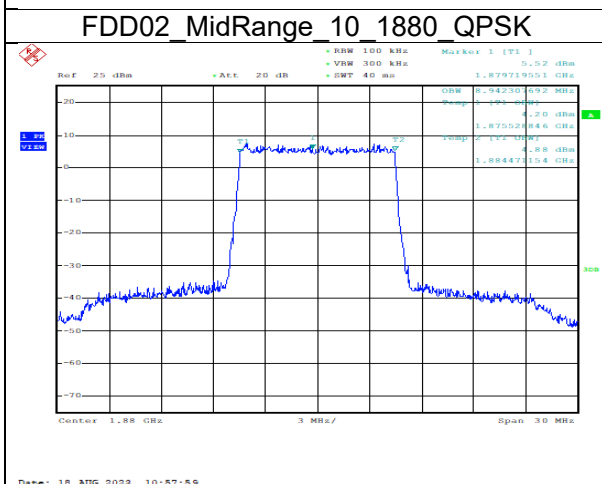
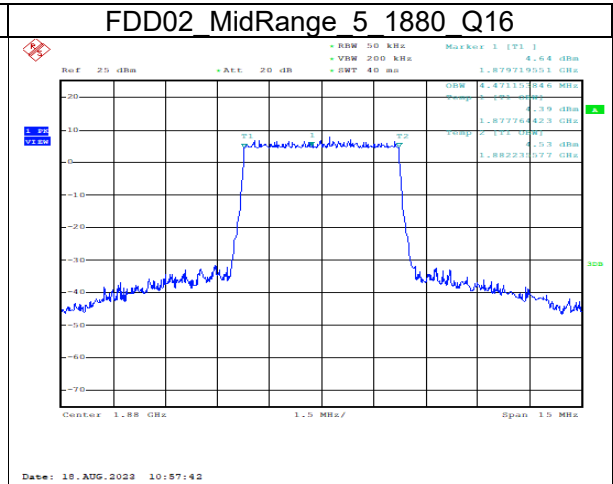
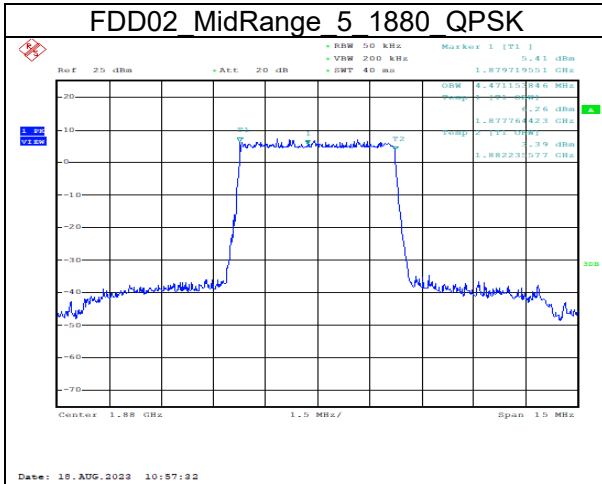
Report No.: I23W00045-LTE RF

Band	Range	BandWidth	Frequency(MHz)	QPSK(MHz)	Q16(MHz)
TDD41	MidRange	10	2593	8.99	8.99
TDD41	MidRange	15	2593	13.49	13.49
TDD41	MidRange	20	2593	17.98	17.89



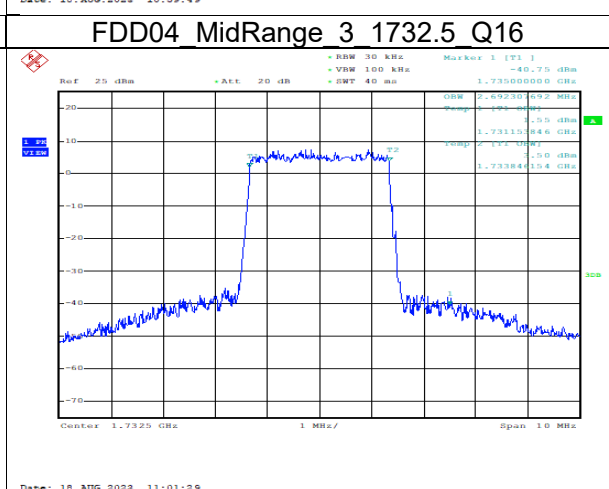
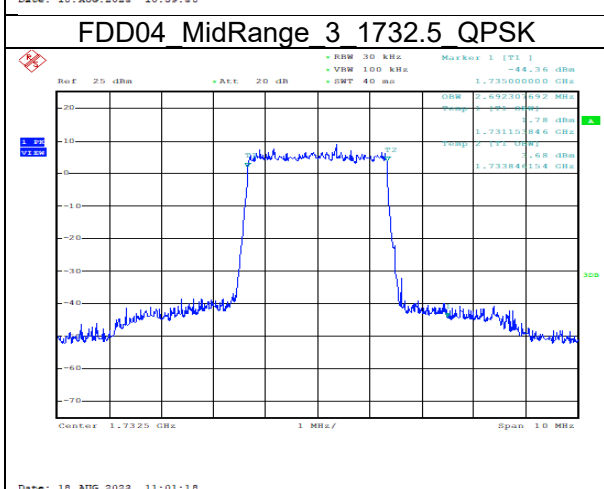
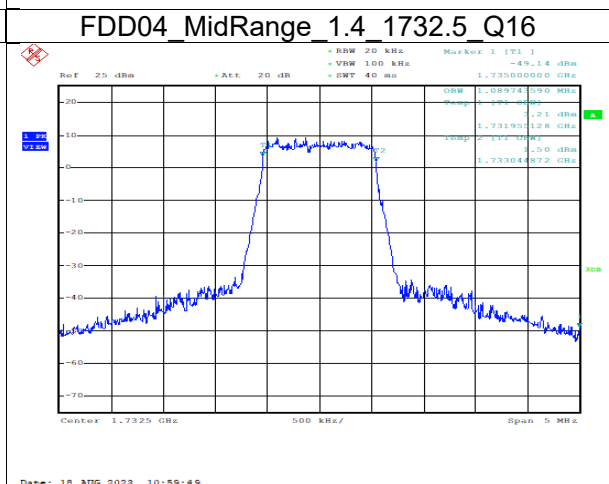
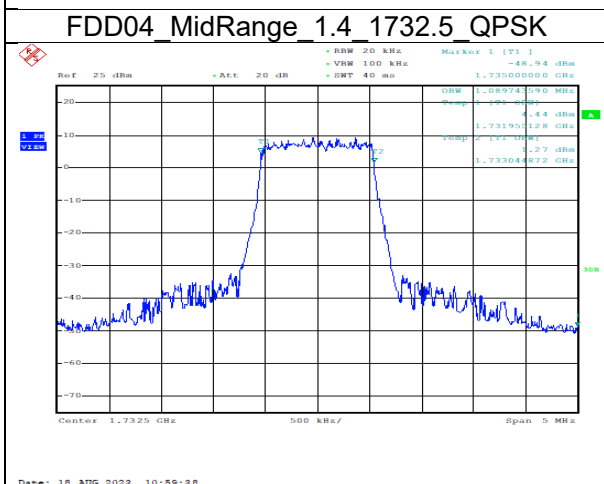
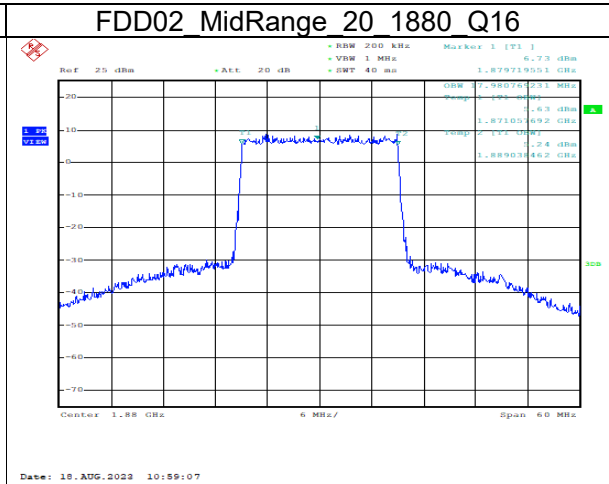
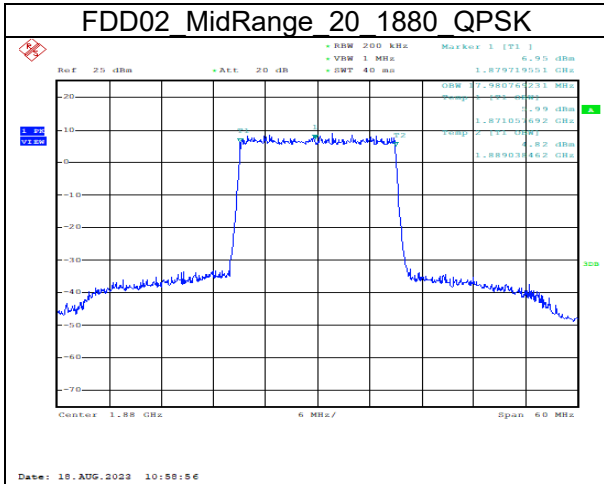
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



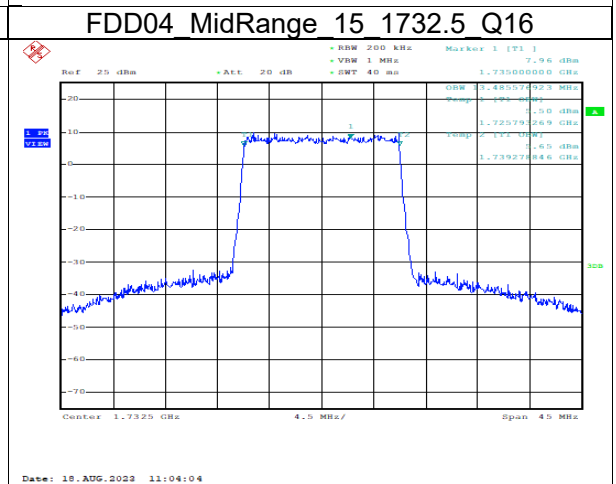
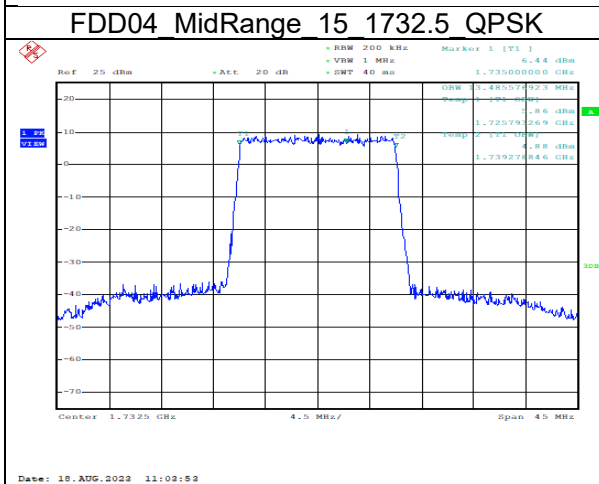
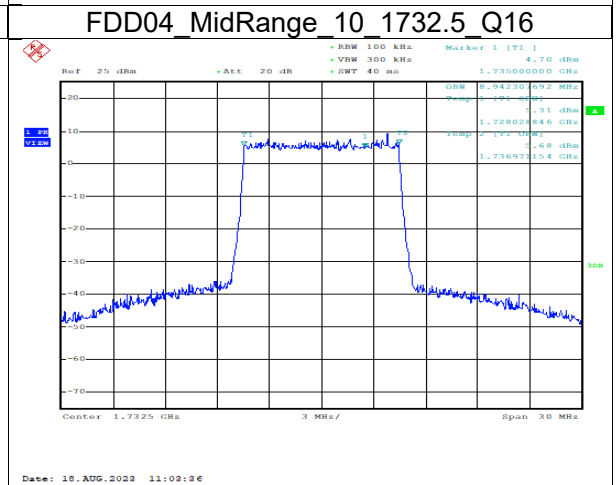
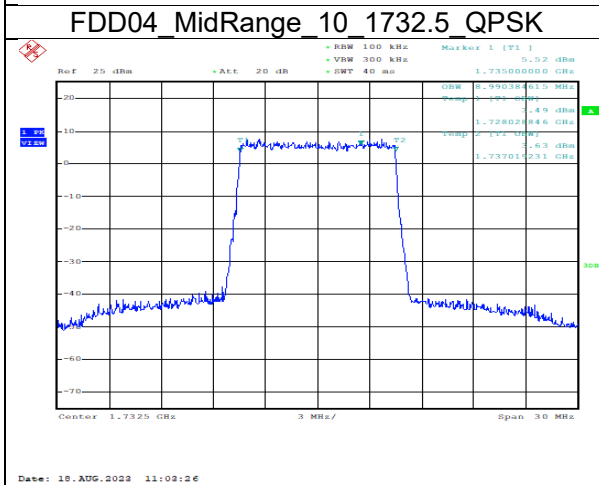
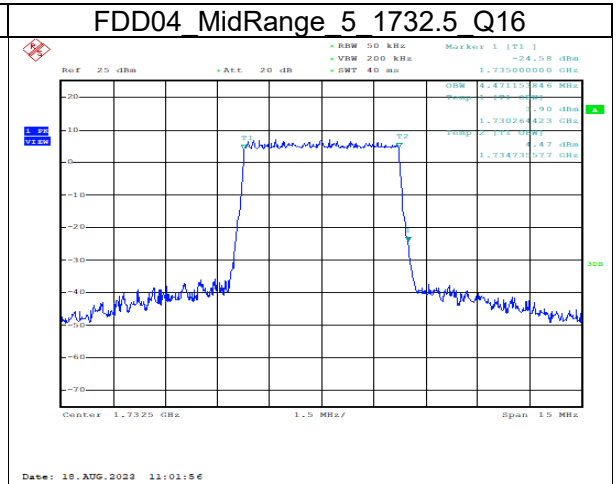
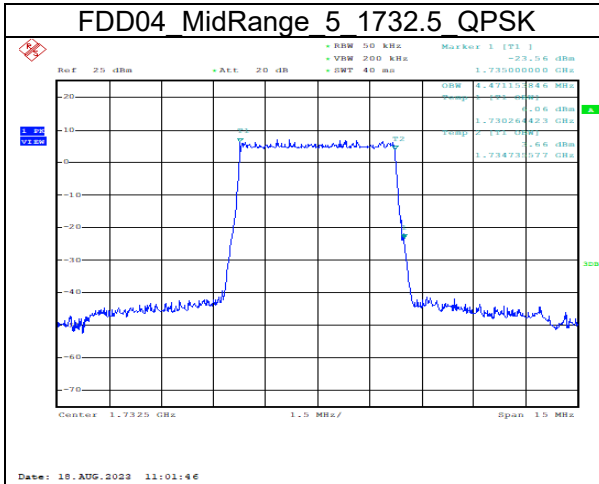
Chongqing Academy of Information and Communication Technology

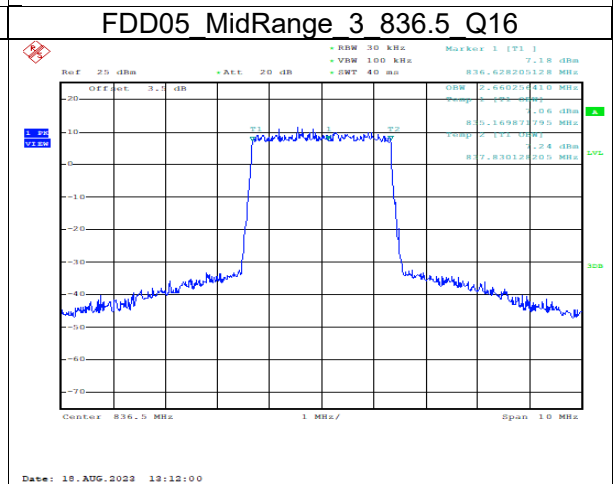
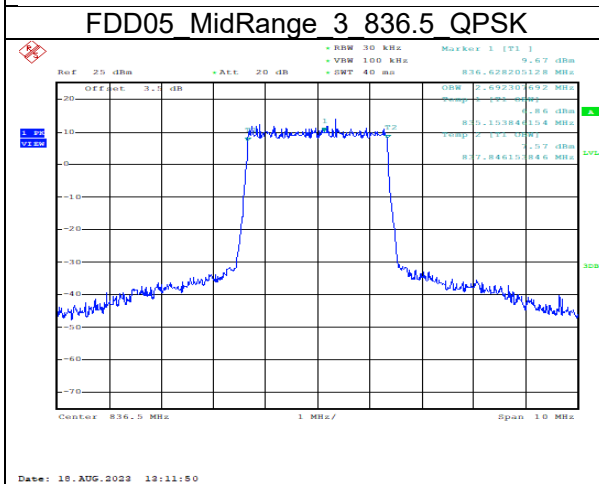
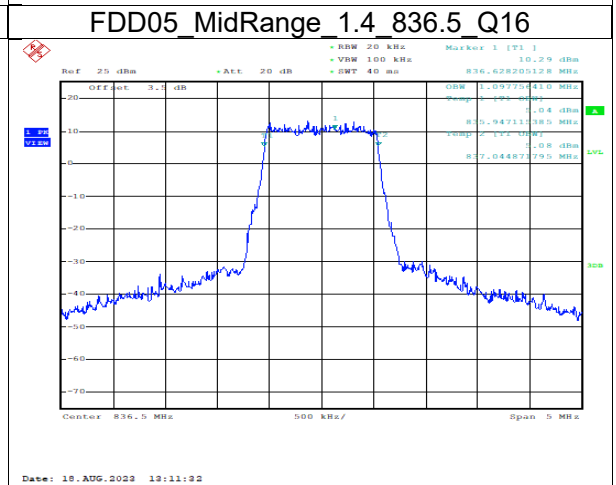
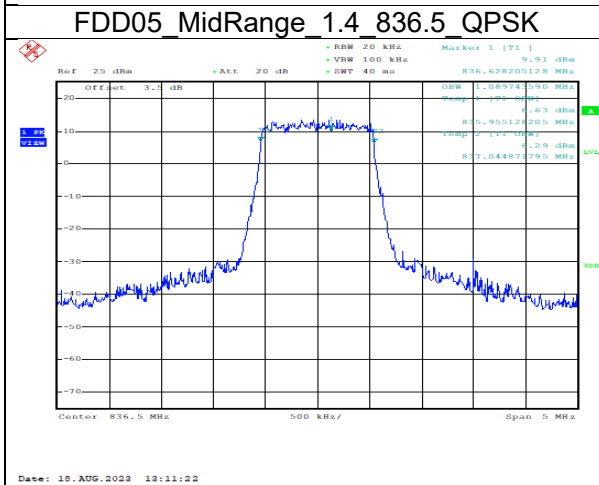
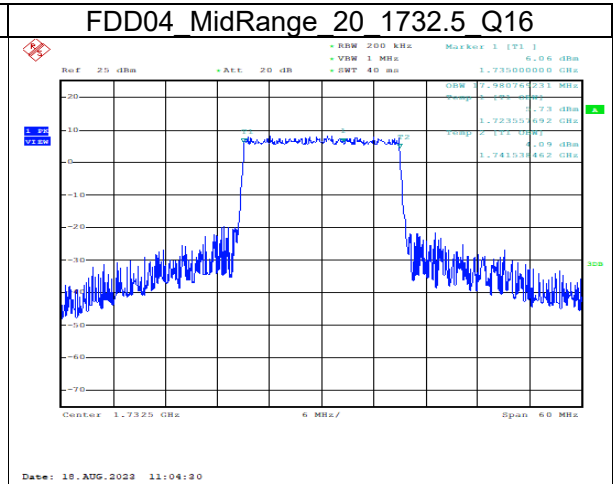
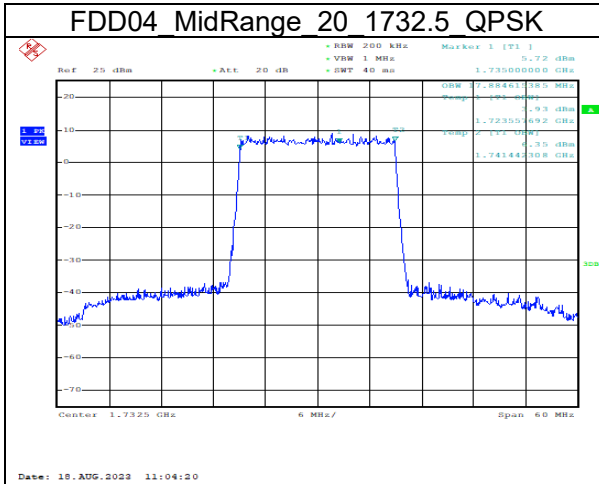
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

