FCC Test Report (Part 96)

Report No.:	RF160920E06 R4
FCC ID:	2AD8UFW2QADPM01
Test Model:	FW2QADPM01
Received Date:	Sep. 20, 2016
Test Date:	Oct. 10 to 25, 2016 ; Mar. 12, 2018
Issued Date:	Oct. 19, 2018
Applicant:	Nokia Solutions and Networks, OY.
Address:	2000 W. Lucent Lane, Naperville, IL 60563, USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
RF160920E06	Original release.	Mar. 02, 2017
RF160920E06 R1	1. Modified applicant address. 2. Added the Modulation: 256QAM for LTE SC mode and LTE MC mode test. 3. Added the Channel Bandwidth: 15MHz for LTE SC mode test. 4. Upgrade the KDB versions.	Apr. 25, 2018
RF160920E06 R2	Modified the applicant name and added the FCC ID.	Sep. 13, 2018
RF160920E06 R3	1. Added the EIRP Watts in section 3.1. 2. Added the maximum antenna gain in maximum power spectral density test results.	Sep. 25, 2018
RF160920E06 R4	Modified the section 4.1. add total EIRP power for each bandwitch	Oct. 19, 2018

1 Certificate of Conformity

Product:	Flexi Zone Multiband Indoor Pico BTS
Brand:	Nokia
Test Model:	FW2QADPM01
Sample Status:	MASS-PRODUCTION
Applicant:	Nokia Solutions and Networks, OY.
Test Date:	Oct. 10 to 25, 2016 ; Mar. 12, 2018
Standards:	47 CFR FCC Part 96 KDB 971168 D01 Licensed DTS Guidance v02 KDB 662911 D01 Multiple Transmitter Output v02r01 KDB 940660 D01 Part 96 CBRS Equipment v01 KDB 552295 D01 CBP Guidance for 3650 3700 Band v02r02

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Oct. 19, 2018

Claire Kuan / Specialist

Approved by : _____ , **Date:** Oct. 19, 2018

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 96			
FCC Clause	Test Item	Result	Remarks
2.1046 96.41(b)	Maximum Peak Output Power and Maximum EIRP	Pass	Meet the requirement of limit.
2.1046 96.41(b)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
2.1047 96.41(a)	Modulation characteristics	PASS	Meet the requirement
96.41(g)	Peak to Average Ration	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1055	Frequency Stability	Pass	Meet the requirement of limit.
2.1051 96.41(e)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 96.41(e)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -0.45dB at 14780MHz.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz For 15MHz test	5.33 dB
	30MHz ~ 1GHz For other test	5.30 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz For 15MHz test	5.10 dB
	1GHz ~ 6GHz For other test	4.78 dB
	6GHz ~ 18GHz For 15MHz test	4.85 dB
	6GHz ~ 18GHz For other test	4.52 dB
	18GHz ~ 40GHz For 15MHz test	5.24 dB
	18GHz ~ 40GHz For other test	5.08 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Flexi Zone Multiband Indoor Pico BTS		
Brand	Nokia		
Test Model	FW2QADPM01		
Hardware Version	A101		
Status of EUT	MASS-PRODUCTION		
Power Supply Rating	DC 12V from adapter		
Modulation Type	QPSK, 16QAM, 64QAM, 256QAM		
Operating Frequency	LTE	Channel Bandwidth 10MHz	TX: 3555 ~ 3695 MHz
			RX: 3555 ~ 3695 MHz
		Channel Bandwidth 15MHz	TX: 3557.5 ~ 3692.5 MHz
			RX: 3557.5 ~ 3692.5 MHz
		Channel Bandwidth 20MHz	TX: 3560 ~ 3690 MHz
			RX: 3560 ~ 3690 MHz
		2-Carriers (20MHz+20MHz)	TX: 3560 ~ 3690 MHz
			RX: 3560 ~ 3690 MHz
Channel Bandwidth	LTE	10MHz, 15MHz, 20MHz & 2-Carriers (20MHz+20MHz) in intra band contiguous spectrum operation	
Max. EIRP Power	LTE	Channel Bandwidth 10MHz	28.34 dBm (0.6823W)
		Channel Bandwidth 15MHz	28.87 dBm (0.7709W)
		Channel Bandwidth 20MHz	28.88 dBm (0.7727W)
		2-Carriers (20MHz+20MHz)	28.77 dBm (0.7534W)
Emission Designator	LTE	Channel Bandwidth 10MHz	QPSK: 8M96G7D
			16QAM: 8M96D7W
			64QAM: 8M96D7W
			256QAM: 8M98D7W
		Channel Bandwidth 15MHz	QPSK: 13M5G7D
			16QAM: 13M4D7W
			64QAM: 13M5D7W
			256QAM: 13M4D7W
		Channel Bandwidth 20MHz	QPSK: 17M9G7D
			16QAM: 17M9D7W
			64QAM: 17M9D7W
			256QAM: 17M9D7W
		2-Carriers (20MHz+20MHz)	QPSK: 37M76G7D
			16QAM: 37M8D7W
			64QAM: 37M8D7W
			256QAM: 37M8D7W

Antenna Type	Refer to note as below
Antenna Connector	Refer to note as below
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. The EUT uses following adapter.

Brand	DVE
Model	DSA-60PFB-12 1 120500
Input Power	100-240Vac, 2.0A, 50/60Hz
Output Power	12Vdc, 5A
Power Line	AC cable 1.8m, Unshielded DC cable 1.1m, Unshielded with one core

2. The antennas provided to the EUT, please refer to the following table:

Antenna Spec.

Antenna Condition	Brand	Model	Antenna Type	Antenna Net Gain(dBi)	Frequency range
Chain0	NA	NA	Slot Antenna	6.36	3.4~3.8GHz
Chain1	NA	NA	Slot Antenna	4.61	3.4~3.8GHz

Cable Spec.

Brand	Model	Connector Type	Cable Loss(dB)	Cable Length (mm)
NA	NA	Right angle MMCX Plug	peak gain included	287mm

3. The EUT support signle carrier and two carriers in intra-band contiguous spectrum operation, the two carrier mode is operation in 20MHz channel bandwidth and MIMO technicalogy.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

Channel Bandwidth (MHz)	Channel
10	Low
	Middle
	High
15	Low
	Middle
	High
20	Low
	Middle
	High
2-Carriers (20MHz+20MHz)	Low
	Middle
	High

3.2.1 Test Mode Applicability and Tested Channel Detail

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

LTE SC MODE

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
EIRP	3555 to 3695	3555, 3625, 3695	10MHz	QPSK
	3557.5 to 3692.5	3557.5, 3625, 3692.5	15MHz	QPSK
	3560 to 3690	3560, 3625, 3690	20MHz	QPSK
Modulation Characteristics	3555 to 3695	3555	10MHz	QPSK, 16QAM, 64QAM, 256QAM
Frequency Stability	3555 to 3695	3625	10MHz	QPSK
	3557.5 to 3692.5	3625	15MHz	QPSK
	3560 to 3690	3625	20MHz	QPSK
Occupied Bandwidth	3555 to 3695	3555, 3625, 3695	10MHz	QPSK, 16QAM, 64QAM, 256QAM
	3557.5 to 3692.5	3557.5, 3625, 3692.5	15MHz	QPSK, 16QAM, 64QAM, 256QAM
	3560 to 3690	3560, 3625, 3690	20MHz	QPSK, 16QAM, 64QAM, 256QAM
Peak to Average Ratio	3555 to 3695	3555, 3625, 3695	10MHz	QPSK
	3557.5 to 3692.5	3557.5, 3625, 3692.5	15MHz	QPSK
	3560 to 3690	3560, 3625, 3690	20MHz	QPSK
Radiated Emission	3555 to 3695	3555, 3625, 3695	10MHz	QPSK
	3557.5 to 3692.5	3557.5, 3625, 3692.5	15MHz	QPSK
	3560 to 3690	3560, 3625, 3690	20MHz	QPSK
Conducted Emission	3555 to 3695	3555, 3625, 3695	10MHz	QPSK
	3557.5 to 3692.5	3557.5, 3625, 3692.5	15MHz	QPSK
	3560 to 3690	3560, 3625, 3690	20MHz	QPSK

LTE MC MODE

Test Item	Available Channel	Tested Channel	Carrier Conf. Description	Ch. BW (MHz)	Modulaiton	Test Configuration
EIRP	3560 to 3690	3560 + 3580, 3615 + 3635, 3670 + 3690	2	20+20	QPSK	UTC1
Frequency Stability	3560 to 3690	3615 + 3635	2	20+20	QPSK	SC
Occupied Bandwidth	3560 to 3690	3560 + 3580, 3615 + 3635, 3670 + 3690	2	20+20	QPSK, 16QAM, 64QAM, 256QAM	UTC1
Peak to Average Ratio	3560 to 3690	3560 + 3580, 3615 + 3635, 3670 + 3690	2	20+20	QPSK	SC
Radiated Emission	3560 to 3690	3560 + 3580, 3615 + 3635, 3670 + 3690	2	20+20	QPSK	UTC1
Conducted Emission	3560 to 3690	3560 + 3580, 3615 + 3635, 3670 + 3690	2	20+20	QPSK	UTC1

NOTE:

1. All supported modulation types were evaluated. The Worst case of QPSK was selected. Therefore, the EIRP, Frequency Stability, Peak to Average Ration, Conducted Emission and Radiated Emission were presented under QPSK mode only.
2. This product supports multiple carriers in intra-band contiguous spectrum operation, therefore test mode and test configurations follow 3GPP TS25.141 V12.9.0.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Modulation Characteristics	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Frequency Stability	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Occupied Bandwidth	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Peak to Average Ratio	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Conducted Emission	25deg. C, 63%RH	120Vac, 60Hz	Allen Chuang
Radiated Emission	19deg. C, 63%RH	120Vac, 60Hz	Robert Cheng

3.3 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Test Tool	Foxconn	NA	NA	NA	Supplied by client

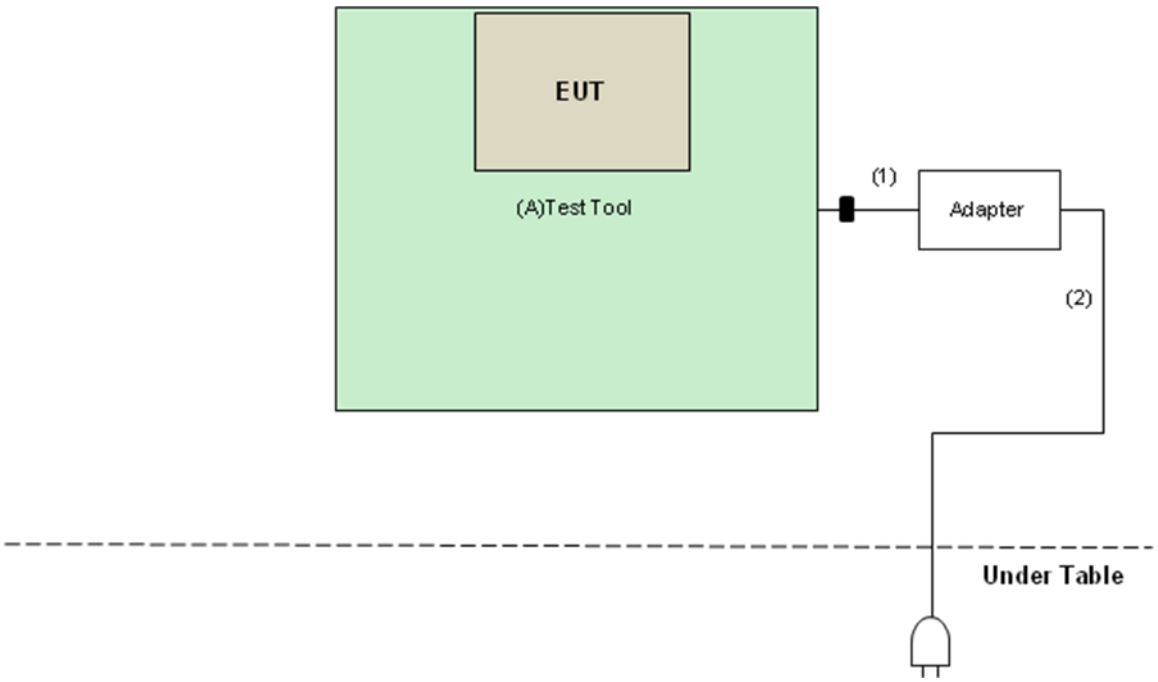
Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.1	No	1	Supplied by client
2.	AC Cable	1	1.8	No	0	Supplied by client

Note: The core(s) is(are) originally attached to the cable(s).

3.3.1 Configuration of System under Test



3.4 General Description of Applied Standards

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

47 CFR FCC Part 96
KDB 971168 D01 Licensed DTS Guidance v02
KDB 662911 D01 Multiple Transmitter Output v02r01
KDB 940660 D01 Part 96 CBRS Equipment v01
KDB 552295 D01 CBP Guidance for 3650 3700 Band v02r02
ANSI/TIA/EIA-603-D-2010

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

4 Test Types and Results

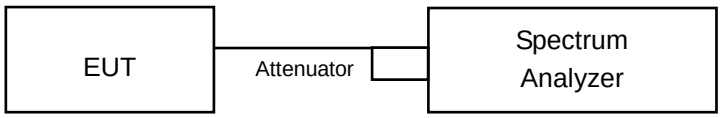
4.1 Maximum EIRP Measurement

4.1.1 Limits of Maximum EIRP Measurement

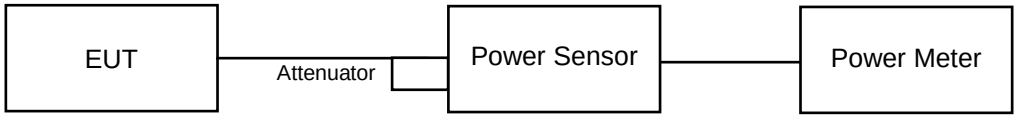
Device		Maximum EIRP (dBm/10MHz)
☐	End User Device	23
☒	Category A CBSD	30
☐	Category B CBSD	47

4.1.2 Test Setup

For Maximum EIRP Measurement @ FCC Part 96



For Maximum EIRP Measurement @ Total EIRP for Each Bandwidth (Record for Grant)



4.1.3 Test Instruments

For 256QAM of 10MHz, 20MHz , 2-Carriers (20MHz+20MHz) and 15MHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	July 01, 2017	June 30, 2018
Spectrum Analyzer Keysight	N9030A	MY54490570	July 08, 2017	July 07, 2018
AC Power Source Extech Electronics	6502	1140503	NA	NA
Temperature & Humidity Chamber TERCHY	MHU-225AU	911033	Dec. 01, 2017	Nov. 30, 2018
DC Power Supply GOOD WILL INSTRUMENT CO., LTD.	GPC - 3030D	7700087	NA	NA
ESG Vector signal generator Agilent	E4438C	MY45094468/005 506 602 UK6 UNJ	Nov. 26, 2017	Nov. 25, 2018
ESG Vector signal generator Agilent	E4438C	MY47271330 506 602 UNJ	Oct. 11, 2017	Oct. 10, 2018
Power meter Anritsu	ML2495A	0824006	June 26, 2017	June 25, 2018
Power sensor Anritsu	MA2411B	0738172	June 26, 2017	June 25, 2018
Software	ADT_RF TEST SOFTWARE V6.6.5.4	NA	NA	NA
True RMS Clamp Meter FLUKE	325	31130711WS	May 29, 2017	May 28, 2018
MXG X-Series RF Vector Signal Generator Agilent	N5182B	MY53052700	July 17, 2017	July 16, 2018
MIMO Powermeasurement Test set (4X4) Agilent	U2021XA	U2021XA_01	Sep. 22, 2017	Sep. 21, 2018
Switch Box Agilent	PS-X10-100	PS-X10-100_01	Sep. 23, 2017	Sep. 22, 2018
Test Receiver Agilent	N9038A	MY54450088	July 08, 2017	July 07, 2018

NOTE: 1. The test was performed in Oven room 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Mar. 12, 2018

For other test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP40	100036	Jan. 27, 2016	Jan. 26, 2017
Spectrum Analyzer Keysight	N9030A	MY54490570	July 06, 2016	July 05, 2017
AC Power Source Extech Electronics	6502	1140503	NA	NA
Temperature & Humidity Chamber TERCHY	MHU-225AU	911033	Dec. 03, 2015	Dec. 02, 2016
DC Power Supply GOOD WILL INSTRUMENT CO., LTD.	GPC - 3030D	7700087	NA	NA
ESG Vector signal generator Agilent	E4438C	Y45094468/005 506 602 UK6 UNJ	Dec. 01, 2015	Nov. 30, 2016
Power meter Anritsu	ML2495A	0824006	May 26, 2016	May 25, 2017
Power sensor Anritsu	MA2411B	0738172	May 26, 2016	May 25, 2017
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA
Digital Multimeter FLUKE	87III	73680266	Nov. 10, 2015	Nov. 09, 2016
MXG X-Series RF Vector Signal Generator Agilent	N5182B	MY53052647	July 25, 2016	July 24, 2017
MIMO Powermeasurement Test set (4X4) Agilent	U2021XA	U2021XA_01	Nov. 23, 2015	Nov. 22, 2016
Switch Box Agilent	PS-X10-100	PS-X10-100_01	NA	NA
Test Receiver Agilent	N9038A	MY54450088	July 20, 2016	July 19, 2017

NOTE: 1. The test was performed in Oven room 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Oct. 14, 2016

4.1.4 Test Procedures

For Maximum EIRP Measurement @ FCC Part 96

1. Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
2. Set instrument center frequency to OBW center frequency.
3. Set span to at least 1.5 times the OBW.
4. Set the RBW to the specified reference bandwidth (often 1 MHz).
5. Set VBW ≥ 3 × RBW.
6. Detector = RMS (power averaging).
7. Ensure that the number of measurement points in the sweep ≥ 2 × span/RBW.
8. Sweep time = auto couple.
9. Employ trace averaging (RMS) mode over a minimum of 100 traces.
10. Use the instrument's band/channel power measurement function with by integrating the spectrum across the regulatory required set equal to the 10MHz bandwidth.

For Maximum EIRP Measurement @ Total EIRP for Each Bandwidth (Record for Grant)

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.1.7 Test Results

For Maximum EIRP(dBm/10MHz) Measurement @ FCC Part 96

LTE SC MODE

Channel	Freq. (MHz)	10MHz				Limit (dBm/10MHz)	Pass /Fail
		QPSK					
		Conducted Average Power (dBm/10MHz)			Gain(dBi) 6.36		
		Chain 0	Chain 1	Total	EIRP	Maximum	
Low	3555	18.90	18.97	21.95	28.31	30.0	Pass
Middle	3625	19.02	18.91	21.98	28.34	30.0	Pass
High	3695	18.83	18.49	21.67	28.03	30.0	Pass

Channel	Freq. (MHz)	15MHz				Limit (dBm/10MHz)	Pass /Fail
		QPSK					
		Conducted Average Power (dBm/10MHz)			Gain(dBi) 6.36		
		Chain 0	Chain 1	Total	EIRP	Maximum	
Low	3557.5	19.14	19.05	22.11	28.47	30.0	Pass
Middle	3625	19.27	19.09	22.19	28.55	30.0	Pass
High	3692.5	19.62	19.37	22.51	28.87	30.0	Pass

Channel	Freq. (MHz)	20MHz				Limit (dBm/10MHz)	Pass /Fail
		QPSK					
		Conducted Average Power (dBm/10MHz)			Gain(dBi) 6.36		
		Chain 0	Chain 1	Total	EIRP	Maximum	
Low	3560	19.35	19.66	22.52	28.88	30.0	Pass
Middle	3625	19.53	19.46	22.51	28.87	30.0	Pass
High	3690	19.15	19.12	22.15	28.51	30.0	Pass

LTE MC MODE

Channel	Freq. (MHz)	2-Carriers (20MHz+20MHz)									Pass /Fail
		Conducted Average Power (dBm/10MHz)									
		QPSK							Gain (dBi) 6.36	Limit (dBm/10MHz)	
		Chain 0		Chain 1		Chain0	Chain1	Total	EIRP	Maximum	
		Low	High	Low	High						
Low	3560+3580	16.18	16.4	16.43	16.17	19.30	19.31	22.32	28.68	30.0	Pass
Middle	3615+3635	15.83	16.11	16.13	16.13	18.98	19.14	22.07	28.43	30.0	Pass
High	3670+3690	16.32	16.53	16.61	16.08	19.44	19.36	22.41	28.77	30.0	Pass

For Maximum EIRP Measurement @ Total EIRP for Each Bandwidth (Record for Grant)

LTE SC MODE

Channel	Freq. (MHz)	10MHz				
		QPSK				
		Conducted Average Power (dBm)			Gain(dBi)	6.36
		Chain 0	Chain 1	Total	EIRP	
Low	3555	19.12	19.24	22.19	28.55	
Middle	3625	19.21	19.27	22.25	28.61	
High	3695	19.08	18.97	22.04	28.40	

Channel	Freq. (MHz)	15MHz				
		QPSK				
		Conducted Average Power (dBm)			Gain(dBi)	6.36
		Chain 0	Chain 1	Total	EIRP	
Low	3557.5	20.77	20.79	23.79	30.15	
Middle	3625	20.87	20.73	23.81	30.17	
High	3692.5	20.96	20.85	23.92	30.28	

Channel	Freq. (MHz)	20MHz				
		QPSK				
		Conducted Average Power (dBm)			Gain(dBi)	6.36
		Chain 0	Chain 1	Total	EIRP	
Low	3560	22.14	22.37	25.27	31.63	
Middle	3625	22.35	22.21	25.29	31.65	
High	3690	22.08	22.17	25.14	31.50	

LTE MC MODE

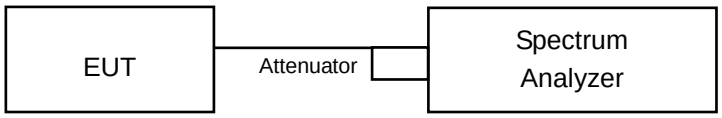
Channel	Freq. (MHz)	2-Carriers (20MHz+20MHz)				
		QPSK				
		Conducted Average Power (dBm)			Gain(dBi)	6.36
		Chain 0	Chain 1	Total	EIRP	
Low	3560+3580	19.58	19.63	22.62	28.98	
Middle	3615+3635	19.25	19.43	22.35	28.71	
High	3670+3690	19.75	19.66	22.72	29.08	

4.2 Maximum Power Spectral Density Measurement

4.2.1 Limits of Maximum Power Spectral Density Measurement

Device		Maximum PSD (dBm/MHz)
☐	End User Device	n/a
☒	Category A CBSD	20
☐	Category B CBSD	37

4.2.2 Test Setup



4.2.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.2.4 Test Procedure

1. Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
2. Set instrument center frequency to OBW center frequency.
3. Set span to at least 1.5 times the OBW.
4. Set the RBW to the specified reference bandwidth (often 1 MHz).
5. Set VBW ≥ 3 × RBW.
6. Detector = RMS (power averaging).
7. Ensure that the number of measurement points in the sweep ≥ 2 × span/RBW.
8. Sweep time = auto couple.
9. Employ trace averaging (RMS) mode over a minimum of 100 traces.
10. Use the peak marker function to determine the maximum amplitude level within the reference bandwidth (PSD).

