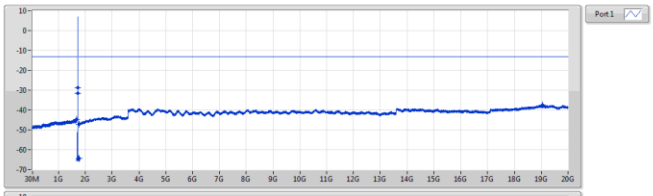
Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

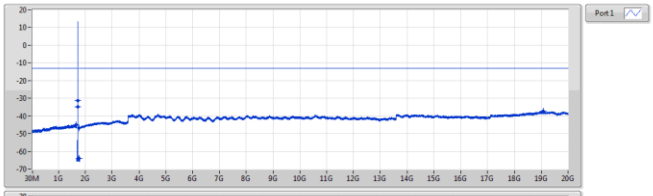
1720MHz_16QAM_RB 6,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.66224G	-44.81	-13.00	-31.81	1	-	-
1.67G	1.709G	22k	68k	RMS	1.7085G	-28.88	-13.00	-15.88	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70998G	-31.48	-13.00	-18.48	1	-	-
1.755G	1.756G	22k	68k	RMS	1.75503G	-64.50	-13.00	-51.50	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7715G	-47.05	-13.00	-34.05	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.04545G	-37.50	-13.00	-24.50	1	-	-

Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

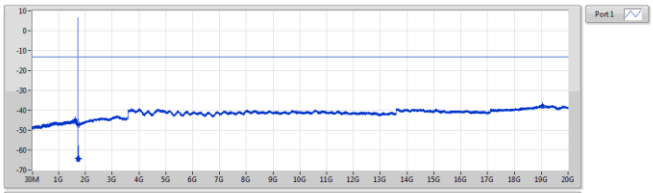
1720MHz_16QAM_RB 1,#RB 0,NB 0



F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.64578G	-44.91	-13.00	-31.91	1	-	-
1.67G	1.709G	22k	68k	RMS	1.7085G	-31.26	-13.00	-18.26	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70998G	-34.78	-13.00	-21.78	1	-	-
1.755G	1.756G	22k	68k	RMS	1.7553G	-64.17	-13.00	-51.17	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7765G	-46.79	-13.00	-33.79	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.08368G	-37.45	-13.00	-24.45	1	-	-

Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

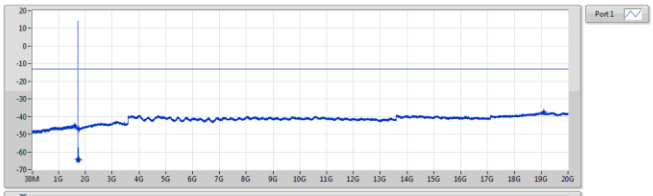
1732.5MHz_16QAM_RB 6,#RB 0,NB 0

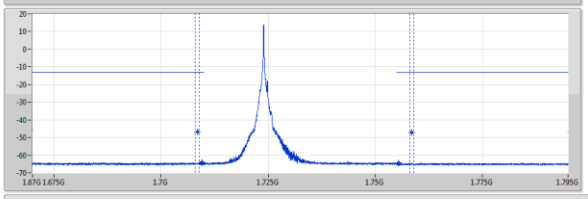


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.63742G	-44.76	-13.00	-31.76	1	-	-
1.67G	1.709G	22k	68k	RMS	1.7075G	-46.83	-13.00	-33.83	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70958G	-64.21	-13.00	-51.21	1	-	-
1.755G	1.756G	22k	68k	RMS	1.75553G	-64.39	-13.00	-51.39	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7745G	-47.05	-13.00	-34.05	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.05698G	-37.36	-13.00	-24.36	1	-	-

Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

1732.5MHz_16QAM_RB 1,#RB 0,NB 0

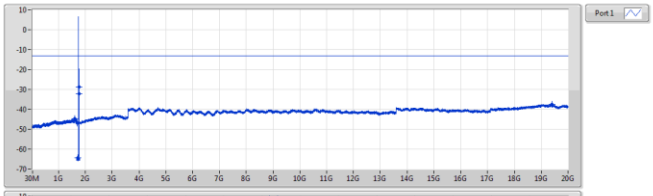


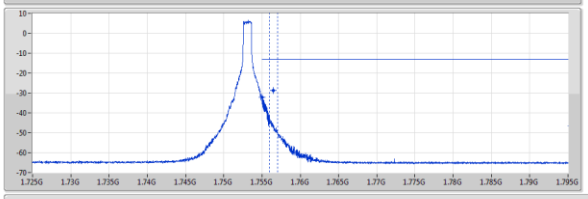


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.59478G	-44.89	-13.00	-31.89	1	-	-
1.67G	1.709G	22k	68k	RMS	1.7085G	-46.85	-13.00	-33.85	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70953G	-64.03	-13.00	-51.03	1	-	-
1.755G	1.756G	22k	68k	RMS	1.75541G	-64.39	-13.00	-51.39	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7585G	-47.06	-13.00	-34.06	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.09885G	-37.40	-13.00	-24.40	1	-	-

Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

1745MHz_16QAM_RB 6,#RB 0,NB 15

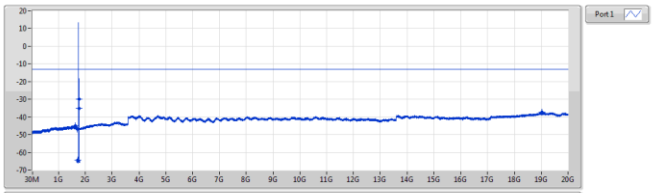


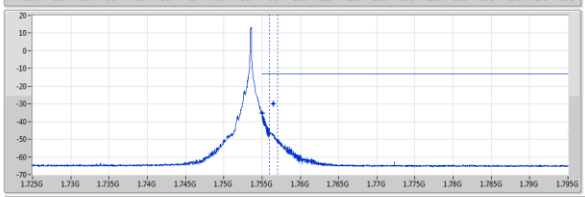


F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.6103G	-44.83	-13.00	-31.83	1	-	-
1.67G	1.709G	22k	68k	RMS	1.6865G	-46.89	-13.00	-33.89	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70988G	-64.34	-13.00	-51.34	1	-	-
1.755G	1.756G	22k	68k	RMS	1.75501G	-32.19	-13.00	-19.19	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7565G	-28.62	-13.00	-15.62	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.4053G	-37.58	-13.00	-24.58	1	-	-

Band 4_LTE-M1_20MHz_Nss1_1TX **CSE-TX**

1745MHz_16QAM_RB 1,#RB 5,NB 15





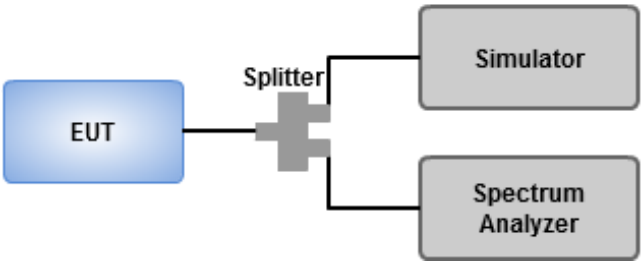
F-Start(Hz)	F-Stop(Hz)	RBW(Hz)	VBW(Hz)	Detector	Freq(Hz)	Level(dBm)	Limit(dBm)	Margin(dB)	Port	Remark	Ref.Limit(dB)
30M	1.67G	1M	3M	RMS	1.63725G	-44.87	-13.00	-31.87	1	-	-
1.67G	1.709G	22k	68k	RMS	1.7055G	-46.88	-13.00	-33.88	1	MBW 1M	-
1.709G	1.71G	22k	68k	RMS	1.70984G	-64.21	-13.00	-51.21	1	-	-
1.755G	1.756G	22k	68k	RMS	1.75501G	-35.19	-13.00	-22.19	1	-	-
1.756G	1.795G	22k	68k	RMS	1.7565G	-30.07	-13.00	-17.07	1	MBW 1M	-
1.795G	20G	1M	3M	RMS	19.01936G	-37.44	-13.00	-24.44	1	-	-

3.4 Occupied Bandwidth

3.4.1 Test Procedures

1. Set resolution bandwidth (RBW) = 22 kHz, Video bandwidth = 68 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, Allow the trace to stabilize.
4. Using occupied bandwidth measurement function of spectrum analyzer to measure occupied bandwidth.