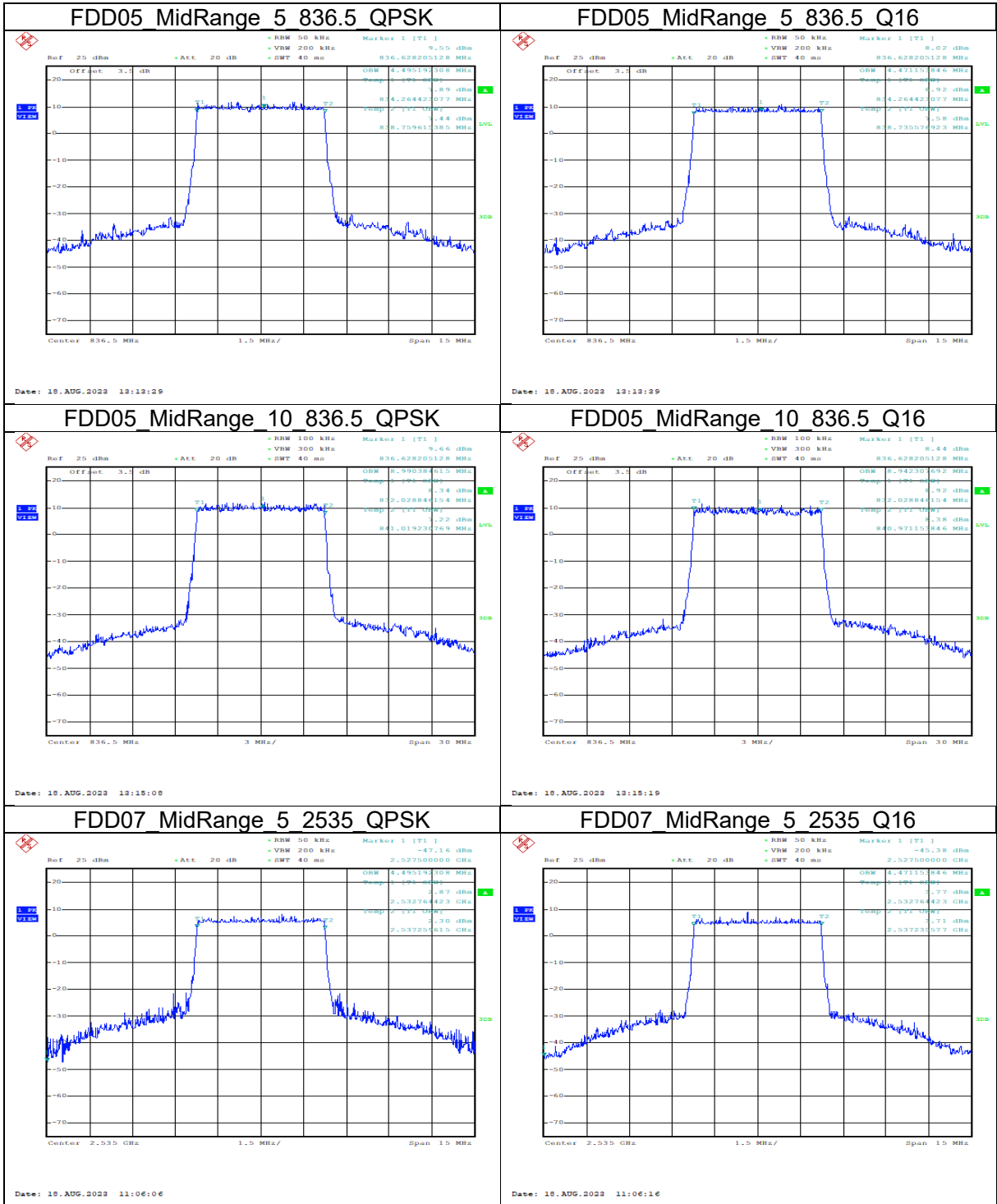


Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777

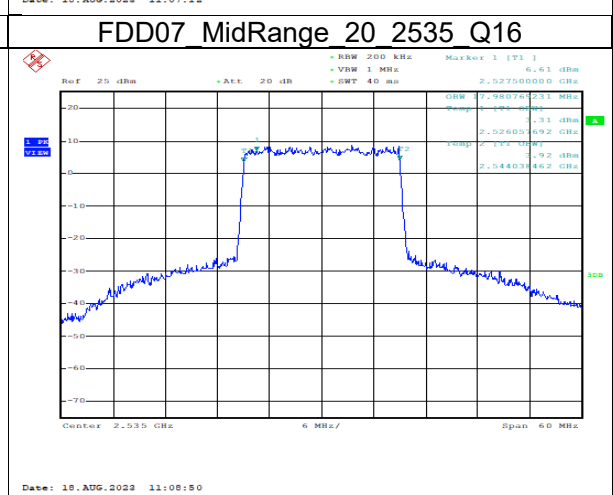
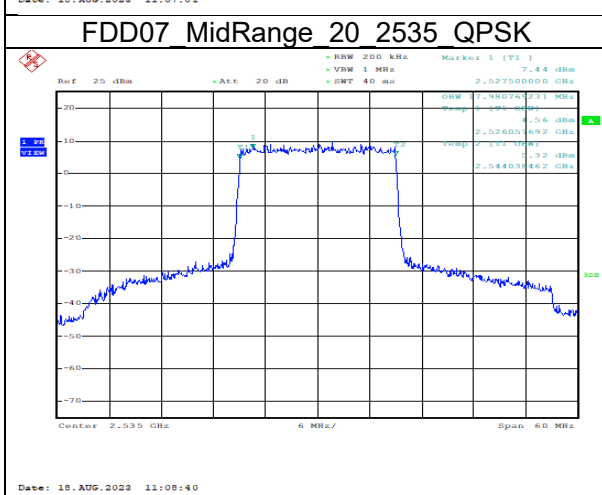
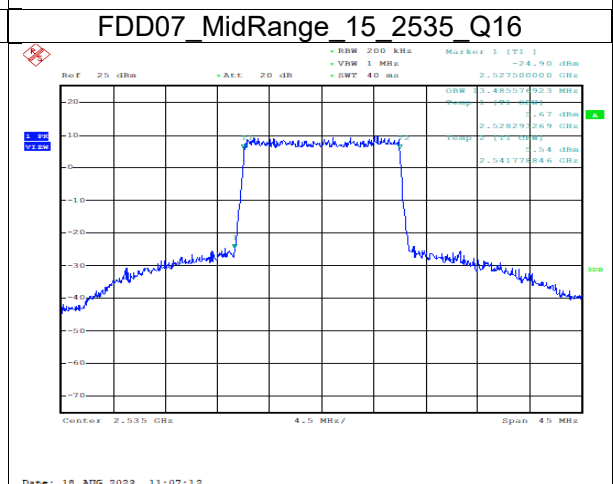
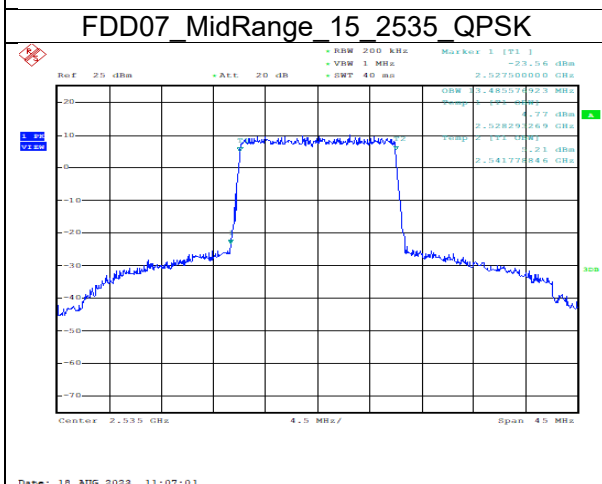
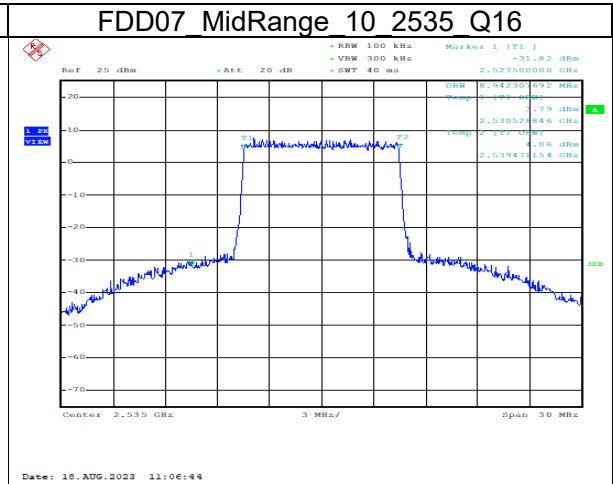
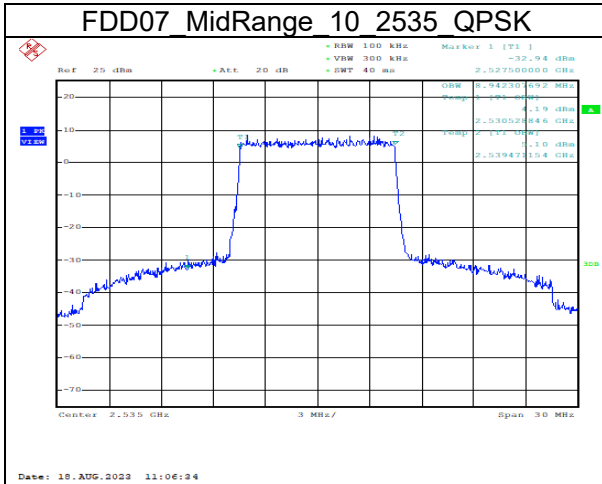






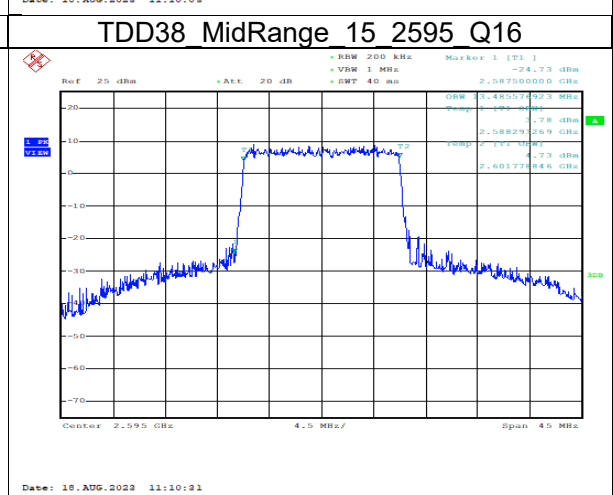
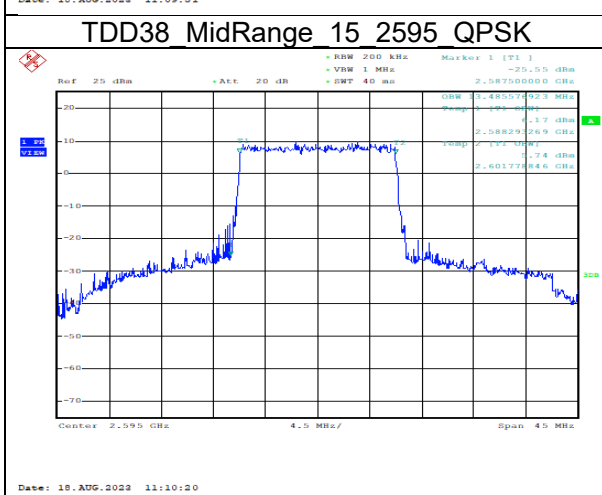
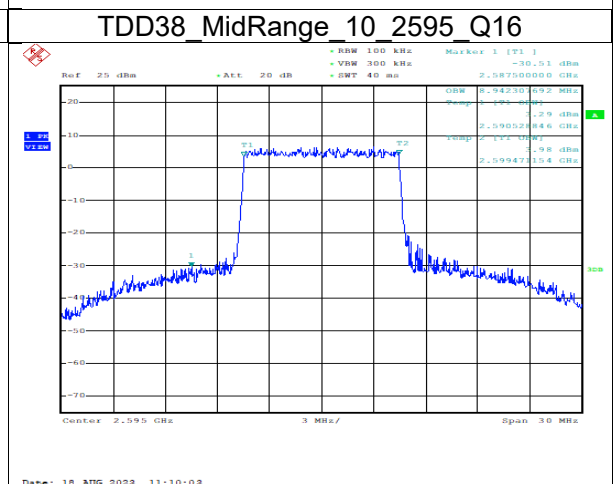
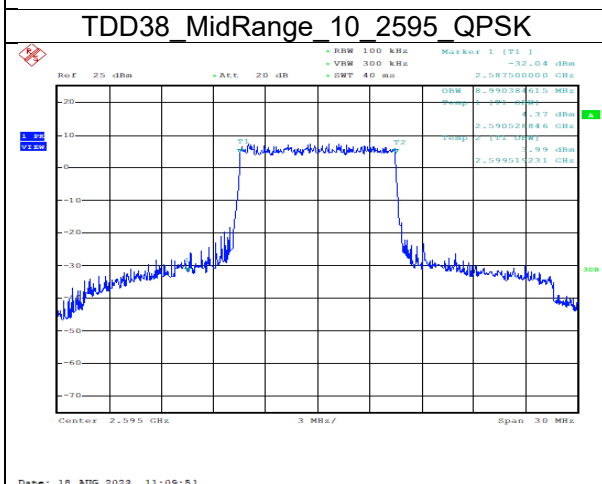
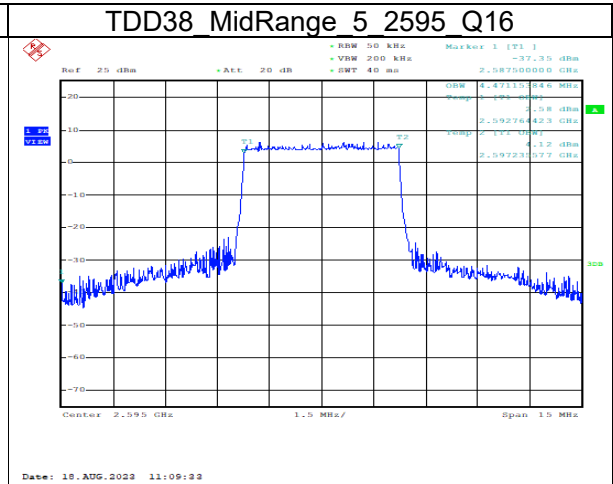
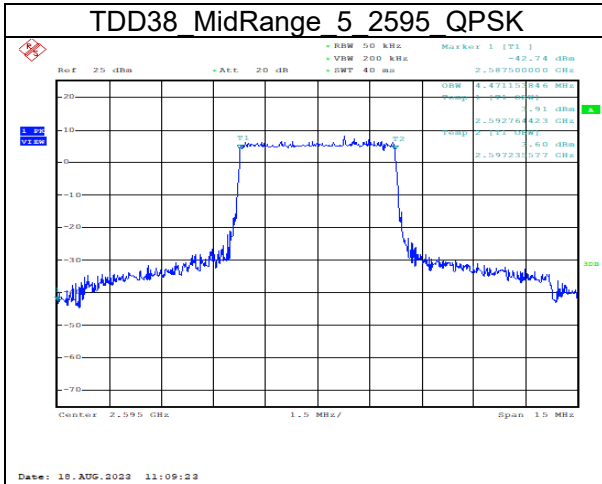
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



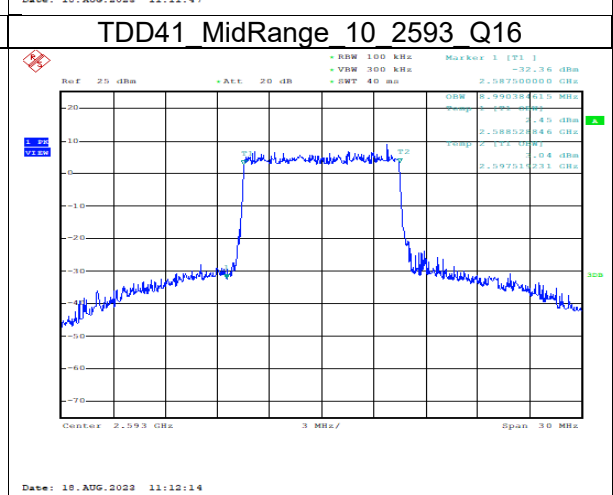
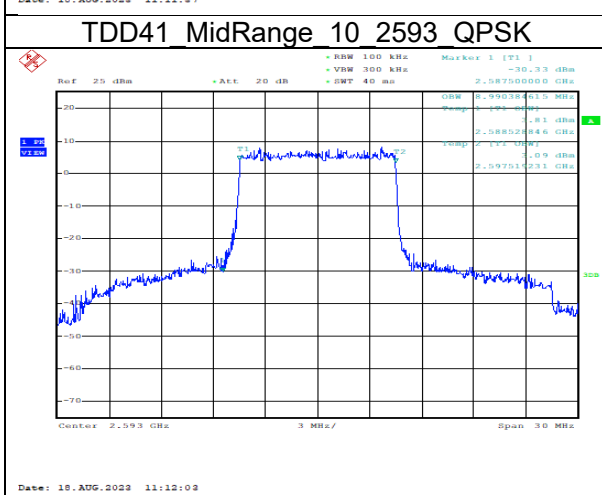
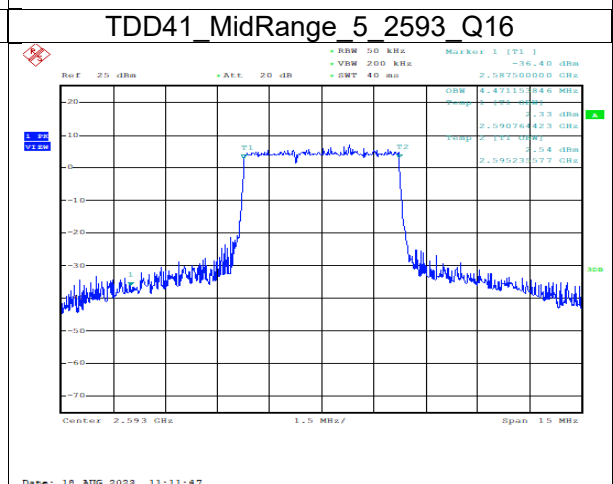
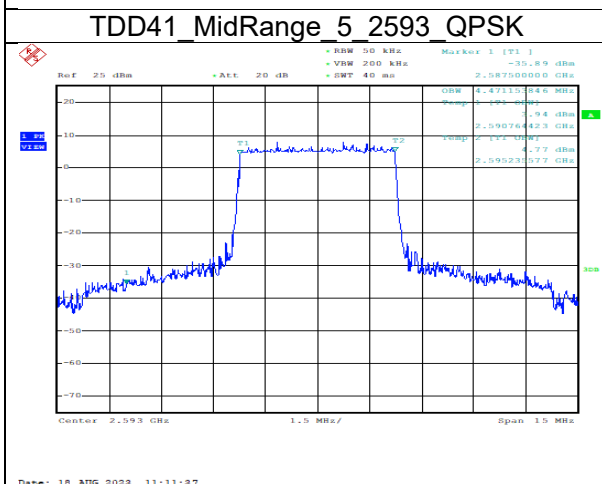
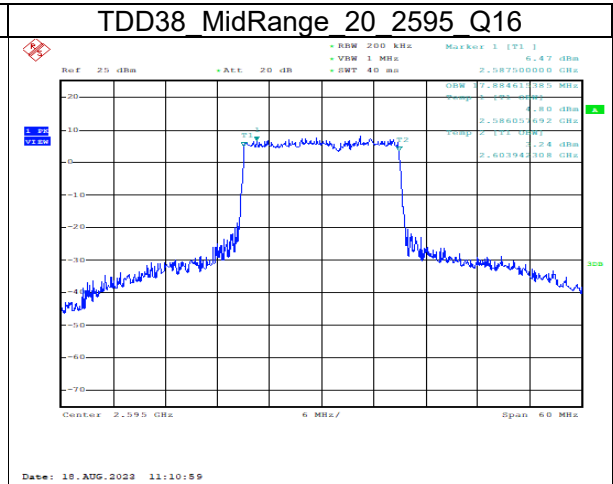
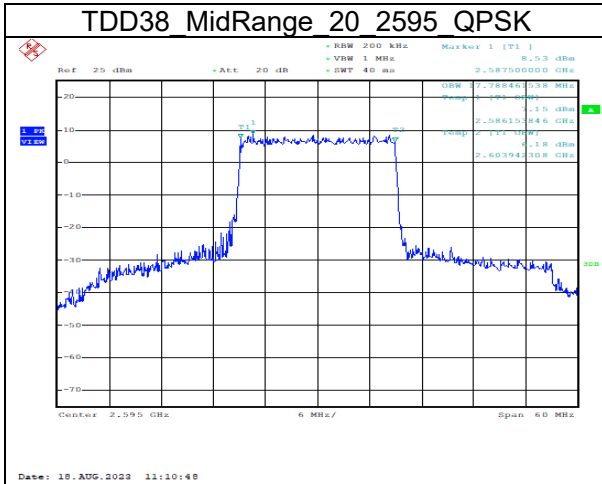
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



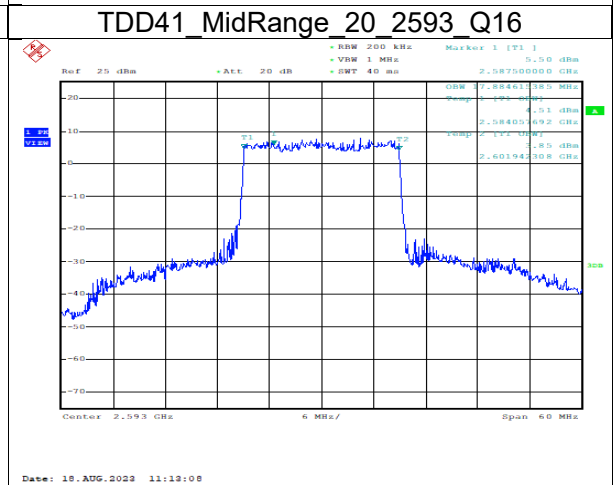
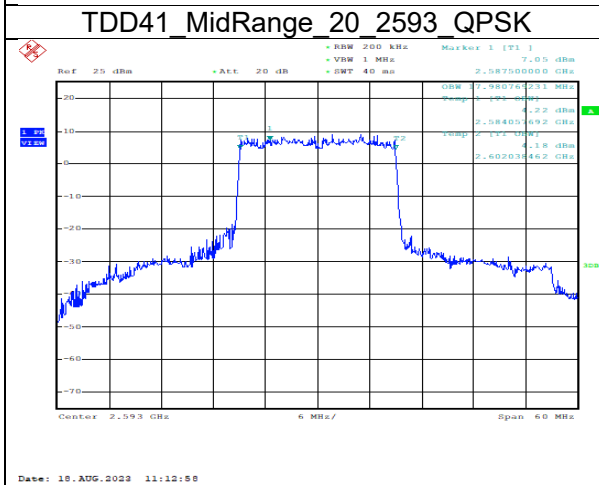
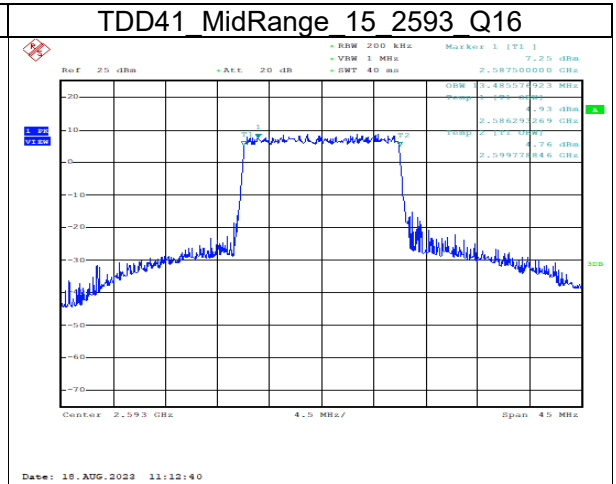
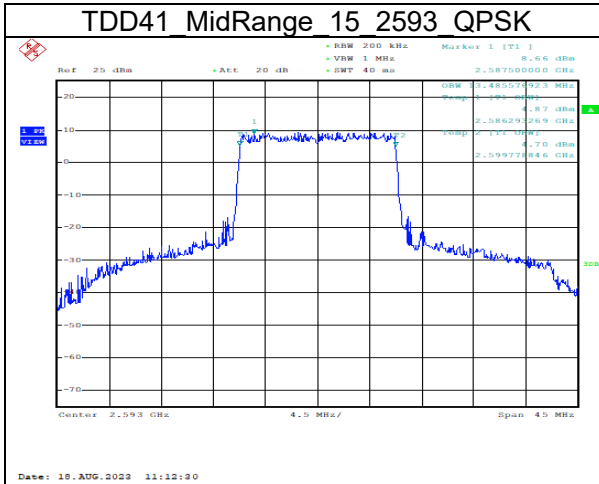
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

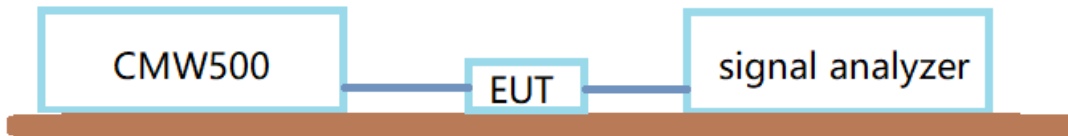
6.5. -26dB Emission Bandwidth

Specifications:	CFR FCC Part 24.238(a) /22.917(b)/27.53(h) /27.53(m)
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	500 kHz (k=2)