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Results

LTE SC MODE

Channel Number	Freq. (MHz)	10MHz QPSK						PASS /FAIL
		Conducted Power density (dBm/MHz)			Radiated Power density(dBm/MHz)			
		CHAIN0	CHAIN1	Total	Gain(dBi)	PSD	Limit	
Low	3555	10.47	10.58	13.54	6.36	19.90	20.0	PASS
Middle	3625	10.55	10.48	13.53	6.36	19.89	20.0	PASS
High	3695	10.54	10.36	13.46	6.36	19.82	20.0	PASS

Channel Number	Freq. (MHz)	15MHz QPSK						PASS /FAIL
		Conducted Power density (dBm/MHz)			Radiated Power density(dBm/MHz)			
		CHAIN0	CHAIN1	Total	Gain(dBi)	PSD	Limit	
Low	3560	10.50	10.51	13.52	6.36	19.88	20.0	PASS
Middle	3625	10.67	10.40	13.55	6.36	19.91	20.0	PASS
High	3690	10.48	10.57	13.54	6.36	19.90	20.0	PASS

Channel Number	Freq. (MHz)	20MHz QPSK						PASS /FAIL
		Conducted Power density (dBm/MHz)			Radiated Power density(dBm/MHz)			
		CHAIN0	CHAIN1	Total	Gain(dBi)	PSD	Limit	
Low	3557.5	10.52	10.47	13.51	6.36	19.87	20.0	PASS
Middle	3625	10.60	10.37	13.50	6.36	19.86	20.0	PASS
High	3692.5	10.50	10.35	13.44	6.36	19.80	20.0	PASS

LTE MC MODE

Channel	Freq. (MHz)	2-Carriers (20MHz+20MHz) QPSK										Pass /Fail
		Conducted Power Density (dBm/MHz)							Radiated Power density (dBm/MHz)			
		Chain 0		Chain 1		Chain0	Chain1	Total	Gain (dBi)	PSD	Limit	
		Low	High	Low	High							
Low	3560+3580	7.49	7.47	7.55	7.38	10.49	10.48	13.50	6.36	19.86	20.0	Pass
Middle	3615+3635	7.31	7.63	7.27	7.67	10.48	10.48	13.49	6.36	19.85	20.0	Pass
High	3670+3690	7.54	7.65	7.71	7.45	10.61	10.59	13.61	6.36	19.97	20.0	Pass

4.3 Modulation characteristics Measurement

4.3.1 Limits of Modulation characteristics

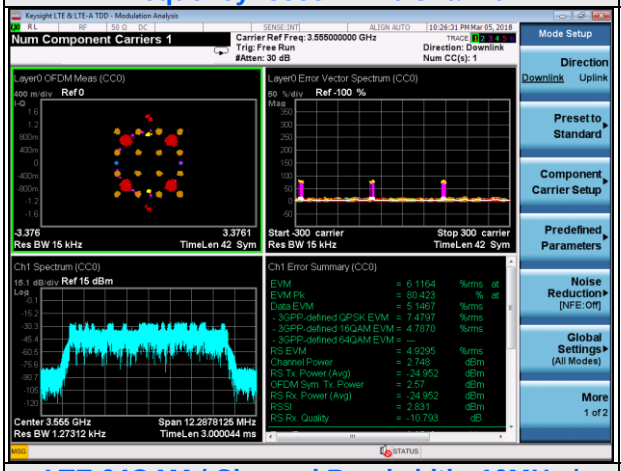
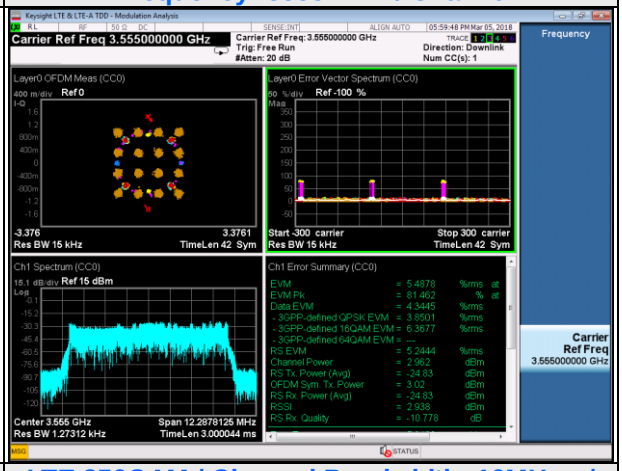
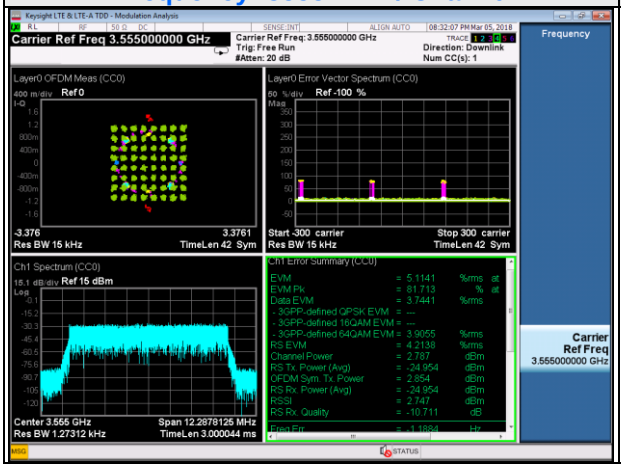
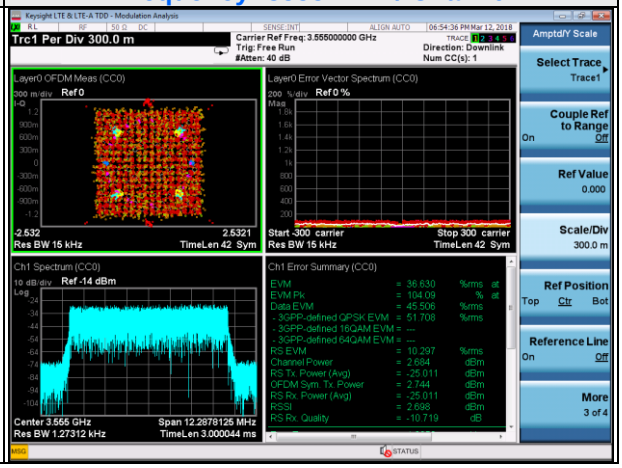
N/A

4.3.2 Test Procedure

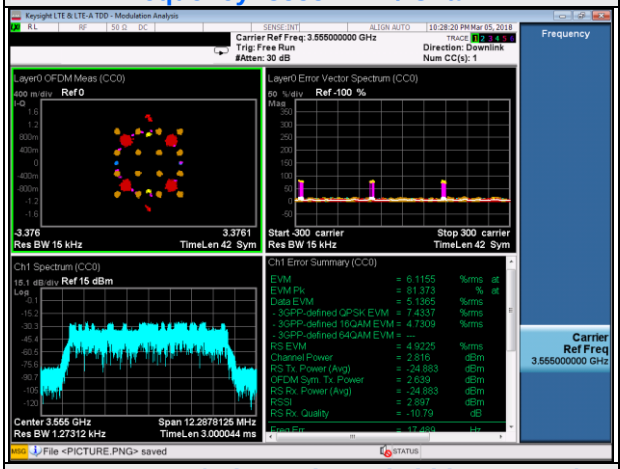
Connect the EUT to Communication Simulator via the antenna connector, The frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.3.3 Test Setup

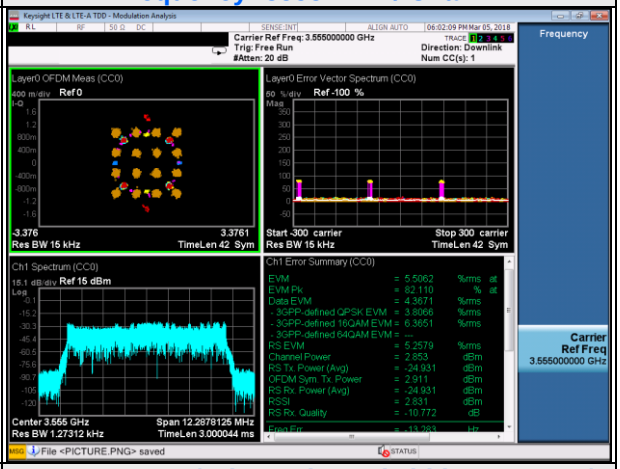
4.3.4 Test Results

LTE QPSK / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 0	LTE 16QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 0
	
LTE 64QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 0	**LTE 256QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 0**
	

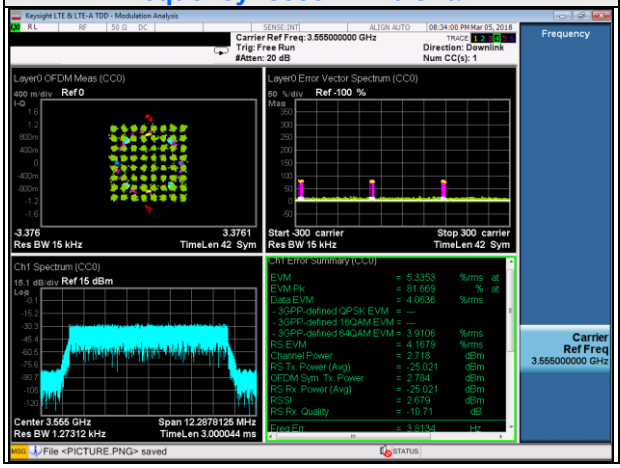
LTE QPSK / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 1



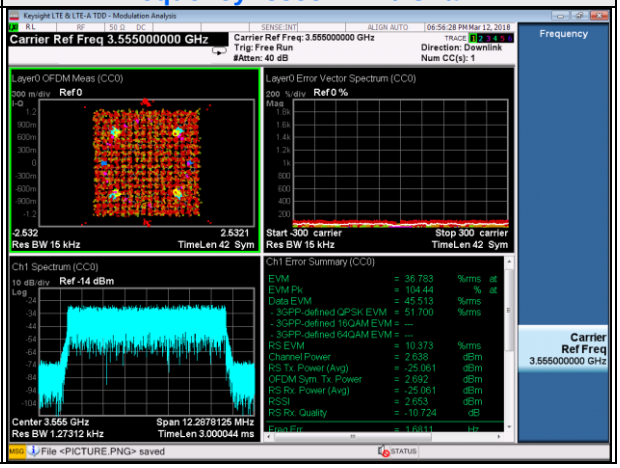
LTE 16QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 1



LTE 64QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 1



LTE 256QAM / Channel Bandwidth: 10MHz / Frequency: 3555 MHz / Chain 1



4.4 Frequency Stability Measurement

4.4.1 Limits of Frequency Stabiliity Measurement

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

4.4.2 Test Procedure

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

b. EUT is connected the external power supply to control the AC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.

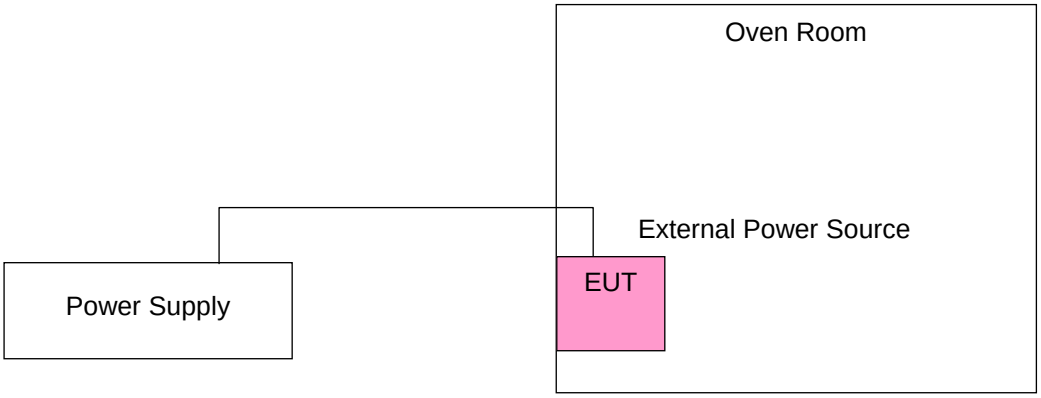
c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5 ℃ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

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

4.4.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.4.4 Test Setup



4.4.5 Test Results

LTE SC MODE

Frequency Error vs. Voltage

Voltage (Volts)	Frequency Error (MHz)			Pass/Fail
	10MHz	15MHz	20MHz	
102	3625.000044	3625.000031	3625.000039	Pass
138	3625.000026	3625.000027	3625.000035	Pass

Frequency Error vs. Temperature.

TEMP. (℃)	Frequency Error (MHz)			Pass/Fail
	10MHz	15MHz	20MHz	
75	3625.000039	3625.000038	3625.000030	Pass
70	3625.000027	3625.000043	3625.000025	Pass
60	3625.000037	3625.000029	3625.000044	Pass
50	3625.000045	3625.000041	3625.000031	Pass
40	3625.000031	3625.000025	3625.000034	Pass
30	3625.000035	3625.000045	3625.000036	Pass
20	3625.000027	3625.000031	3625.000027	Pass
10	3625.000031	3625.000026	3625.000040	Pass
0	3625.000027	3625.000044	3625.000027	Pass
-10	3625.000029	3625.000033	3625.000029	Pass
-20	3625.000034	3625.000040	3625.000033	Pass
-30	3625.000025	3625.000029	3625.000025	Pass

LTE MC MODE

Frequency Error vs. Voltage

Voltage (Volts)	Frequency Error (MHz)		Pass/Fail
	2-Carriers (20MHz+20MHz) Low Channel	2-Carriers (20MHz+20MHz) High Channel	
102	3615.000041	3635.000040	Pass
138	3615.000024	3635.000026	Pass

Frequency Error vs. Temperature.

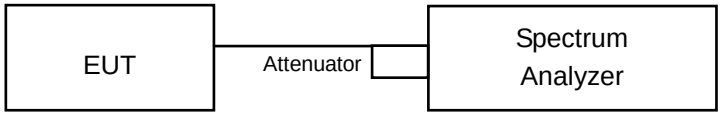
TEMP. (℃)	Frequency Error (MHz)		Pass/Fail
	2-Carriers (20MHz+20MHz) Low Channel	2-Carriers (20MHz+20MHz) High Channel	
75	3615.000031	3635.000027	Pass
70	3615.000026	3635.000030	Pass
60	3615.000044	3635.000028	Pass
50	3615.000033	3635.000025	Pass
40	3615.000040	3635.000035	Pass
30	3615.000029	3635.000043	Pass
20	3615.000027	3635.000031	Pass
10	3615.000030	3635.000026	Pass
0	3615.000028	3635.000044	Pass
-10	3615.000025	3635.000033	Pass
-20	3615.000035	3635.000040	Pass
-30	3615.000043	3635.000029	Pass

4.5 Emission Bandwidth Measurement

4.5.1 Emission Bandwidth Measurement

Reference only

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.5.4 Test Procedure

Occupied Bandwdith:
All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

26dBc Bandwidth:
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with RBW =100 kHz (10 MHz bandwidth), 300 kHz (20 MHz bandwidth). 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.

4.5.5 Deviation fromTest Standard

No deviation.

4.5.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.5.7 Test Result (-26dB Bandwidth)

LTE SC MODE

Channel	Freq. (MHz)	26dB Down Bandwidth (MHz)							
		10MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3555	9.65	9.57	9.67	9.61	9.70	9.57	9.65	9.61
Middle	3625	9.55	9.45	9.32	9.47	9.36	9.45	9.57	9.45
High	3695	9.64	9.33	9.33	9.56	9.39	9.43	9.45	9.48

Channel	Freq. (MHz)	26dB Down Bandwidth (MHz)							
		15MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3557.5	14.45	14.27	14.47	14.42	14.44	14.34	14.43	14.42
Middle	3625	14.14	13.97	14.20	14.24	14.45	14.11	14.12	14.08
High	3692.5	14.06	13.96	14.25	14.35	14.39	14.26	14.14	14.11

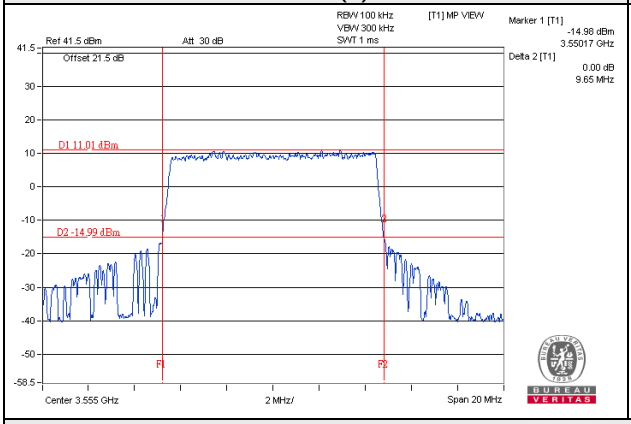
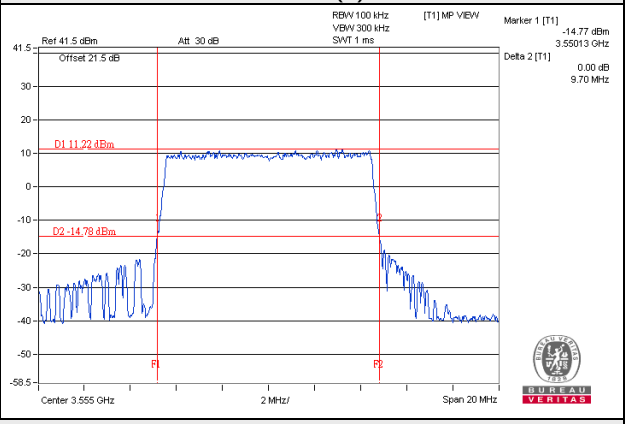
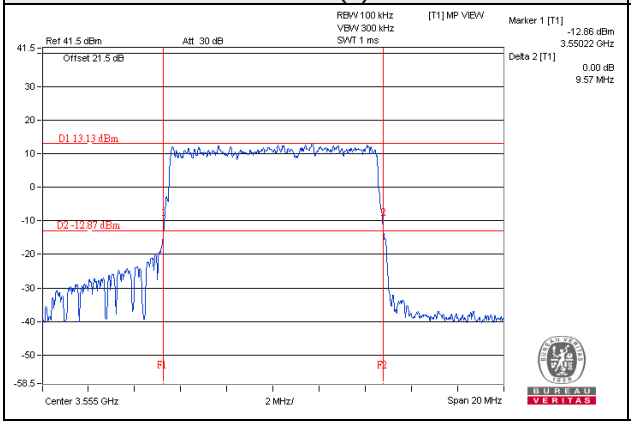
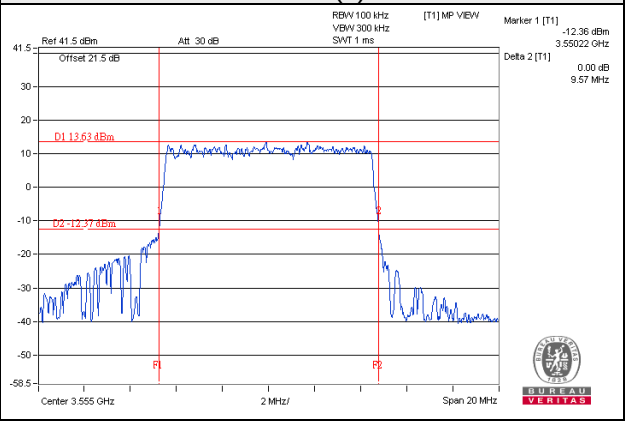
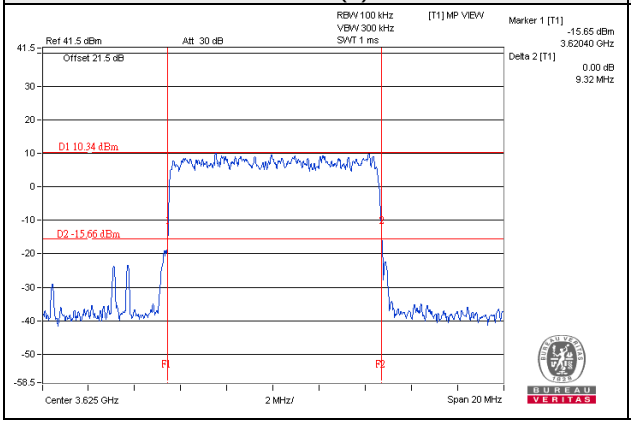
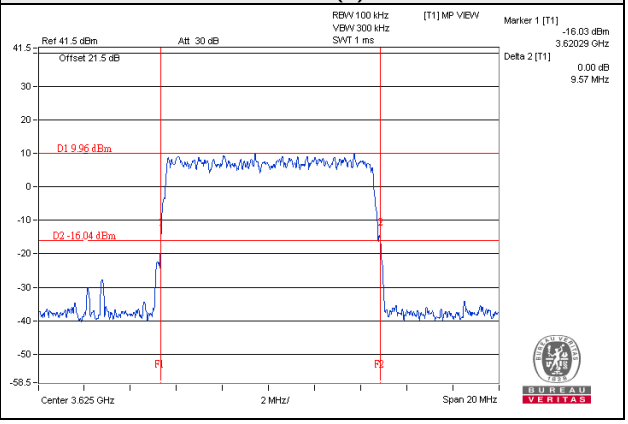
Channel	Freq. (MHz)	26dB Down Bandwidth (MHz)							
		20MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3560	19.15	19.09	19.27	19.21	19.25	19.03	19.22	19.17
Middle	3625	18.73	18.57	18.62	18.63	19.06	18.73	18.90	18.88
High	3690	18.54	18.60	18.48	18.69	18.53	18.60	18.70	18.87

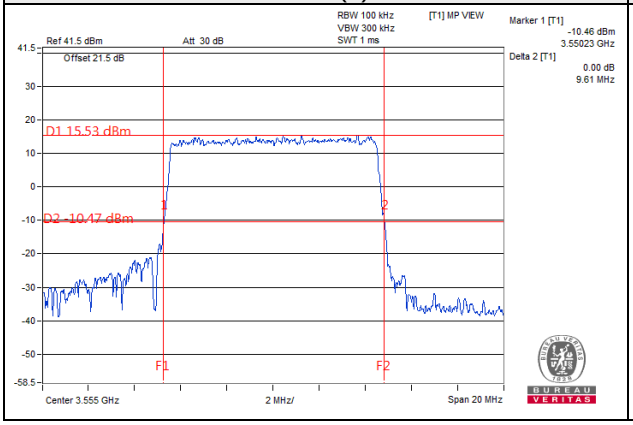
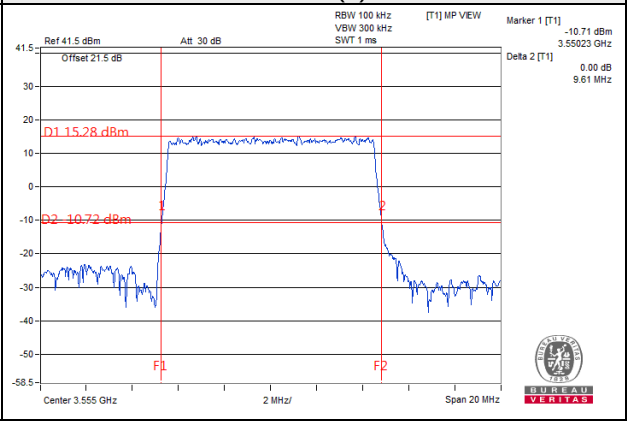
LTE MC MODE

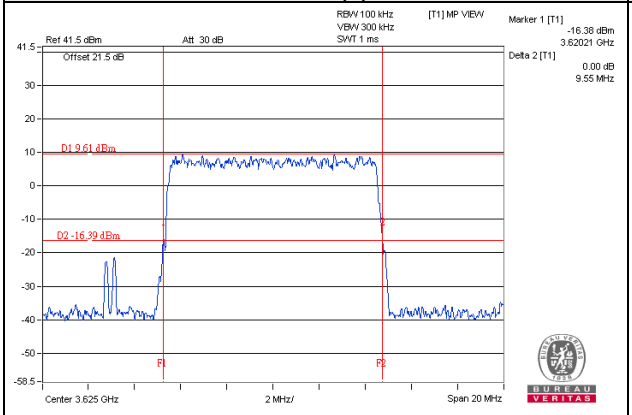
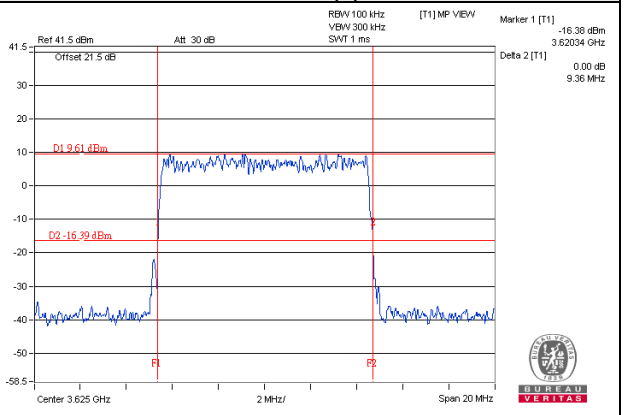
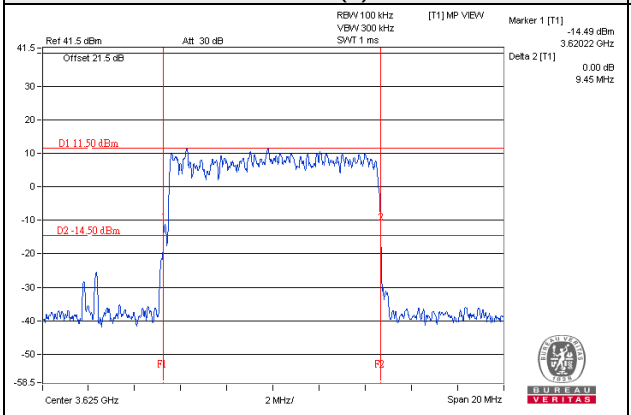
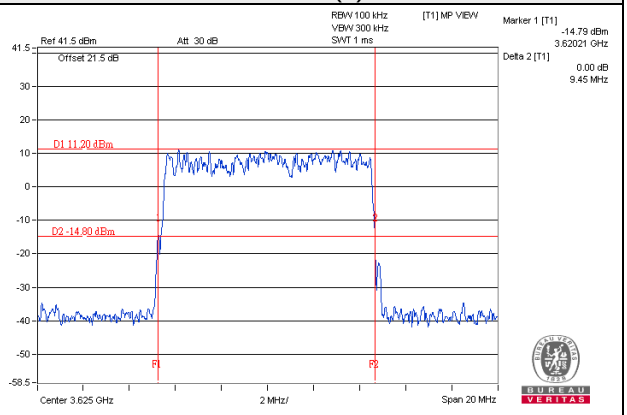
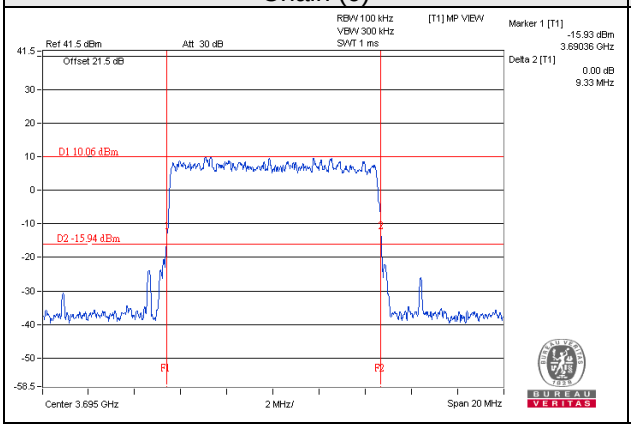
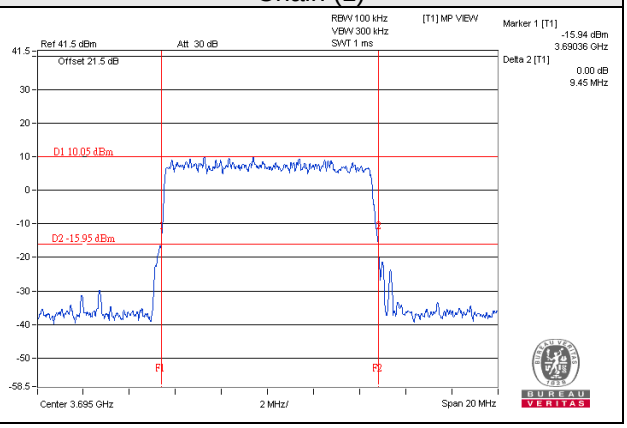
Channel	Freq. (MHz)	26dB Down Bandwidth (MHz)							
		2-Carriers (20MHz+20MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3560+3580	39.17	39.18	39.20	39.03	39.43	.39.01	39.12	38.98
Middle	3615+3635	39.13	39.17	39.32	39.20	39.16	39.29	38.99	39.03
High	3670+3690	38.98	39.11	39.05	39.20	38.89	39.02	38.93	39.03