3.4.2 Test Setup



3.4.3 Test Result of Occupied Bandwidth

Summary

Mode	Max-OBW	ITU-Code	Min-OBW
	(Hz)		(Hz)
Band 4_LTE-M1_1.4MHz_Nss1_1TX_RB 6	1.093M	1M09	1.084M
Band 4_LTE-M1_3MHz_Nss1_1TX_RB 6	1.106M	1M11	1.095M
Band 4_LTE-M1_5MHz_Nss1_1TX_RB 6	1.114M	1M11	1.094M
Band 4_LTE-M1_10MHz_Nss1_1TX_RB 6	1.157M	1M16	1.105M
Band 4_LTE-M1_15MHz_Nss1_1TX_RB 6	1.135M	1M14	1.109M
Band 4_LTE-M1_20MHz_Nss1_1TX_RB 6	1.152M	1M15	1.121M

Max-N dB = Maximum 26dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 26dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

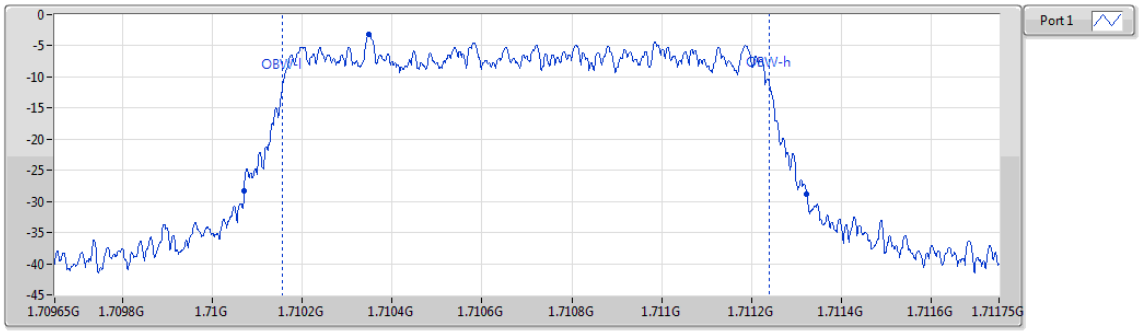
Mode	Result	Limit (Hz)	Port 1-NdB (Hz)	Port 1-OBW (Hz)
LTE-M1_1.4MHz_Nss1_1TX	-	-	-	-
1710.7MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.252M	1.084M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.276M	1.09M
1754.3MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.437M	1.085M
1710.7MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.471M	1.087M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.355M	1.093M
1754.3MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.514M	1.088M
LTE-M1_3MHz_Nss1_1TX	-	-	-	-
1711.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.449M	1.095M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.467M	1.1M
1753.5MHz_QPSK_RB 6,#RB 0,NB 1	Pass	Inf	1.406M	1.096M
1711.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.535M	1.102M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.546M	1.106M
1753.5MHz_16QAM_RB 6,#RB 0,NB 1	Pass	Inf	1.541M	1.098M
LTE-M1_5MHz_Nss1_1TX	-	-	-	-
1712.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.361M	1.094M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.433M	1.104M
1752.5MHz_QPSK_RB 6,#RB 0,NB 3	Pass	Inf	1.44M	1.098M
1712.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.414M	1.109M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.676M	1.114M
1752.5MHz_16QAM_RB 6,#RB 0,NB 3	Pass	Inf	1.913M	1.108M
LTE-M1_10MHz_Nss1_1TX	-	-	-	-
1715MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.515M	1.105M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.493M	1.113M

Mode	Result	Limit (Hz)	Port 1-NdB (Hz)	Port 1-OBW (Hz)
1750MHz_QPSK_RB 6,#RB 0,NB 7	Pass	Inf	1.673M	1.114M
1715MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.725M	1.112M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	2.033M	1.157M
1750MHz_16QAM_RB 6,#RB 0,NB 7	Pass	Inf	1.785M	1.116M
LTE-M1_15MHz_Nss1_1TX	-	-	-	-
1717.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.755M	1.126M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.8M	1.118M
1747.5MHz_QPSK_RB 6,#RB 0,NB 11	Pass	Inf	1.553M	1.109M
1717.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	2.003M	1.135M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	2.036M	1.134M
1747.5MHz_16QAM_RB 6,#RB 0,NB 11	Pass	Inf	1.586M	1.129M
LTE-M1_20MHz_Nss1_1TX	-	-	-	-
1720MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.515M	1.128M
1732.5MHz_QPSK_RB 6,#RB 0,NB 0	Pass	Inf	1.665M	1.121M
1745MHz_QPSK_RB 6,#RB 0,NB 15	Pass	Inf	1.635M	1.122M
1720MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	1.815M	1.135M
1732.5MHz_16QAM_RB 6,#RB 0,NB 0	Pass	Inf	2.16M	1.152M
1745MHz_16QAM_RB 6,#RB 0,NB 15	Pass	Inf	2.04M	1.135M

Port X-N dB = Port **X** 26dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

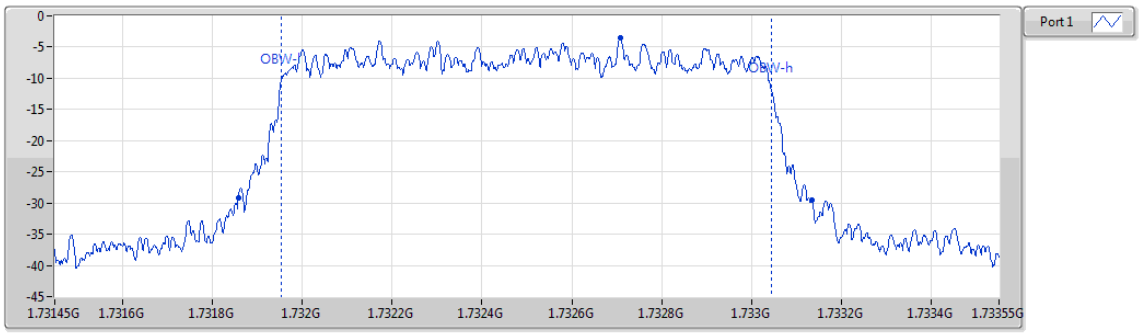
1710.7MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.252M	1.710071G	1.711323G	1.084M	1.710156G	1.71124G	1	1.7107G	2.1M	22k	68k

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

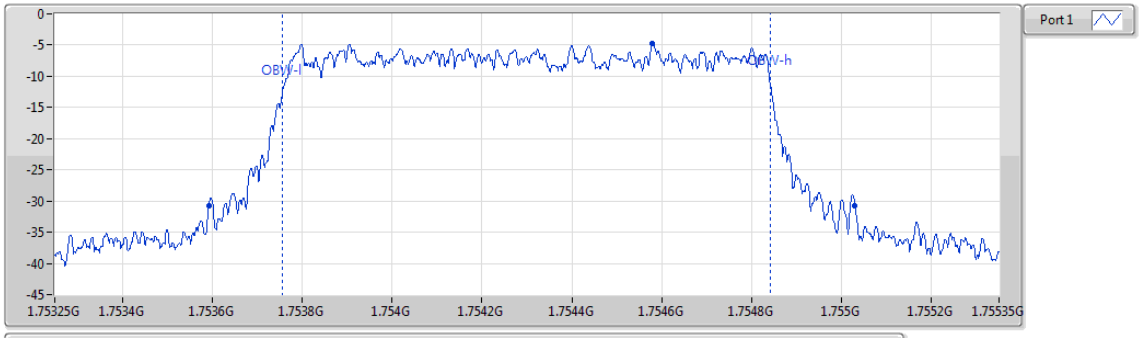
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.276M	1.731858G	1.733134G	1.09M	1.731953G	1.733043G	1	1.7325G	2.1M	22k	68k