6.5.1. Test Setup



6.5.2. Test result

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

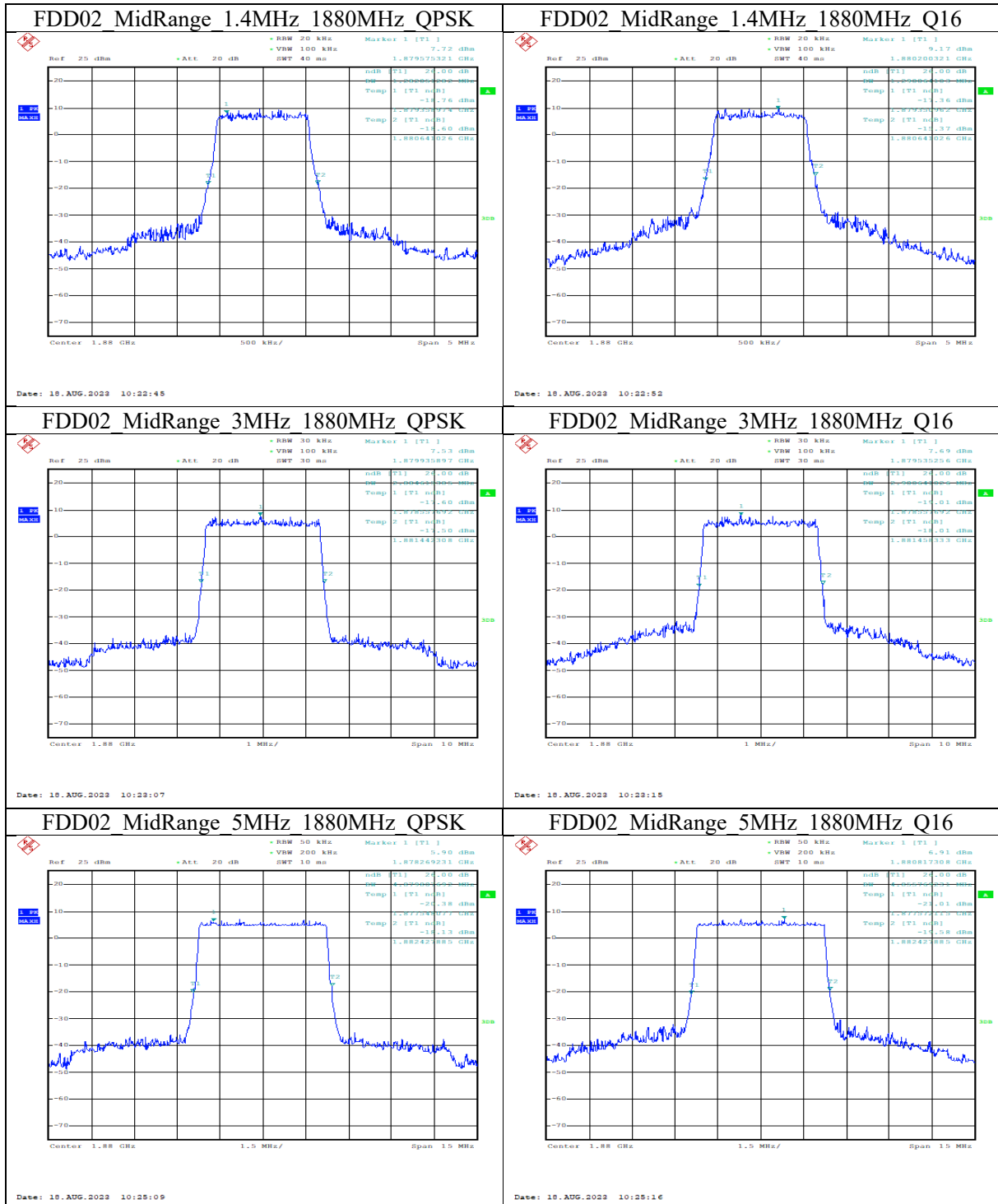


Band	Range	BandWidth	Frequency(MHz)	QPSK(MHz)	Q16(MHz)
FDD02	MidRange	1.4	1880	1.28	1.29
FDD02	MidRange	3	1880	2.88	2.90
FDD02	MidRange	5	1880	4.88	4.81
FDD02	MidRange	10	1880	9.57	9.57
FDD02	MidRange	15	1880	14.57	14.57
FDD02	MidRange	20	1880	18.94	19.13
FDD04	MidRange	1.4	1732.5	1.27	1.28
FDD04	MidRange	3	1732.5	2.88	2.90
FDD04	MidRange	5	1732.5	4.81	4.81
FDD04	MidRange	10	1732.5	9.66	9.57
FDD04	MidRange	15	1732.5	14.50	14.35
FDD04	MidRange	20	1732.5	19.13	19.04
FDD05	MidRange	1.4	836.5	1.27	1.29
FDD05	MidRange	3	836.5	2.88	2.88
FDD05	MidRange	5	836.5	4.78	4.78
FDD05	MidRange	10	836.5	9.57	9.57
FDD07	MidRange	5	2535	4.81	4.74
FDD07	MidRange	10	2535	9.62	9.52
FDD07	MidRange	15	2535	14.50	14.28
FDD07	MidRange	20	2535	19.13	19.13
TDD38	MidRange	5	2595	4.83	4.83
TDD38	MidRange	10	2595	9.57	9.62
TDD38	MidRange	15	2595	14.28	14.42
TDD38	MidRange	20	2595	18.94	19.04
TDD41	MidRange	5	2593	4.83	4.76
TDD41	MidRange	10	2593	9.57	9.57

Chongqing Academy of Information and Communication Technology

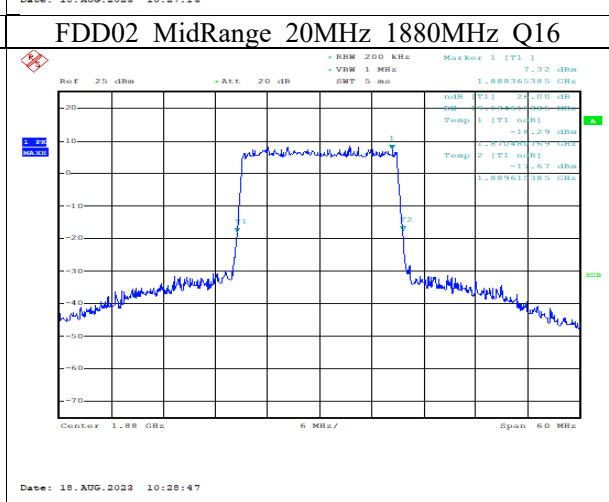
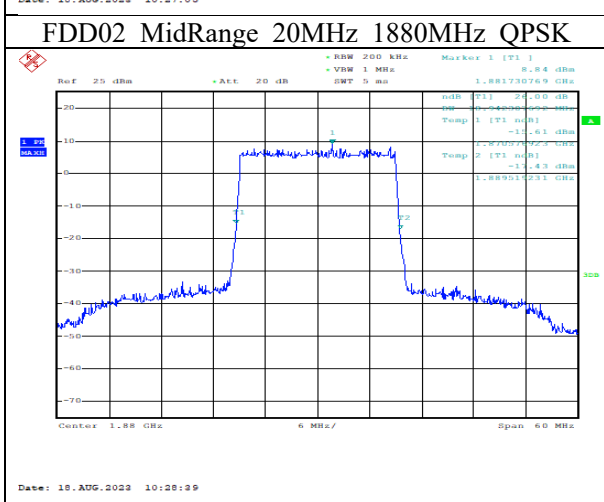
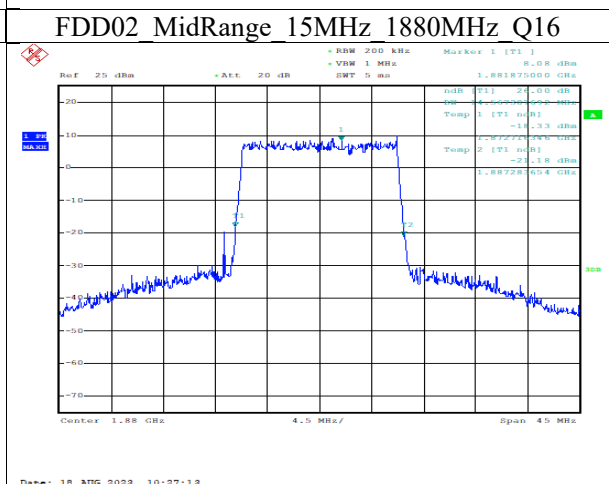
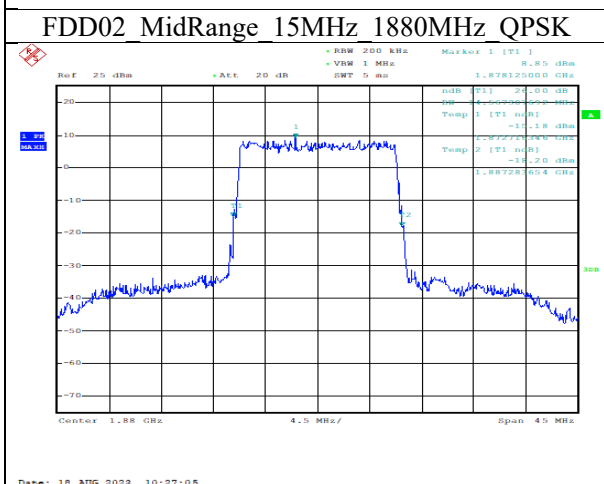
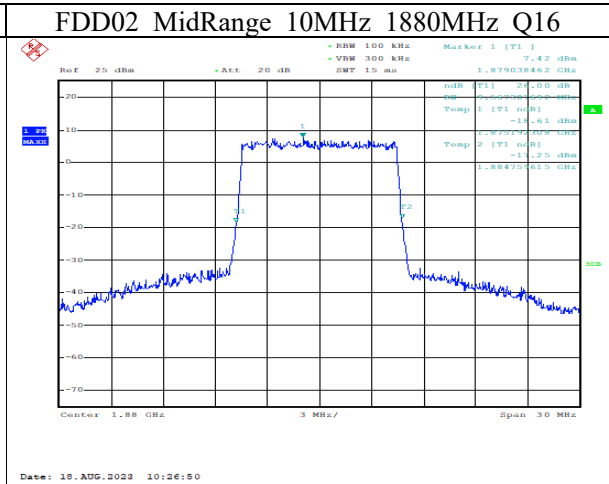
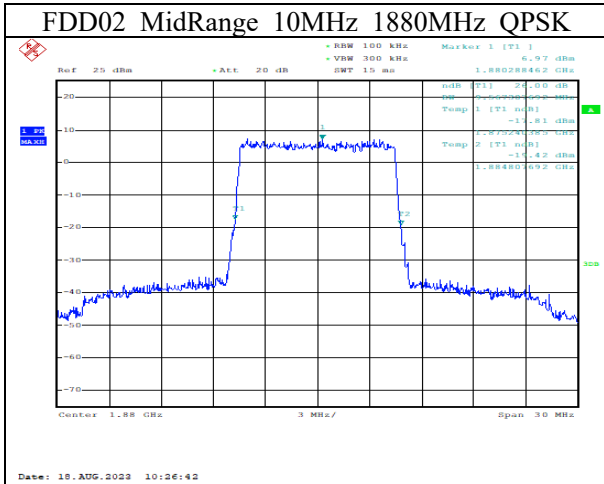
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

Band	Range	BandWidth	Frequency(MHz)	QPSK(MHz)	Q16(MHz)
TDD41	MidRange	15	2593	14.28	14.42
TDD41	MidRange	20	2593	19.13	19.13



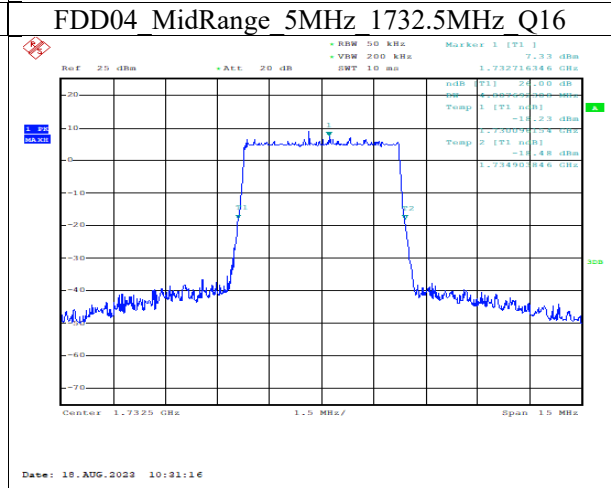
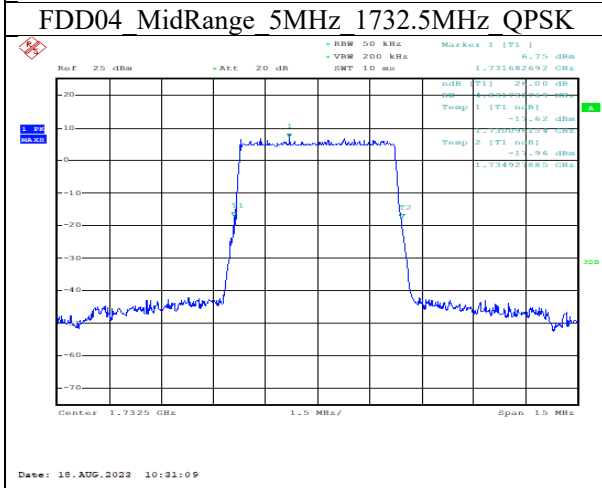
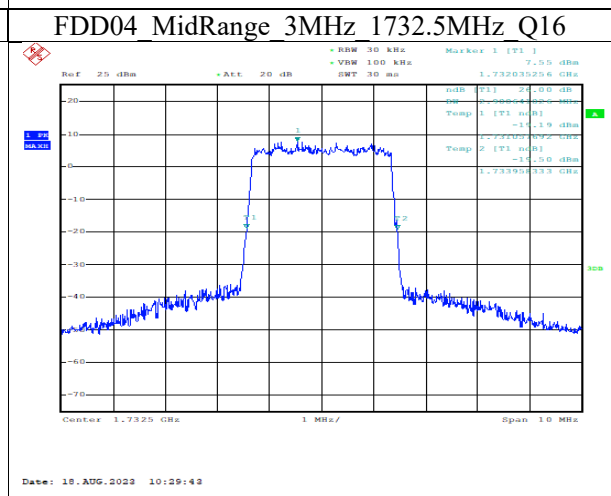
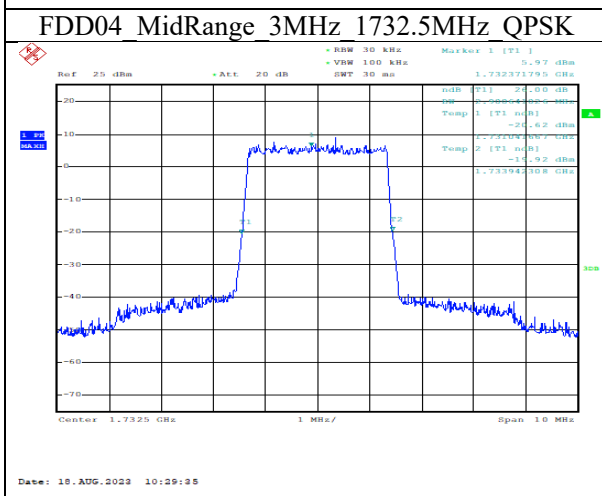
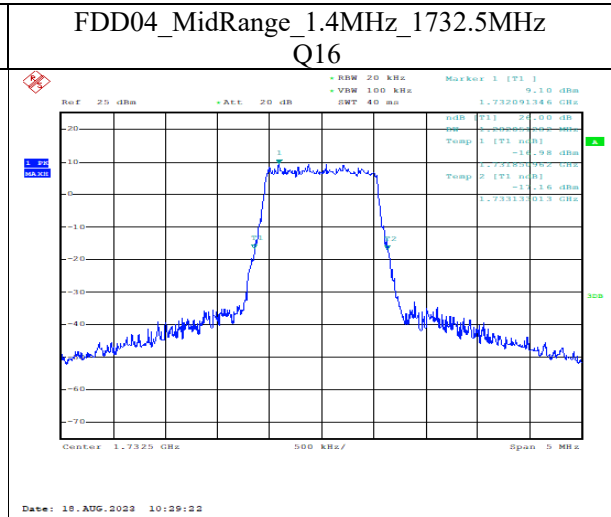
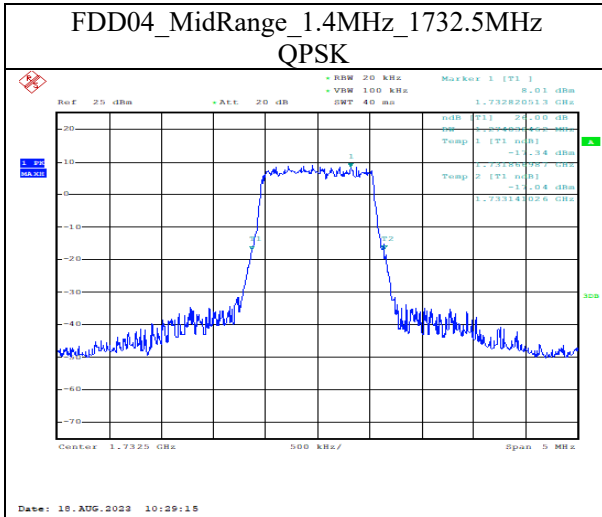
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



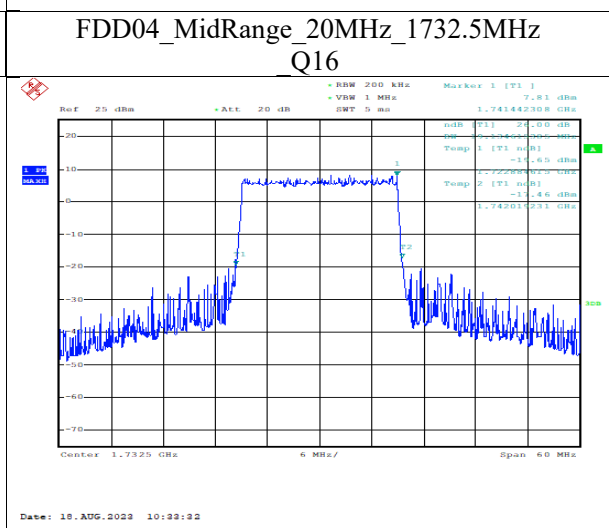
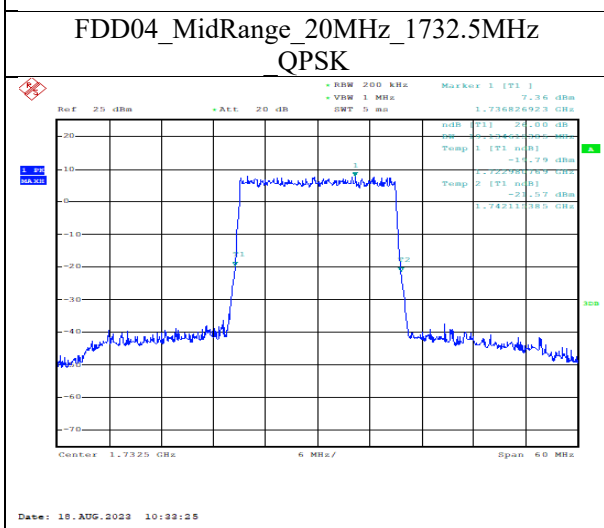
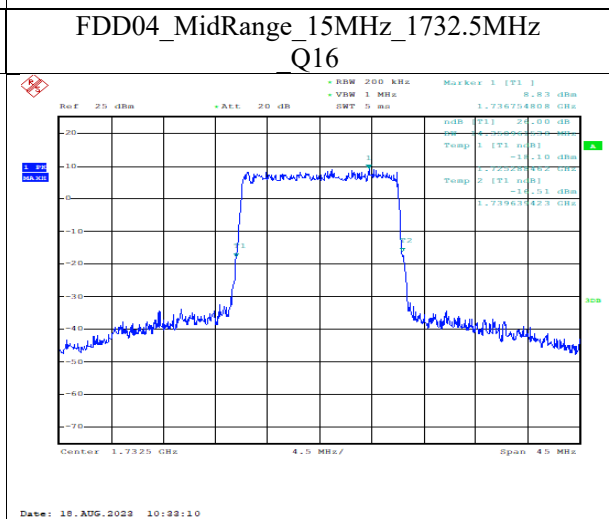
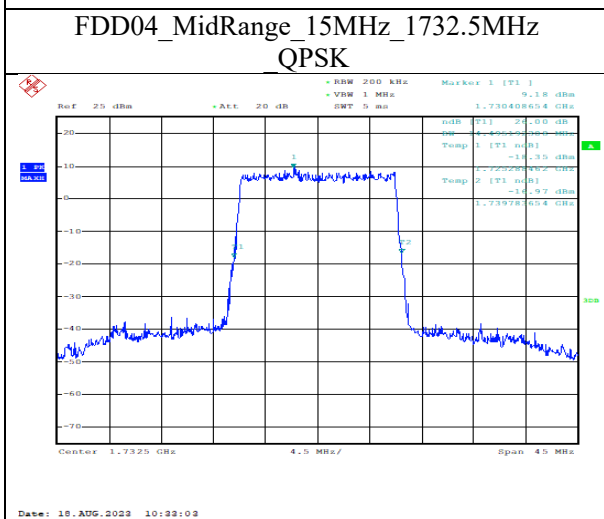
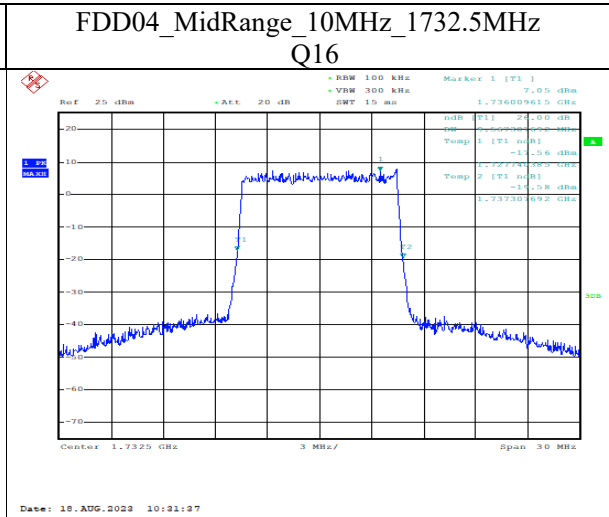
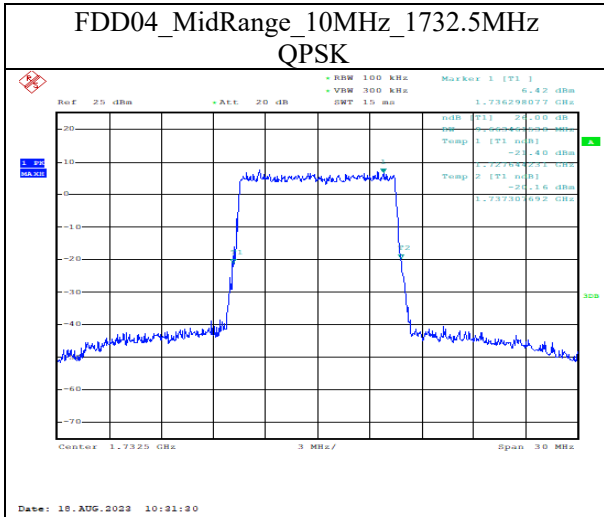
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