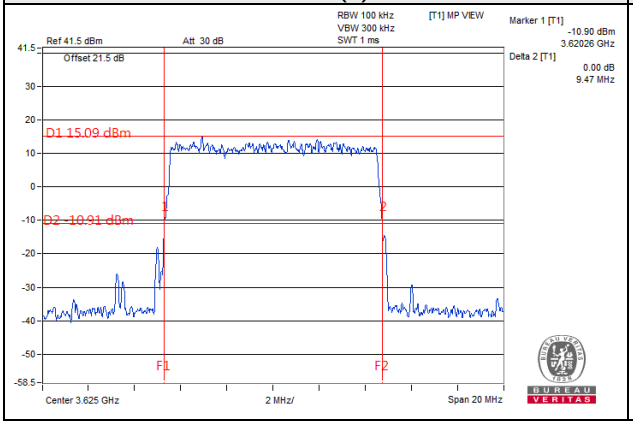
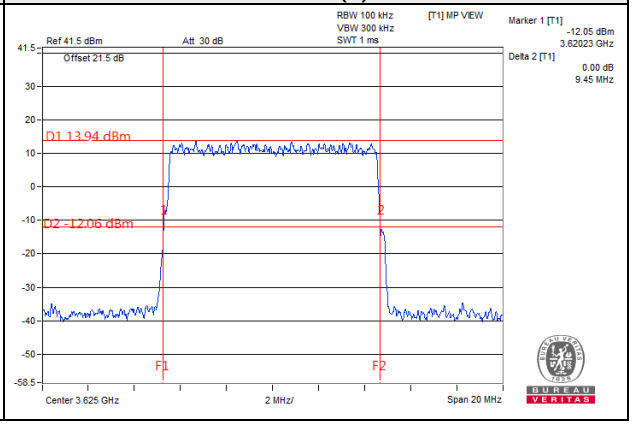
LTE SC MODE

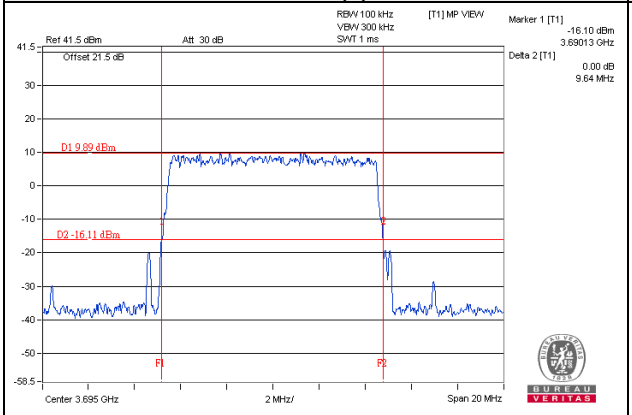
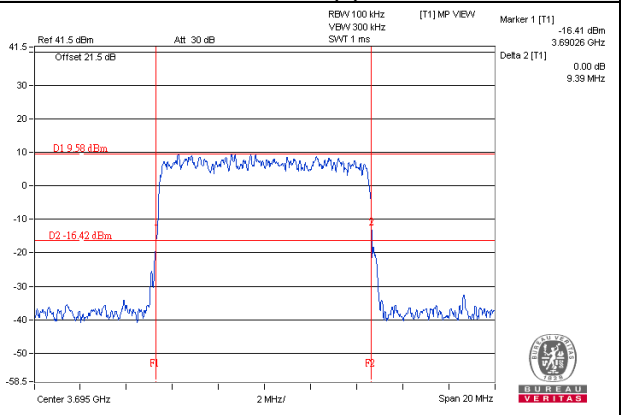
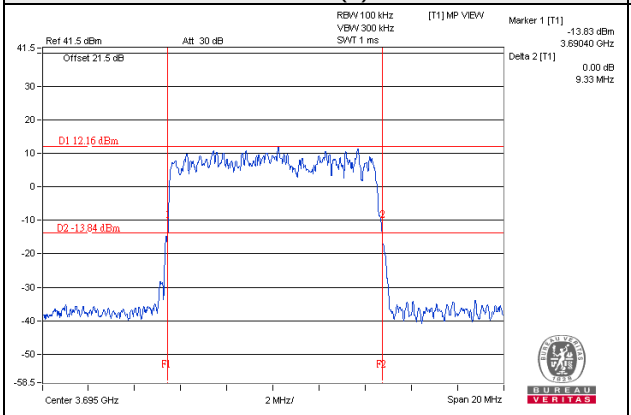
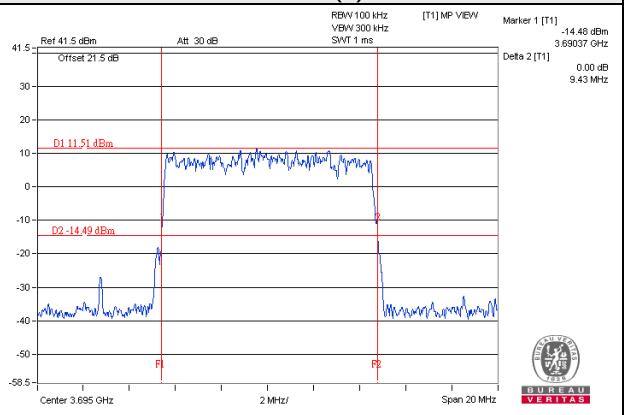
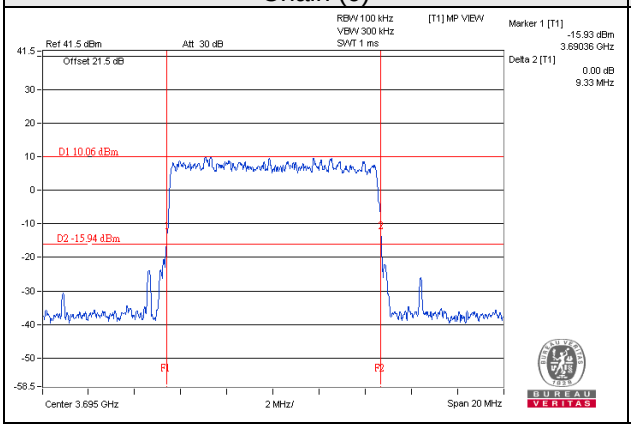
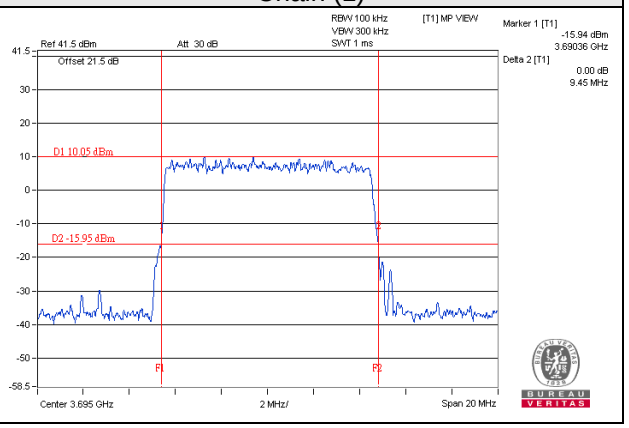
10MHz:

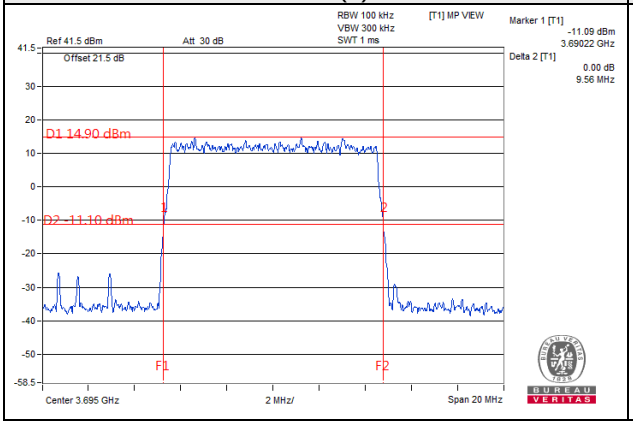
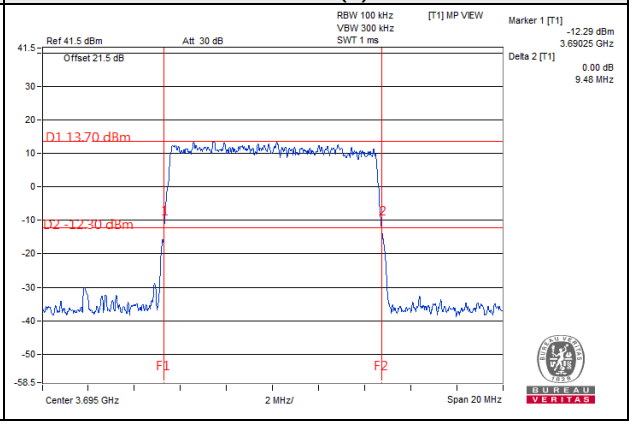
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

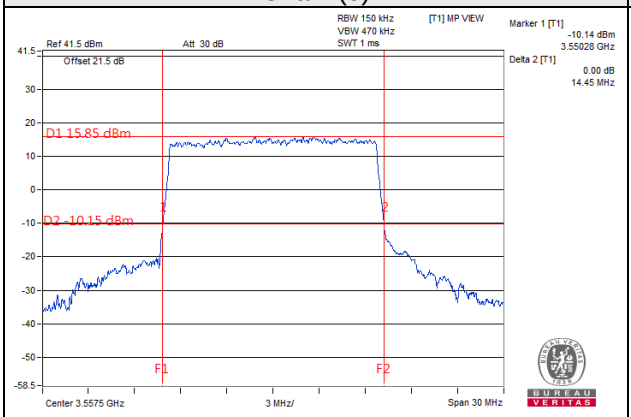
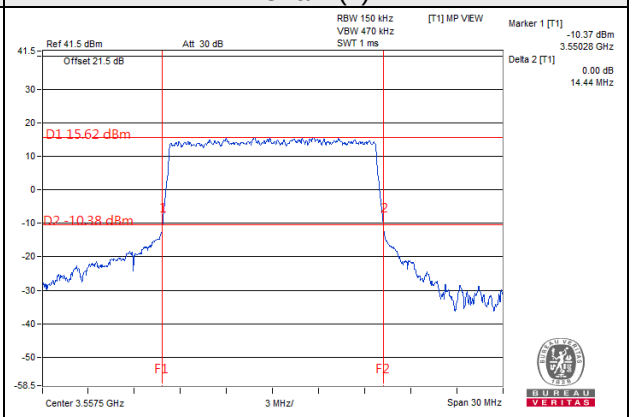
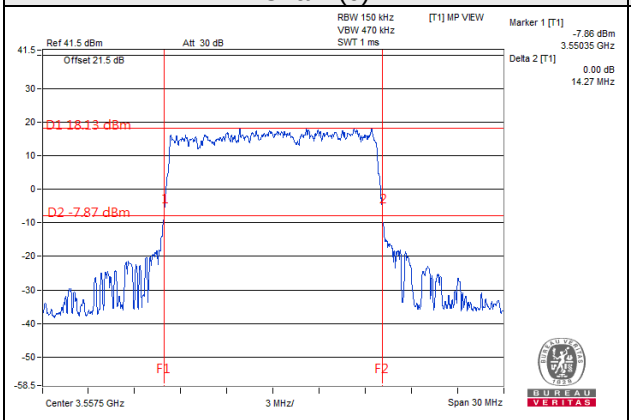
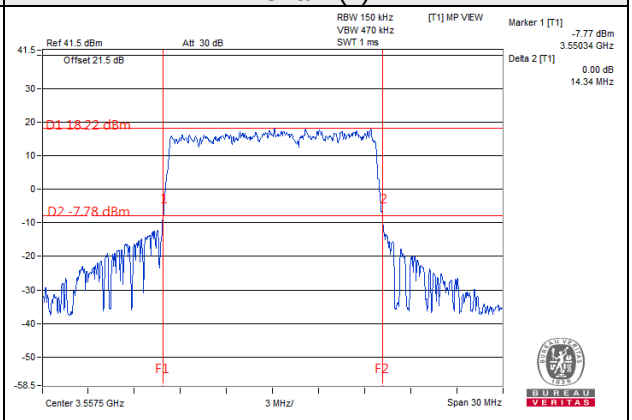
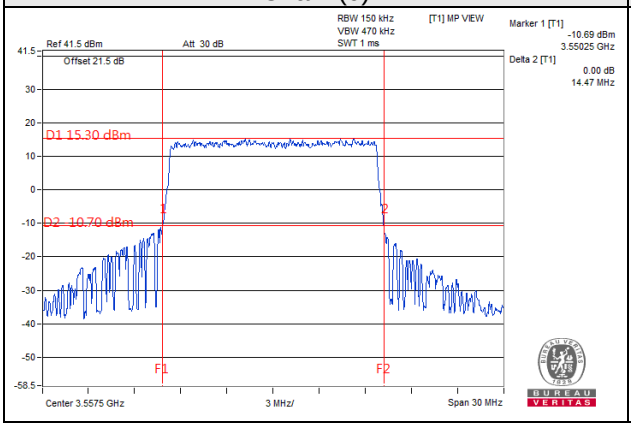
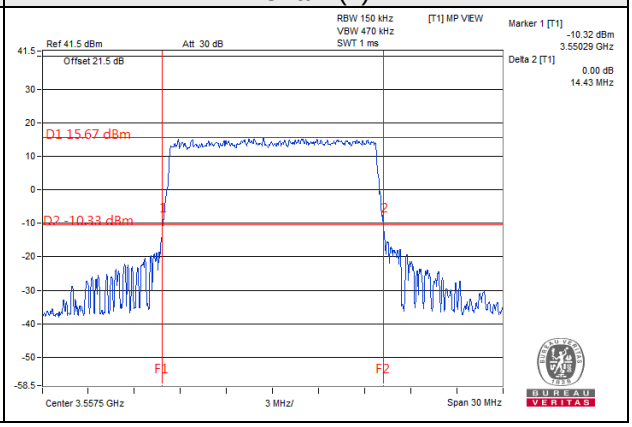
Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

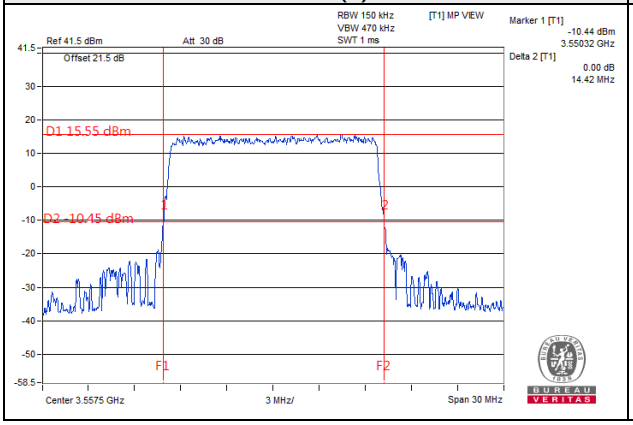
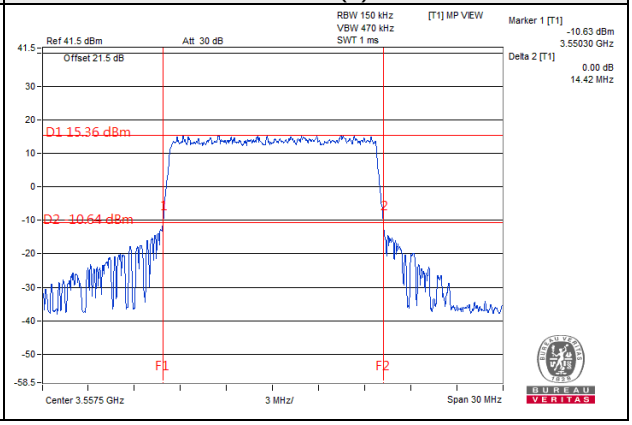
256QAM	
Chain (0)	Chain (1)
	

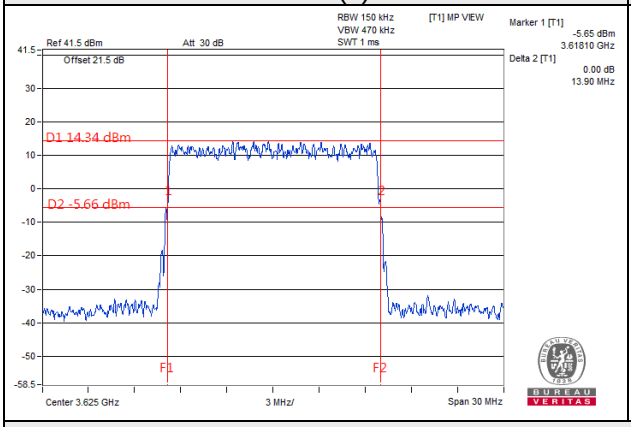
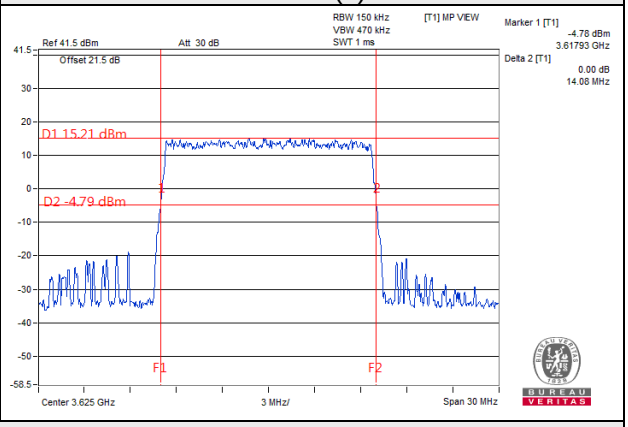
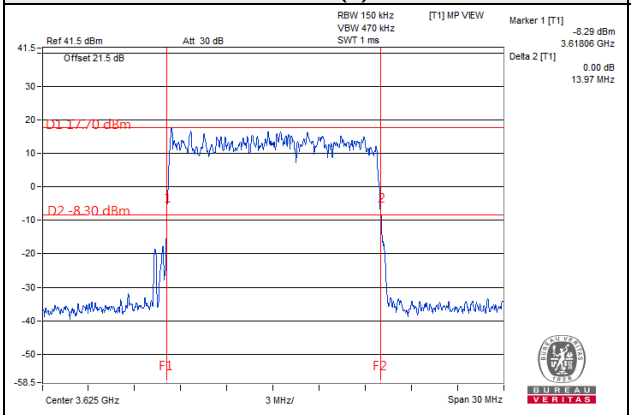
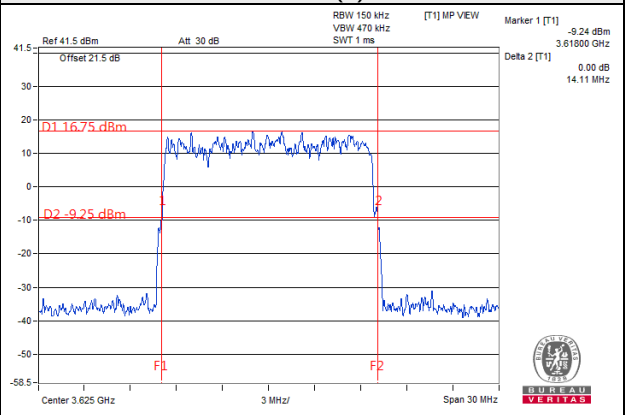
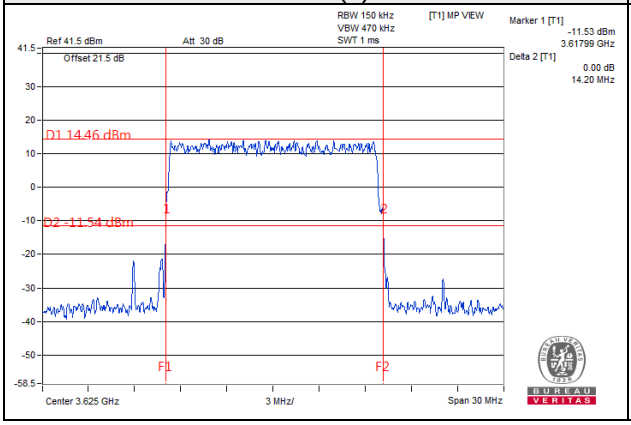
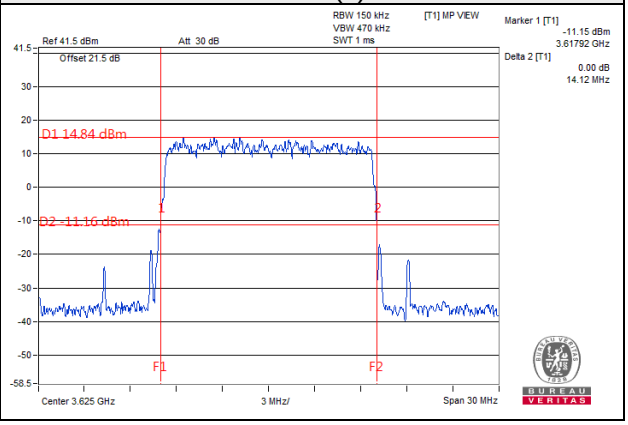
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

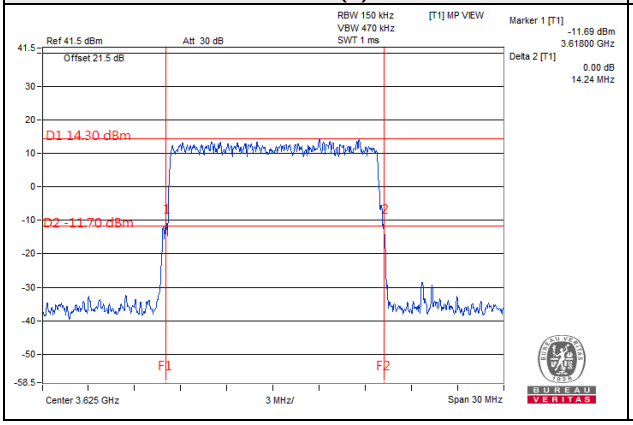
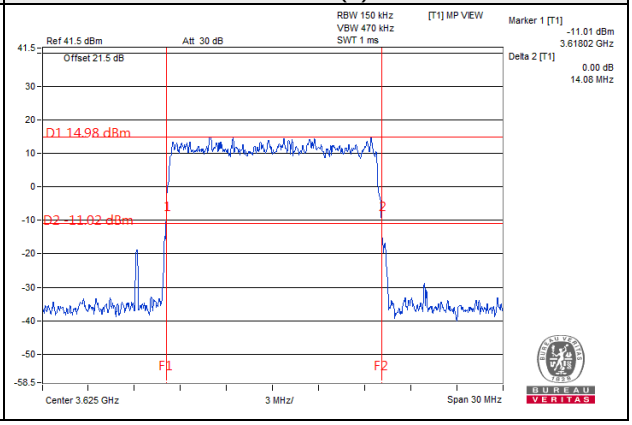
256QAM	
Chain (0)	Chain (1)
	