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

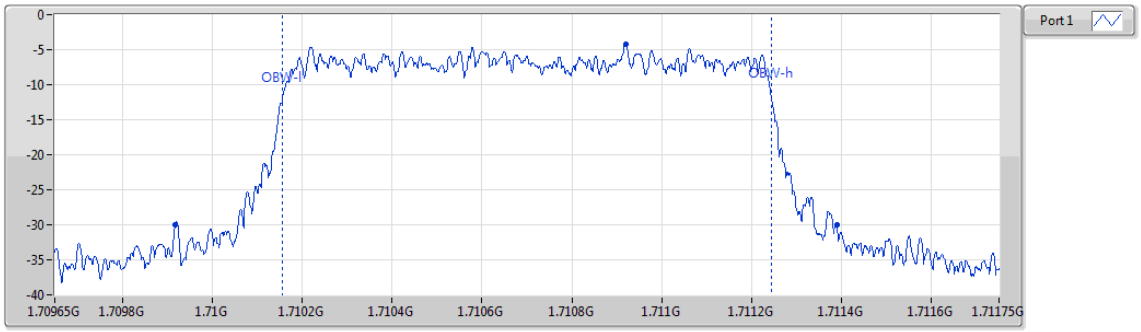
1754.3MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.437M	1.753592G	1.75503G	1.085M	1.753756G	1.754841G	1	1.7543G	2.1M	22k	68k

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

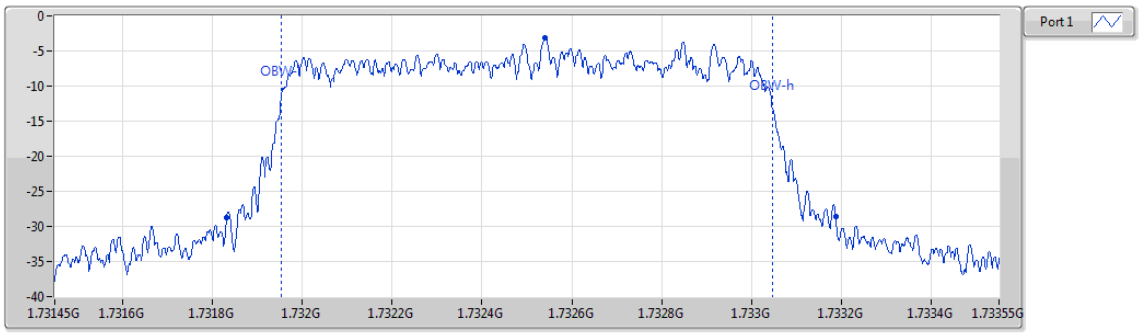
1710.7MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.471M	1.709918G	1.711389G	1.087M	1.710156G	1.711243G	1	1.7107G	2.1M	22k	68k

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

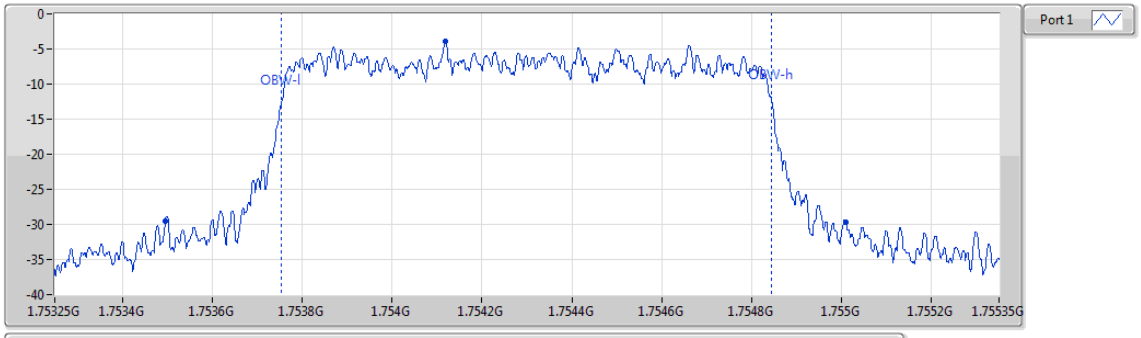
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.355M	1.731832G	1.733187G	1.093M	1.731953G	1.733046G	1	1.7325G	2.1M	22k	68k

Band 4_LTE-M1_1.4MHz_Nss1_1TX **EBW**

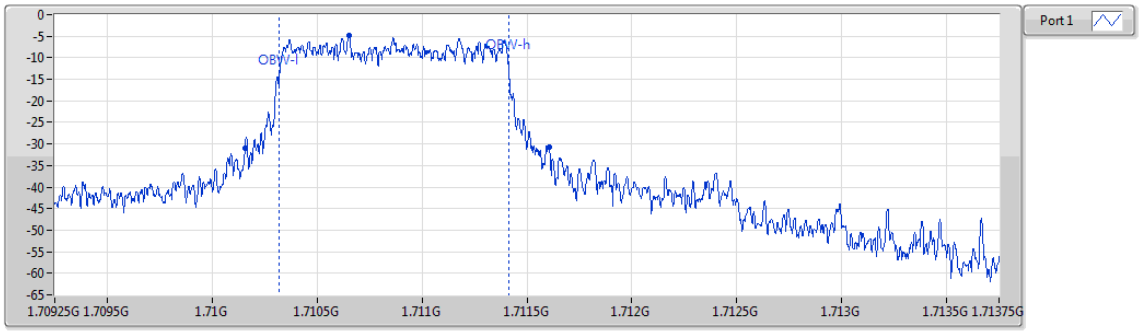
1754.3MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.514M	1.753496G	1.75501G	1.088M	1.753754G	1.754843G	1	1.7543G	2.1M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

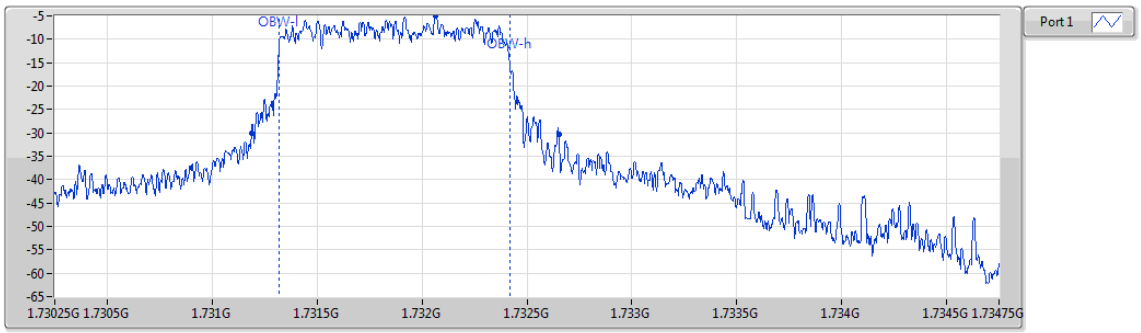
1711.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.449M	1.710157G	1.711606G	1.095M	1.710318G	1.711413G	1	1.7115G	4.5M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

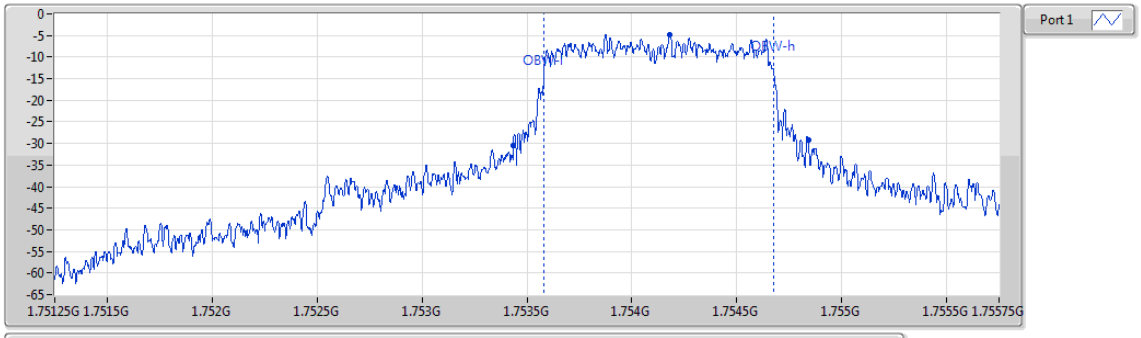
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.467M	1.731186G	1.732653G	1.1M	1.731318G	1.732418G	1	1.7325G	4.5M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