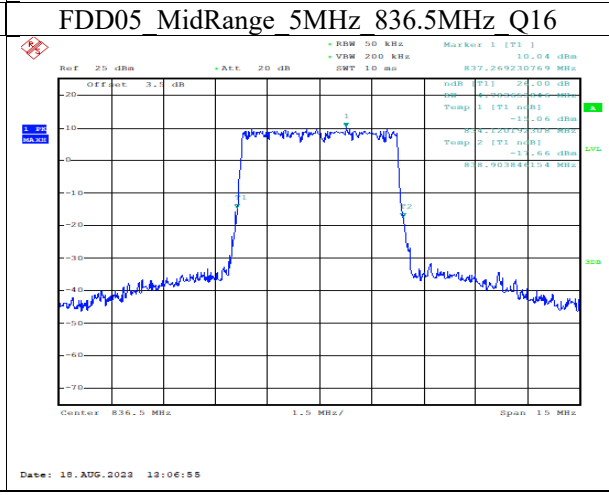
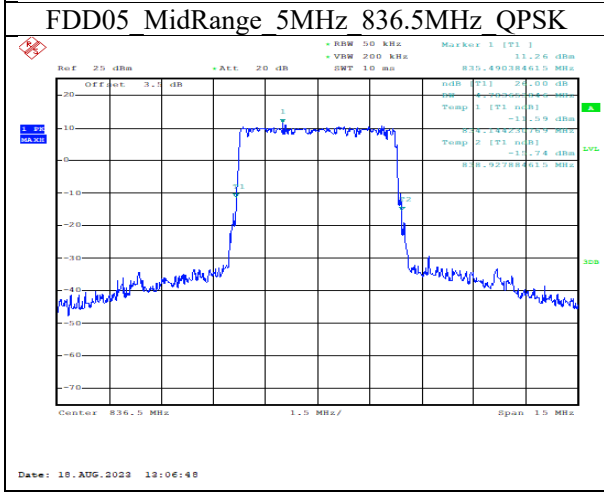
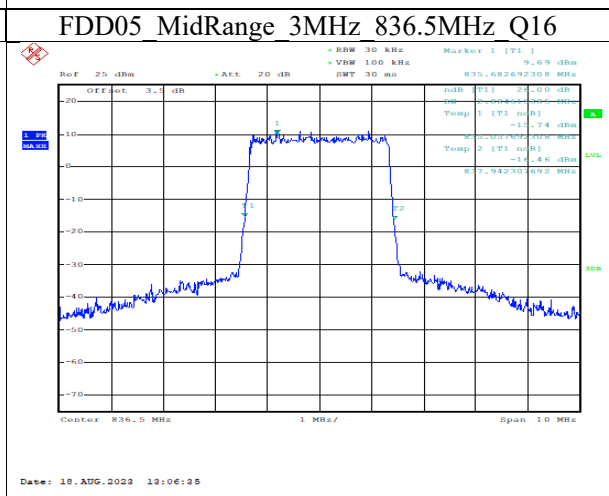
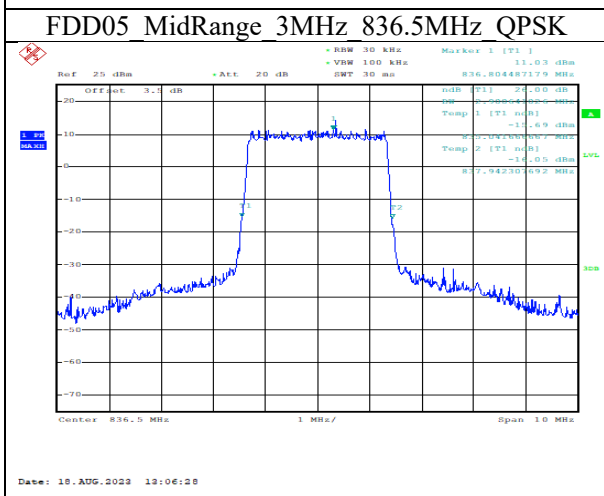
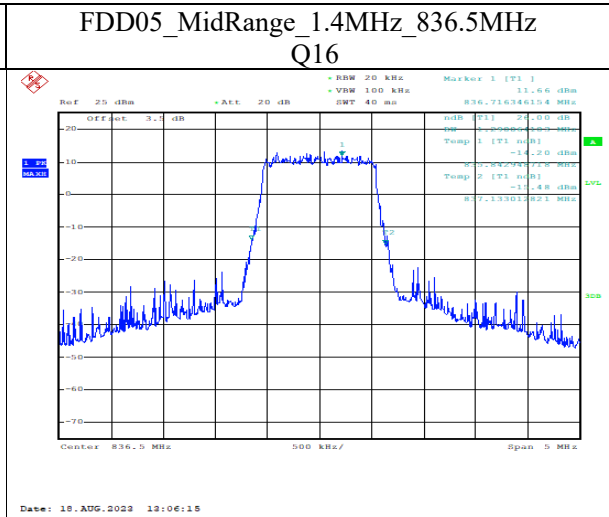
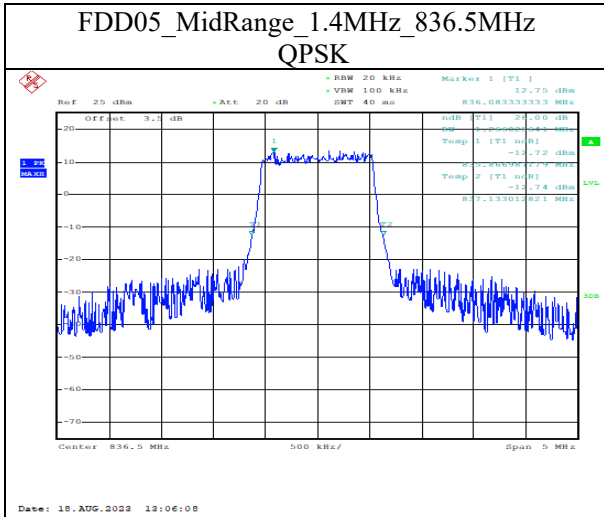
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

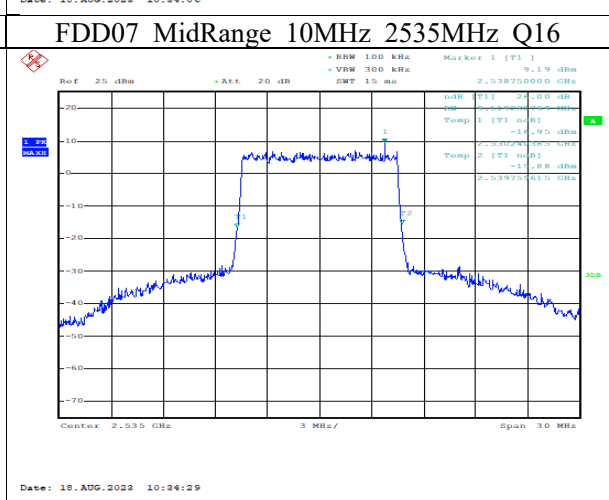
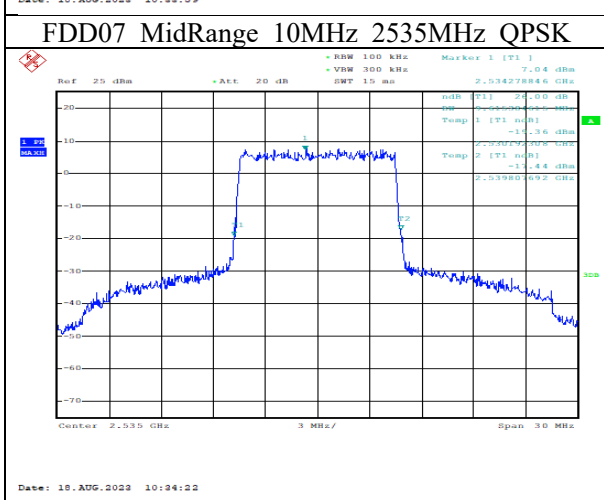
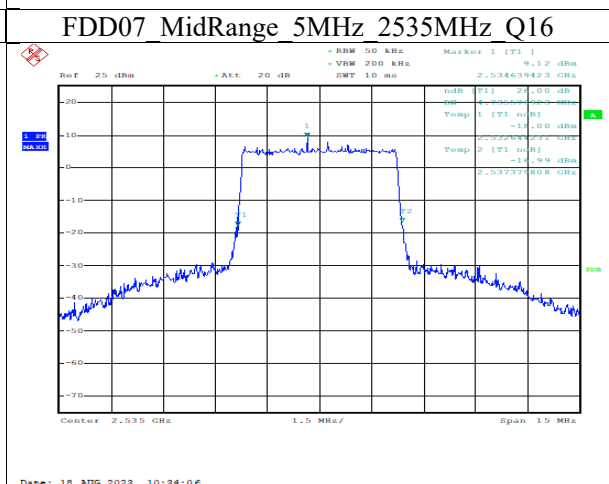
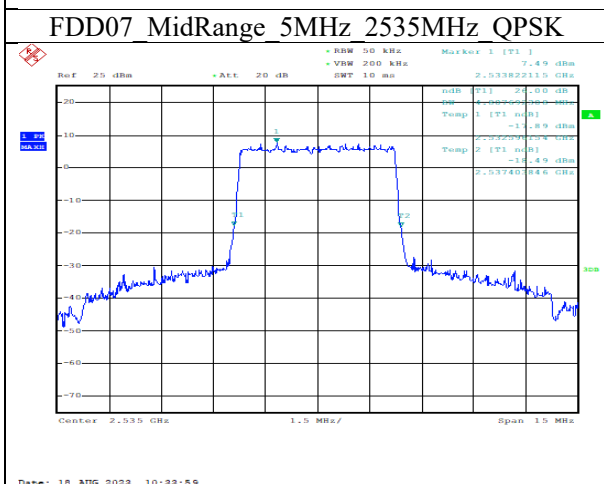
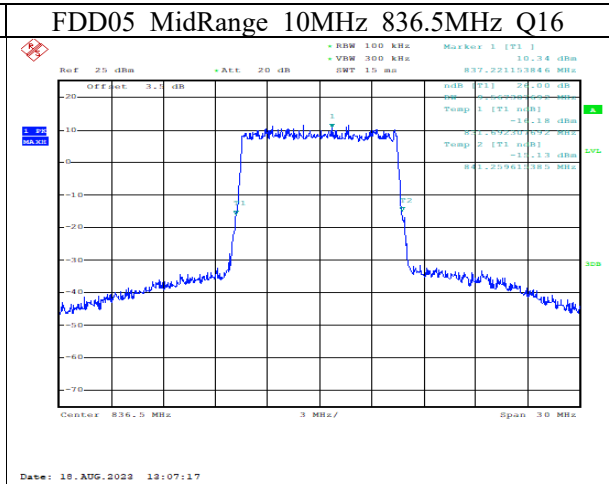
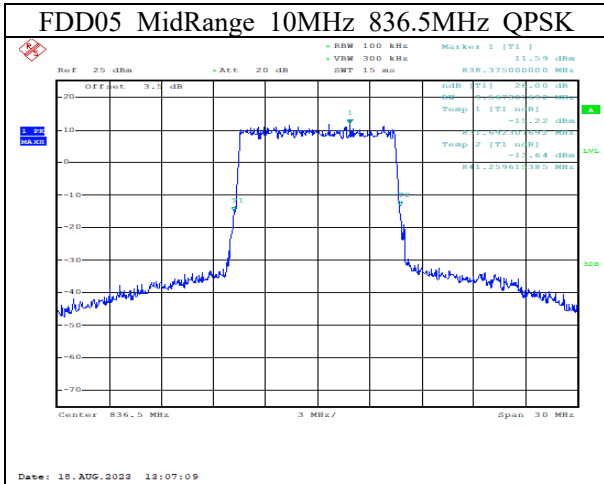


Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF

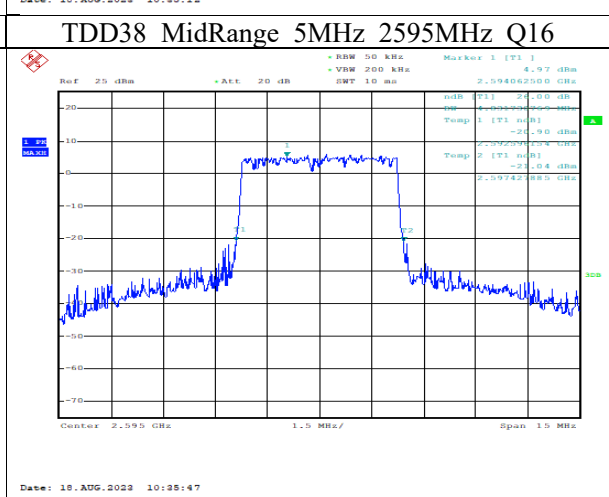
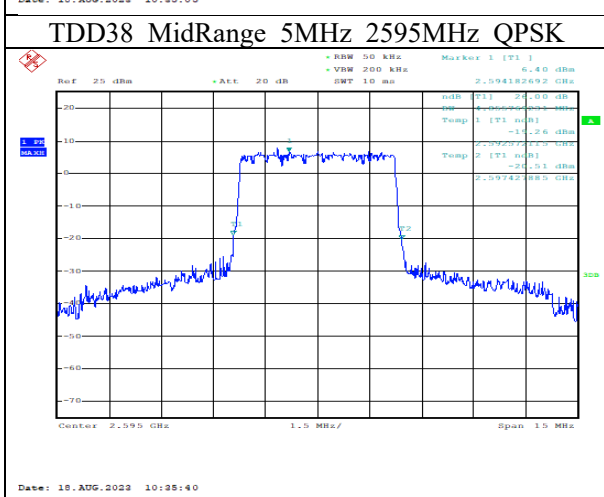
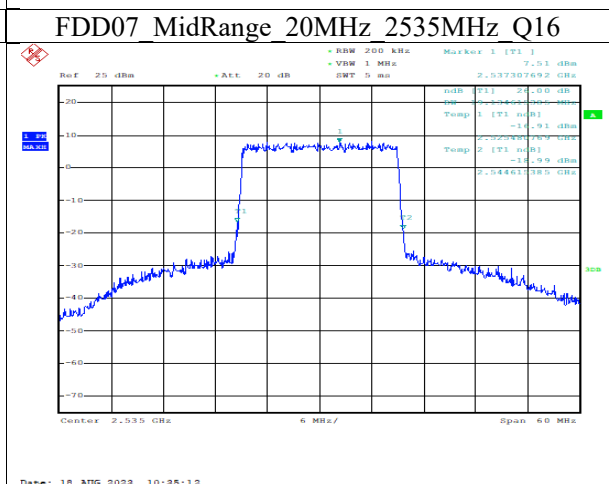
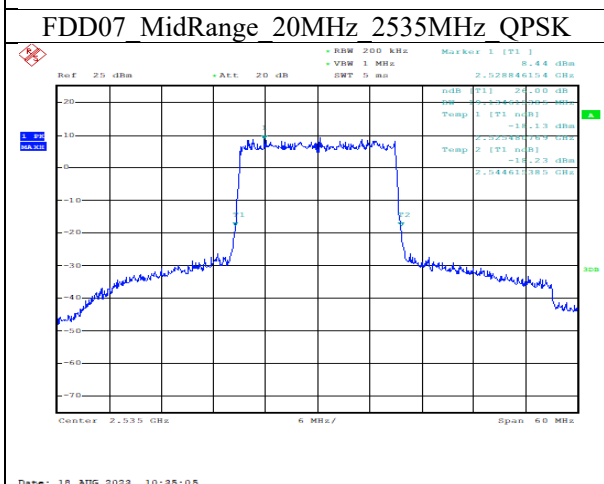
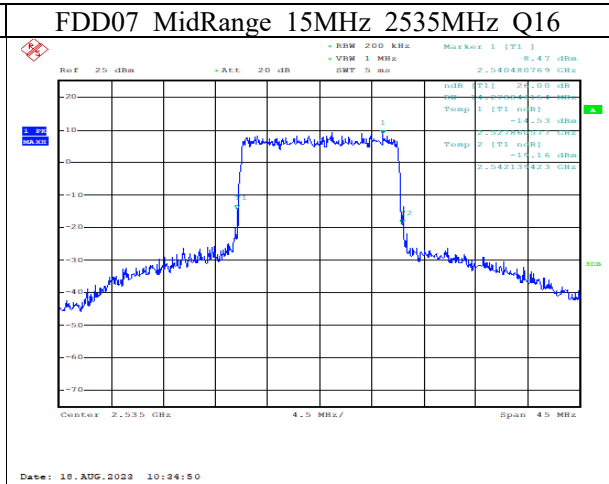
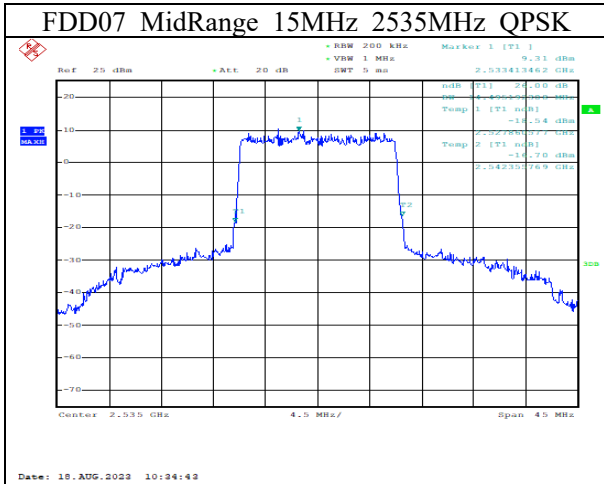


Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

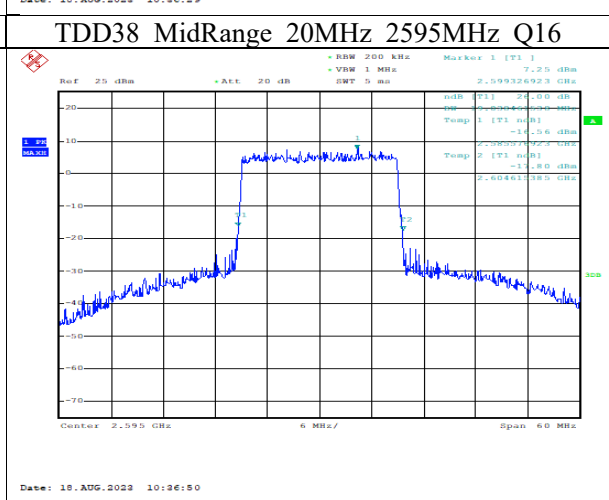
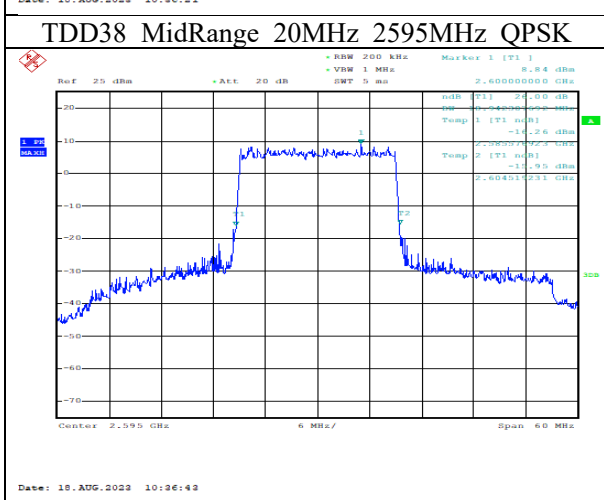
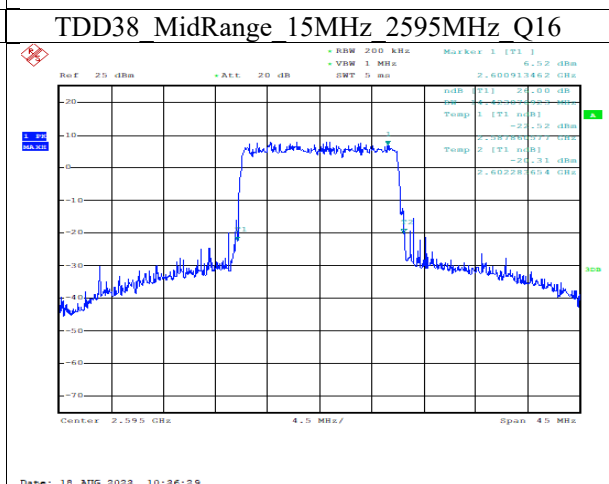
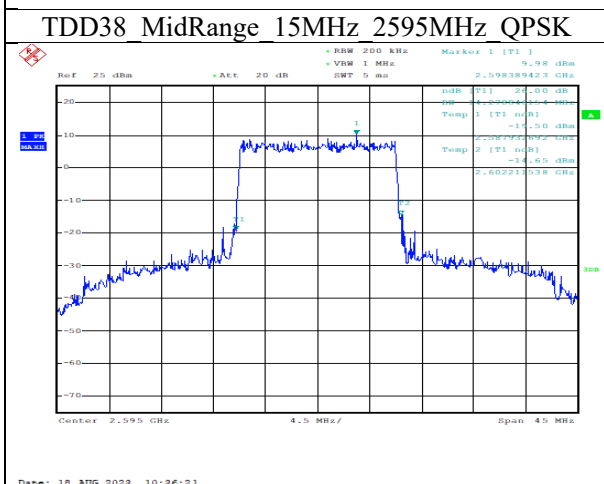
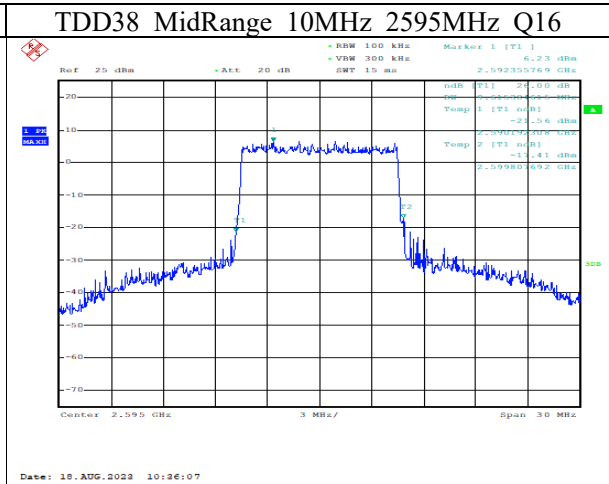
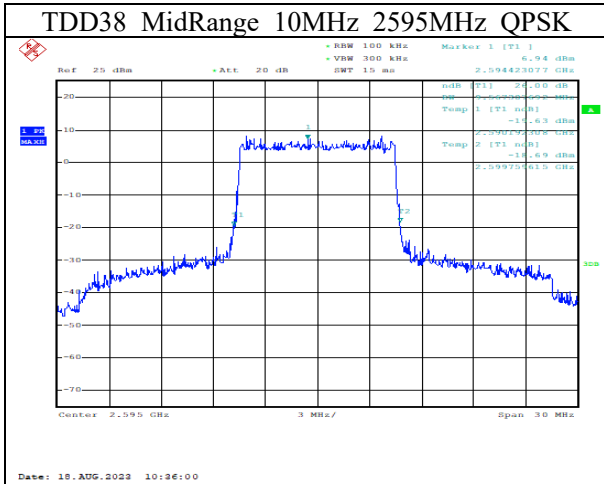