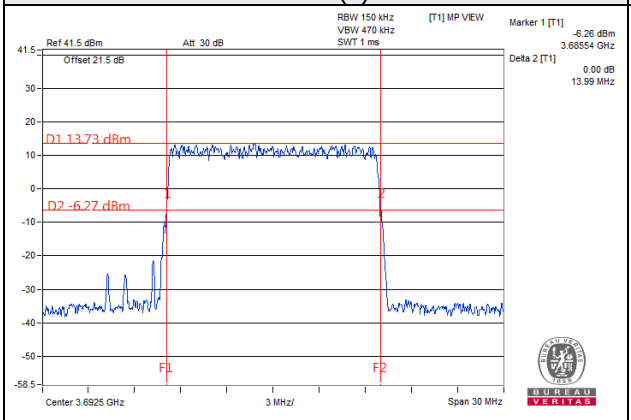
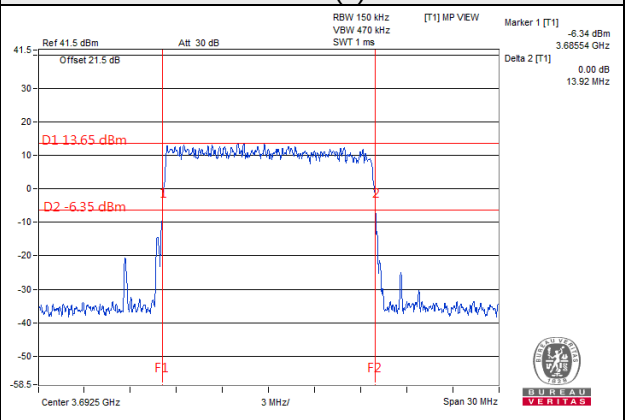
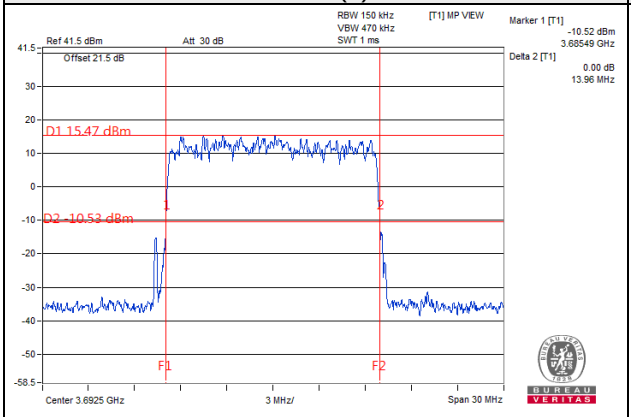
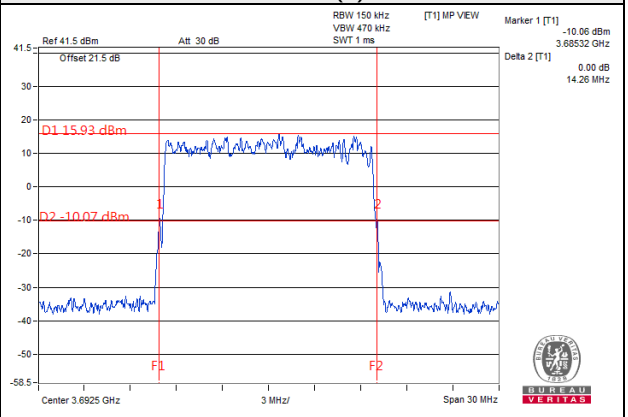
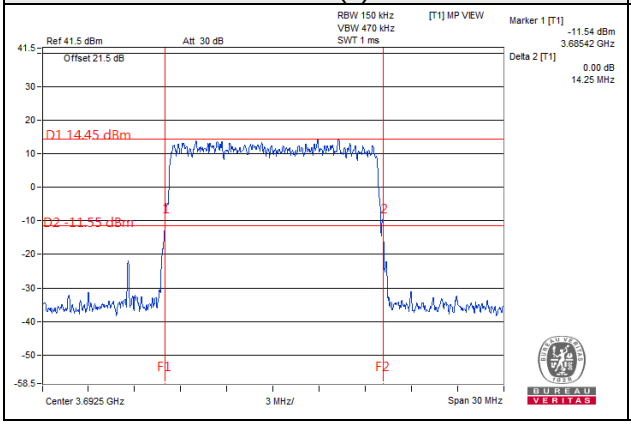
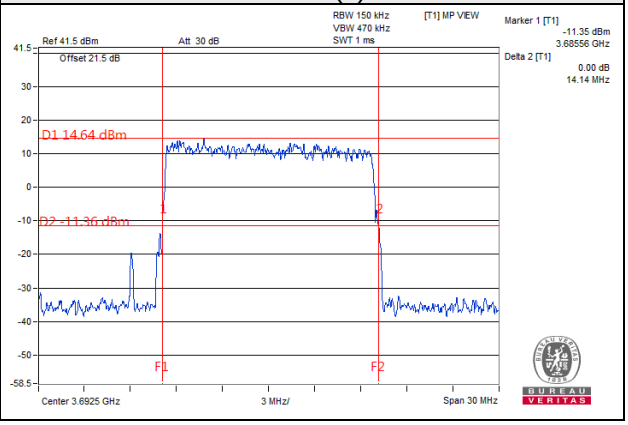
15MHz:

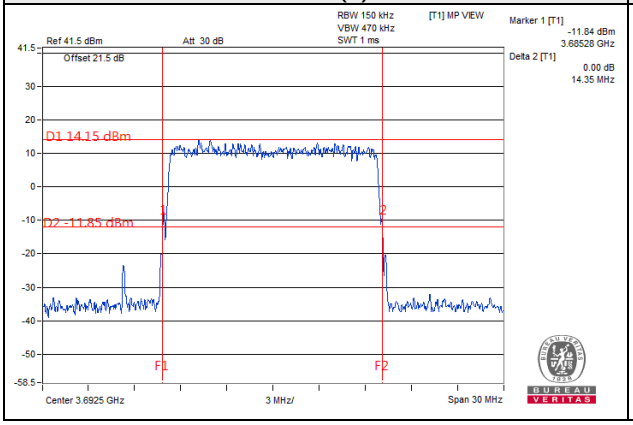
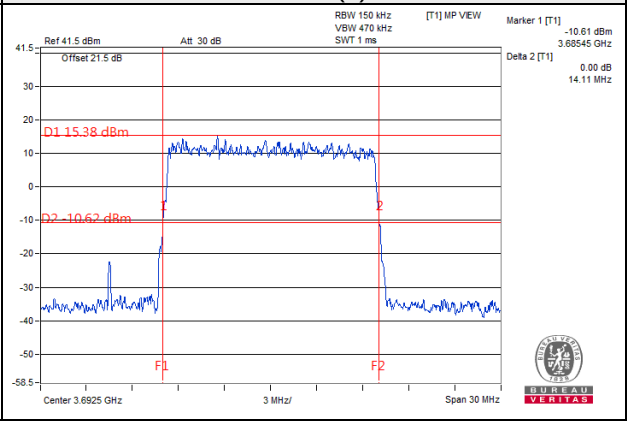
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

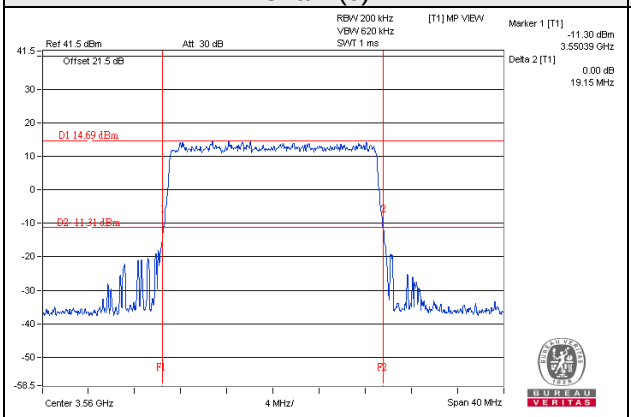
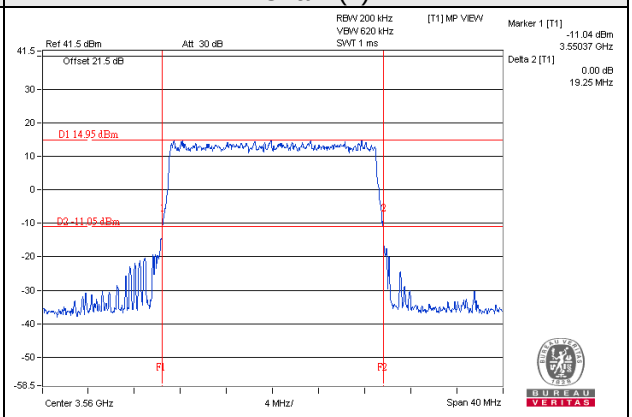
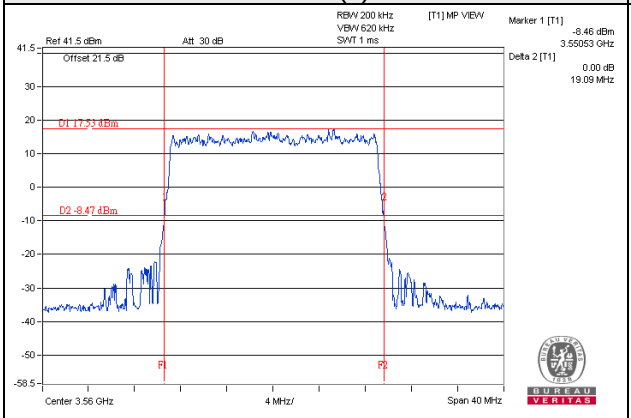
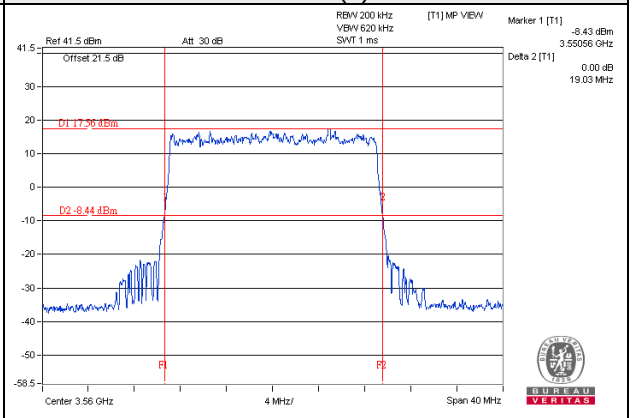
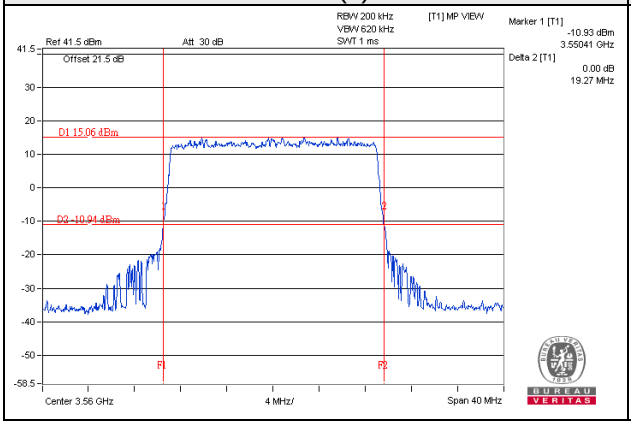
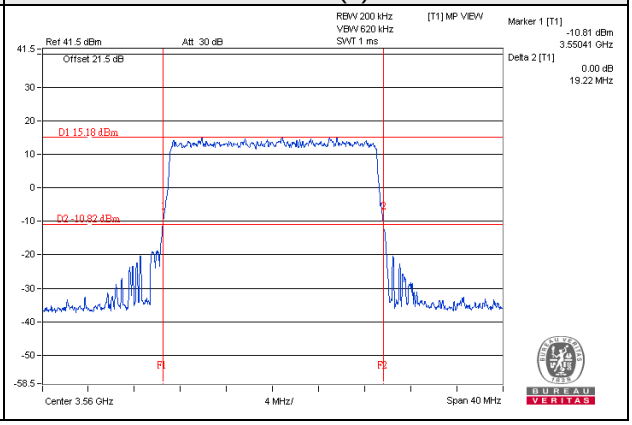
Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

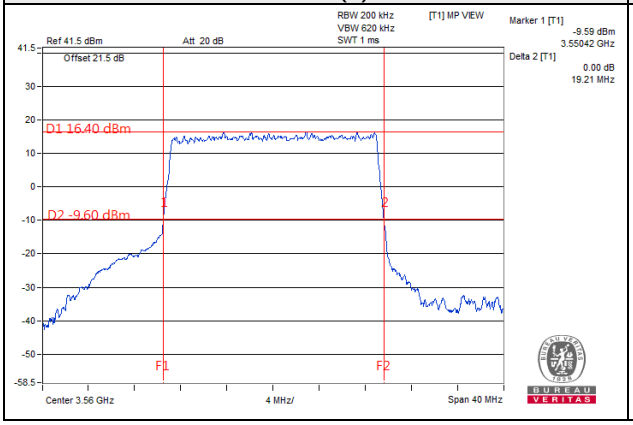
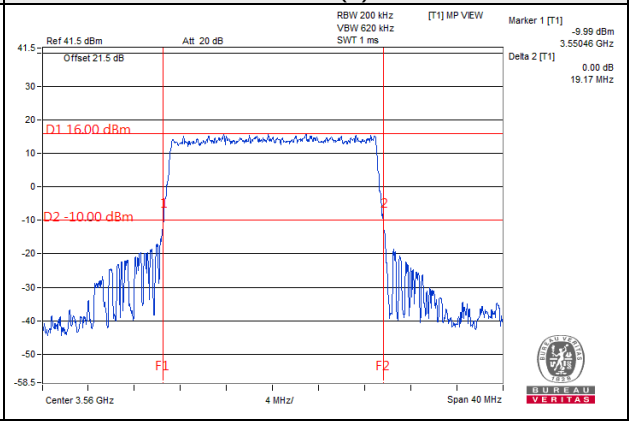
256QAM	
Chain (0)	Chain (1)
	

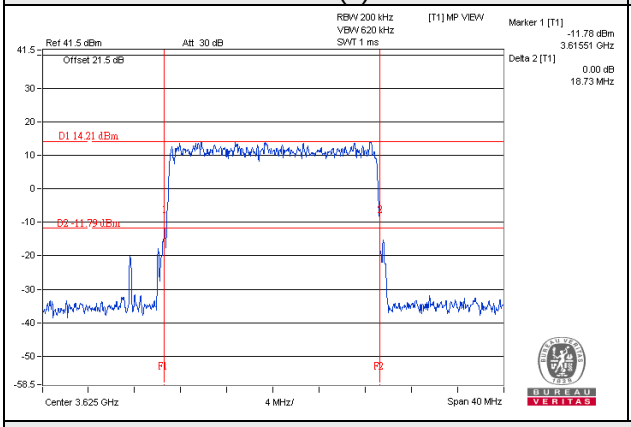
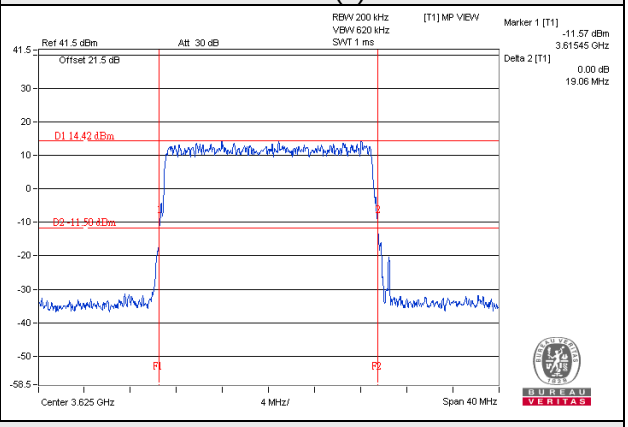
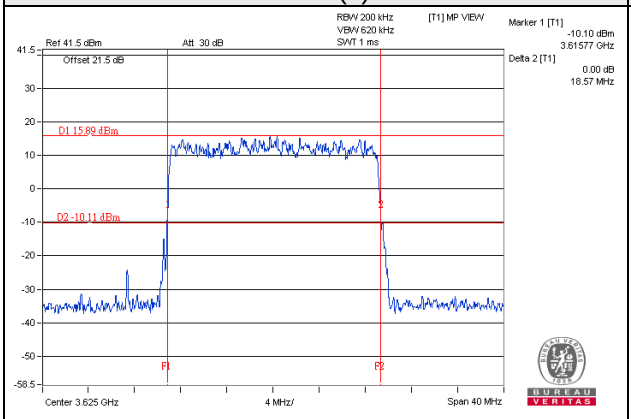
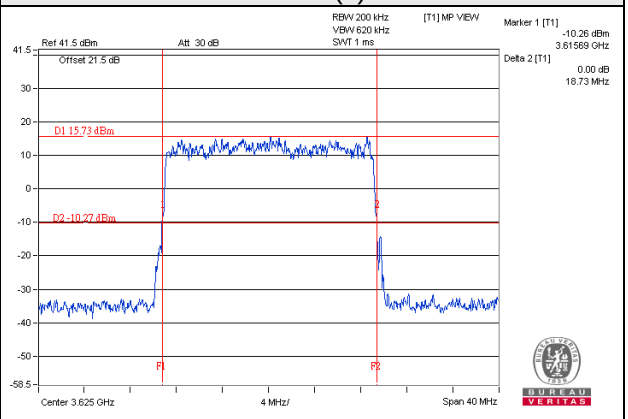
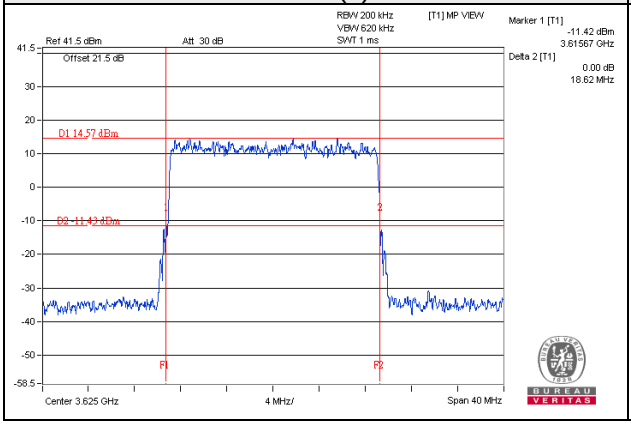
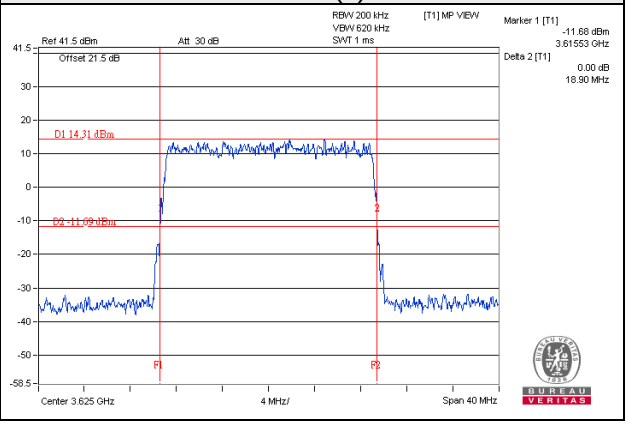
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

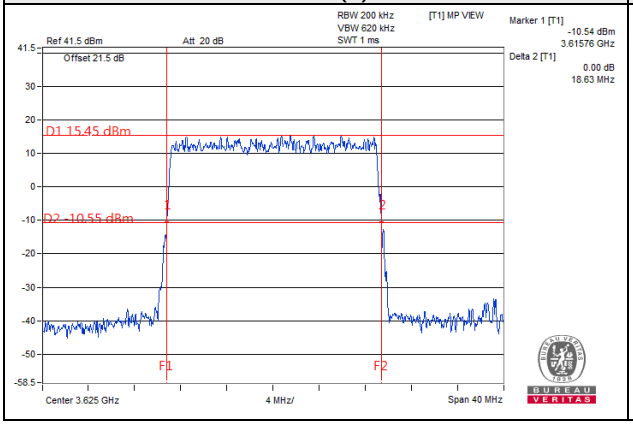
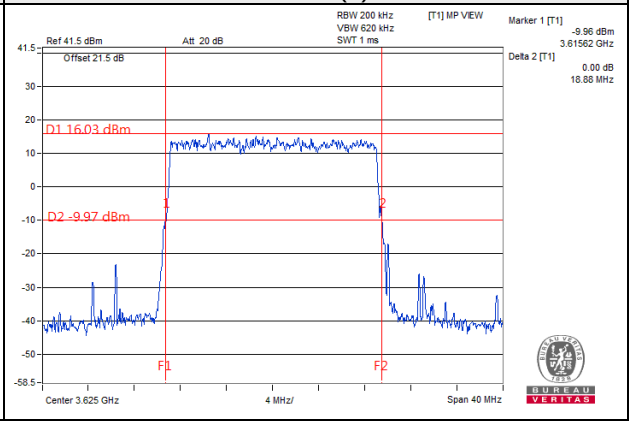
256QAM	
Chain (0)	Chain (1)
	

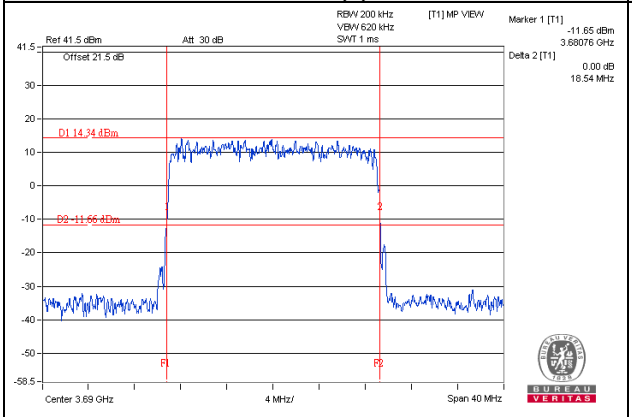
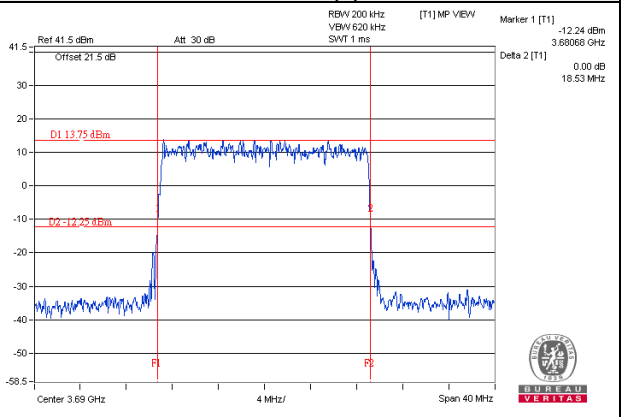
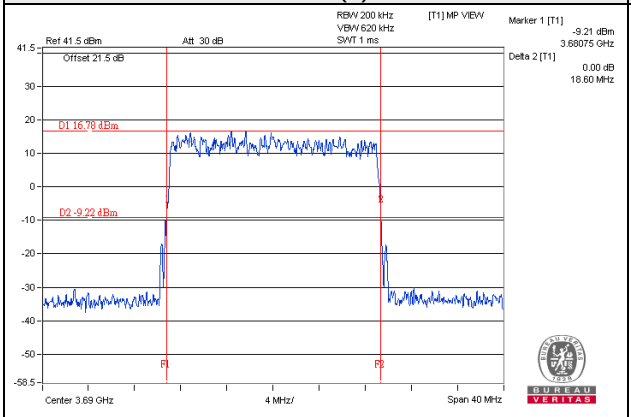
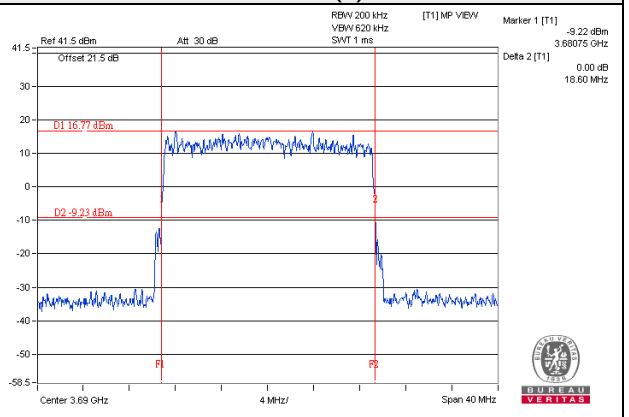
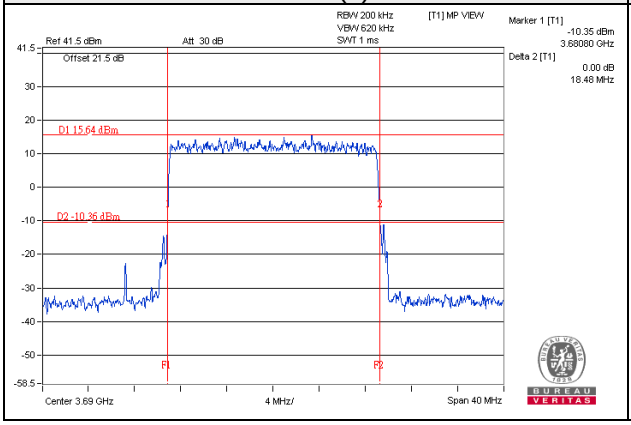
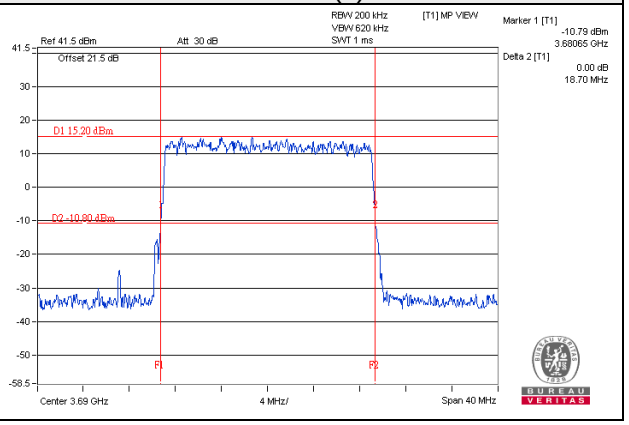
20MHz:

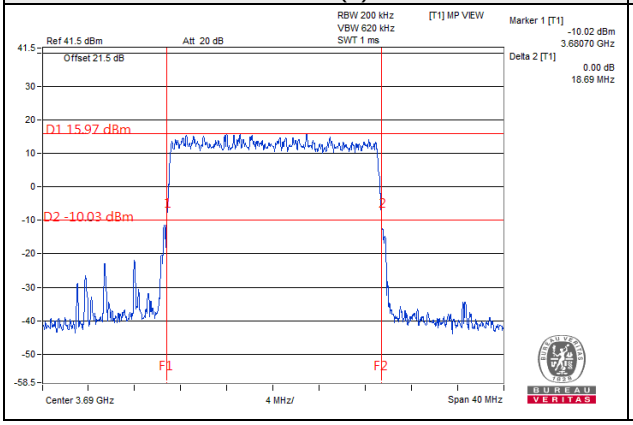
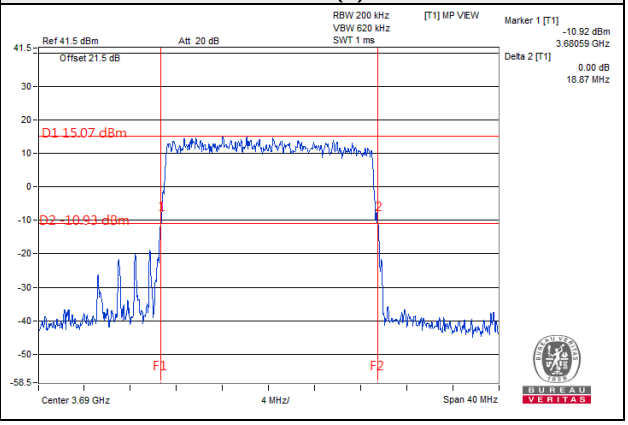
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