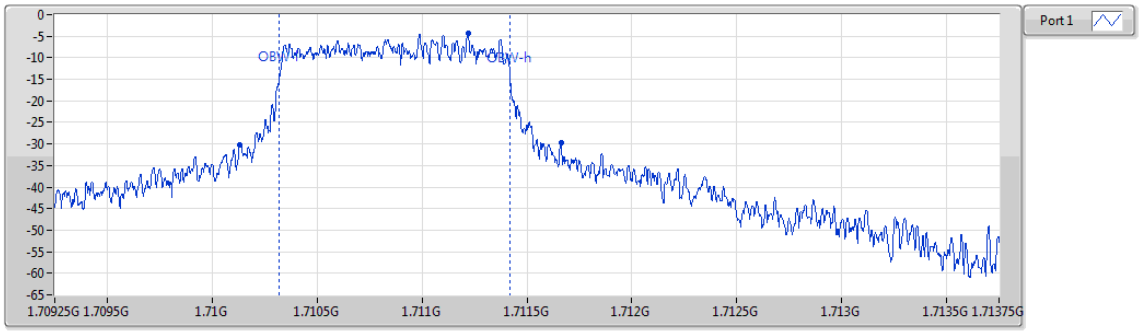
1753.5MHz_QPSK_RB 6,#RB 0,NB 1



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.406M	1.753435G	1.754841G	1.096M	1.75358G	1.754675G	1	1.7535G	4.5M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

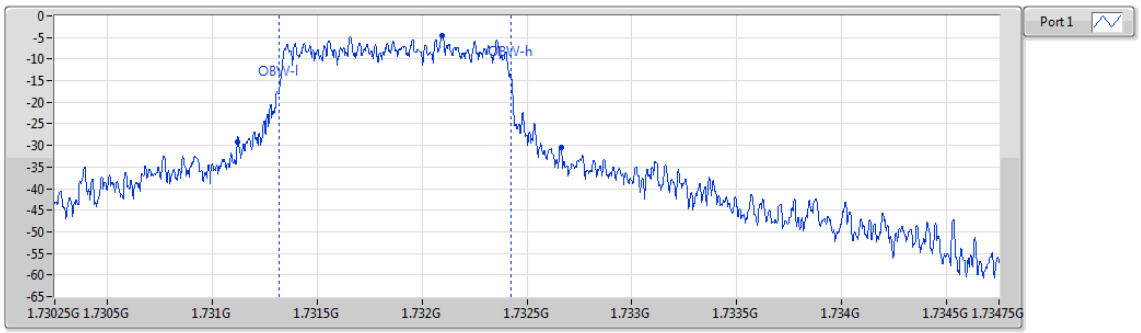
1711.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.535M	1.71013G	1.711664G	1.102M	1.710319G	1.711421G	1	1.7115G	4.5M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

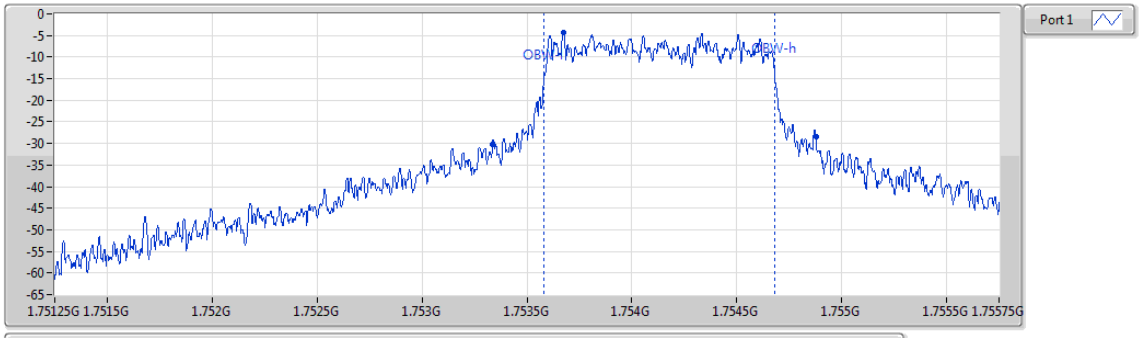
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.546M	1.731119G	1.732664G	1.106M	1.731317G	1.732423G	1	1.7325G	4.5M	22k	68k

Band 4_LTE-M1_3MHz_Nss1_1TX **EBW**

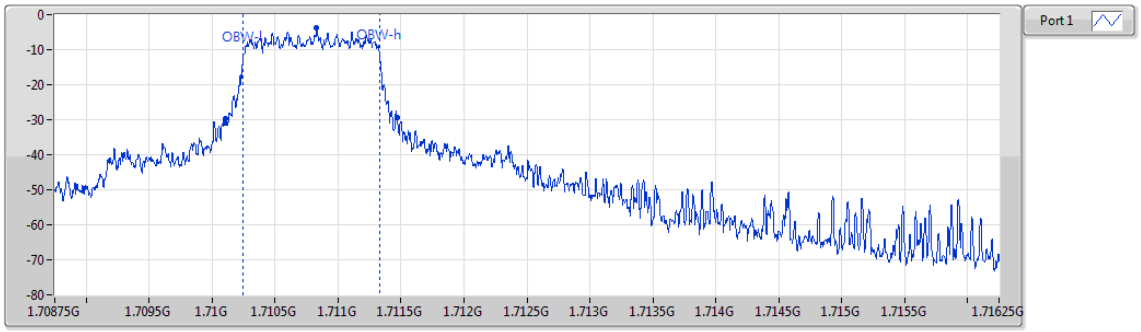
1753.5MHz_16QAM_RB 6,#RB 0,NB 1



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.541M	1.753336G	1.754877G	1.098M	1.753581G	1.754679G	1	1.7535G	4.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

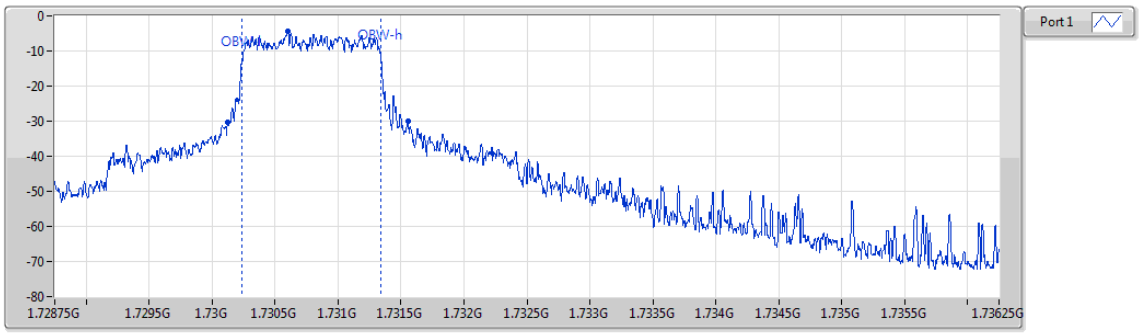
1712.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.361M	1.710108G	1.711469G	1.094M	1.710241G	1.711335G	1	1.7125G	7.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