Report No.: I23W00045-LTE RF



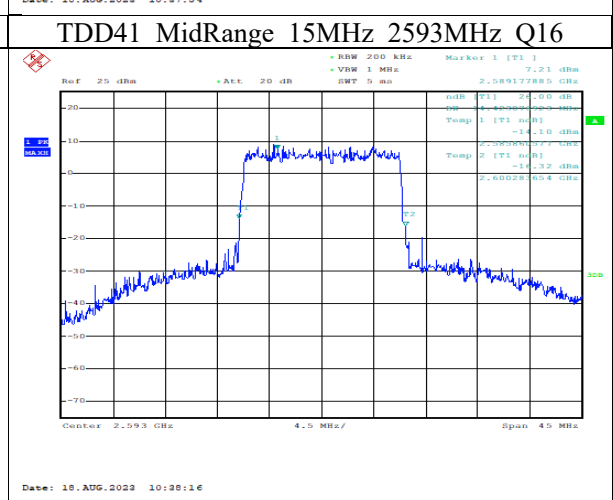
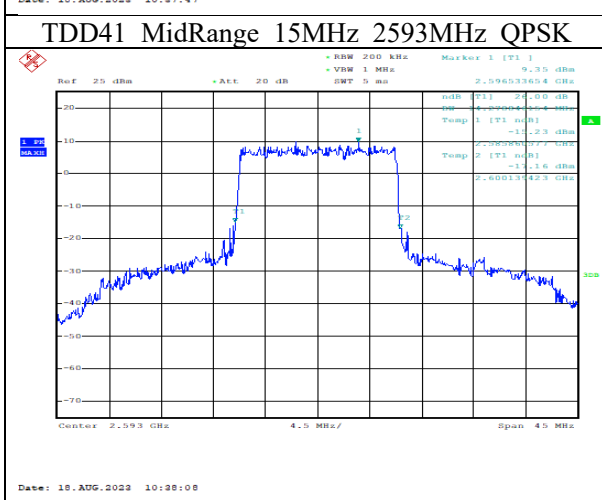
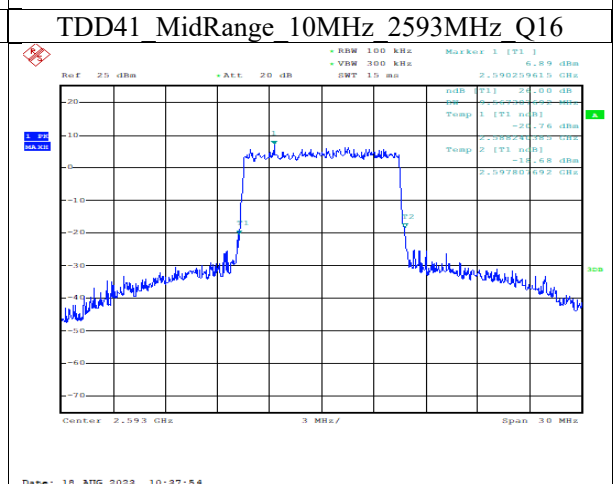
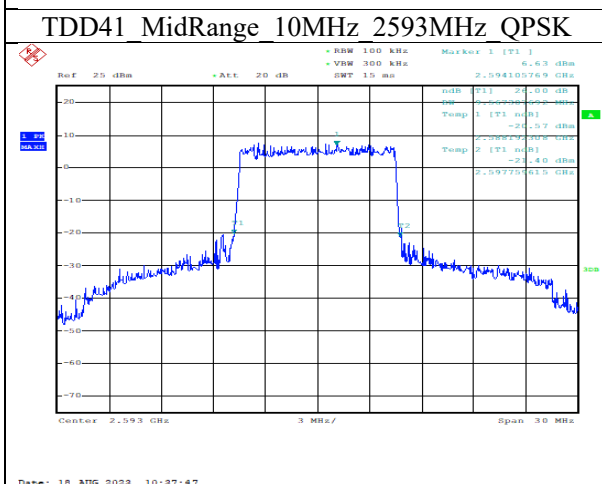
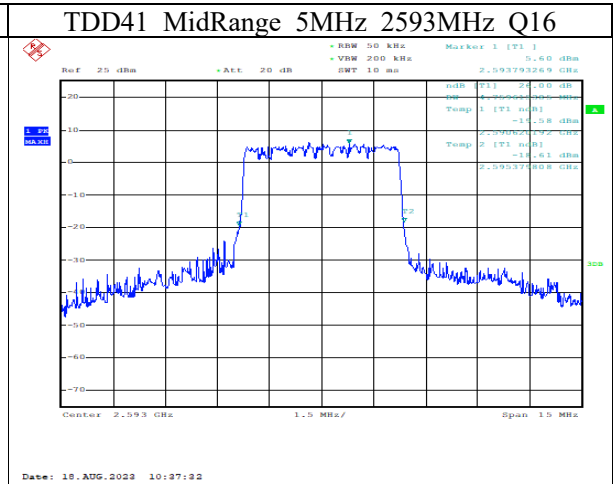
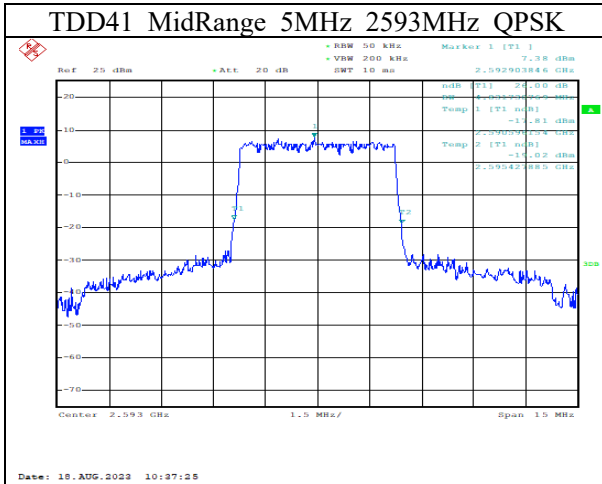
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



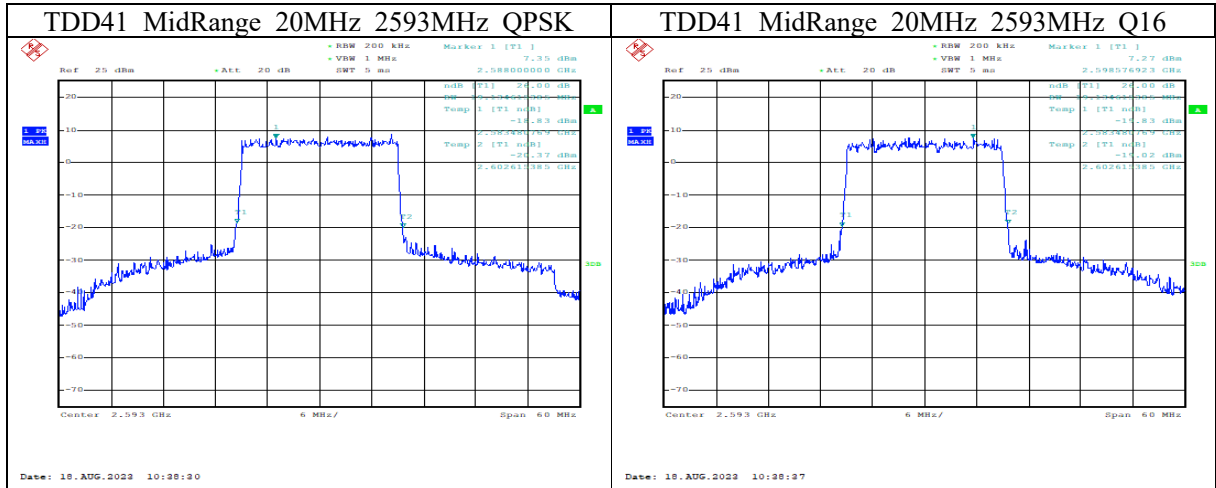
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.6. Frequency Stability

Specifications:	CFR FCC Part 2.1055/22.235/24.235/27.54
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

6.6.1. Method of Measurement and test procedures

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of R&S CMW500 DIGITAL RADIO COMMUNICATION TESTER.

- 1.Measure the carrier frequency at room temperature.
- 2.Subject the EUT to overnight soak at -10°C.
- 3.With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on middle channel for LTE band 7. Measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 4.Repeat the above measurements at 10°C increments from -10°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
- 5.Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
- 6.Subject the EUT to overnight soak at +50°C.
- 7.With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
- 8.Repeat the above measurements at 10 °C decrements from +50°C to -10°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
- 9.At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

6.6.2. Measurement Limit

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d) (2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.6VDC and 4.4VDC, with a nominal voltage of 3.85VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. For the purposes of measuring frequency stability these voltage limits are to be used.

Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	1.54 Hz (k=2)

6.6.3. Test Setup



6.6.4. Test results

Temperature	Voltage	Band	BandWidth (MHz)	Rb Mode	QPSK (Hz)	Q16 (Hz)	QPSK (ppm)	Q16 (ppm)
Normal	Low	FDD02	1.4	fullRB	-13.59	9.427	0.007	0.005
Normal	Normal	FDD02	1.4	fullRB	-14.763	-12.431	0.008	0.007
Normal	High	FDD02	1.4	fullRB	-11.544	-10.657	0.006	0.006
50	Normal	FDD02	1.4	fullRB	-8.368	-9.885	0.004	0.005
40	Normal	FDD02	1.4	fullRB	-5.293	9.584	0.003	0.005
30	Normal	FDD02	1.4	fullRB	-10.972	-8.097	0.006	0.004
20	Normal	FDD02	1.4	fullRB	-7.854	9.127	0.004	0.005
10	Normal	FDD02	1.4	fullRB	-6.652	-9.112	0.004	0.005
0	Normal	FDD02	1.4	fullRB	-5.25	9.513	0.003	0.005
-10	Normal	FDD02	1.4	fullRB	-7.653	-30.084	0.004	0.016
-20	Normal	FDD02	1.4	fullRB	-12.374	10.8	0.007	0.006
-30	Normal	FDD02	1.4	fullRB	-7.381	7.625	0.004	0.004
Normal	Low	FDD04	1.4	fullRB	-11.859	8.411	0.007	0.005
Normal	Normal	FDD04	1.4	fullRB	-6.409	-8.454	0.004	0.005

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Temperature	Voltage	Band	BandWidth (MHz)	Rb Mode	QPSK (Hz)	Q16 (Hz)	QPSK (ppm)	Q16 (ppm)
Normal	High	FDD04	1.4	fullRB	-4.735	-9.341	0.003	0.005
50	Normal	FDD04	1.4	fullRB	-4.148	8.912	0.002	0.005
40	Normal	FDD04	1.4	fullRB	-12.918	-13.275	0.007	0.008
30	Normal	FDD04	1.4	fullRB	-10.629	-9.313	0.006	0.005
20	Normal	FDD04	1.4	fullRB	-10.185	-8.34	0.006	0.005
10	Normal	FDD04	1.4	fullRB	-6.824	10.185	0.004	0.006
0	Normal	FDD04	1.4	fullRB	-7.696	-7.968	0.004	0.005
-10	Normal	FDD04	1.4	fullRB	-7.911	9.069	0.005	0.005
-20	Normal	FDD04	1.4	fullRB	-9.17	9.198	0.005	0.005
-30	Normal	FDD04	1.4	fullRB	4.306	-9.313	0.002	0.005
Normal	Low	FDD05	1.4	fullRB	-8.283	-17.967	0.01	0.021
Normal	Normal	FDD05	1.4	fullRB	-10.772	-20.342	0.013	0.024
Normal	High	FDD05	1.4	fullRB	-10.257	-15.235	0.012	0.018
50	Normal	FDD05	1.4	fullRB	-5.779	-19.555	0.007	0.023
40	Normal	FDD05	1.4	fullRB	-7.124	-18.997	0.009	0.023
30	Normal	FDD05	1.4	fullRB	-8.812	-20.099	0.011	0.024
20	Normal	FDD05	1.4	fullRB	-9.212	-19.398	0.011	0.023
10	Normal	FDD05	1.4	fullRB	-13.032	-15.178	0.016	0.018
0	Normal	FDD05	1.4	fullRB	-10.757	-19.755	0.013	0.024
-10	Normal	FDD05	1.4	fullRB	-9.012	-19.298	0.011	0.023
-20	Normal	FDD05	1.4	fullRB	-9.313	-19.727	0.011	0.024
-30	Normal	FDD05	1.4	fullRB	-11.172	-22.302	0.013	0.027
Normal	Low	FDD07	5	fullRB	-13.99	-15.163	0.006	0.006
Normal	Normal	FDD07	5	fullRB	-4.892	15.965	0.002	0.006
Normal	High	FDD07	5	fullRB	-6.337	14.133	0.002	0.006
50	Normal	FDD07	5	fullRB	-10.843	14.319	0.004	0.006

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

Temperature	Voltage	Band	BandWidth (MHz)	Rb Mode	QPSK (Hz)	Q16 (Hz)	QPSK (ppm)	Q16 (ppm)
40	Normal	FDD07	5	fullRB	-3.777	12.231	0.001	0.005
30	Normal	FDD07	5	fullRB	-9.398	17.509	0.004	0.007
20	Normal	FDD07	5	fullRB	-14.634	-14.777	0.006	0.006
10	Normal	FDD07	5	fullRB	-14.005	10.042	0.006	0.004
0	Normal	FDD07	5	fullRB	-10.2	15.292	0.004	0.006
-10	Normal	FDD07	5	fullRB	7.296	-13.304	0.003	0.005
-20	Normal	FDD07	5	fullRB	-6.08	12.76	0.002	0.005
-30	Normal	FDD07	5	fullRB	-7.038	-13.533	0.003	0.005
Normal	Low	TDD38	5	fullRB	-15.292	-22.416	0.006	0.009
Normal	Normal	TDD38	5	fullRB	-19.727	-16.437	0.008	0.006
Normal	High	TDD38	5	fullRB	-21.672	-24.261	0.008	0.009
50	Normal	TDD38	5	fullRB	-22.216	-28.038	0.009	0.011
40	Normal	TDD38	5	fullRB	-25.477	-24.261	0.01	0.009
30	Normal	TDD38	5	fullRB	-11.902	-16.866	0.005	0.006
20	Normal	TDD38	5	fullRB	-21.071	-24.891	0.008	0.01
10	Normal	TDD38	5	fullRB	-21.157	-24.219	0.008	0.009
0	Normal	TDD38	5	fullRB	-20.313	-19.484	0.008	0.008
-10	Normal	TDD38	5	fullRB	-18.01	-15.864	0.007	0.006
-20	Normal	TDD38	5	fullRB	-20.671	-23.575	0.008	0.009
-30	Normal	TDD38	5	fullRB	-18.725	-21.558	0.007	0.008
Normal	Low	TDD41	5	fullRB	-15.779	-14.448	0.006	0.006
Normal	Normal	TDD41	5	fullRB	-11.201	-18.668	0.004	0.007
Normal	High	TDD41	5	fullRB	-14.248	-21.2	0.005	0.008
50	Normal	TDD41	5	fullRB	-14.992	-14.42	0.006	0.006
40	Normal	TDD41	5	fullRB	-13.347	-13.003	0.005	0.005
30	Normal	TDD41	5	fullRB	-11.415	-19.655	0.004	0.008

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Temperature	Voltage	Band	BandWidth (MHz)	Rb Mode	QPSK (Hz)	Q16 (Hz)	QPSK (ppm)	Q16 (ppm)
20	Normal	TDD41	5	fullRB	-11.802	-14.348	0.005	0.006
10	Normal	TDD41	5	fullRB	-16.394	-17.352	0.006	0.007
0	Normal	TDD41	5	fullRB	-21.772	-18.153	0.008	0.007
-10	Normal	TDD41	5	fullRB	-11.373	-20.628	0.004	0.008
-20	Normal	TDD41	5	fullRB	-13.347	-14.133	0.005	0.005
-30	Normal	TDD41	5	fullRB	-20.657	-20.113	0.008	0.008

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.7. Conducted Spurious Emission

Specifications:	FCC Part 2.1057/22.917(b)/24.238(a) /27.53(h) /27.53(m)
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	9kHz < f ≤ 4GHz, 0.71 dB (k=2)
	4GHz ≤ f < 12.75GHz, 0.74 dB (k=2)
	12.75GHz ≤ f < 26GHz, 2.70 dB (k=2)

6.7.1. Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the mobile station equipment tested, this equates to a frequency range of 13 MHz to 9 GHz, data taken from 10 MHz to 25 GHz.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is set to 30001 which is greater than span/RBW.

22.917 (a) Out of band emissions. 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.

Part 24.238(a) Out of band emissions. 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.

27.53(h)(1) General protection levels. Except as otherwise specified below, for operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

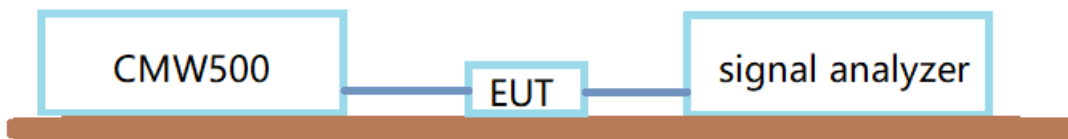
27.53(m) Prior to transition and thereafter solely within the MBS, and notwithstanding paragraph (l)(2) of this section, the maximum out-of-band power of a digital transmitter operating on a single 6 MHz channel with an EIRP in excess of -9 dBW employing digital modulation for the primary purpose of transmitting video programming shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies.

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

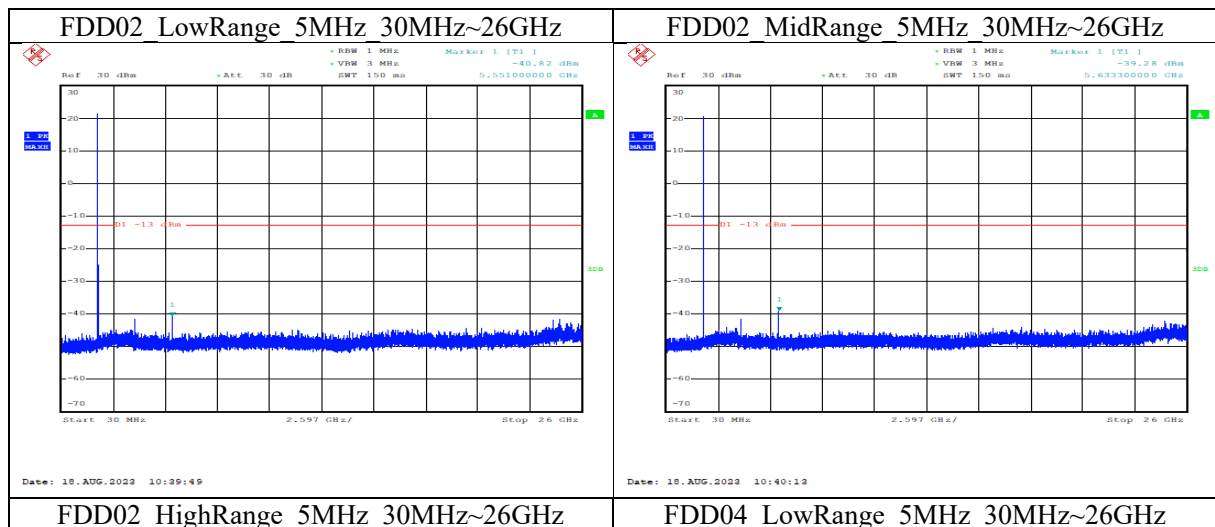
27.53(m) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

6.7.2. Test Setup



6.7.3. Measurement result

Note: peak above the limit line is the carrier frequency.