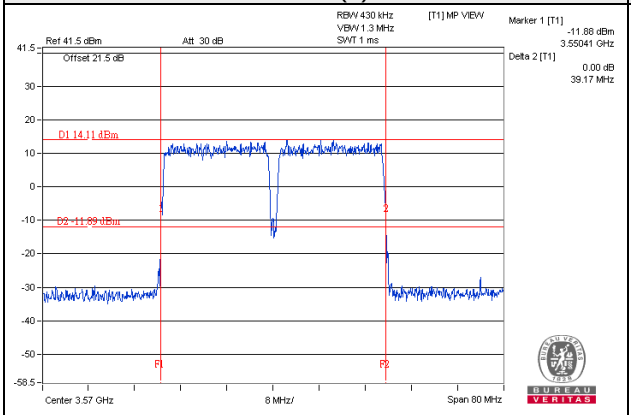
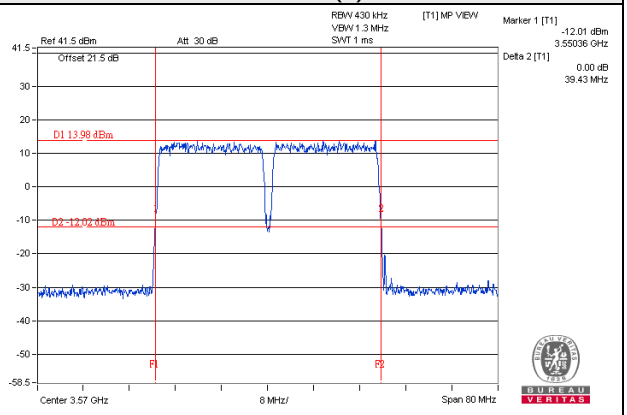
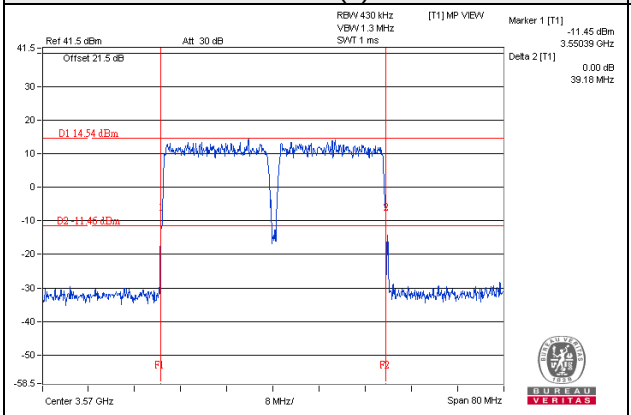
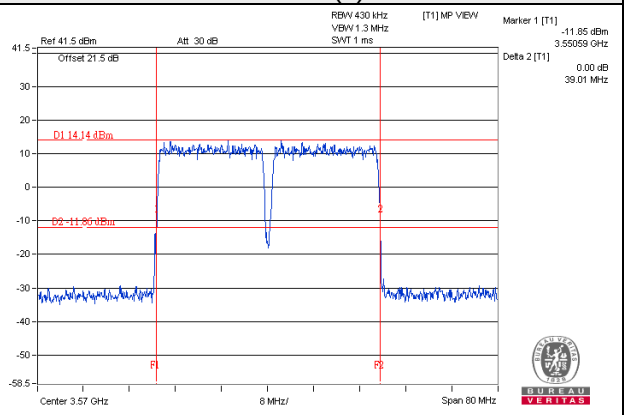
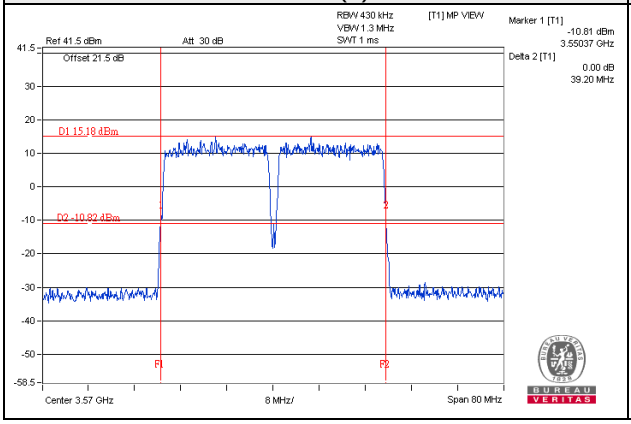
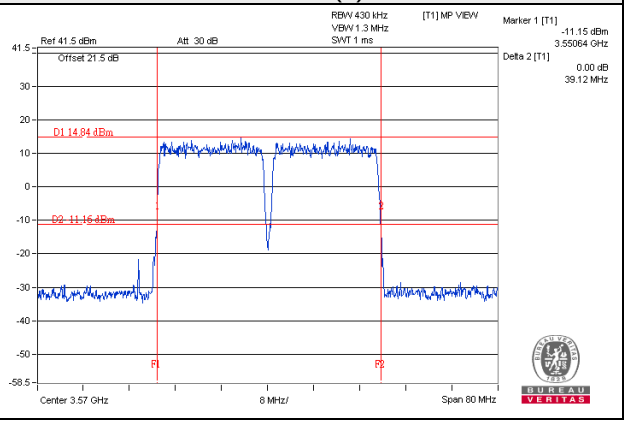
256QAM	
Chain (0)	Chain (1)
	

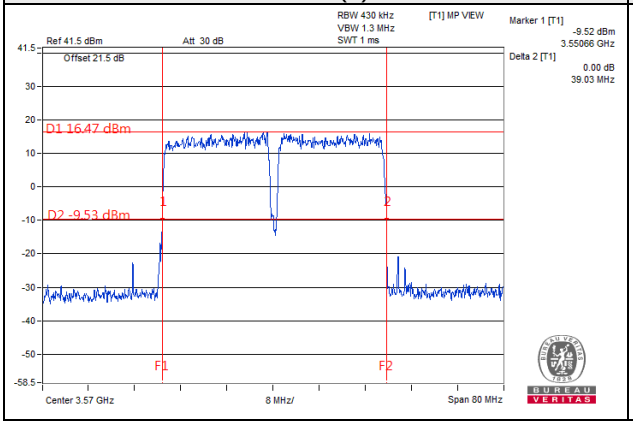
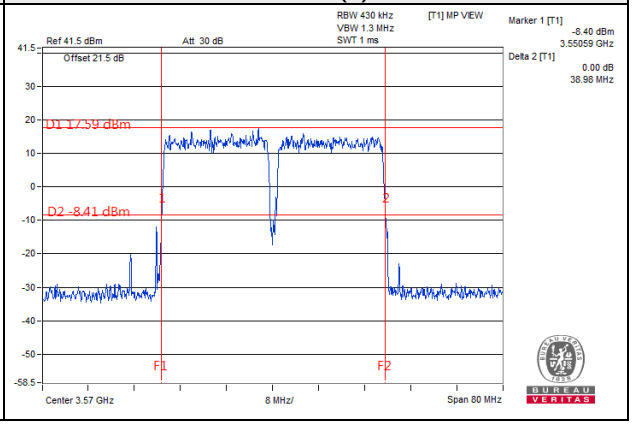
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

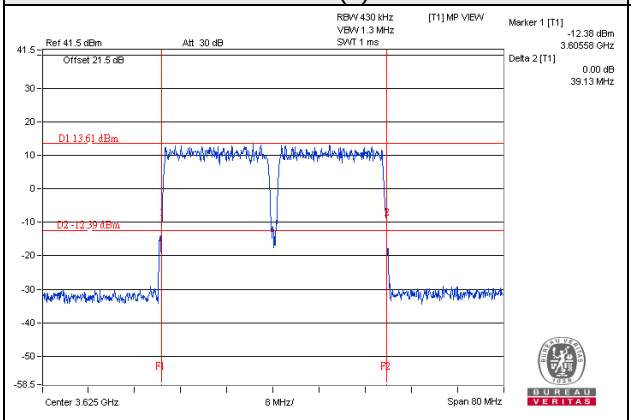
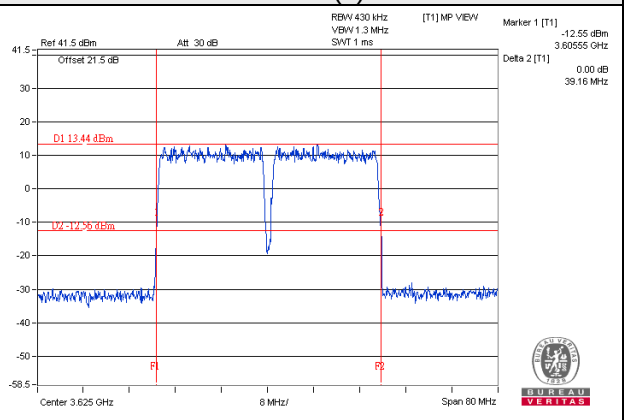
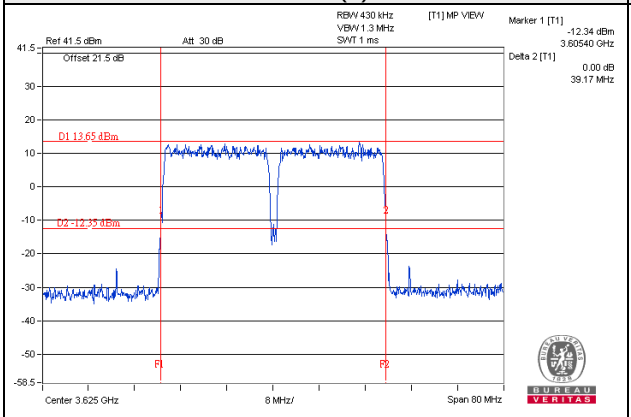
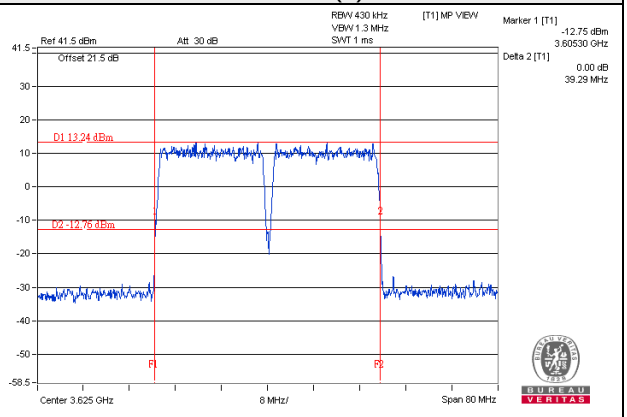
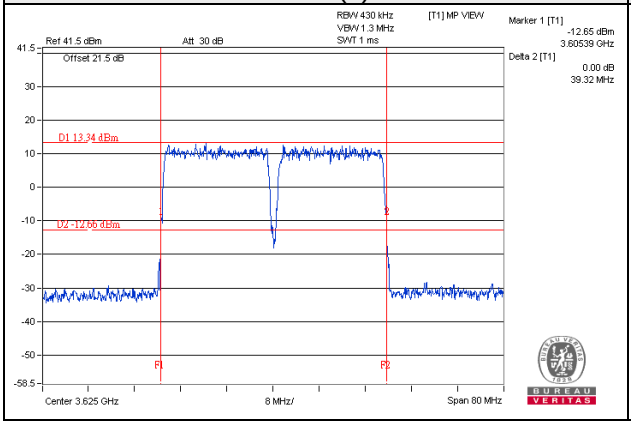
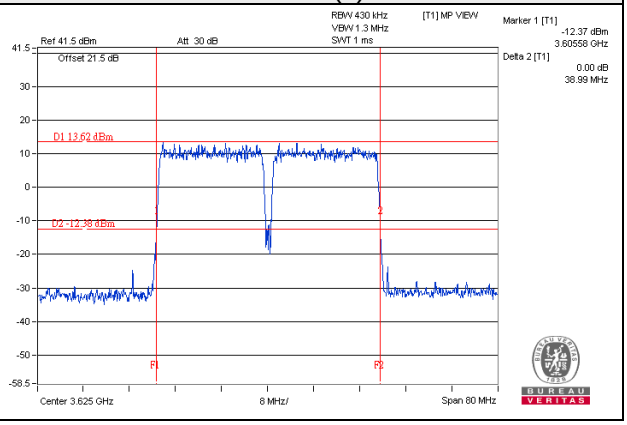
256QAM	
Chain (0)	Chain (1)
	

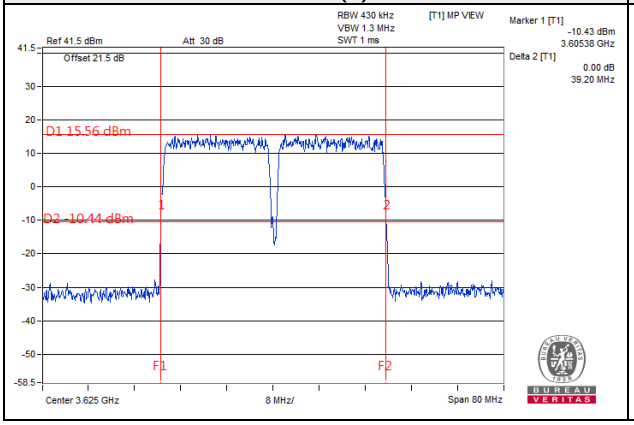
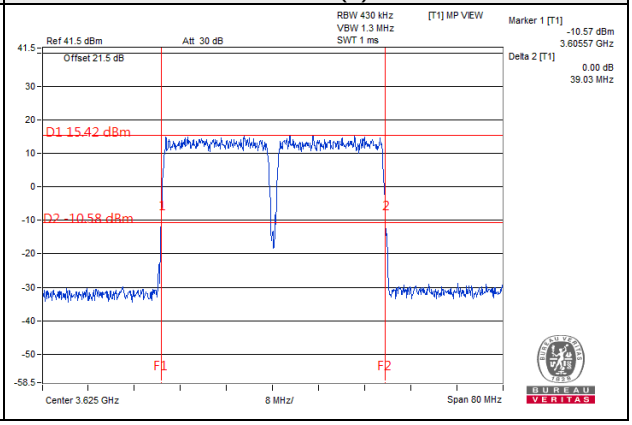
LTE MC MODE

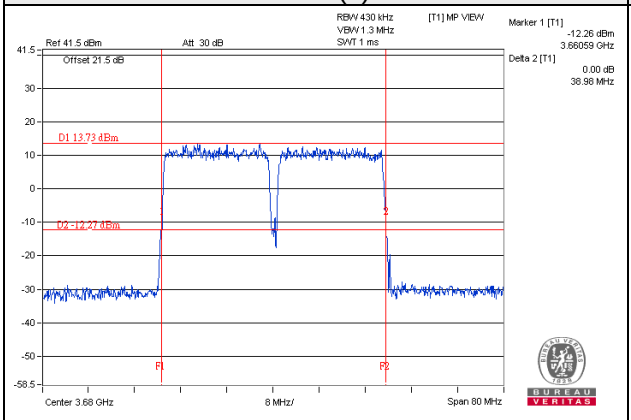
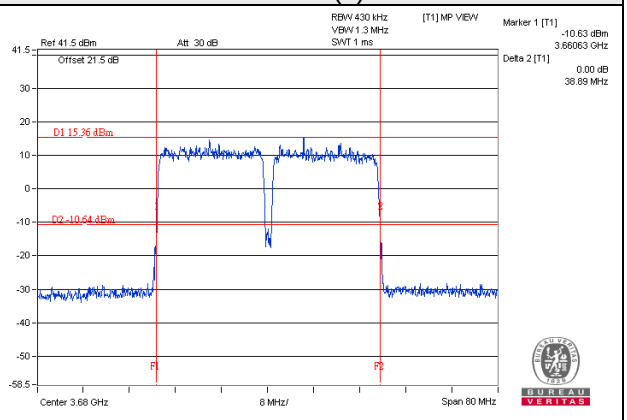
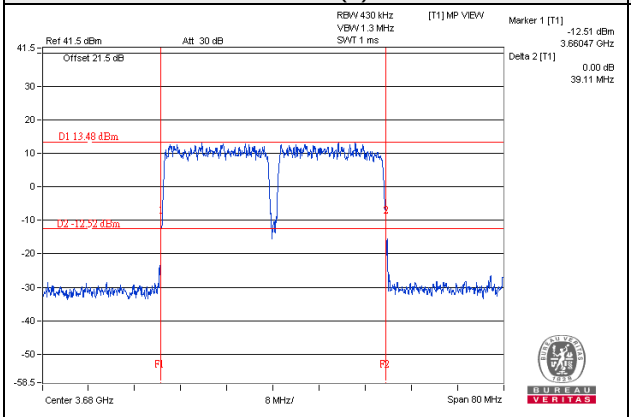
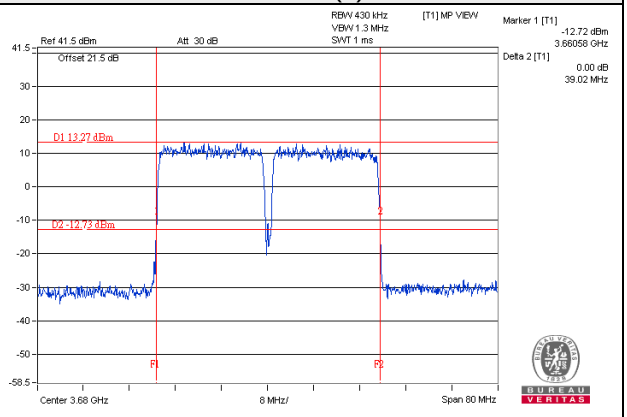
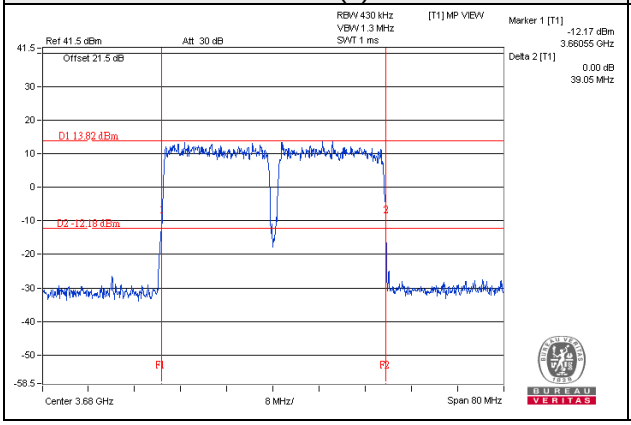
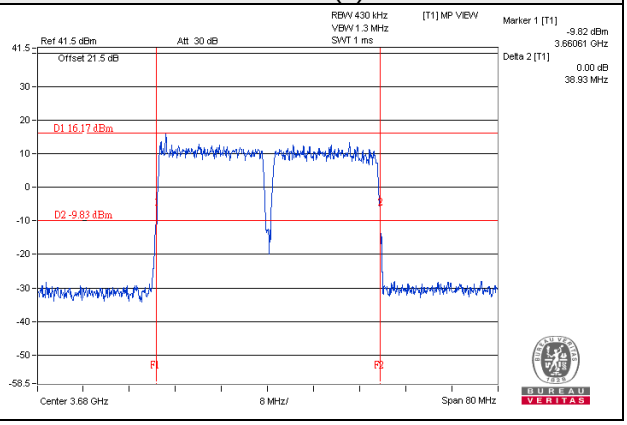
2-Carriers (20MHz+20MHz):

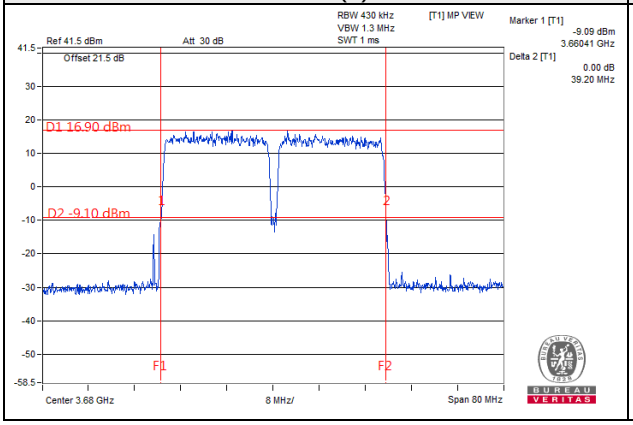
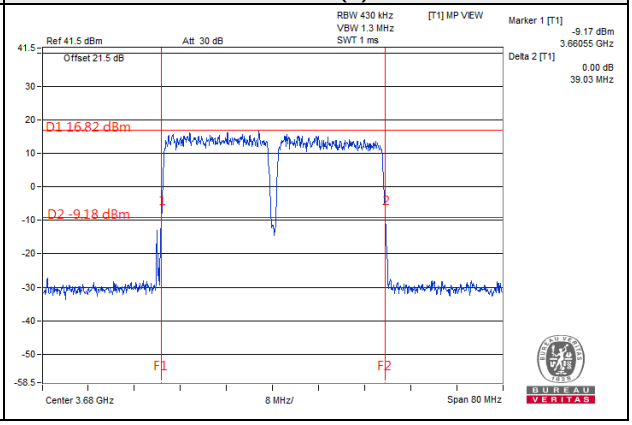
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

4.5.8 Test Result (Occupied Bandwidth)

LTE SC MODE

Channel	Freq. (MHz)	OCP 99 Band Width (MHz)							
		10MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3555	8.96	8.96	8.98	8.94	8.96	8.94	8.96	8.96
Middle	3625	8.94	8.88	8.94	8.96	8.96	8.96	8.94	8.98
High	3695	8.94	8.88	8.94	8.92	8.94	8.90	8.92	8.92

Channel	Freq. (MHz)	OCP 99 Band Width (MHz)							
		15MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3557.5	13.44	13.44	13.41	13.41	13.50	13.41	13.41	13.44
Middle	3625	13.38	13.35	13.35	13.38	13.41	13.44	13.41	13.41
High	3692.5	13.47	13.41	13.38	13.35	13.35	13.38	13.47	13.44

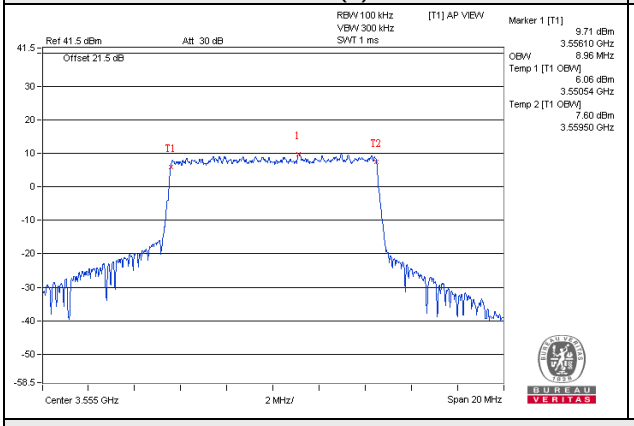
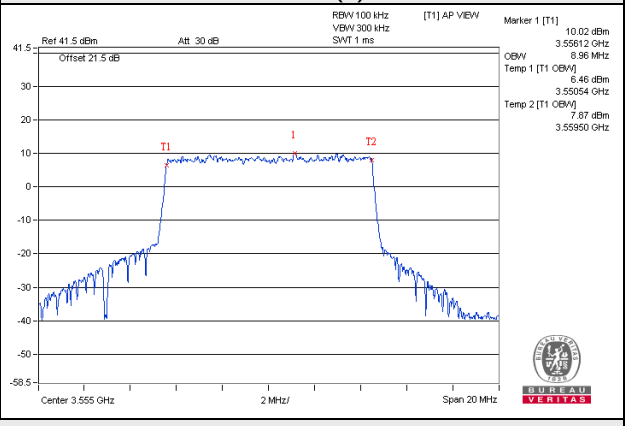
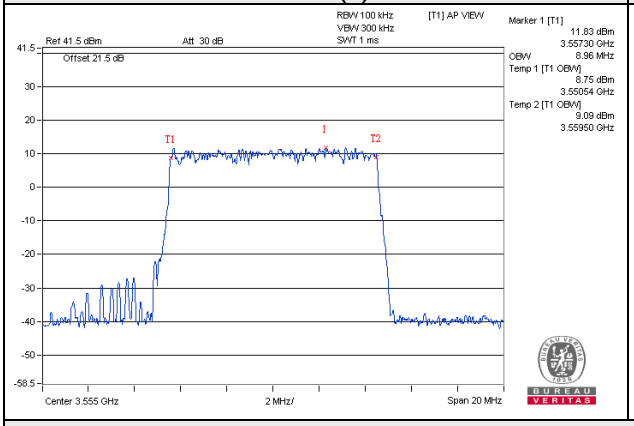
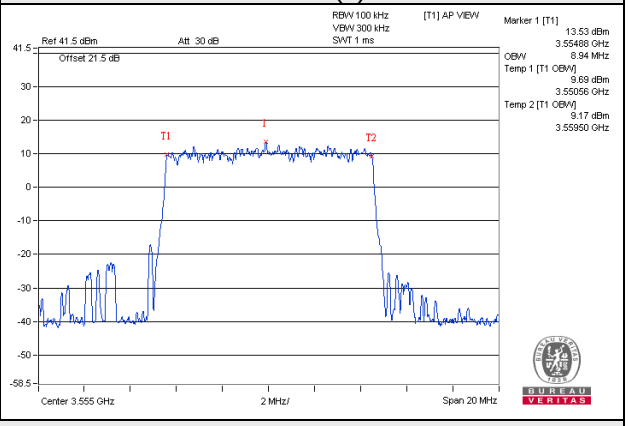
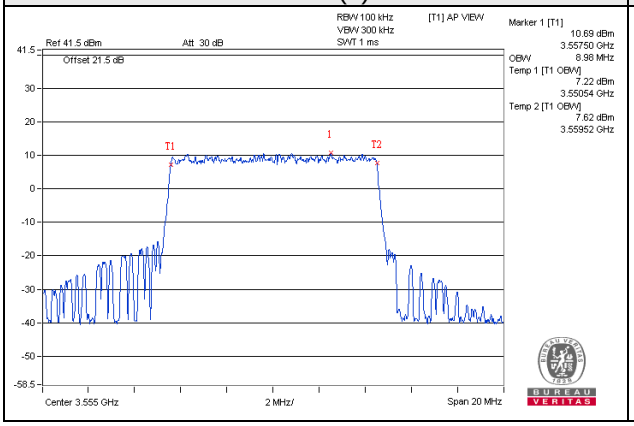
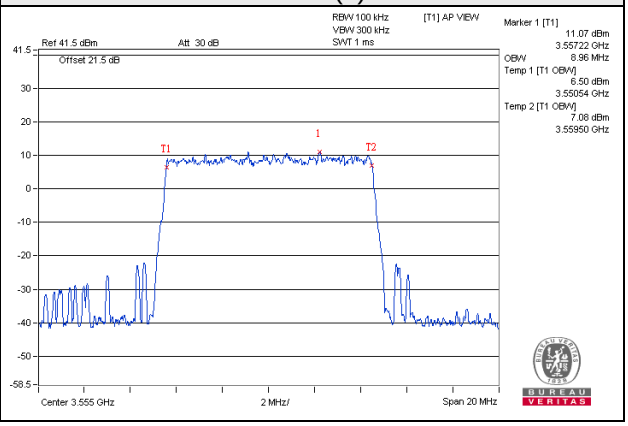
Channel	Freq. (MHz)	OCP 99 Band Width (MHz)							
		20MHz							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3560	17.92	17.92	17.88	17.88	17.88	17.92	17.88	17.88
Middle	3625	17.80	17.84	17.88	17.88	17.92	17.84	17.76	17.88
High	3690	17.92	17.88	17.84	17.80	17.88	17.80	17.88	17.88