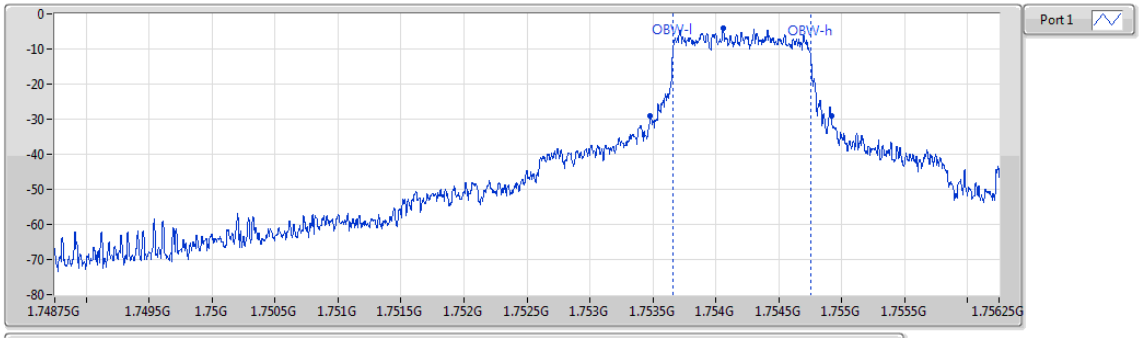
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.433M	1.730123G	1.731555G	1.104M	1.730239G	1.731342G	1	1.7325G	7.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

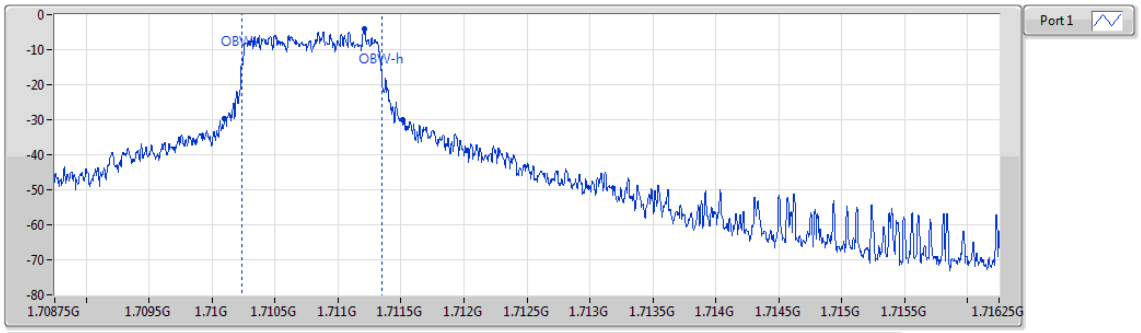
1752.5MHz_QPSK_RB 6,#RB 0,NB 3



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.44M	1.753479G	1.754919G	1.098M	1.753658G	1.754755G	1	1.7525G	7.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

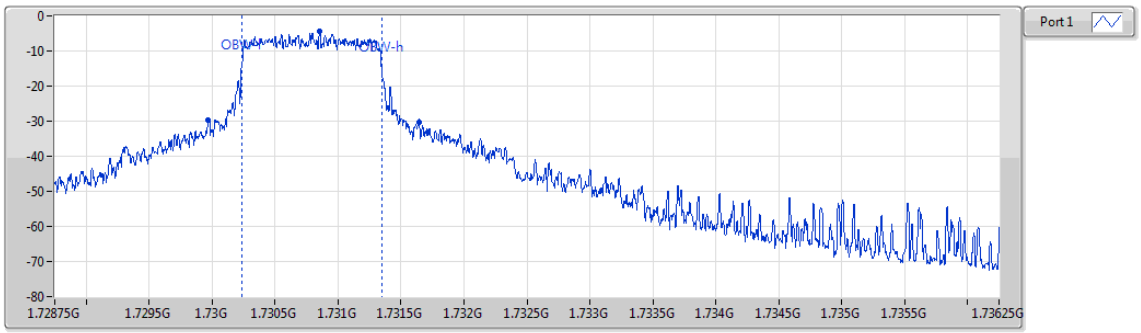
1712.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.414M	1.7101G	1.711514G	1.109M	1.710239G	1.711348G	1	1.7125G	7.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

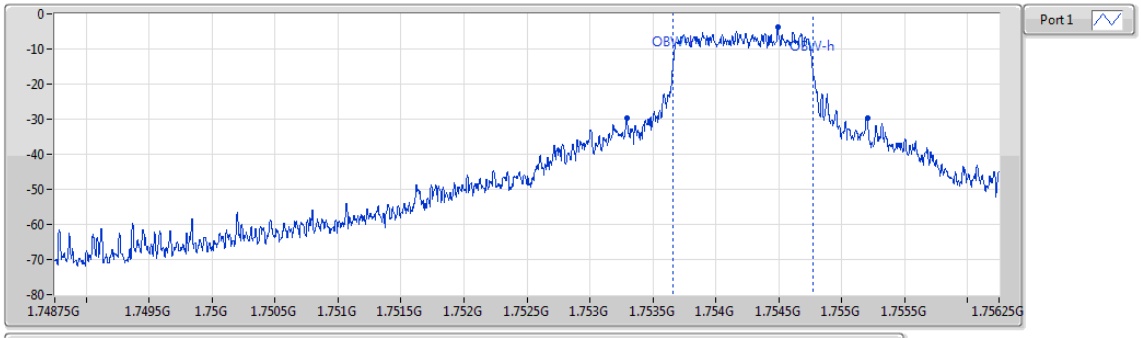
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.676M	1.729969G	1.731645G	1.114M	1.730235G	1.731349G	1	1.7325G	7.5M	22k	68k

Band 4_LTE-M1_5MHz_Nss1_1TX **EBW**

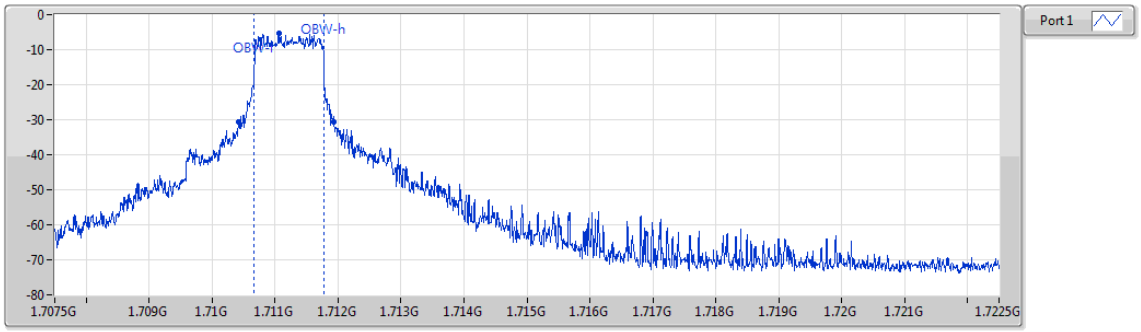
1752.5MHz_16QAM_RB 6,#RB 0,NB 3



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.913M	1.753291G	1.755204G	1.108M	1.753661G	1.754769G	1	1.7525G	7.5M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

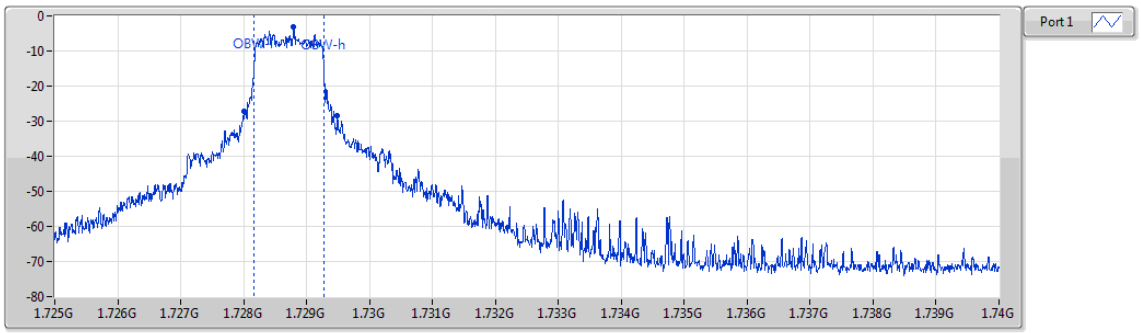
1715MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.515M	1.710425G	1.71194G	1.105M	1.710666G	1.711771G	1	1.715G	15M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