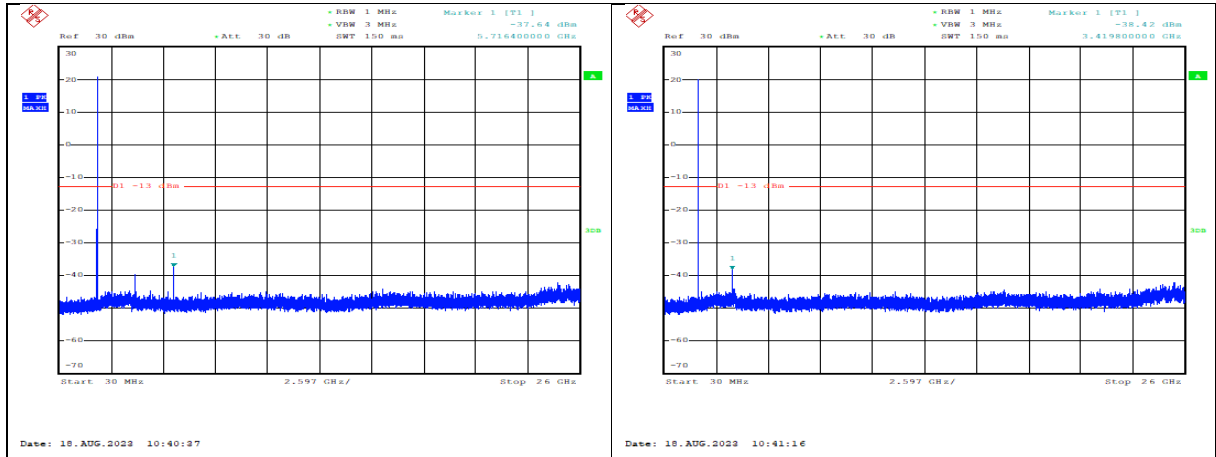


Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777

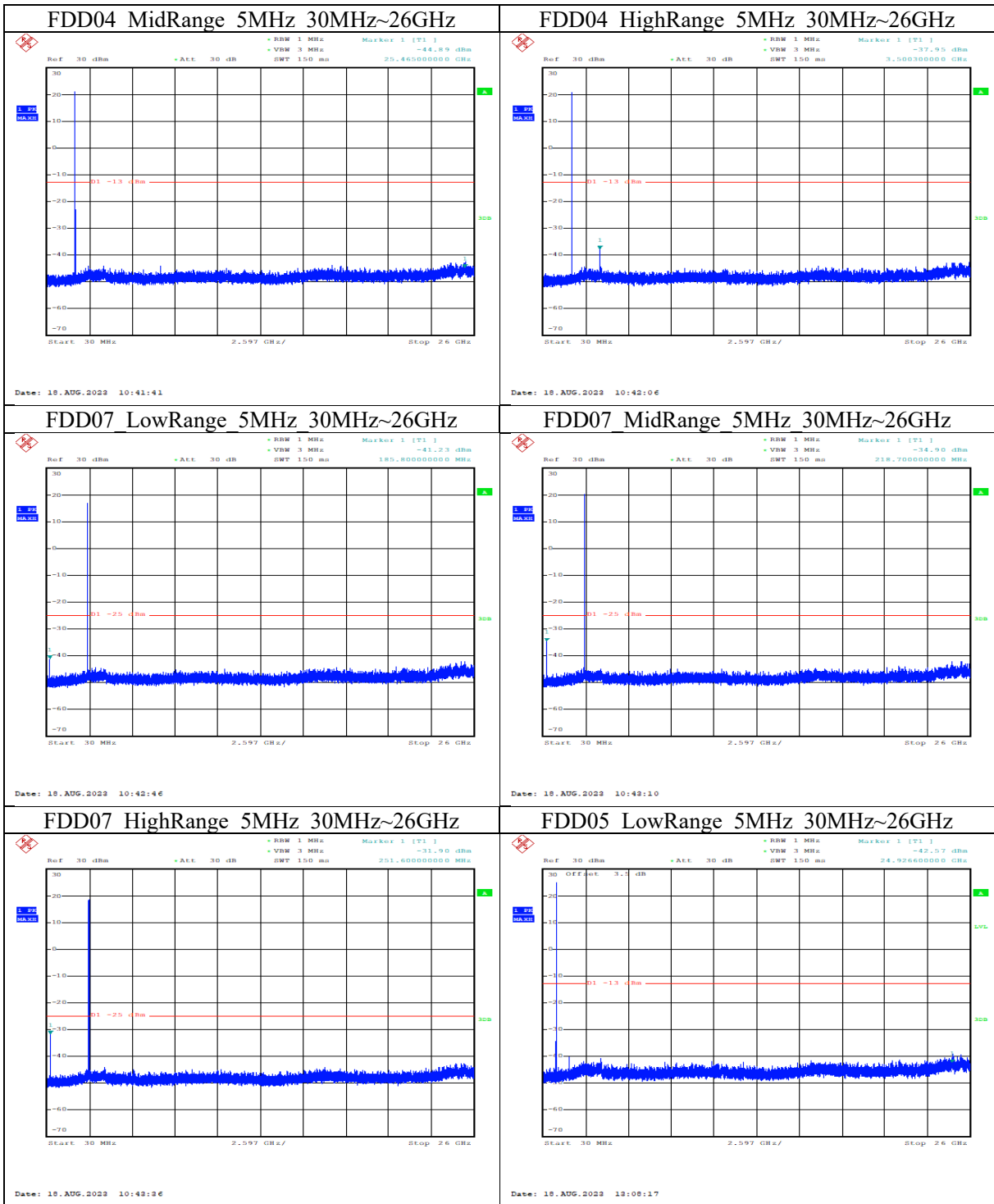


Report No.: I23W00045-LTE RF



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

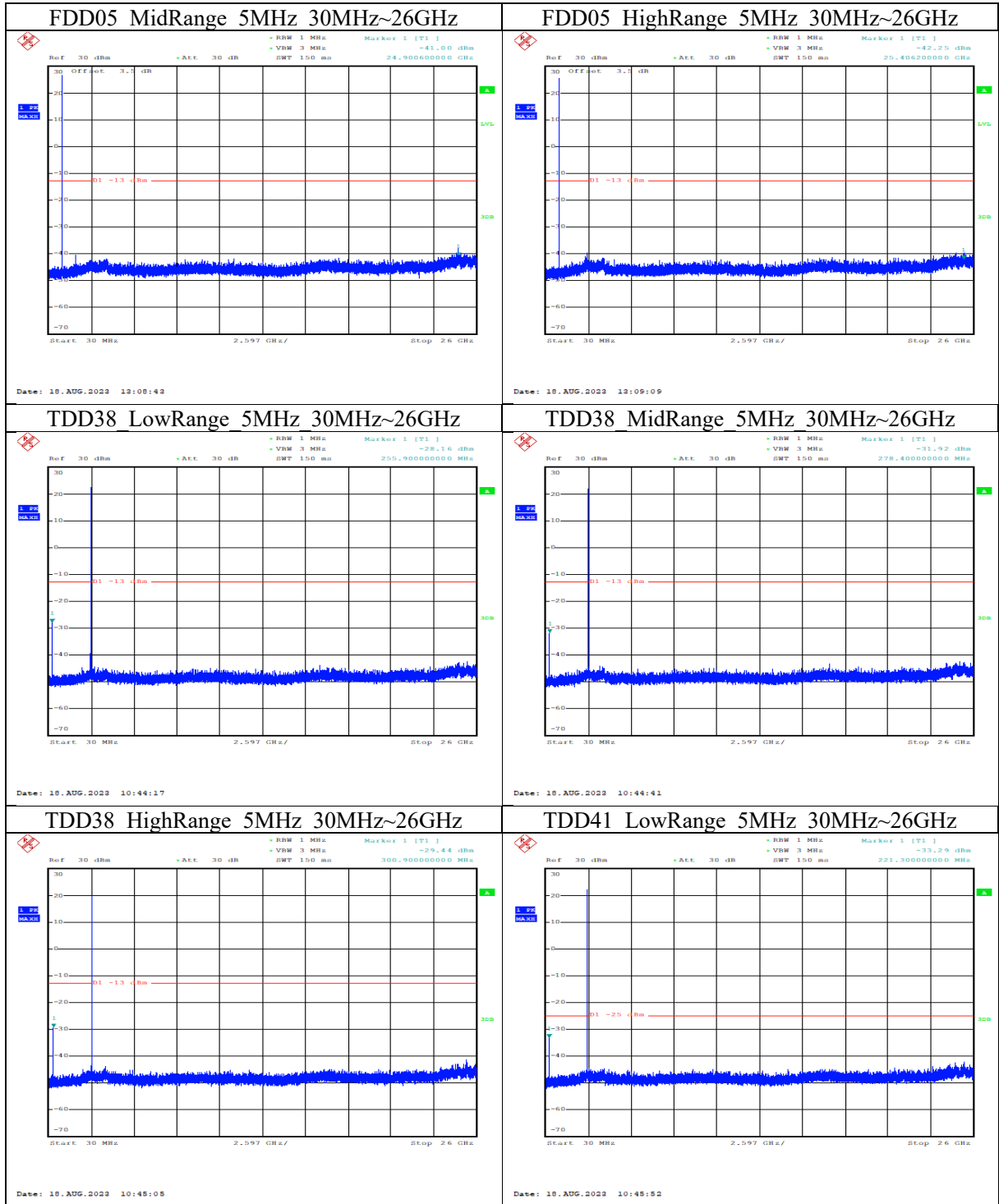


Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



Report No.: I23W00045-LTE RF

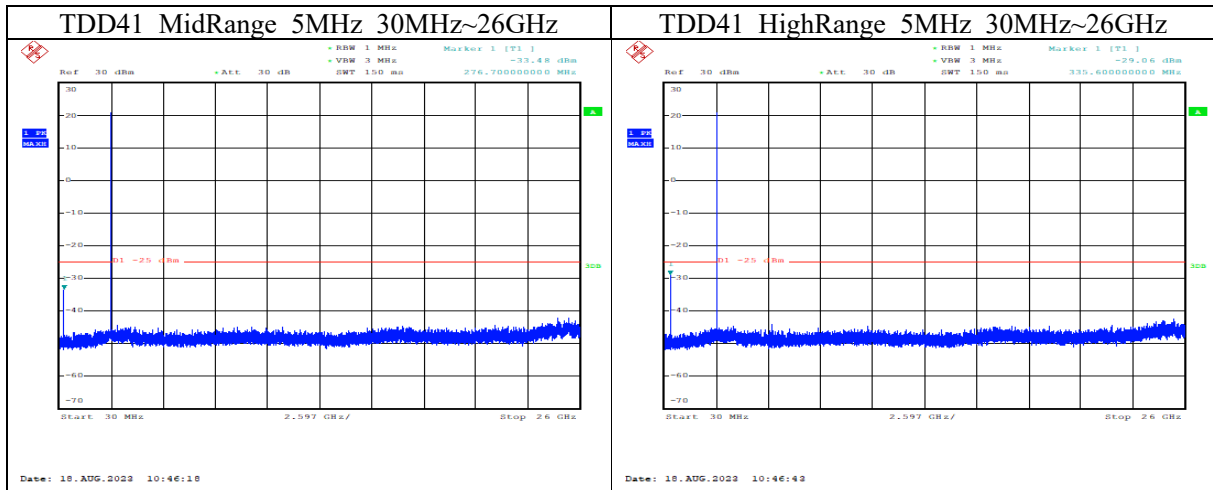


Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF



Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

6.8. Band Edge Compliance

Specifications:	FCC Part 24.238(a)/ 22.917(b) /27.53(h) /27.53(m)
DUT Serial Number:	S1
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	9kHz < f ≤ 4GHz, 0.71 dB (k=2)
	4GHz ≤ f < 12.75GHz, 0.74 dB (k=2)
	12.75GHz ≤ f < 26GHz, 2.70 dB (k=2)

6.8.1. Measurement limit

Part 24.238(a)/ 22.917(b) /27.53(h) /27.53(m) state that on any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least $43 + 10 \log(P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

According to KDB 971168 6, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

22.917 (a) Out of band emissions. 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.

Part 24.238(a) Out of band emissions. 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.

27.53(h)(1) General protection levels. Except as otherwise specified below, for operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

27.53(m) Prior to transition and thereafter solely within the MBS, and notwithstanding paragraph (l)(2) of this section, the maximum out-of-band power of a digital transmitter operating on a single 6 MHz channel with an EIRP in excess of -9 dBW employing digital modulation for the primary purpose of transmitting video programming shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF

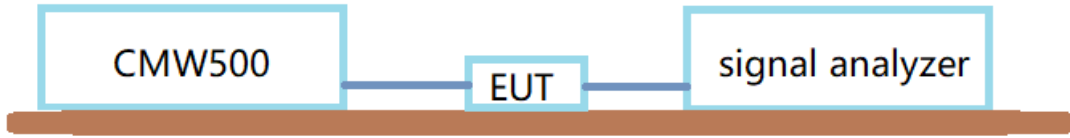
that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies.

27.53(m) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Chongqing Academy of Information and Communication Technology

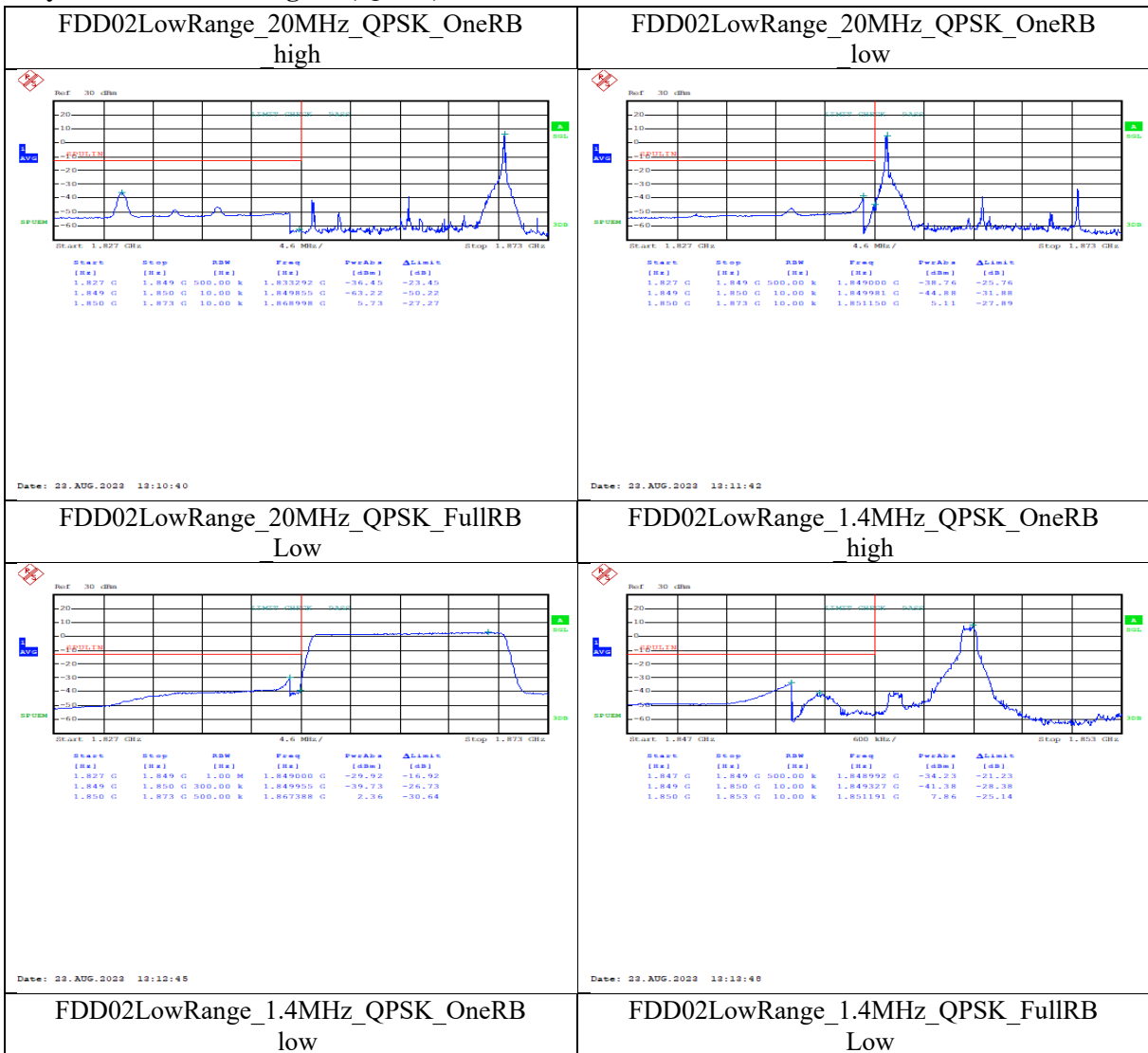
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

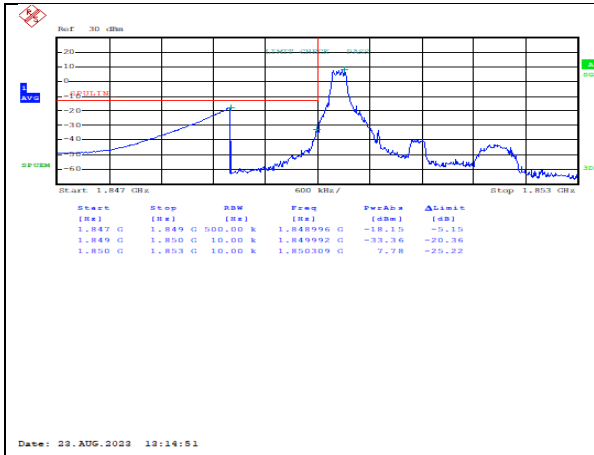
6.8.2. Test Setup



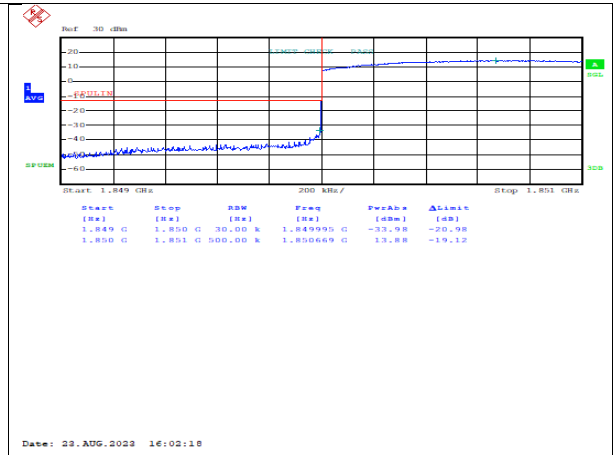
6.8.3. Measurement result

Only worst case result is given ,QPSK,

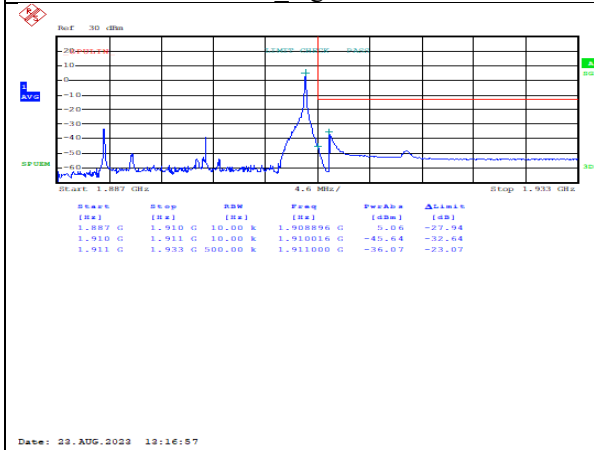




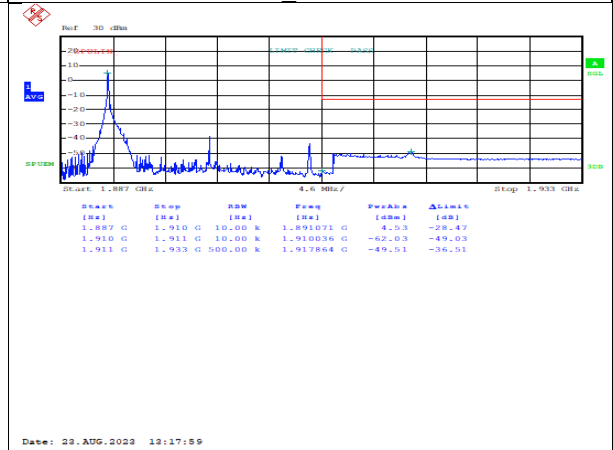
FDD02HighRange_20MHz_QPSK_OneRB_high



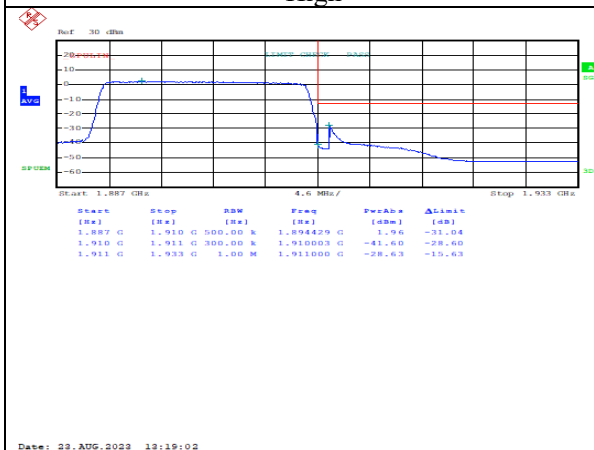
FDD02HighRange_20MHz_QPSK_OneRB_low



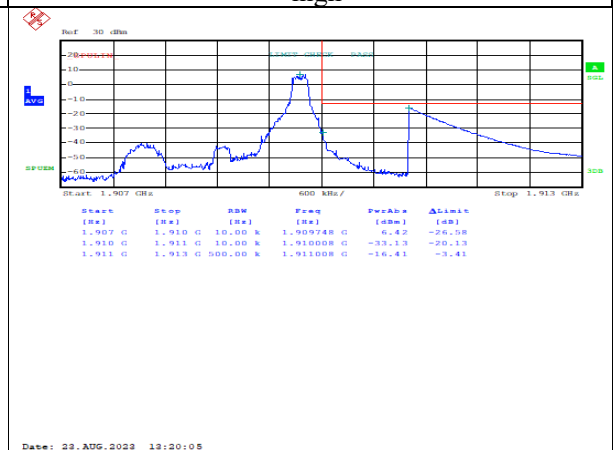
FDD02HighRange_20MHz_QPSK_FullRB_High



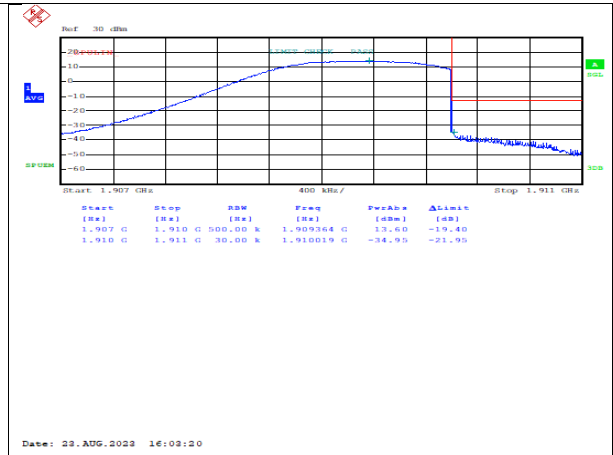
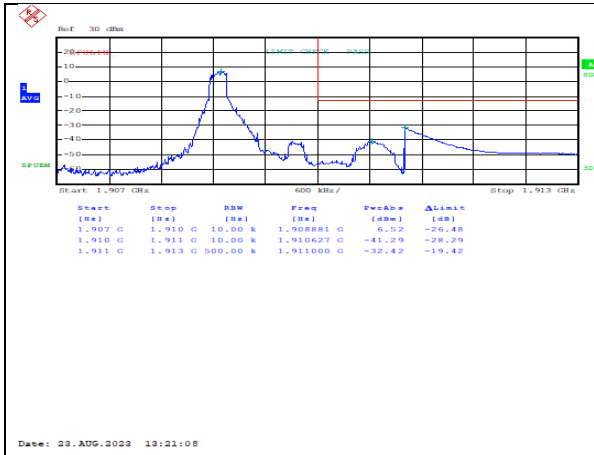
FDD02HighRange_1.4MHz_QPSK_OneRB_high



FDD02HighRange_1.4MHz_QPSK_OneRB_low

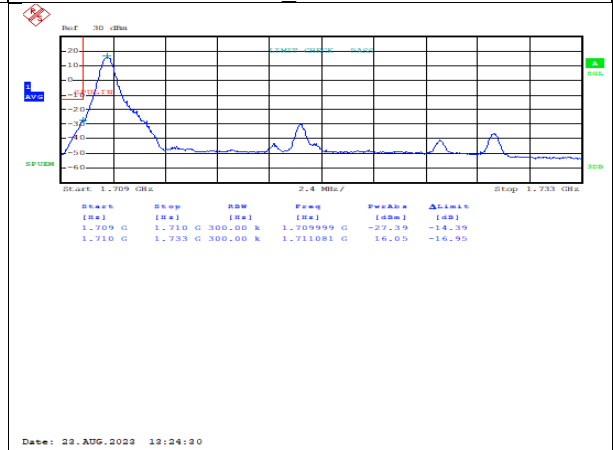
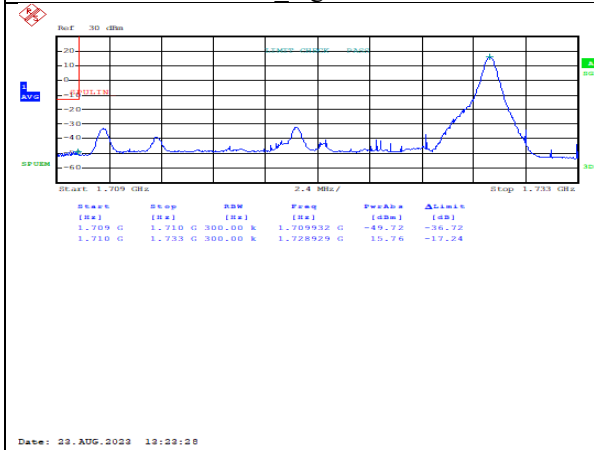


FDD02HighRange_1.4MHz_QPSK_FullRB_High



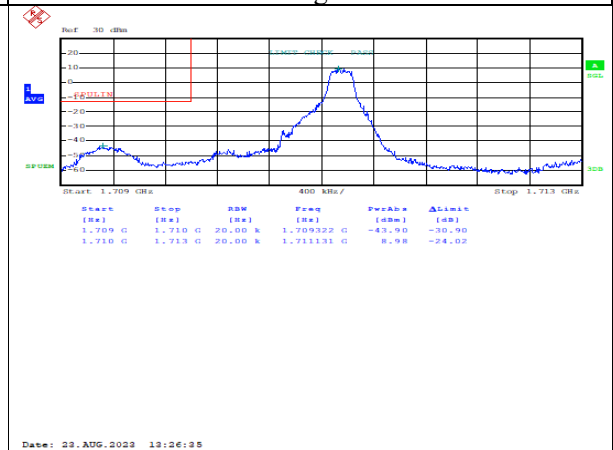
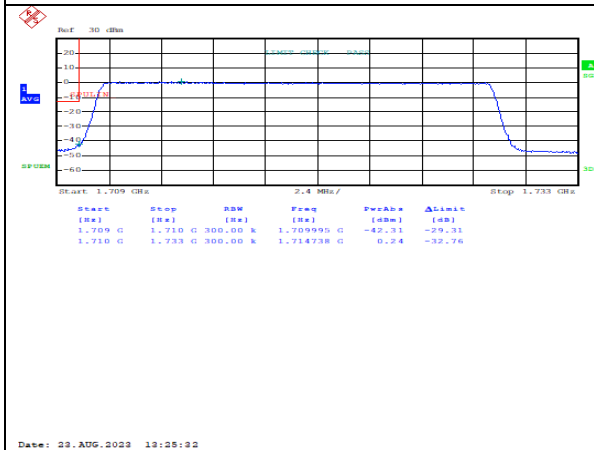
FDD04LowRange_20MHz_QPSK_OneRB_high