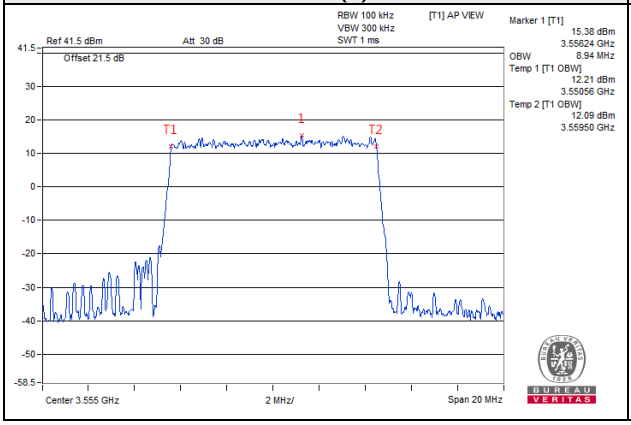
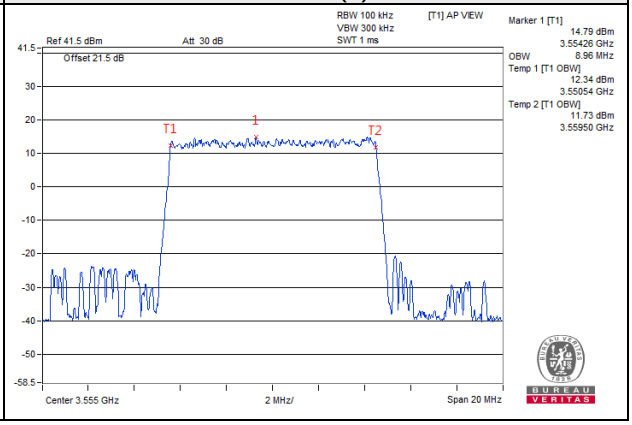
LTE MC MODE

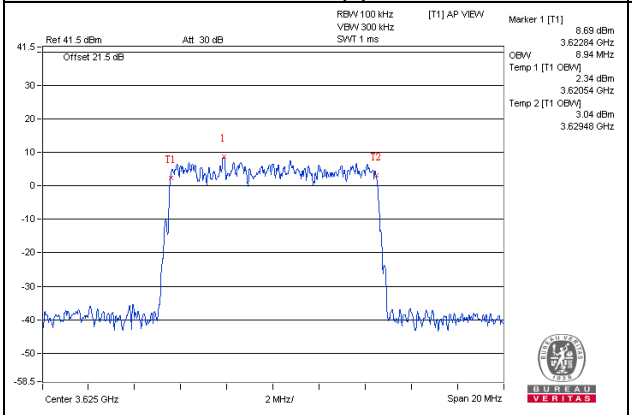
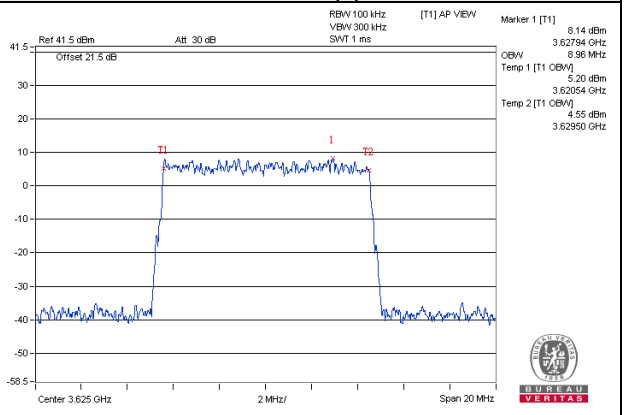
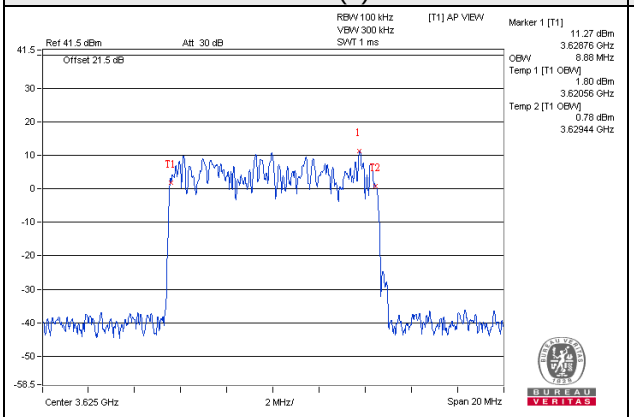
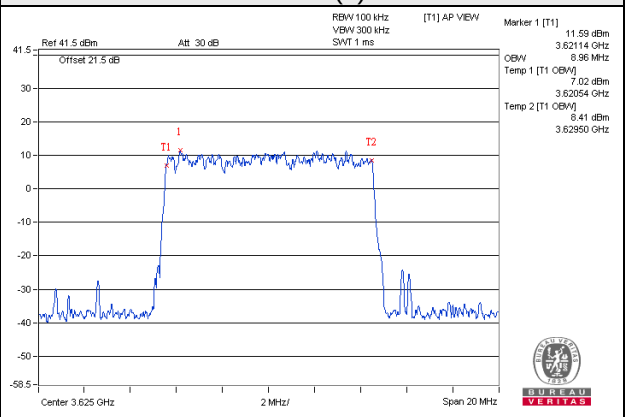
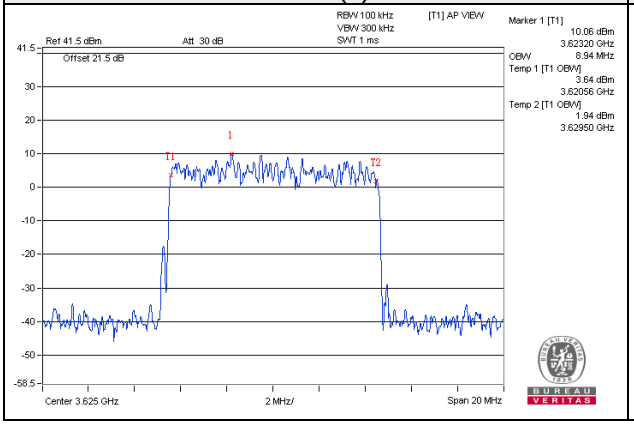
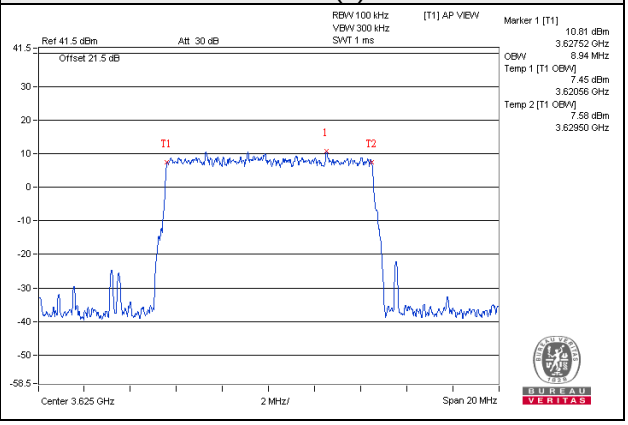
Channel	Freq. (MHz)	OCP 99 Band Width (MHz)							
		2-Carriers (20MHz+20MHz)							
		Chain0				Chain1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
Low	3560+3580	37.68	37.68	37.68	37.68	37.68	37.68	37.76	37.68
Middle	3615+3635	37.68	37.76	37.60	37.60	37.76	37.60	37.68	37.76
High	3670+3690	37.68	37.60	37.68	37.76	37.52	37.60	37.50	37.60

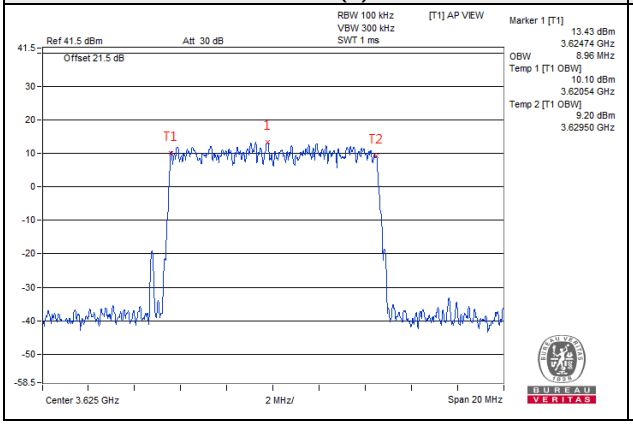
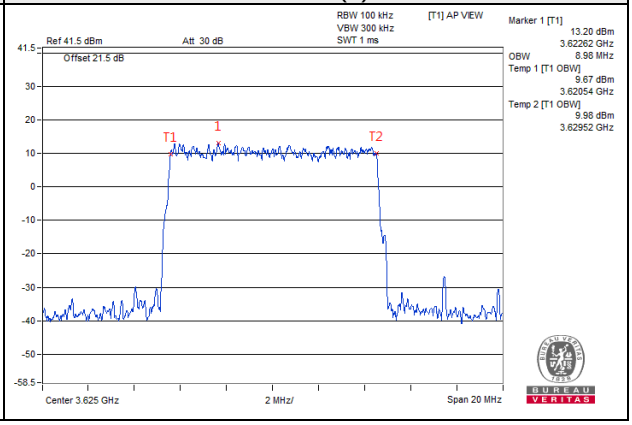
LTE SC MODE

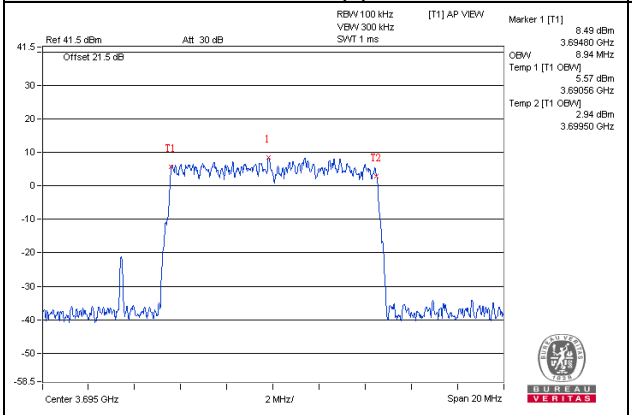
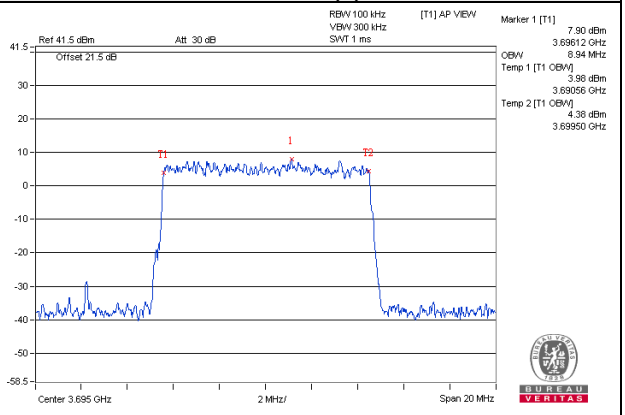
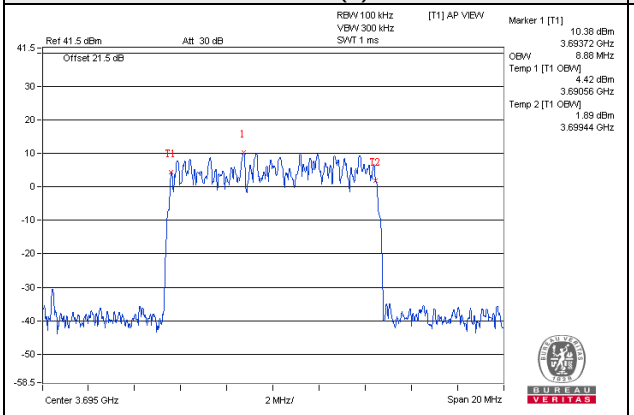
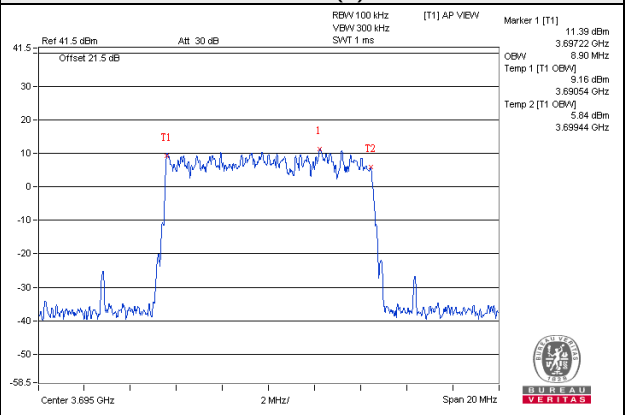
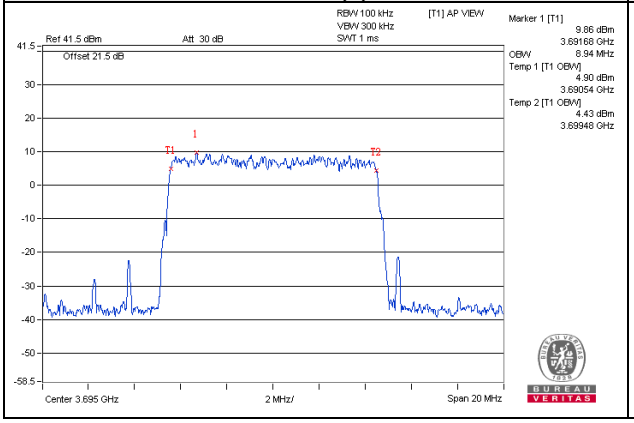
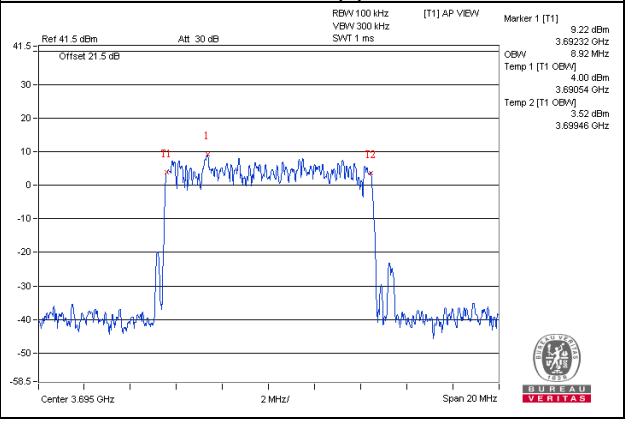
10MHz:

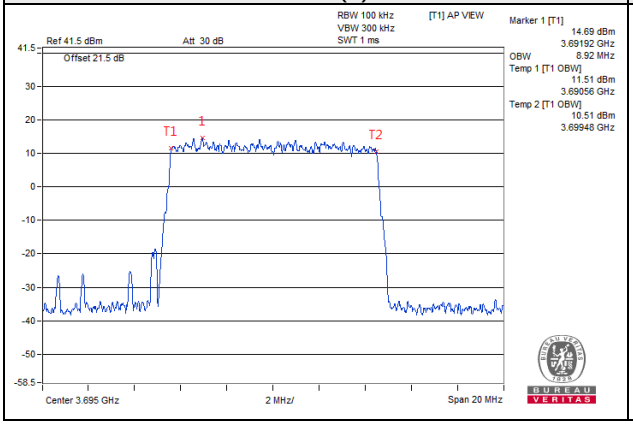
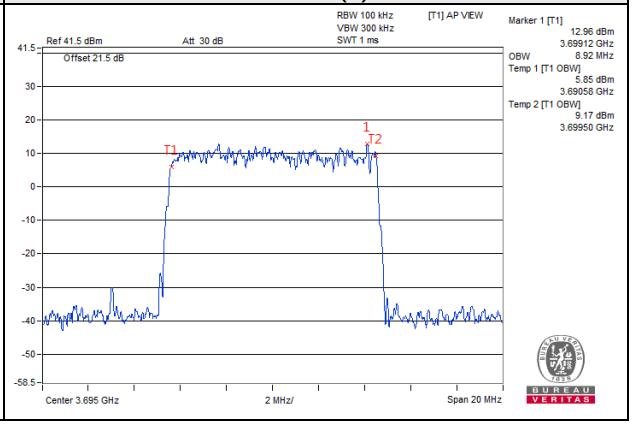
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

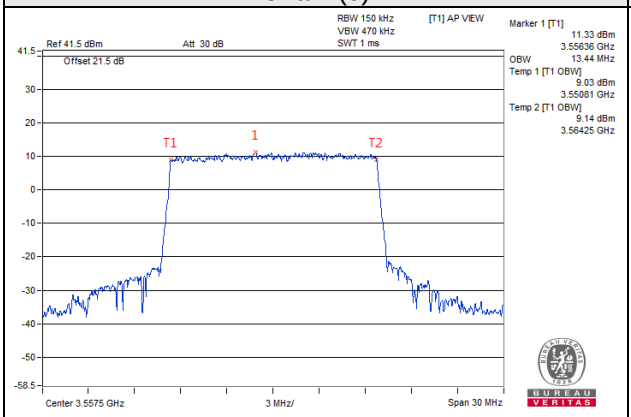
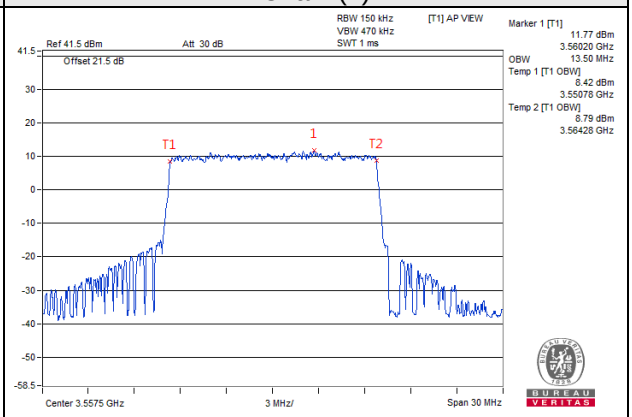
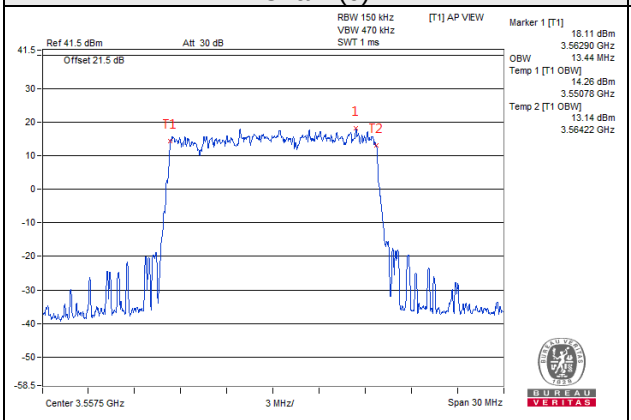
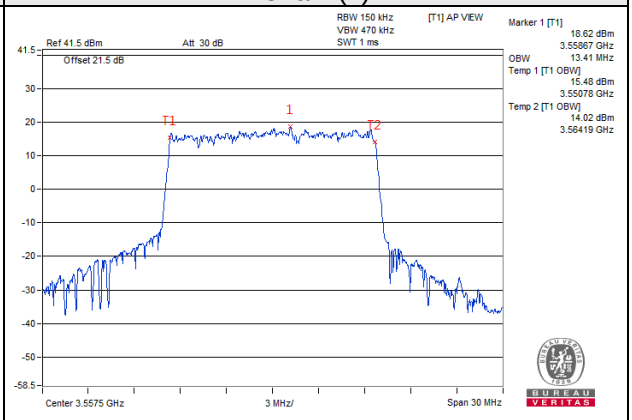
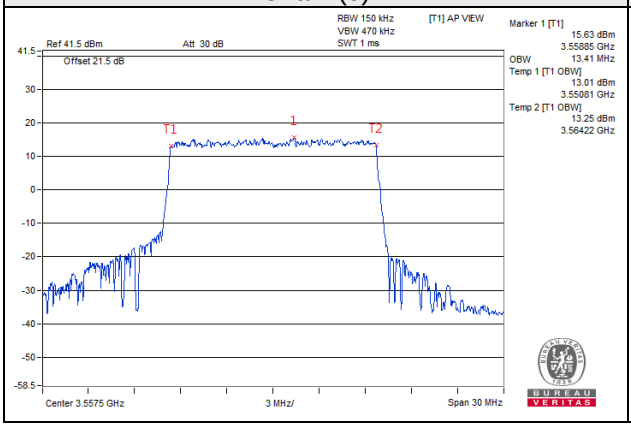
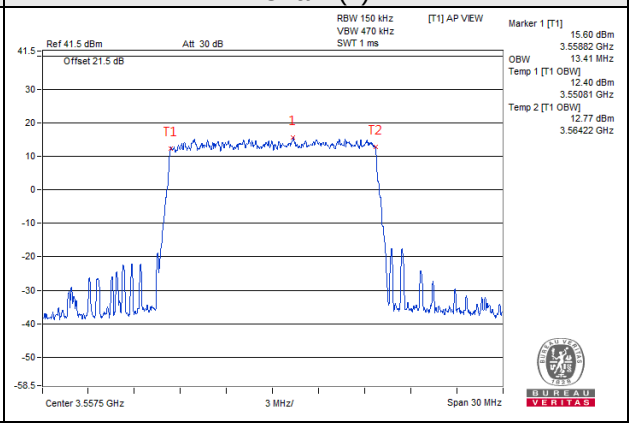
Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

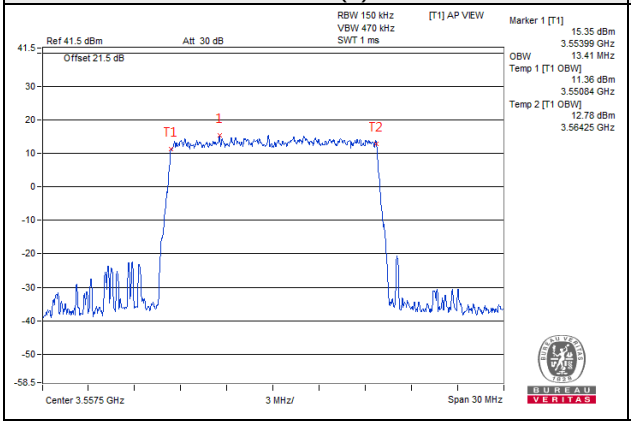
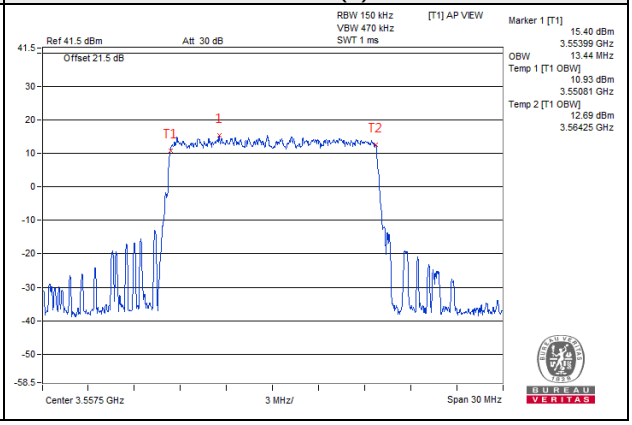
256QAM	
Chain (0)	Chain (1)
	