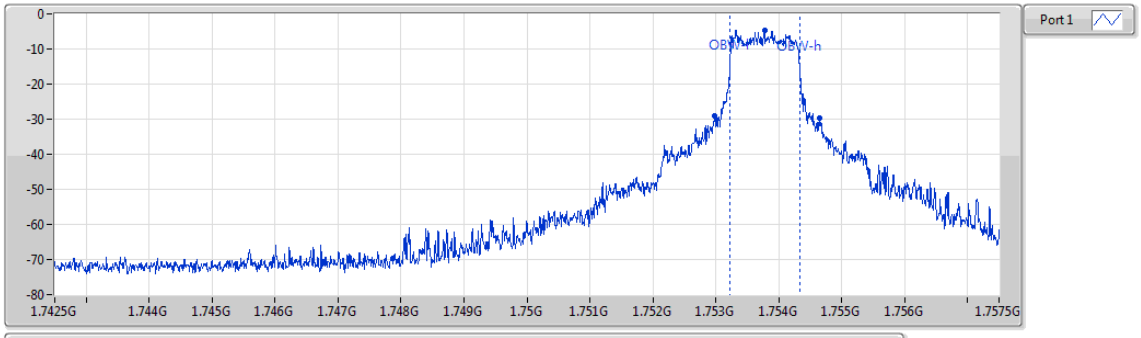
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.493M	1.728G	1.729493G	1.113M	1.728162G	1.729276G	1	1.7325G	15M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

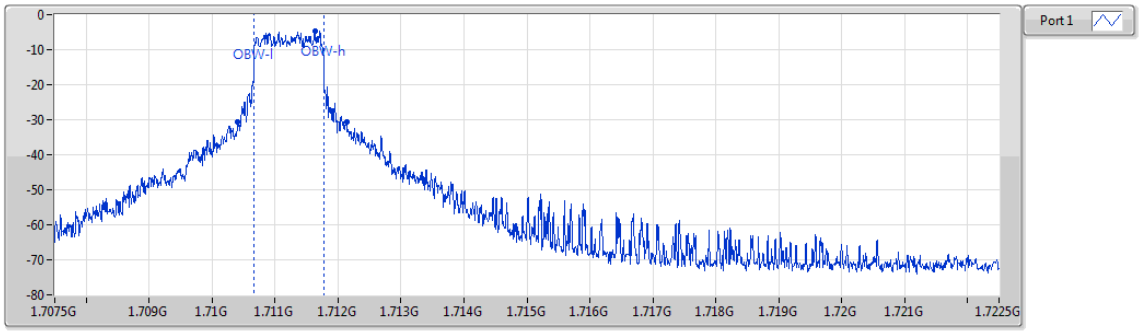
1750MHz_QPSK_RB 6,#RB 0,NB 7



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.673M	1.752978G	1.75465G	1.114M	1.753221G	1.754335G	1	1.75G	15M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

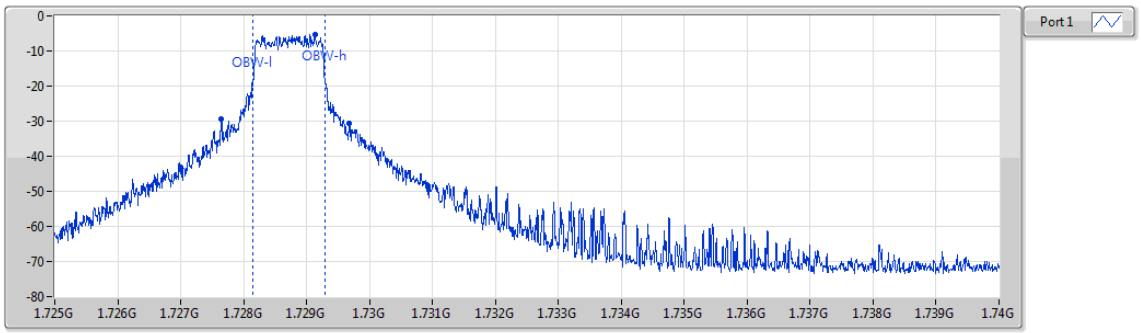
1715MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.725M	1.71041G	1.712135G	1.112M	1.71066G	1.711772G	1	1.715G	15M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

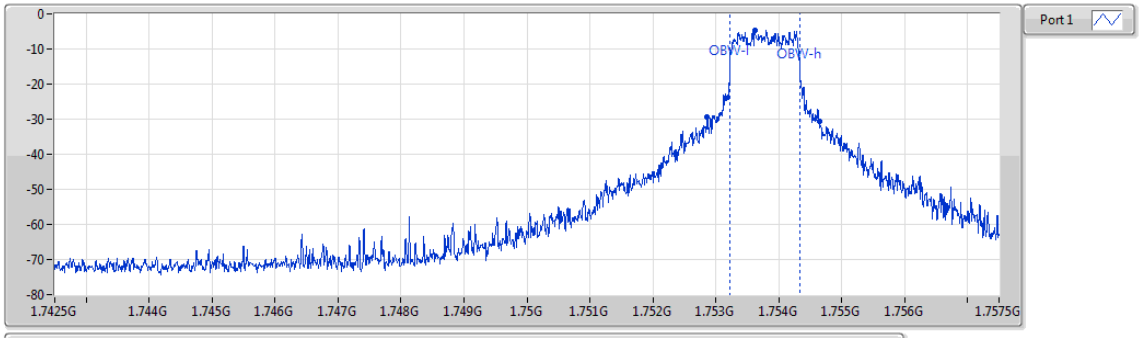
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
2.033M	1.727648G	1.72968G	1.157M	1.728139G	1.729295G	1	1.7325G	15M	22k	68k

Band 4_LTE-M1_10MHz_Nss1_1TX **EBW**

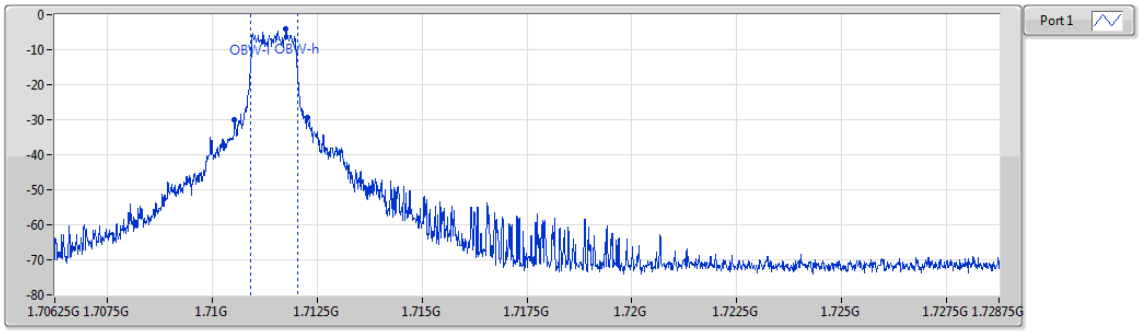
1750MHz_16QAM_RB 6,#RB 0,NB 7



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.785M	1.752865G	1.75465G	1.116M	1.753225G	1.75434G	1	1.75G	15M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

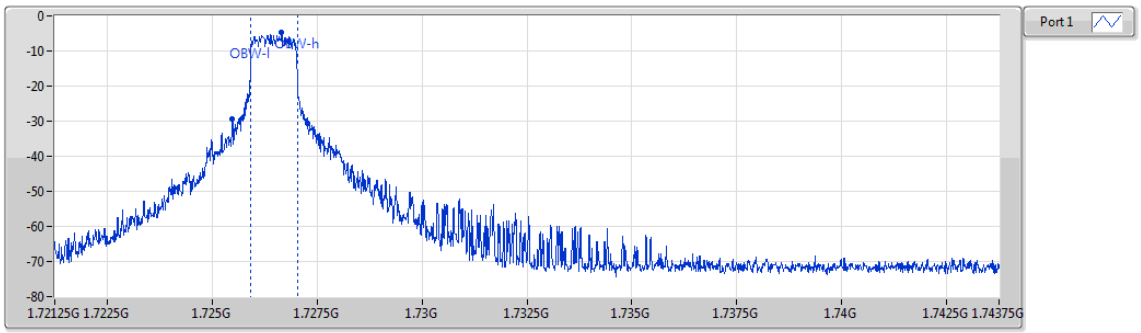
1717.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.755M	1.710525G	1.71228G	1.126M	1.710906G	1.712032G	1	1.7175G	22.5M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