FDD04LowRange_20MHz_QPSK_OneRB_low



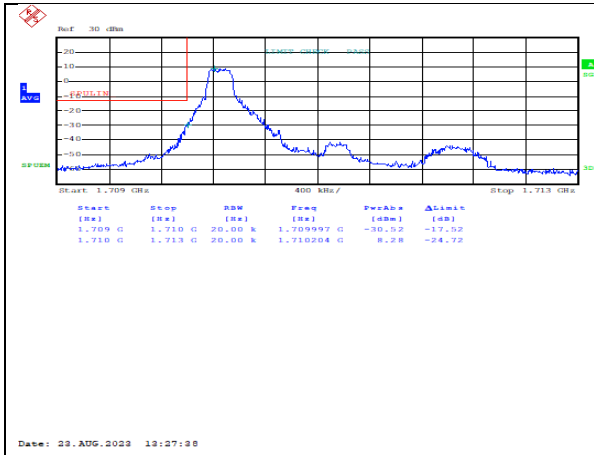
FDD04LowRange_20MHz_QPSK_FullRB_Low

FDD04LowRange_1.4MHz_QPSK_OneRB_high

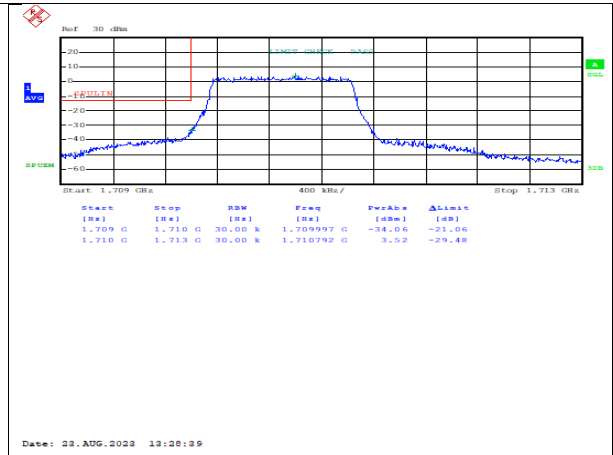


FDD04LowRange_1.4MHz_QPSK_OneRB_low

FDD04LowRange_1.4MHz_QPSK_FullRB_Low



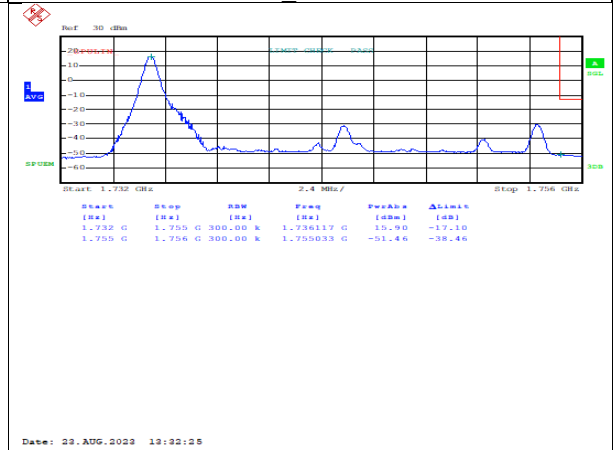
FDD04HighRange_20MHz_QPSK_OneRB_high



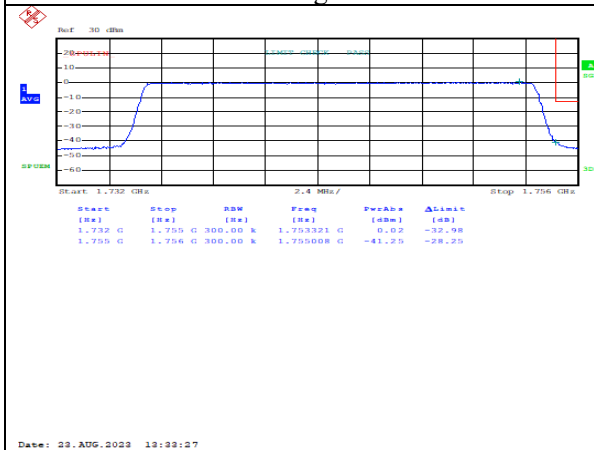
FDD04HighRange_20MHz_QPSK_OneRB_low



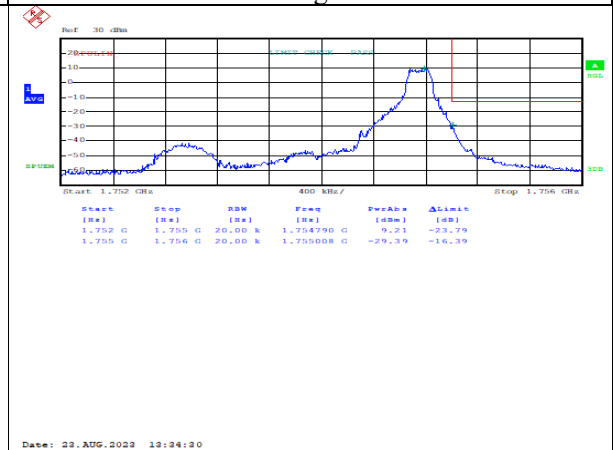
FDD04HighRange_20MHz_QPSK_FullRB_High



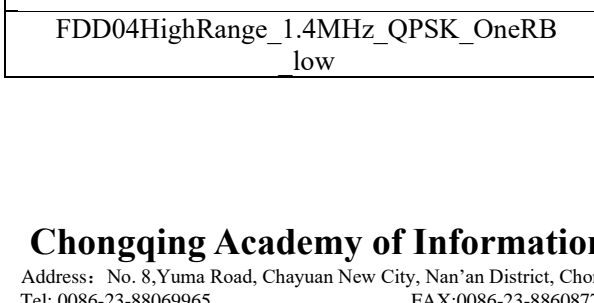
FDD04HighRange_20MHz_QPSK_FullRB_Low



FDD04HighRange_1.4MHz_QPSK_OneRB_High

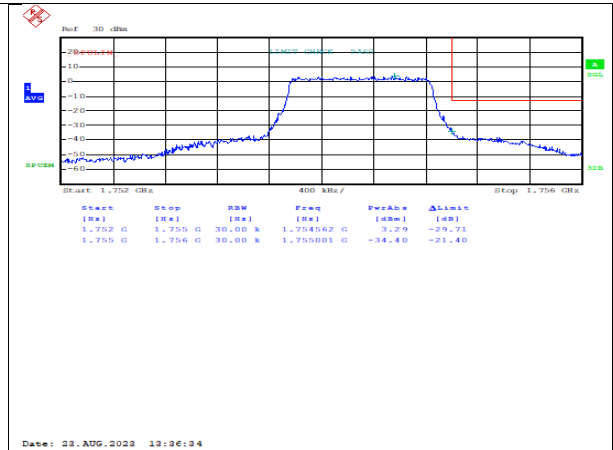
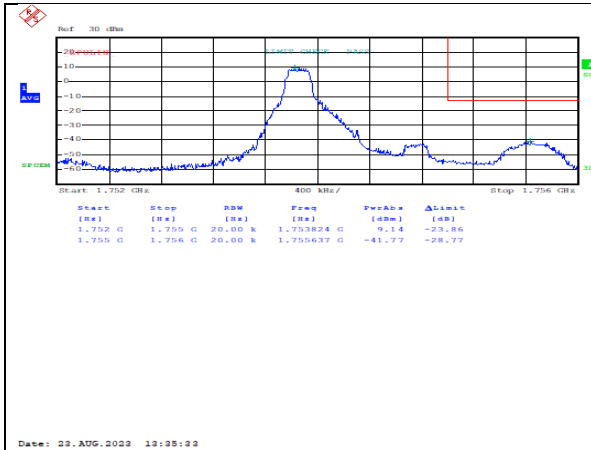


FDD04HighRange_1.4MHz_QPSK_OneRB_Low



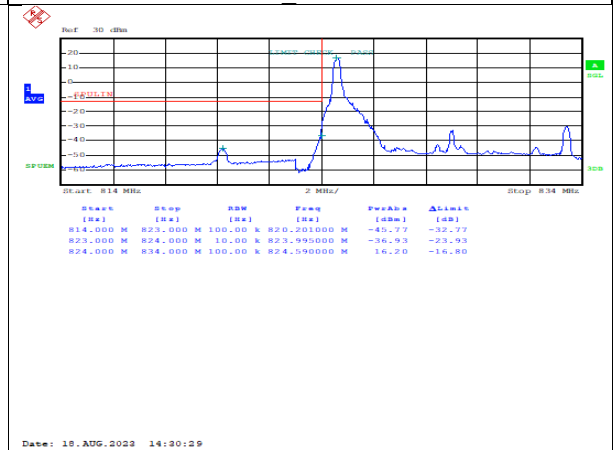
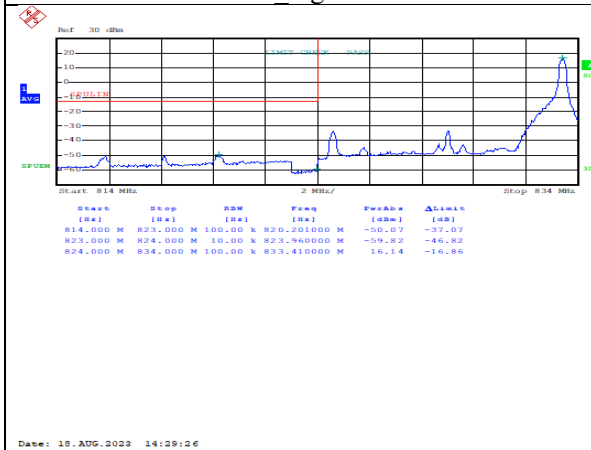
Chongqing Academy of Information and Communication Technology

Address: No. 8,Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China,401336
Tel: 0086-23-88069965 FAX:0086-23-88608777



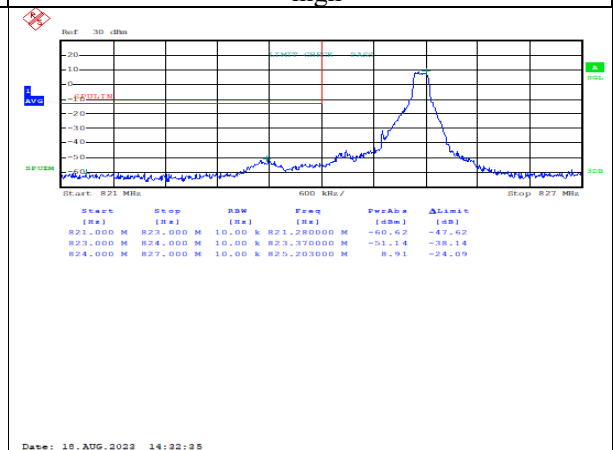
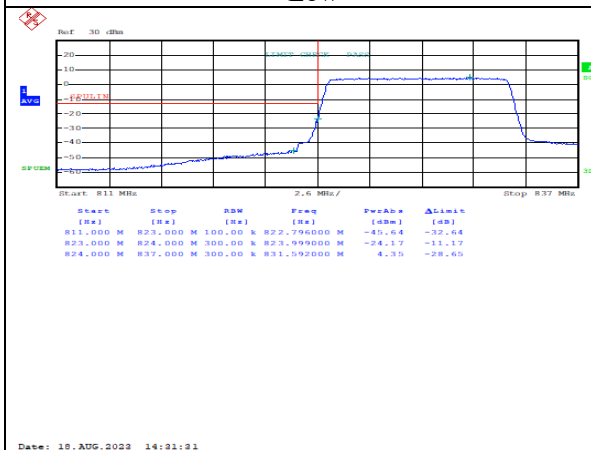
FDD05LowRange_10MHz_QPSK_OneRB_high

FDD05LowRange_10MHz_QPSK_OneRB_low



FDD05LowRange_10MHz_QPSK_FullRB_Low

FDD05LowRange_1.4MHz_QPSK_OneRB_high

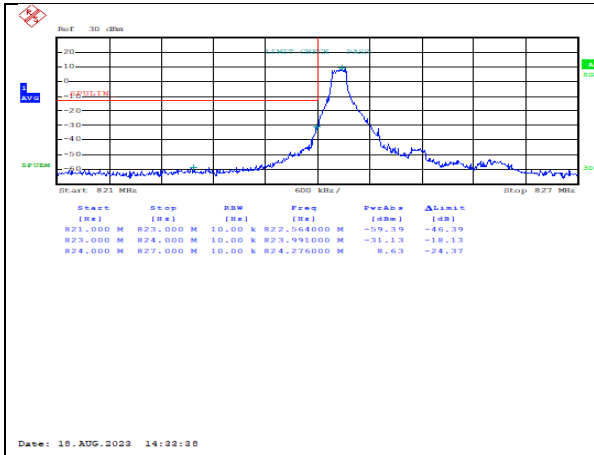


FDD05LowRange_1.4MHz_QPSK_OneRB_low

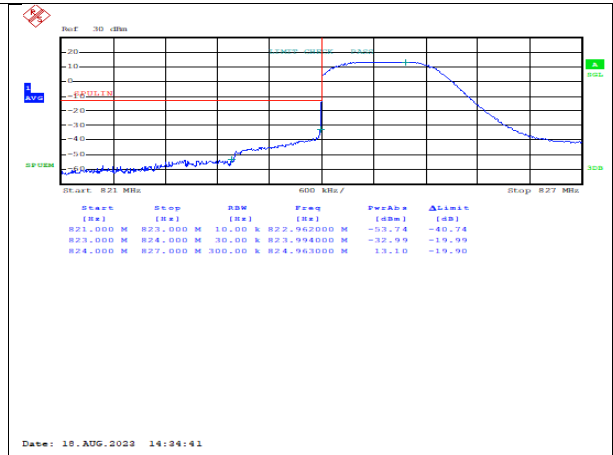
FDD05LowRange_1.4MHz_QPSK_FullRB_Low

Chongqing Academy of Information and Communication Technology

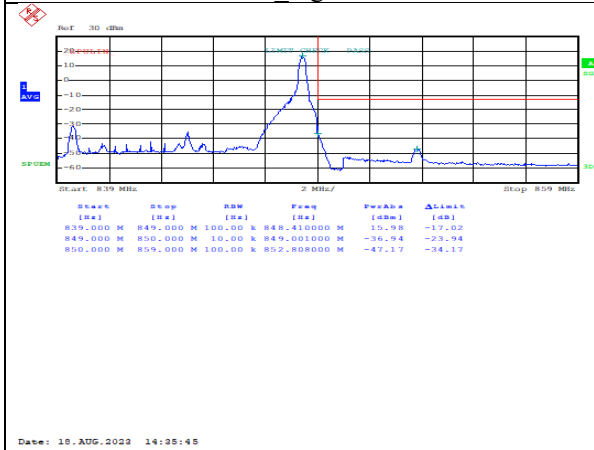
Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX:0086-23-88608777



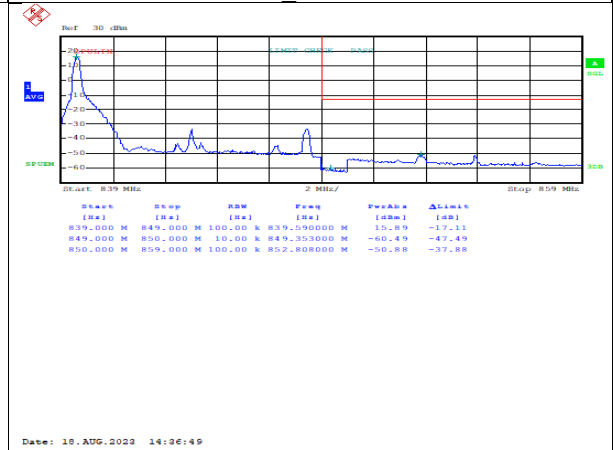
FDD05HighRange_10MHz_QPSK_OneRB_high



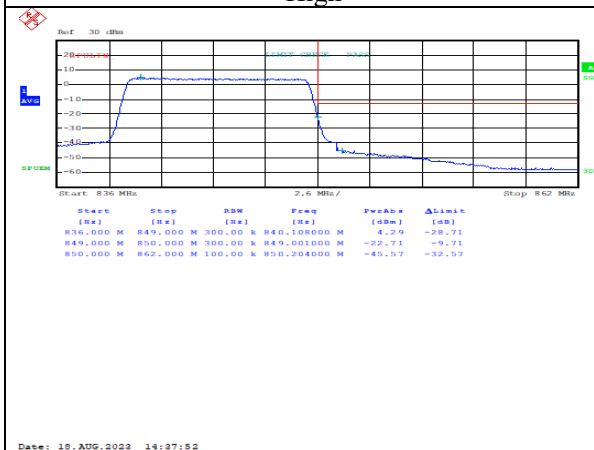
FDD05HighRange_10MHz_QPSK_OneRB_low



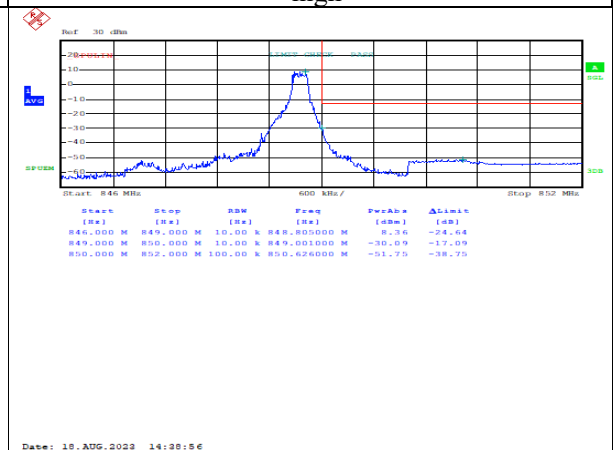
FDD05HighRange_10MHz_QPSK_FullRB_High



FDD05HighRange_1.4MHz_QPSK_OneRB_high



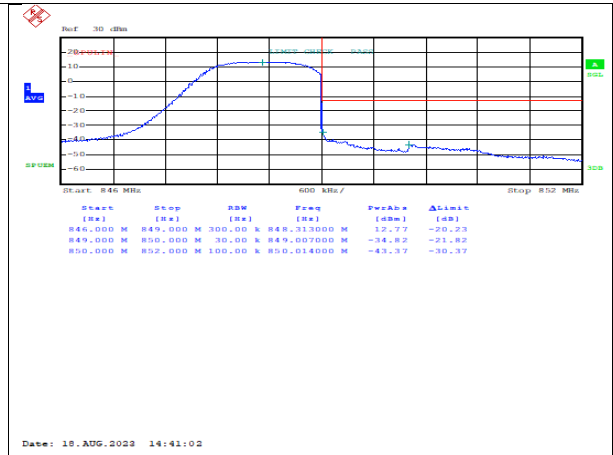
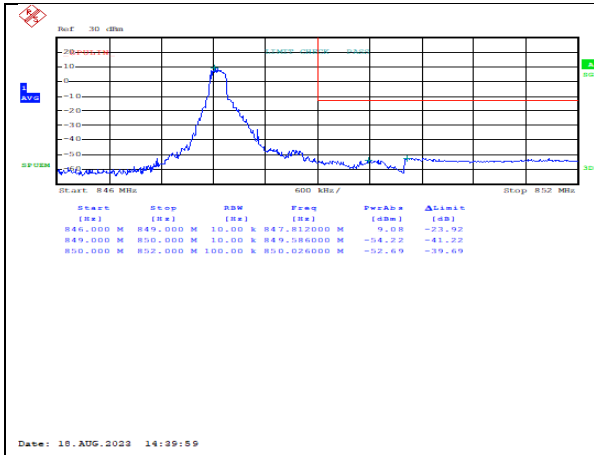
FDD05HighRange_1.4MHz_QPSK_OneRB_low



FDD05HighRange_1.4MHz_QPSK_FullRB_High

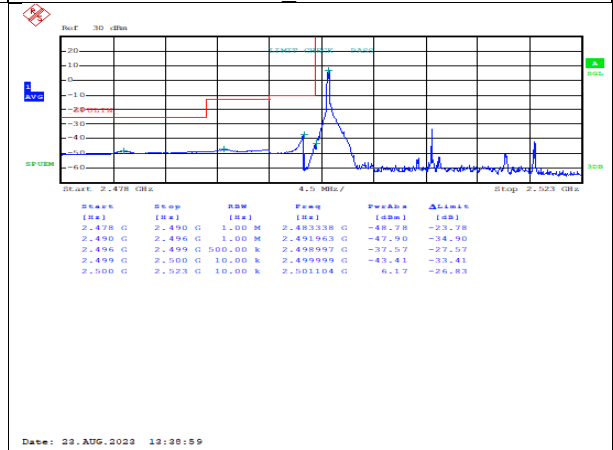
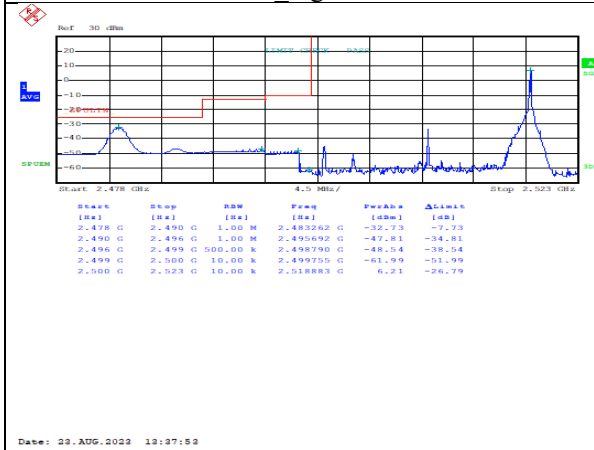
Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX:0086-23-88608777



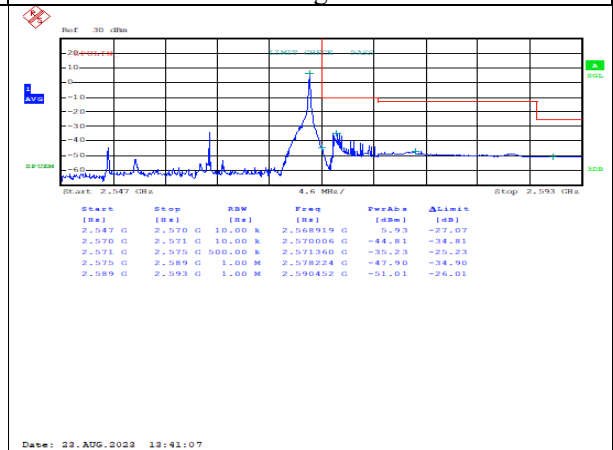
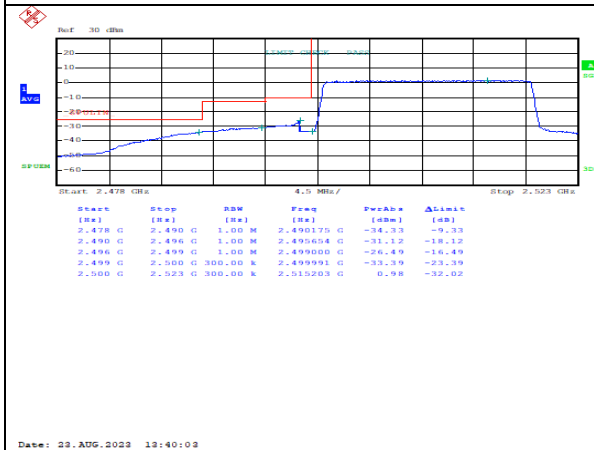
FDD07LowRange_20MHz_QPSK_OneRB_high

FDD07LowRange_20MHz_QPSK_OneRB_low



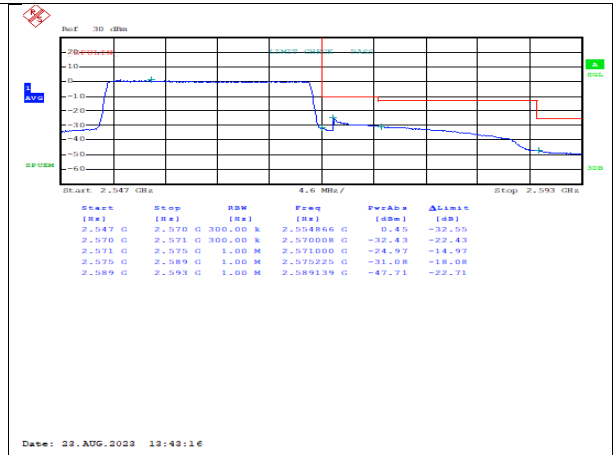
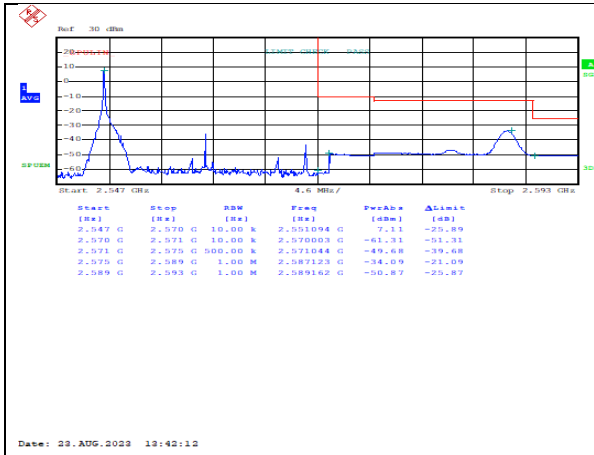
FDD07LowRange_20MHz_QPSK_FullRB_Low