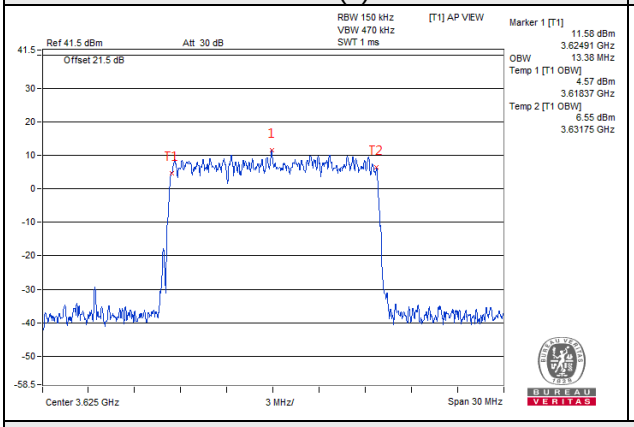
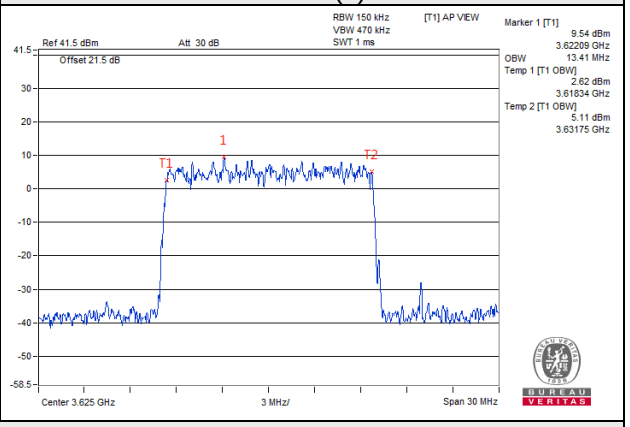
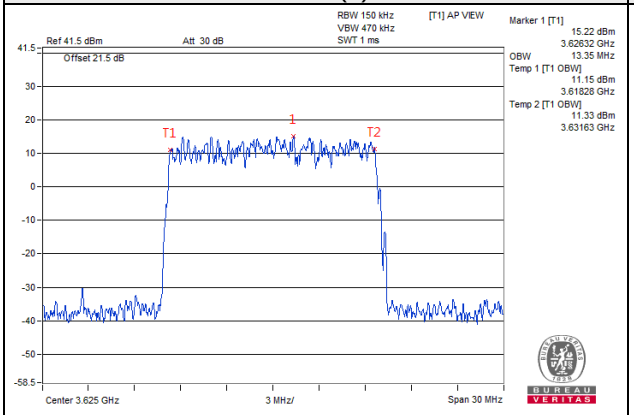
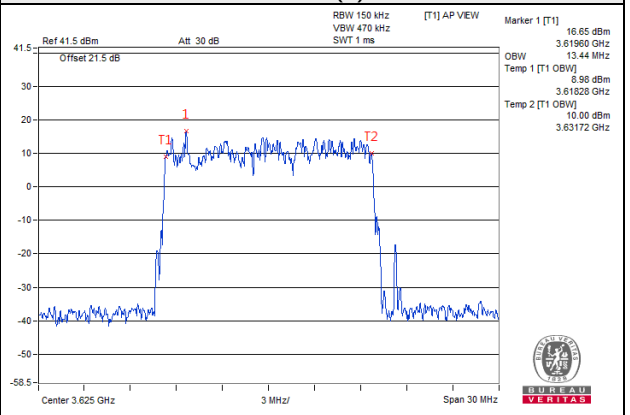
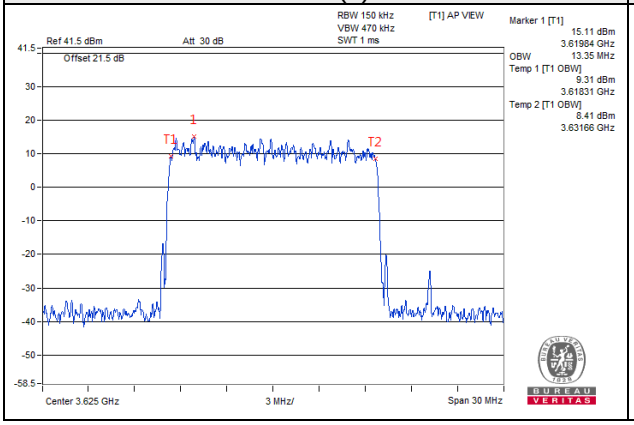
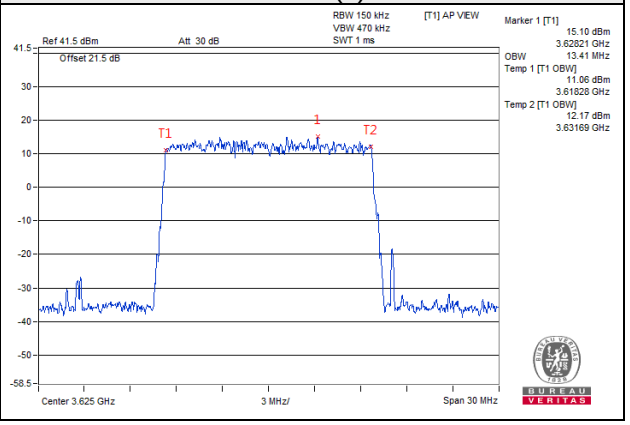
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

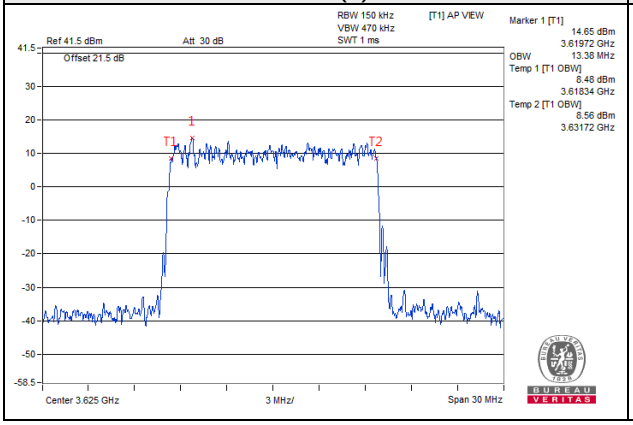
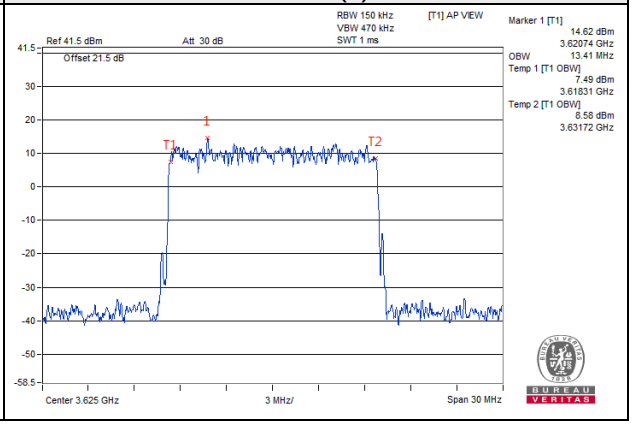
256QAM	
Chain (0)	Chain (1)
	

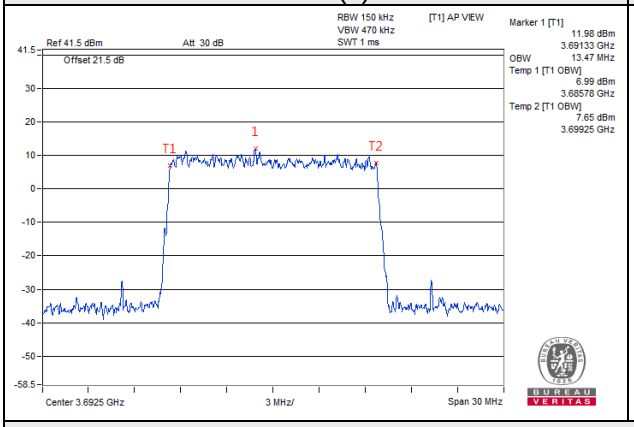
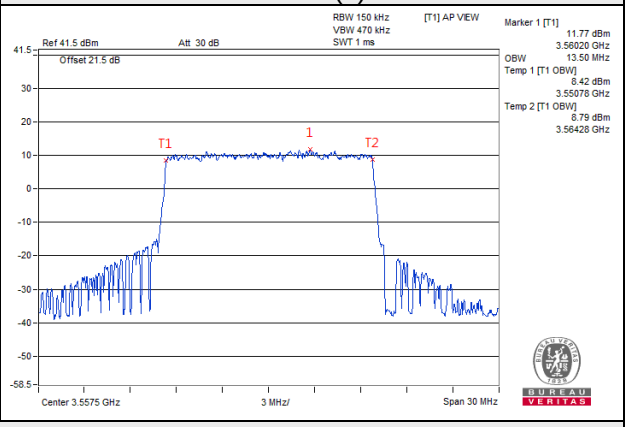
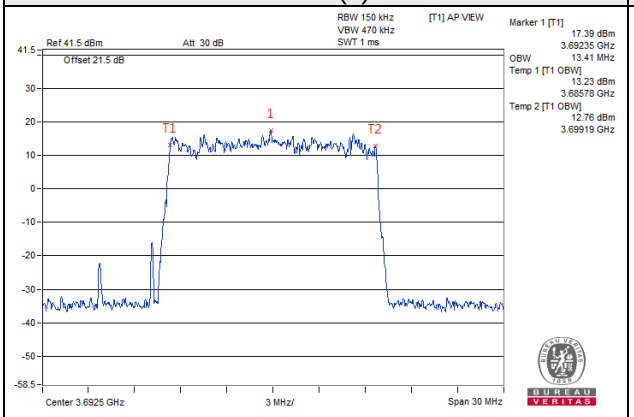
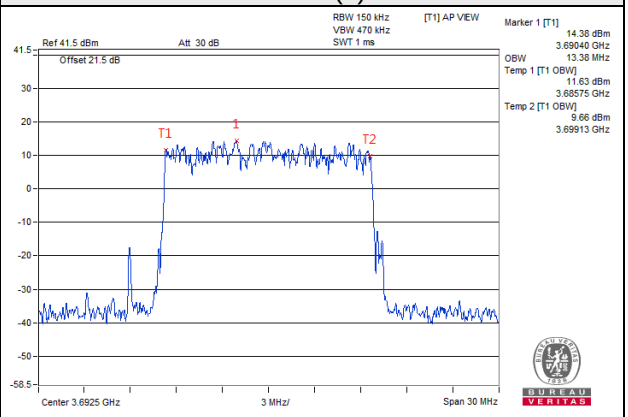
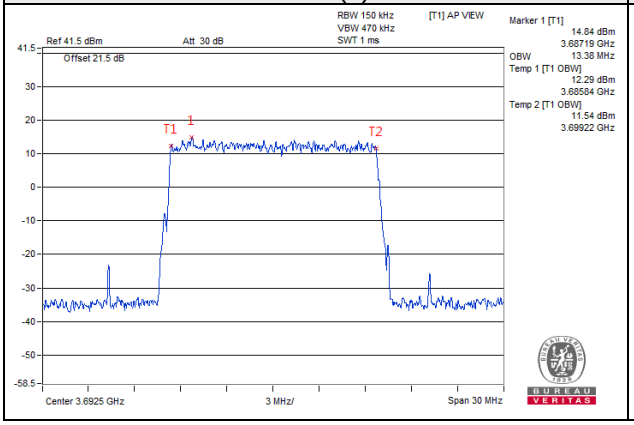
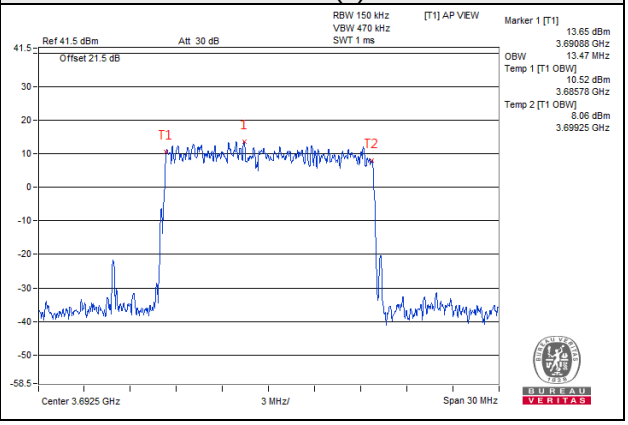
15MHz:

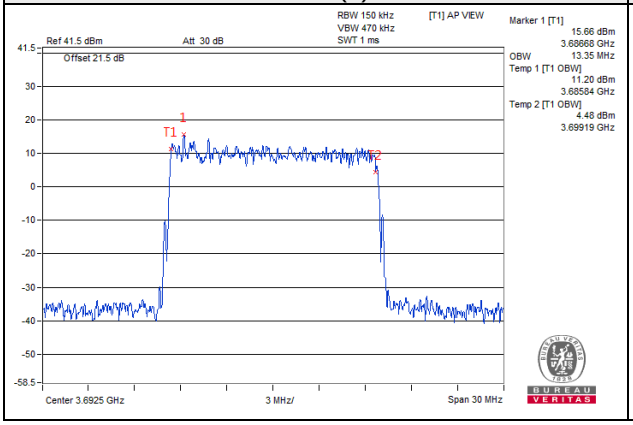
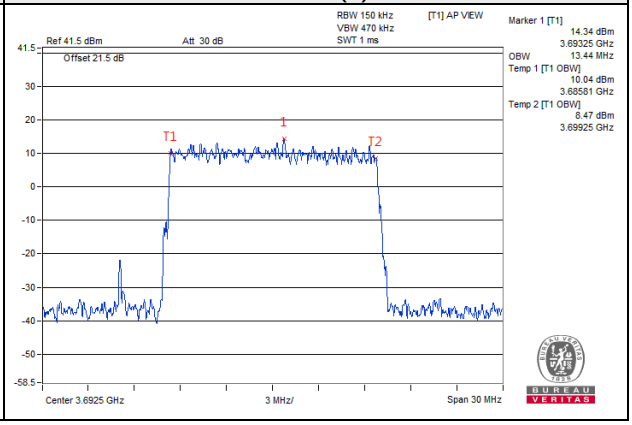
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

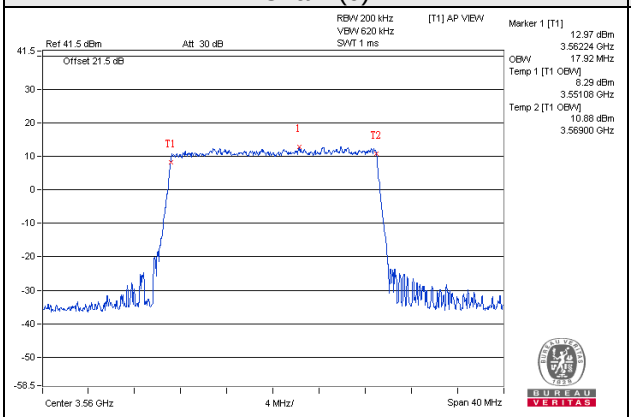
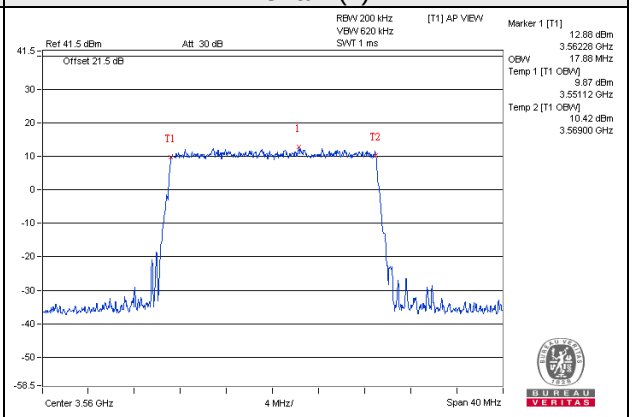
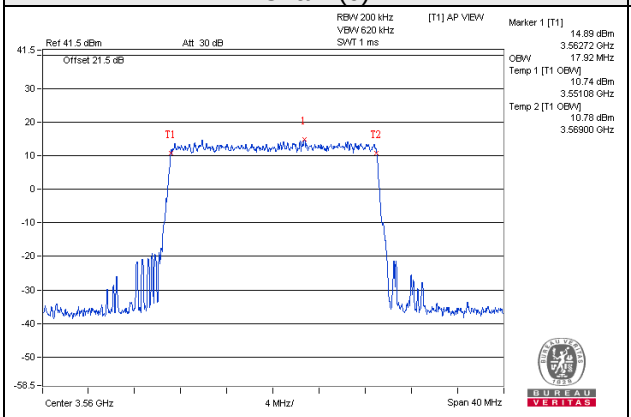
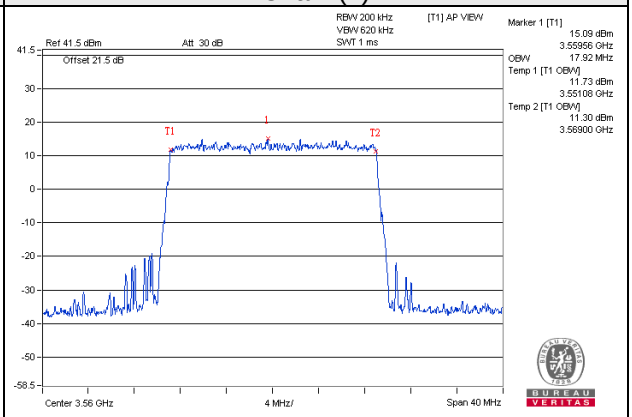
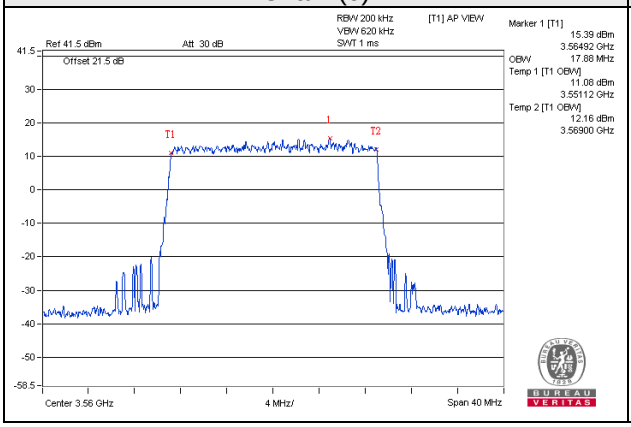
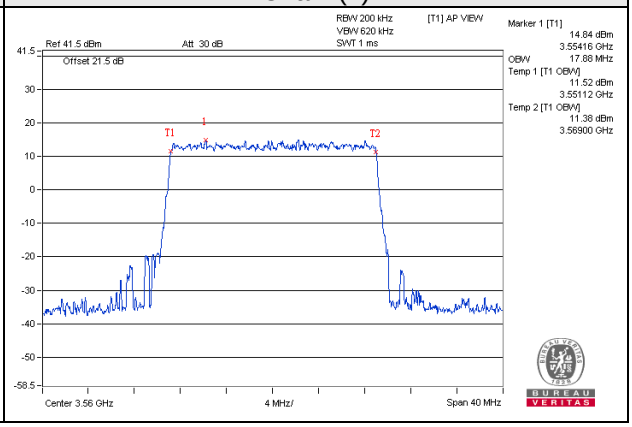
Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

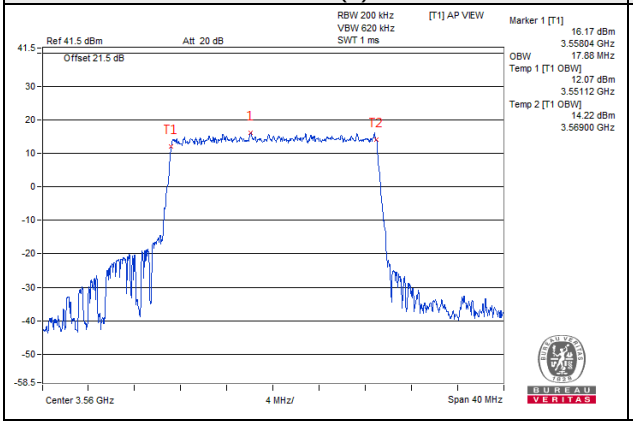
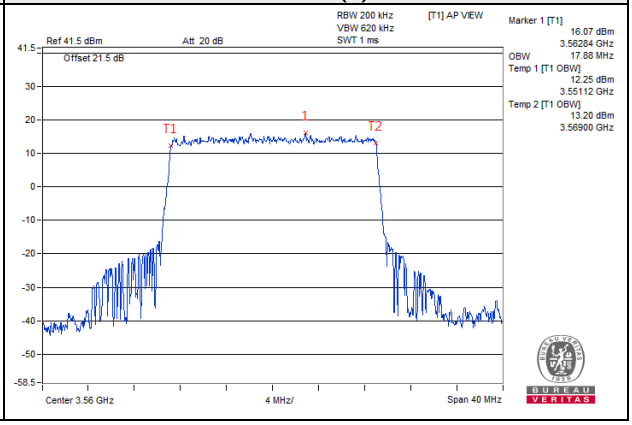
256QAM	
Chain (0)	Chain (1)
	

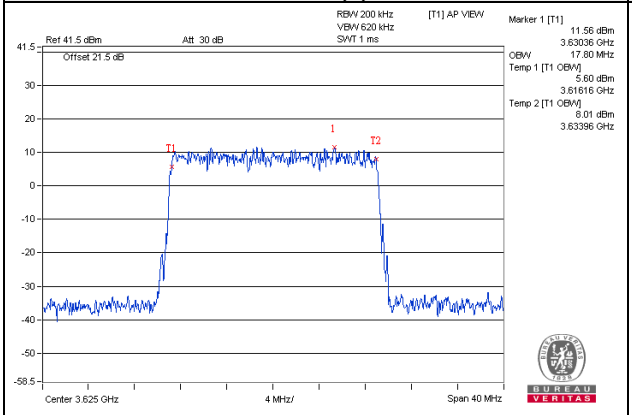
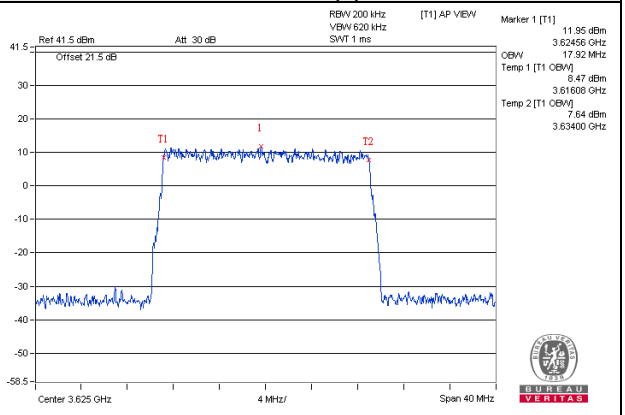
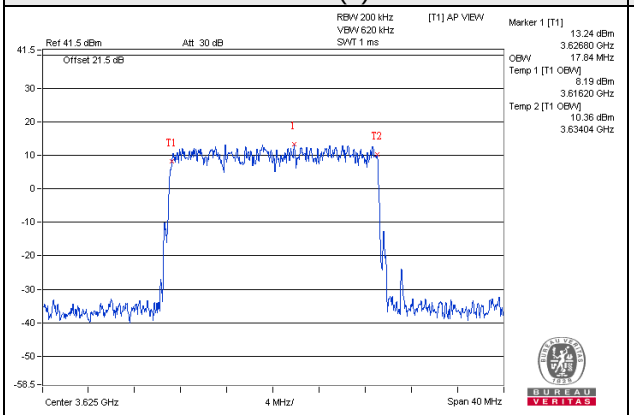
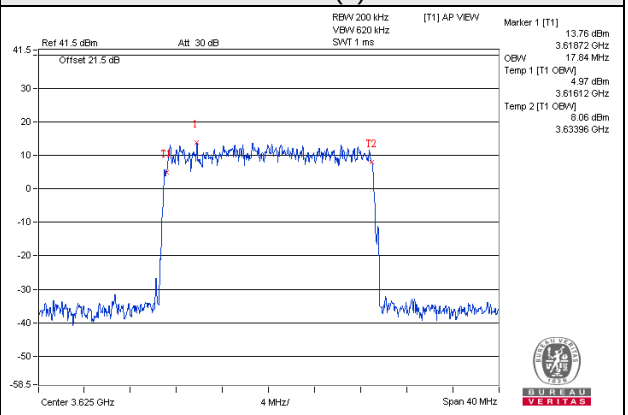
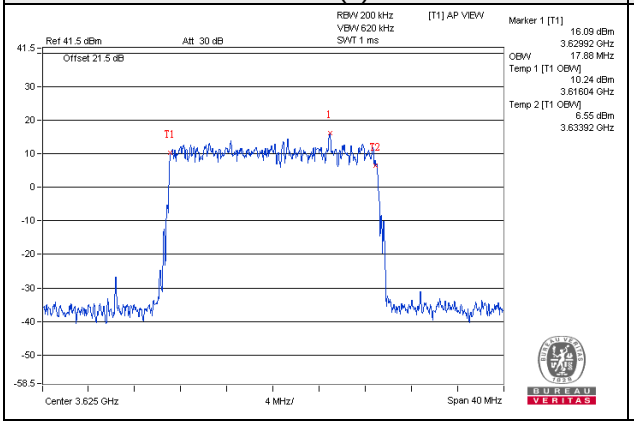
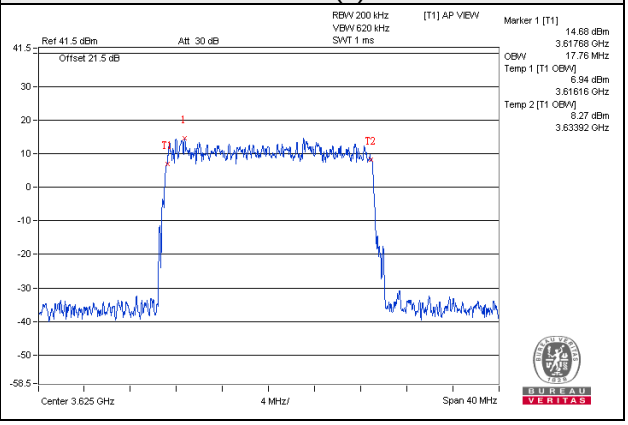
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