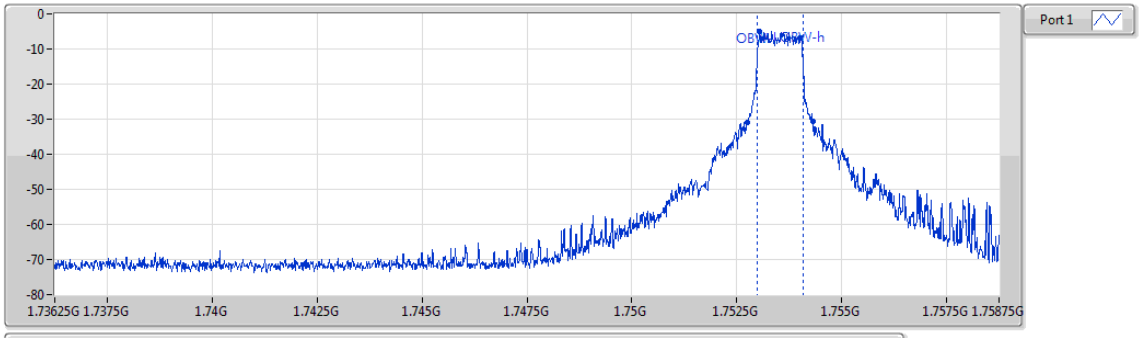
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.8M	1.72548G	1.72728G	1.118M	1.725908G	1.727026G	1	1.7325G	22.5M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

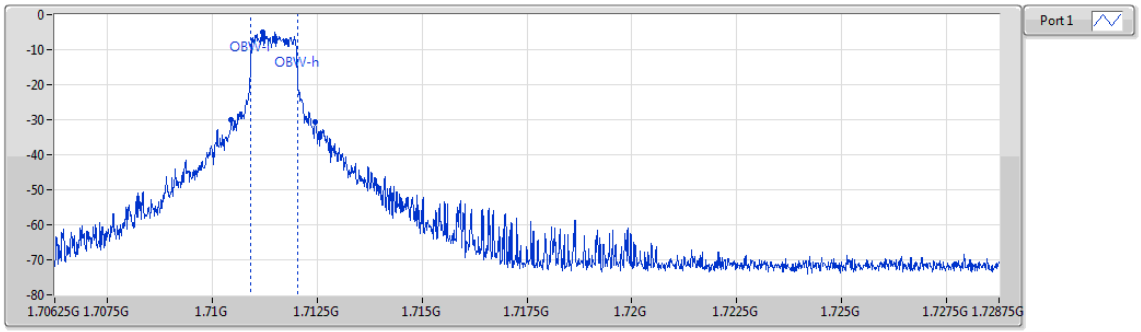
1747.5MHz_QPSK_RB 6,#RB 0,NB 11



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.553M	1.752765G	1.754318G	1.109M	1.752975G	1.754084G	1	1.7475G	22.5M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

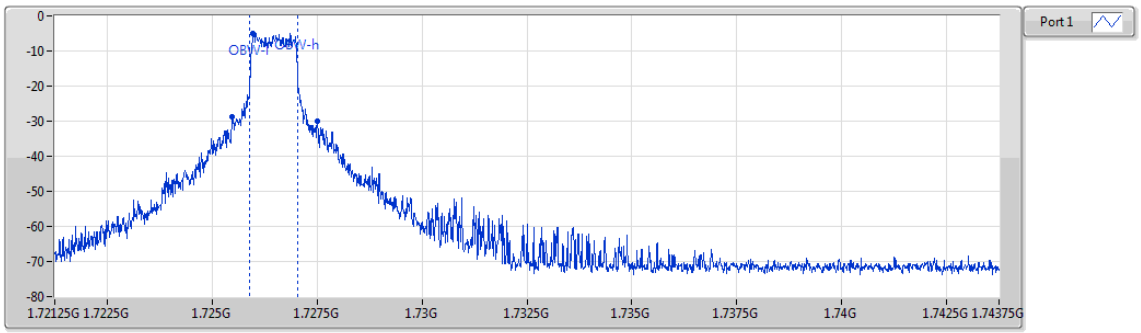
1717.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
2.003M	1.710458G	1.71246G	1.135M	1.710904G	1.71204G	1	1.7175G	22.5M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

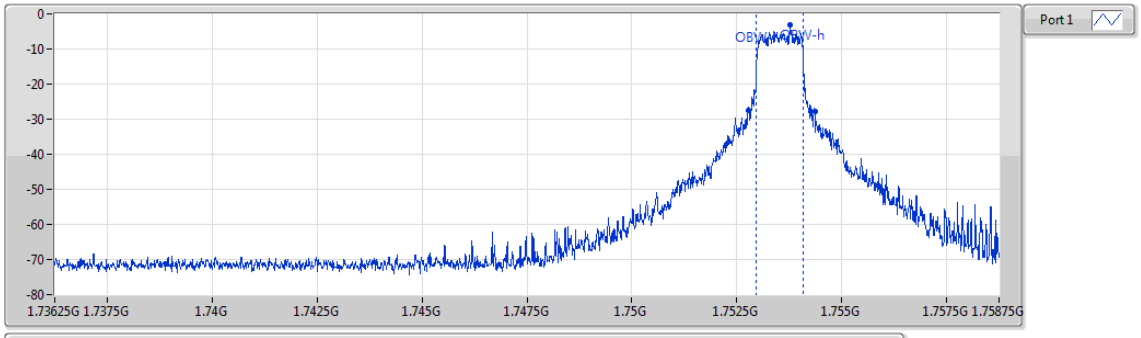
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
2.036M	1.72548G	1.727516G	1.134M	1.725902G	1.727036G	1	1.7325G	22.5M	22k	68k

Band 4_LTE-M1_15MHz_Nss1_1TX **EBW**

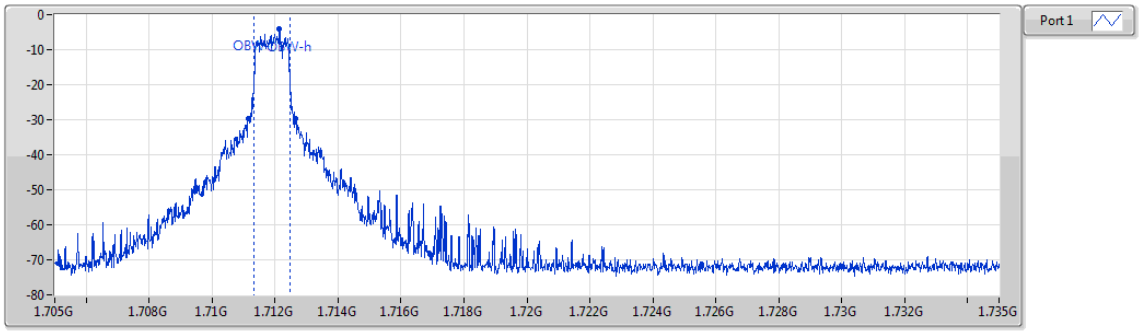
1747.5MHz_16QAM_RB 6,#RB 0,NB 11



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.586M	1.752776G	1.754363G	1.129M	1.752966G	1.754095G	1	1.7475G	22.5M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