FDD07HighRange_20MHz_QPSK_OneRB_high



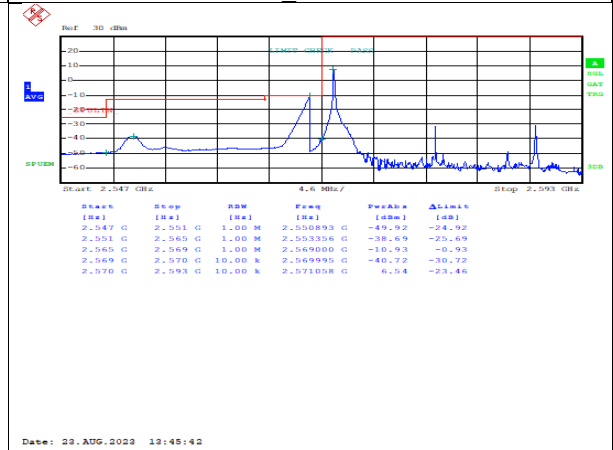
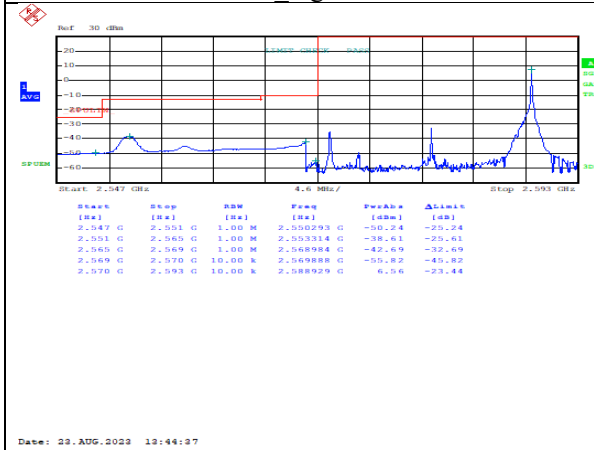
FDD07HighRange_20MHz_QPSK_OneRB_low

FDD07HighRange_20MHz_QPSK_FullRB_Low



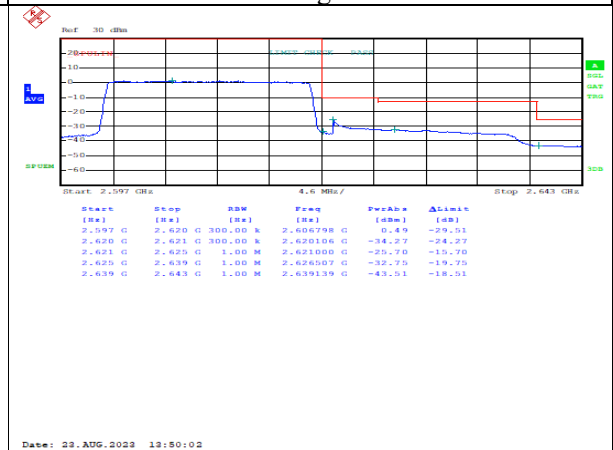
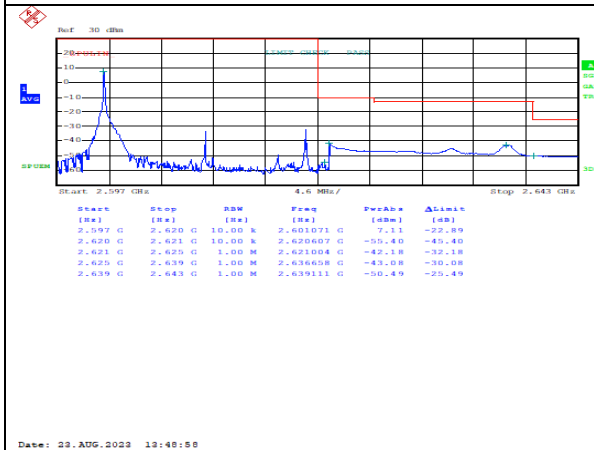
TDD38LowRange_20MHz_QPSK_OneRB_high

TDD38LowRange_20MHz_QPSK_OneRB_low



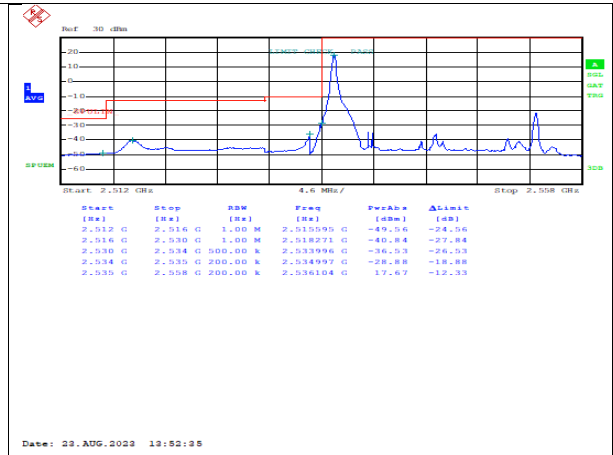
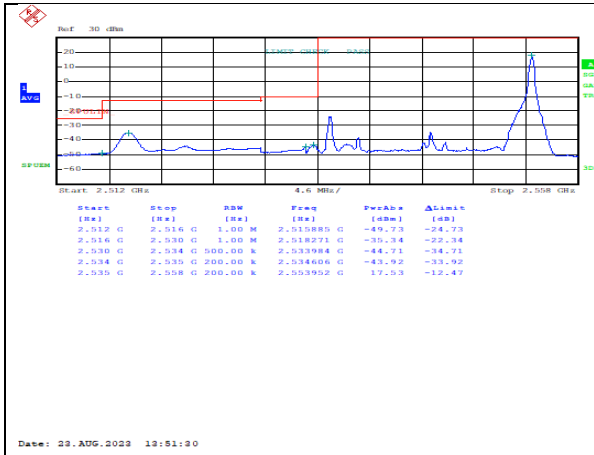
TDD38HighRange_20MHz_QPSK_OneRB_low

TDD38HighRange_20MHz_QPSK_FullRB_High



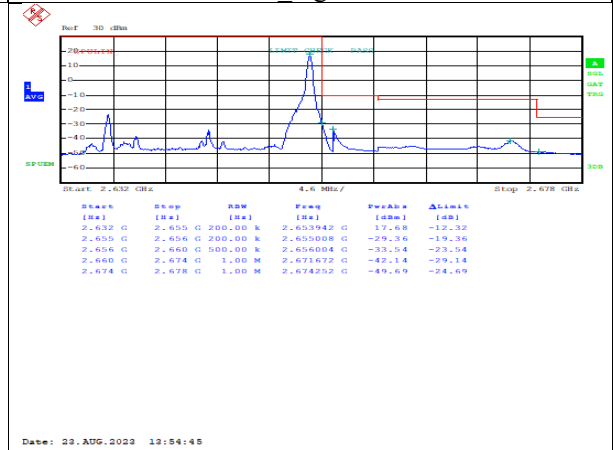
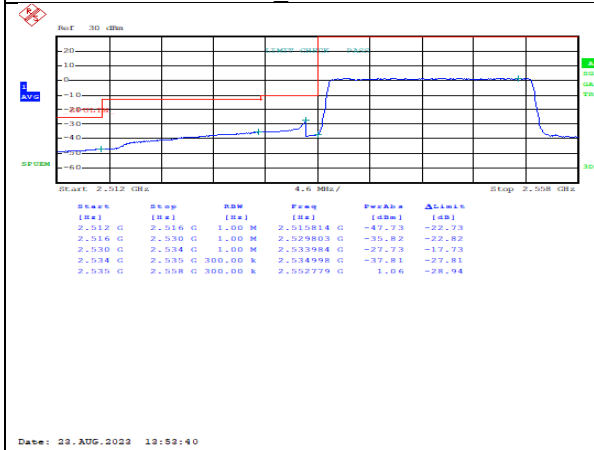
TDD41LowRange_20MHz_QPSK_OneRB_high

TDD41LowRange_20MHz_QPSK_OneRB_low



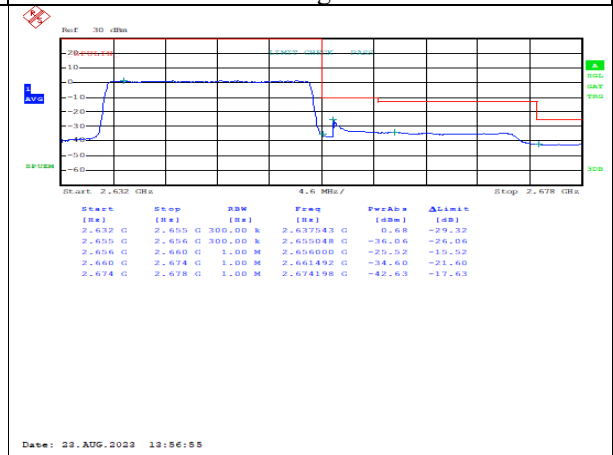
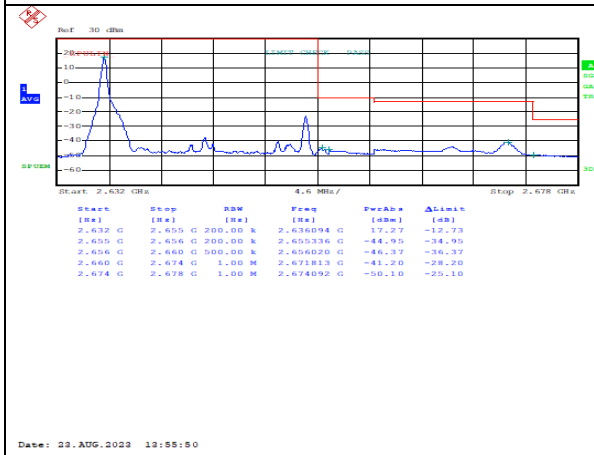
TDD41LowRange_20MHz_QPSK_FullRB
Low

TDD41HighRange_20MHz_QPSK_OneRB
high



TDD41HighRange_20MHz_QPSK_OneRB
low

TDD41HighRange_20MHz_QPSK_FullRB
High



6.9. EMISSION LIMIT

Specifications:	FCC Part 2.1051/22.917/24.238(a)/27.53(h)/27.53(m)
DUT Serial Number:	S2 S3
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

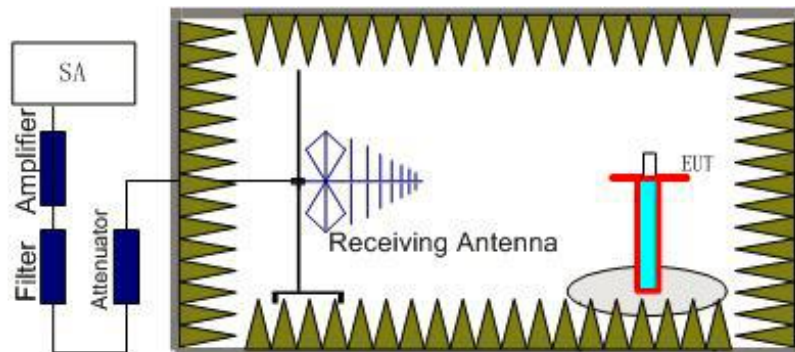
6.9.1. Measurement Method

The measurements procedures in TIA-603E-2016 are used.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The resolution bandwidth is set as outlined in part 2.1051, part 27.53(g), part FCC Part 2.1051/22.917/24.238(a)/27.53(h)/27.53(m)

6.9.2. The procedure of radiated spurious emissions is as follows

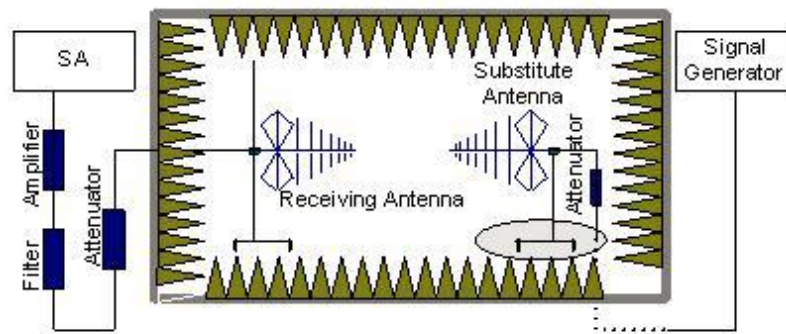
1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10thharmonic were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (P_{Mea}) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. The Path loss (P_{pl}) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain (G_a) should be recorded after test.

A amplifier should be connected in for the test.

The Path loss (P_{pl}) is the summation of the cable loss .

The measurement results are obtained as described below:

$$\text{Power(EIRP)} = P_{Mea} - P_{pl} + G_a$$

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole, $ERP = EIRP - 2.15 \text{dBi}$

6.9.3. Measurement Limit

22.917 (a) Out of band emissions. 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.

Part 24.238(a) Out of band emissions. 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.

27.53(h)(1) General protection levels. Except as otherwise specified below, for operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ dB.

27.53(m) Prior to transition and thereafter solely within the MBS, and notwithstanding paragraph (l)(2) of this section, the maximum out-of-band power of a digital transmitter operating on a single 6 MHz channel

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777

with an EIRP in excess of -9 dBW employing digital modulation for the primary purpose of transmitting video programming shall be attenuated at the 6 MHz channel edges at least 25 dB relative to the licensed average 6 MHz channel power level, then attenuated along a linear slope to at least 40 dB at 250 kHz beyond the nearest channel edge, then attenuated along a linear slope from that level to at least 60 dB at 3 MHz above the upper and below the lower licensed channel edges, and attenuated at least 60 dB at all other frequencies. 27.53(m) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

According to KDB 971168 6, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	30MHz-150MHz 3.82 dB (k=2) 150MHz-1000MHz 3.97 dB (k=2) 1000MHz-3000MHz 3.09 dB (k=2) 3000MHz-6000MHz 3.29 dB (k=2) 6000MHz-18000MHz 3.91 dB (k=2) 18000MHz-26000MHz 4.60 dB (k=2) 26000MHz-40000MHz 4.77 dB (k=2)

6.9.4. LTE Measurement Results

BAND	Result	
B2	Low	Pass
	Middle	Pass
	High	Pass
B4	Low	Pass
	Middle	Pass

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



	High	Pass
B5	Low	Pass
	Middle	Pass
	High	Pass
B7	Low	Pass
	Middle	Pass
	High	Pass
B38	Low	Pass
	Middle	Pass
	High	Pass
B41	Low	Pass
	Middle	Pass
	High	Pass

Mainly Supply

RSE-LTE2-H-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3812.4	-48.14	6.7	7.9	-46.94	-13	H
5726.0	-46.68	8.5	10.2	-44.98	-13	H
7204.4	-52.82	9.5	11.4	-50.92	-13	V
9716.8	-50.28	10.9	12.7	-48.48	-13	H
12667.4	-46.49	12.7	12.3	-46.89	-13	H
15673.2	-39.98	14.5	12.3	-42.18	-13	H

RSE-LTE2-L-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3708.8	-51.54	6.6	7.9	-50.24	-13	H
5558.4	-50.46	8.2	9.8	-48.86	-13	H
7012.0	-53.03	9.3	11.1	-51.23	-13	H

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

8544.4	-52.2	10.3	12.6	-49.9	-13	H
10801.2	-48.65	11.7	12.3	-48.05	-13	V
13829.4	-45.96	13.8	12.3	-47.46	-13	V

RSE-LTE2-M-S1-Z

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3762.4	-50.38	6.6	7.9	-49.08	-13	H
5644.4	-50.73	8.3	10.2	-48.83	-13	H
7176.0	-53.4	9.5	11.4	-51.5	-13	H
10156.0	-47.82	11.3	12.5	-46.62	-13	V
12876.0	-44.46	13.0	12.3	-45.16	-13	H
15942.0	-38.93	15.0	12.3	-41.63	-13	H

RSE-LTE4-H-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
4046.8	-54.27	6.9	8.6	-52.57	-13	H
5783.2	-53.23	8.4	10.2	-51.43	-13	V
7870.8	-52.6	9.9	11.8	-50.7	-13	H
10850.4	-49.64	11.8	12.3	-49.14	-13	V
13651.6	-45.65	13.9	12.3	-47.25	-13	V
16964.0	-36.75	16.0	12.3	-40.45	-13	V

RSE-LTE4-L-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3424.8	-53.81	6.3	7.8	-52.31	-13	H
5169.2	-52.91	7.9	9.4	-51.41	-13	H
7141.6	-52.5	9.4	11.4	-50.5	-13	V
9898.8	-50.18	11.0	12.5	-48.68	-13	V
13280.6	-44.89	13.6	12.3	-46.19	-13	H

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



16926.2	-36.52	16.3	12.3	-40.52	-13	H
---------	--------	------	------	--------	-----	---

RSE-LTE4-M-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3580.4	-53.11	6.5	7.8	-51.81	-13	H
5070.4	-53.21	7.8	9.6	-51.41	-13	H
6930.0	-51.36	9.3	11.1	-49.56	-13	H
9481.2	-50.64	10.7	12.7	-48.64	-13	H
12825.6	-46.2	12.5	12.3	-46.4	-13	H
16747.0	-37.32	15.1	12.3	-40.12	-13	V

RSE-LTE5-H-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
1752.2	-43.05	4.5	4.7	-42.85	-13	V
2795.4	-41.78	5.7	6.1	-41.38	-13	H
3576.0	-52.16	6.5	7.8	-50.86	-13	H
4845.6	-51.91	7.6	9.0	-50.51	-13	H
5890.4	-53.41	8.5	10.2	-51.71	-13	V
7123.3	-53.36	9.4	11.1	-51.66	-13	V

RSE-LTE5-L-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
1655.9	-49.27	4.5	4.7	-49.07	-13	V
2877.7	-41.36	5.8	6.7	-40.46	-13	V
3829.6	-54.65	6.7	7.9	-53.45	-13	H
4890.4	-53.23	7.7	9.6	-51.33	-13	H
6318.0	-52.81	8.8	10.3	-51.31	-13	H
8434.9	-52.8	10.2	12.6	-50.4	-13	H

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777

RSE-LTE5-M-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
1945.0	-35.07	4.7	4.5	-35.27	-13	V
2874.6	-40.88	5.8	6.1	-40.58	-13	H
3529.2	-53.65	6.4	7.8	-52.25	-13	V
4535.2	-52.52	7.4	8.7	-51.22	-13	H
5812.0	-54	8.4	10.2	-52.2	-13	V
7314.4	-52.12	9.6	11.4	-50.32	-13	H

RSE-LTE7-H-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3168.8	-50.33	6.0	6.9	-49.43	-13	H
4940.4	-49.25	7.7	9.6	-47.35	-13	H
6584.0	-48.62	9.1	10.6	-47.12	-13	H
9284.8	-47.92	10.7	12.7	-45.92	-13	V
12235.5	-40.57	12.6	12.3	-40.87	-13	V
15947.2	-32.96	15.0	12.3	-35.66	-13	H

RSE-LTE7-L-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3614.4	-51.54	6.5	7.8	-50.24	-13	V
5088.0	-47.11	7.9	9.6	-45.41	-13	H
7004.0	-49.1	9.3	11.1	-47.3	-13	H
9735.6	-47.33	10.9	12.7	-45.53	-13	V
12916.2	-40.64	13.0	12.3	-41.34	-13	H
16689.2	-30.86	15.1	12.3	-33.66	-13	H

RSE-LTE7-M-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
-----------------	------------	-----------	----------	----------------	-------------	--------------

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



3544.0	-51.88	6.4	7.8	-50.48	-13	H
5054.0	-48.15	7.8	9.6	-46.35	-13	H
6498.4	-49.36	9.0	10.6	-47.76	-13	V
8670.8	-50.19	10.3	12.7	-47.79	-13	V
11407.8	-43.46	12.1	12.3	-43.26	-13	V
17056.8	-30.48	16.0	12.3	-34.18	-13	H

RSE-LTE41-H-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3533.6	-51.92	6.4	7.8	-50.52	-25	H
5372.8	-45.3	8.1	9.4	-44	-25	H
8062.8	-48.43	9.9	12.2	-46.13	-25	H
11229.2	-42.98	12.1	12.3	-42.78	-25	V
14701.2	-39.49	14.0	12.3	-41.19	-25	H
16778.5	-30.09	15.8	12.3	-33.59	-25	H

RSE-LTE41-L-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3598.0	-51.22	6.5	7.8	-49.92	-25	V
5120.0	-47.61	7.9	9.6	-45.91	-25	H
7499.2	-47.55	9.7	11.6	-45.65	-25	H
10220.8	-45.16	11.3	12.5	-43.96	-25	H
13374.8	-38.63	13.7	12.3	-40.03	-25	H
16726.0	-30.39	15.1	12.3	-33.19	-25	H

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777



RSE-LTE41-M-S1

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3716.4	-50.12	6.6	7.9	-48.82	-25	H
5045.6	-48.11	7.8	9.6	-46.31	-25	H
7225.6	-50.65	9.6	11.4	-48.85	-25	V
9758.0	-46.37	11.0	12.5	-44.87	-25	V
12774.5	-41.02	12.5	12.3	-41.22	-25	H
16813.5	-29.93	15.8	12.3	-33.43	-25	H

Secondary Supply

Note: We only provided the worst mode on the report.

RSE-LTE41-H-S2

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3328.4	-51.36	6.2	6.9	-50.66	-25	H
4279.2	-52.01	7.1	8.9	-50.21	-25	H
5375.2	-49.2	8.1	9.8	-47.5	-25	H
9032.4	-47.84	10.4	12.6	-45.64	-25	V
13367.8	-38	13.7	12.3	-39.4	-25	H
16811.8	-30.73	15.8	12.3	-34.23	-25	H

RSE-LTE41-L-S2

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3247.2	-52.23	6.1	6.9	-51.43	-25	H
4976.4	-49.24	7.8	9.6	-47.44	-25	H
7328.4	-48.93	9.6	11.4	-47.13	-25	H
10009.6	-45.29	11.2	12.5	-43.99	-25	H
13103.5	-41.03	13.0	12.3	-41.73	-25	H
16785.5	-31.48	15.8	12.3	-34.98	-25	H

RSE-LTE41-M-S2

Frequency (MHz)	PMea (dBm)	Pcl (dBm)	Ga (dBd)	Peak ERP (dBm)	Limit (dBm)	Polarization
3477.6	-52.57	6.4	7.8	-51.17	-25	H
5063.2	-48.69	7.8	9.6	-46.89	-25	H
7139.6	-51.38	9.4	11.4	-49.38	-25	H
9740.8	-46.46	10.9	12.7	-44.66	-25	V
13082.5	-41.75	13.0	12.3	-42.45	-25	V
16962.2	-29.02	16.0	12.3	-32.72	-25	H

Chongqing Academy of Information and Communication Technology

 Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
 Tel: 0086-23-88069965 FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF

Annex A EUT Photos

See the document "I23W00045-External Photos".

See the document "I23W00045-Internal Photos".

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336

Tel: 0086-23-88069965

FAX: 0086-23-88608777



Report No.: I23W00045-LTE RF

Annex B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

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

Chongqing Academy of Information and Communication Technology

Address: No. 8, Yuma Road, Chayuan New City, Nan'an District, Chongqing, P. R. China, 401336
Tel: 0086-23-88069965 FAX: 0086-23-88608777