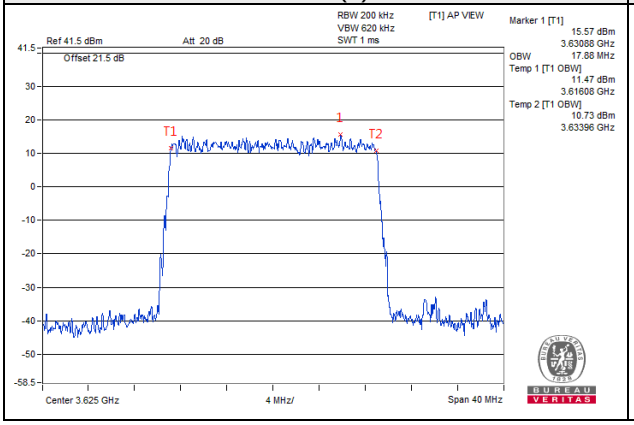
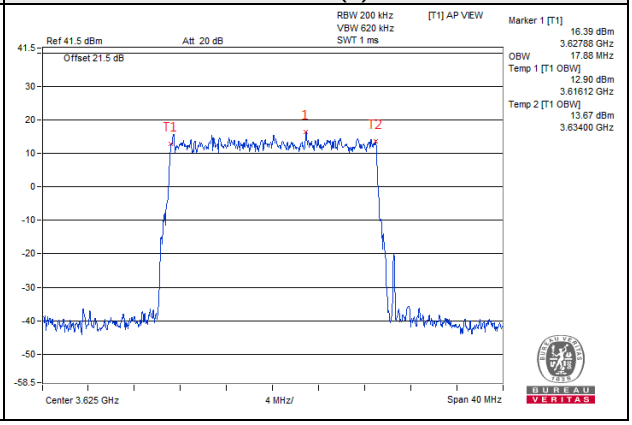
256QAM	
Chain (0)	Chain (1)
	

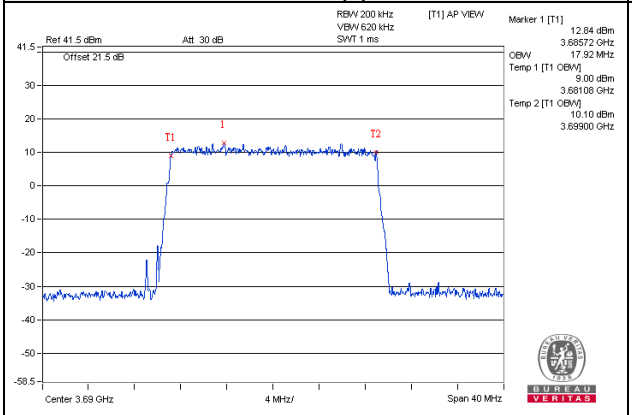
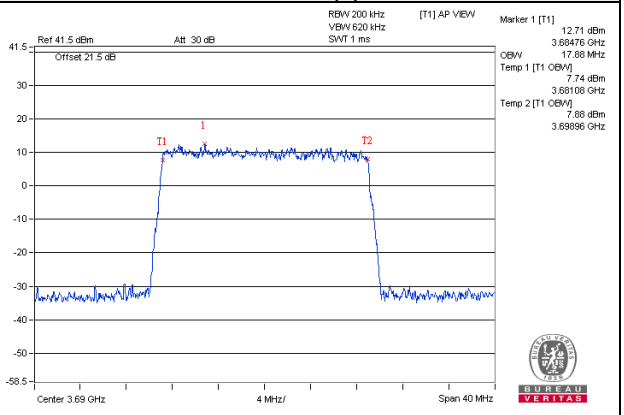
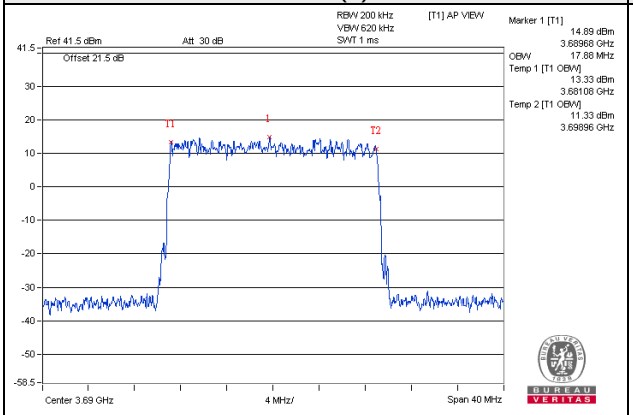
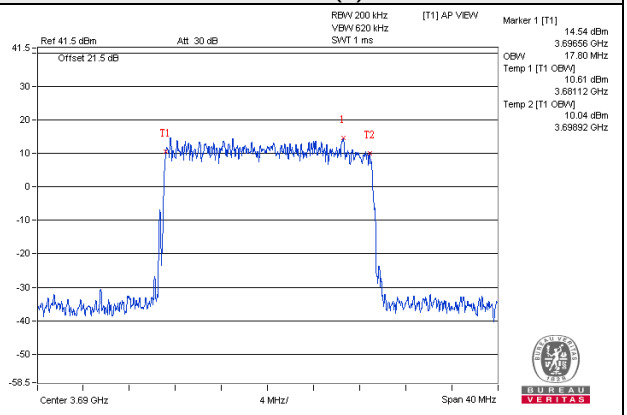
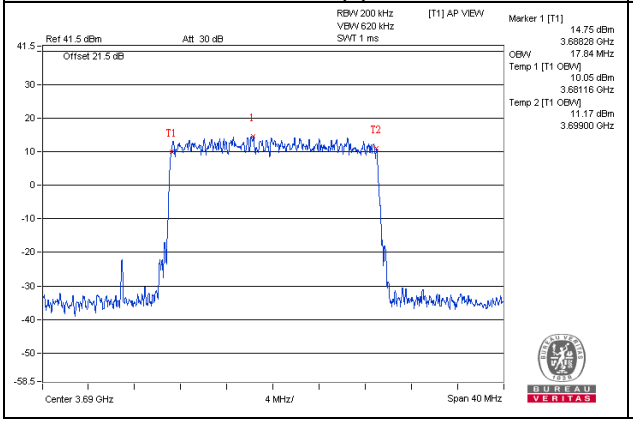
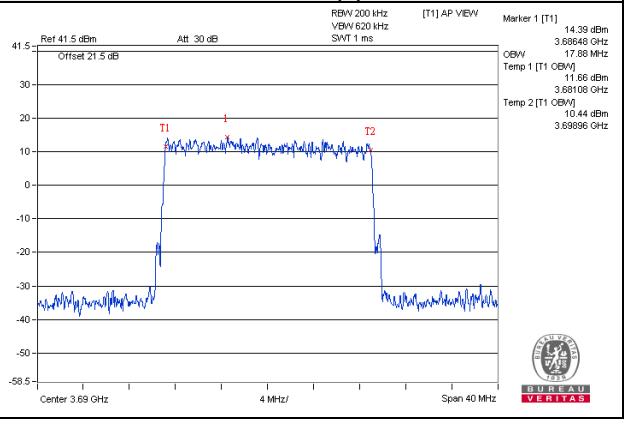
20MHz:

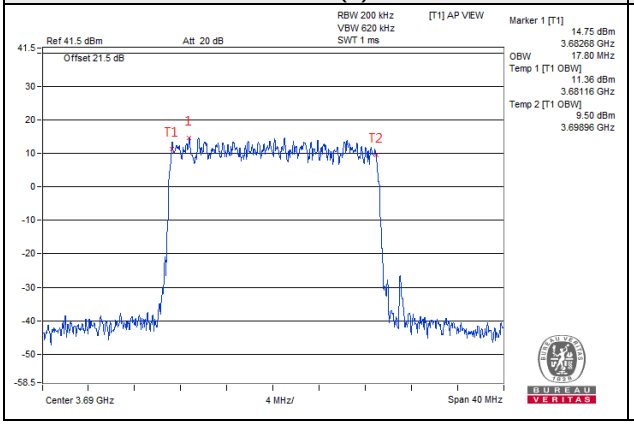
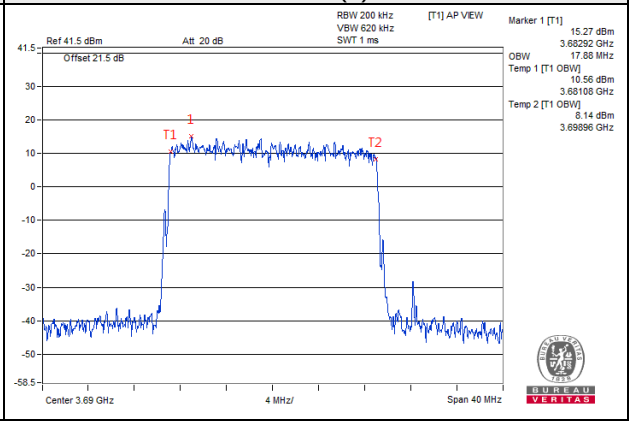
Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

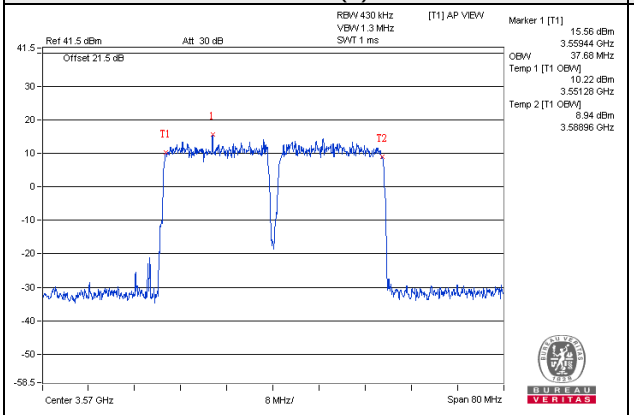
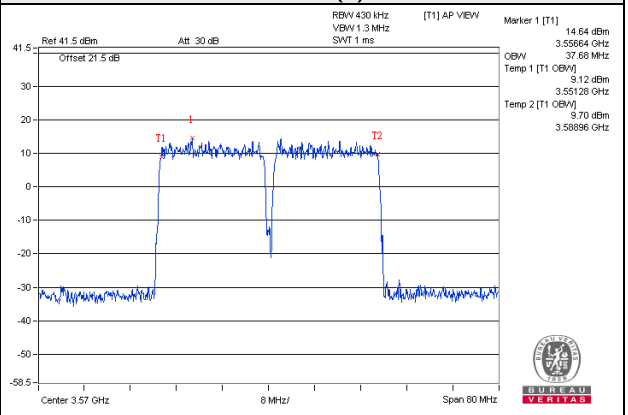
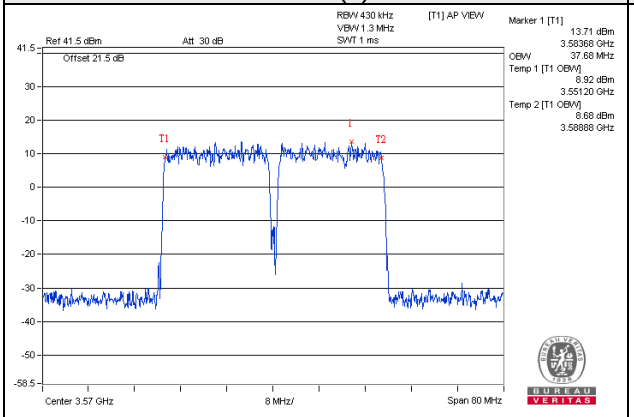
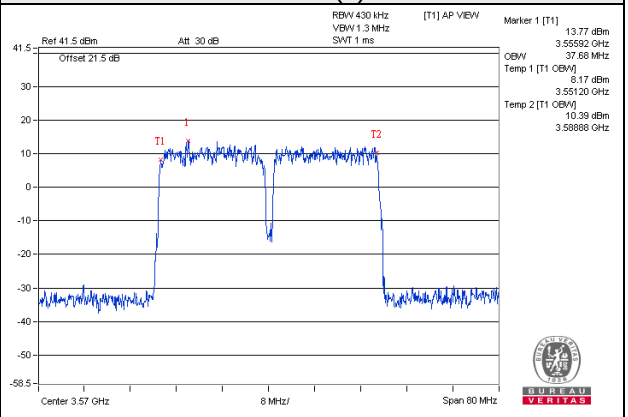
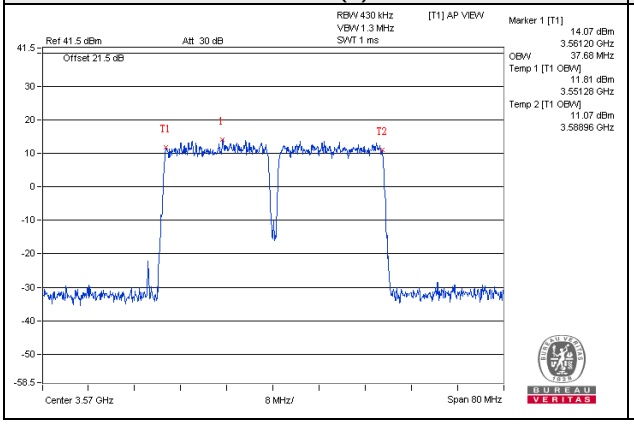
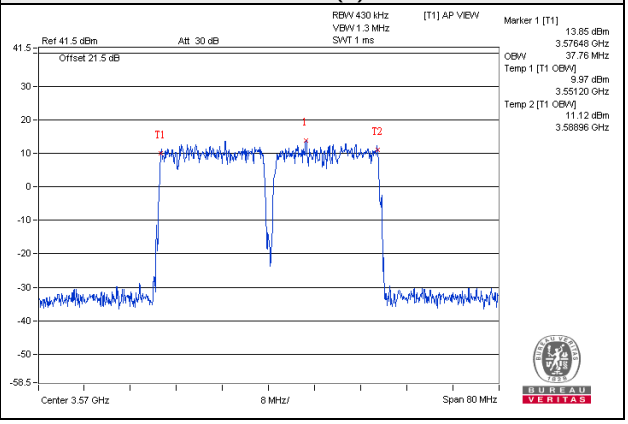
256QAM	
Chain (0)	Chain (1)
	

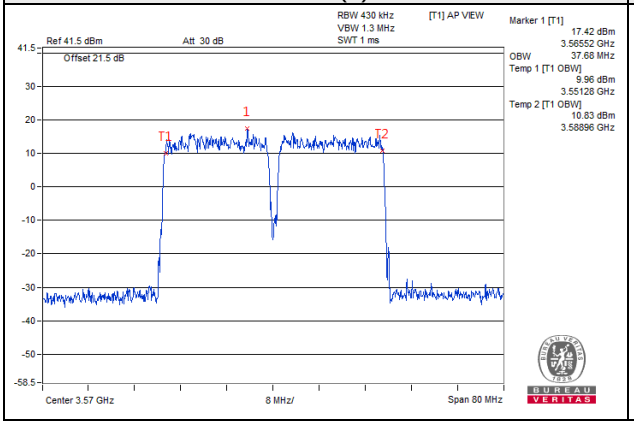
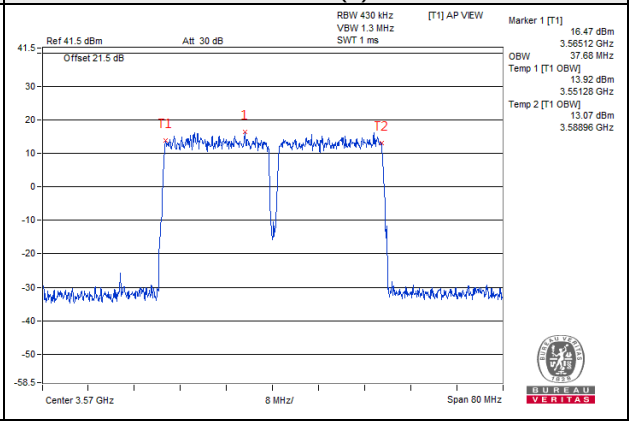
Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

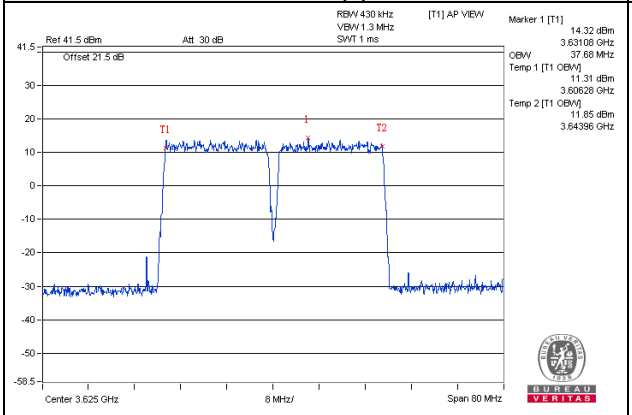
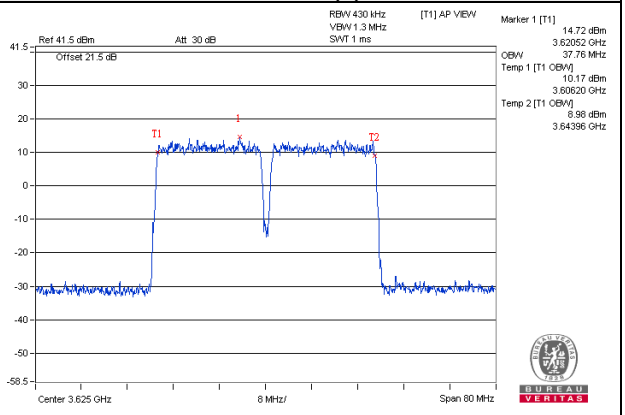
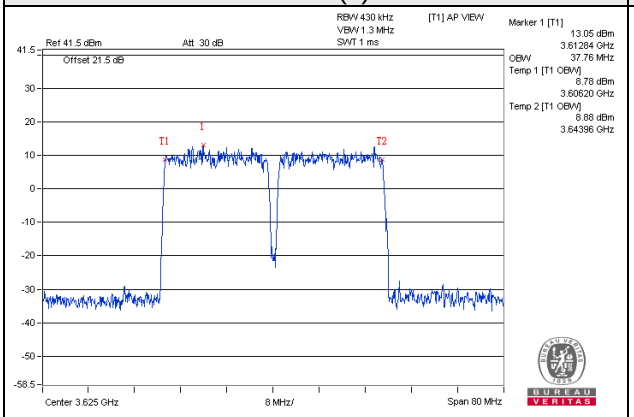
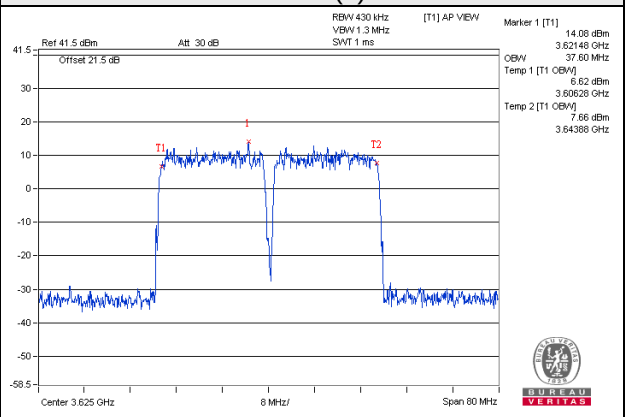
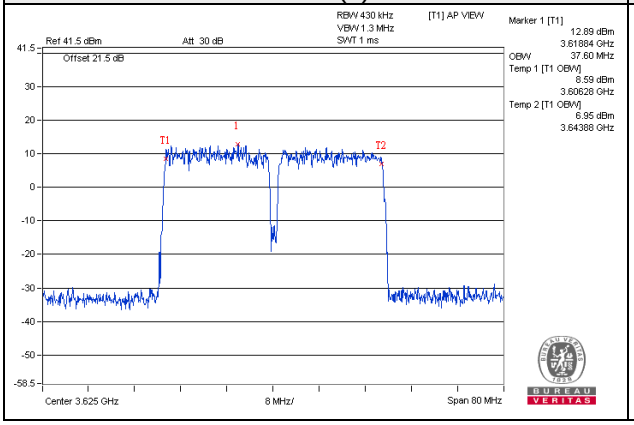
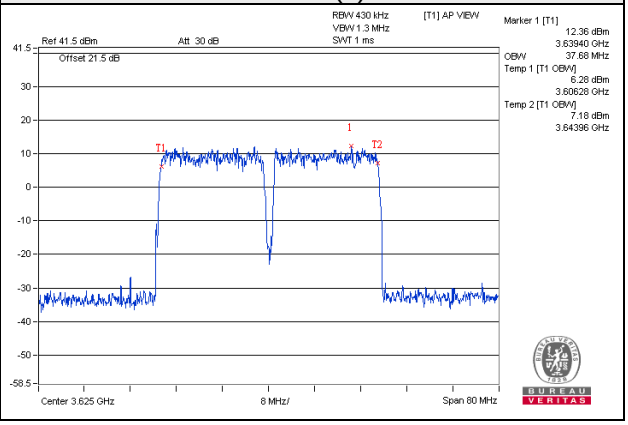
256QAM	
Chain (0)	Chain (1)
	

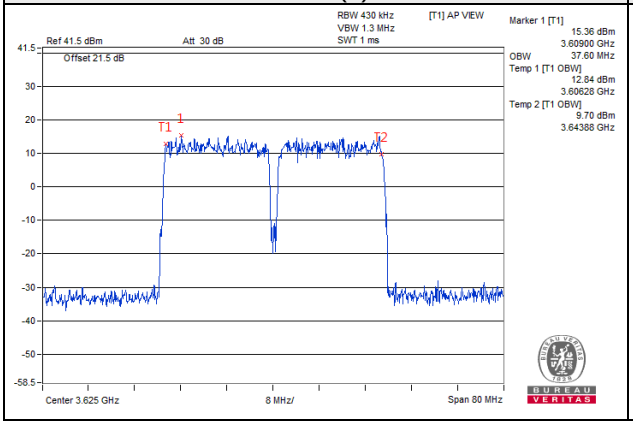
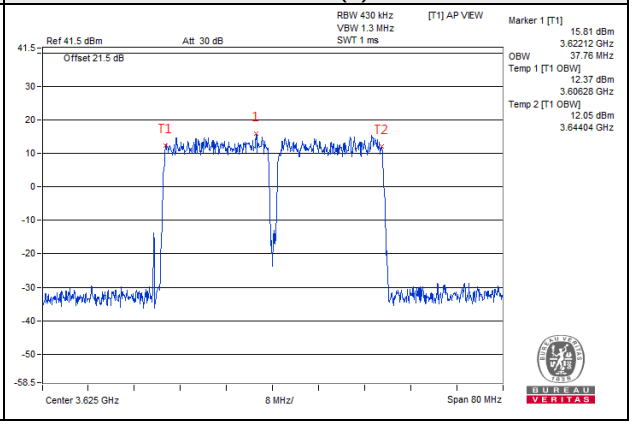
LTE MC MODE

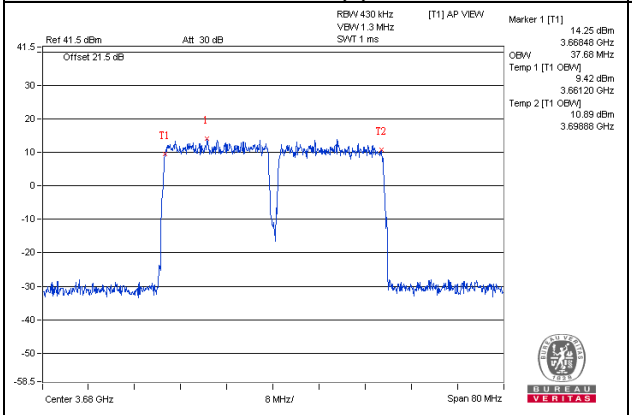
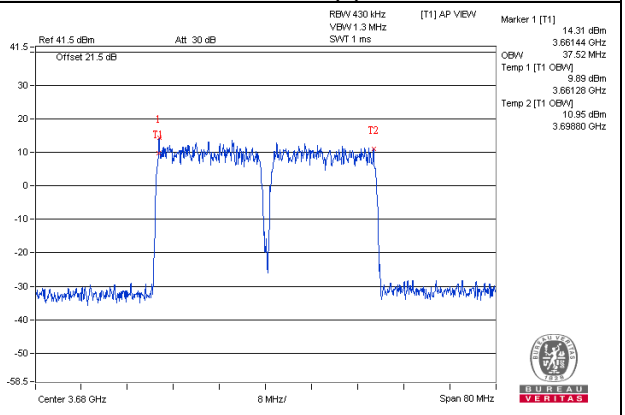
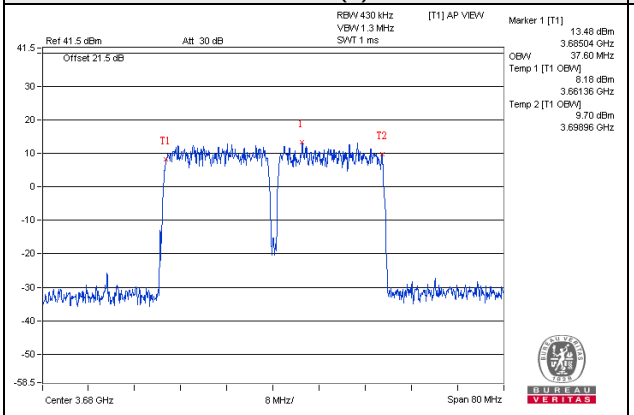
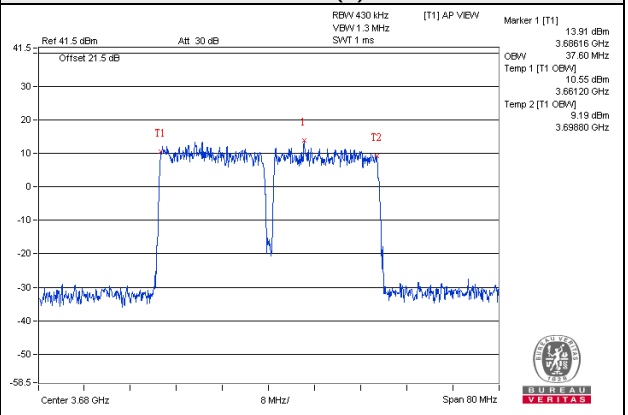
2-Carriers (20MHz+20MHz):

Spectrum Plot Of Worst Value	
Low	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
Middle	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)
	

256QAM	
Chain (0)	Chain (1)
	

Spectrum Plot Of Worst Value	
High	
QPSK	
Chain (0)	Chain (1)
	
16QAM	
Chain (0)	Chain (1)
	
64QAM	
Chain (0)	Chain (1)