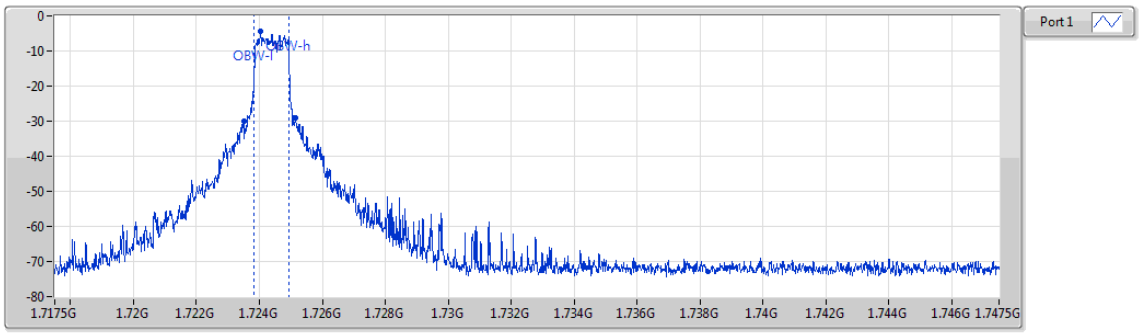
1720MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.515M	1.71115G	1.712665G	1.128M	1.711339G	1.712467G	1	1.72G	30M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

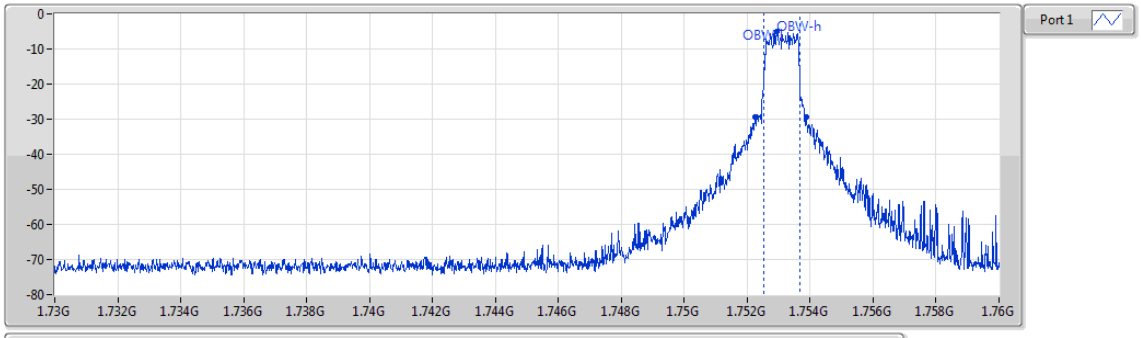
1732.5MHz_QPSK_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.665M	1.7235G	1.725165G	1.121M	1.723835G	1.724955G	1	1.7325G	30M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

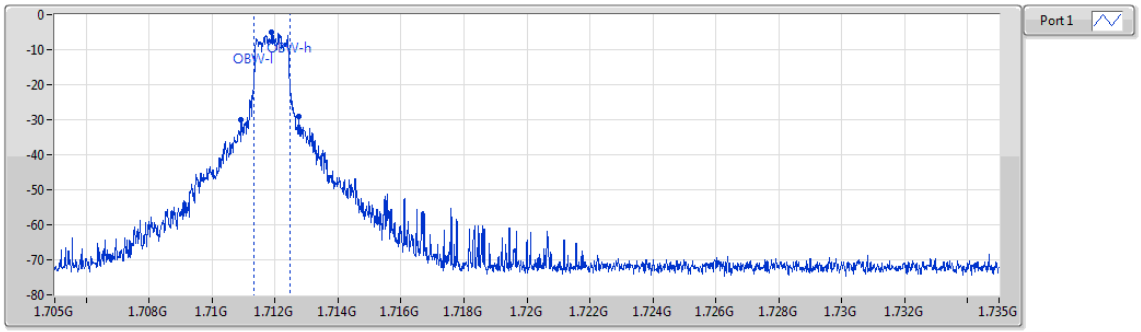
1745MHz_QPSK_RB 6,#RB 0,NB 15



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.635M	1.75226G	1.753895G	1.122M	1.752539G	1.753661G	1	1.745G	30M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

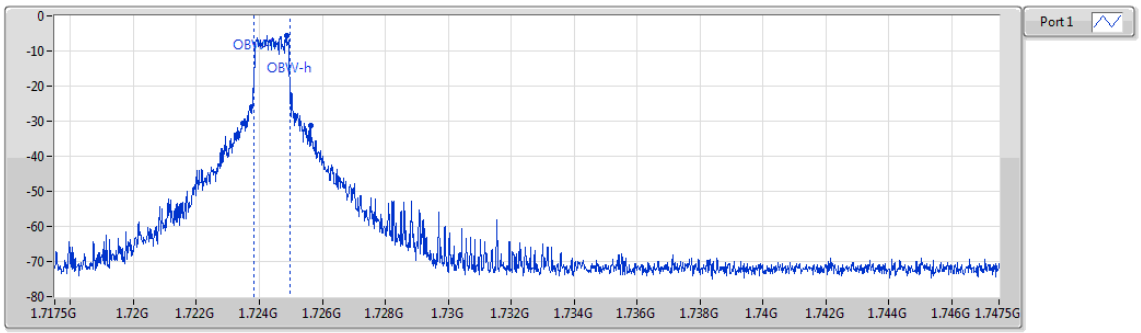
1720MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
1.815M	1.710925G	1.71274G	1.135M	1.711326G	1.712461G	1	1.72G	30M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

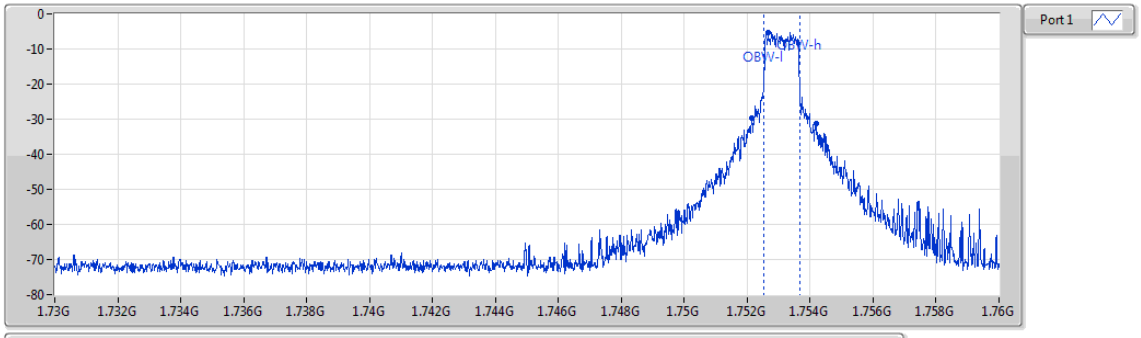
1732.5MHz_16QAM_RB 6,#RB 0,NB 0



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
2.16M	1.72347G	1.72563G	1.152M	1.723823G	1.724975G	1	1.7325G	30M	22k	68k

Band 4_LTE-M1_20MHz_Nss1_1TX **EBW**

1745MHz_16QAM_RB 6,#RB 0,NB 15



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Port	CF(Hz)	Span(Hz)	RBW(Hz)	VBW(Hz)
2.04M	1.75214G	1.75418G	1.135M	1.752524G	1.753659G	1	1.745G	30M	22k	68k

3.5 Peak to Average Ratio

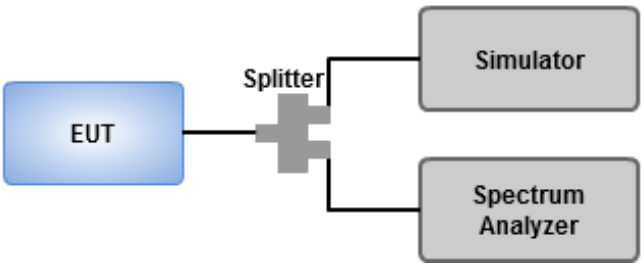
3.5.1 Limit of Peak to Average Ratio

The Peakto-average ratio (PAR) of the transmiss ion may not exceed 13 dB.

3.5.2 Test Procedures

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

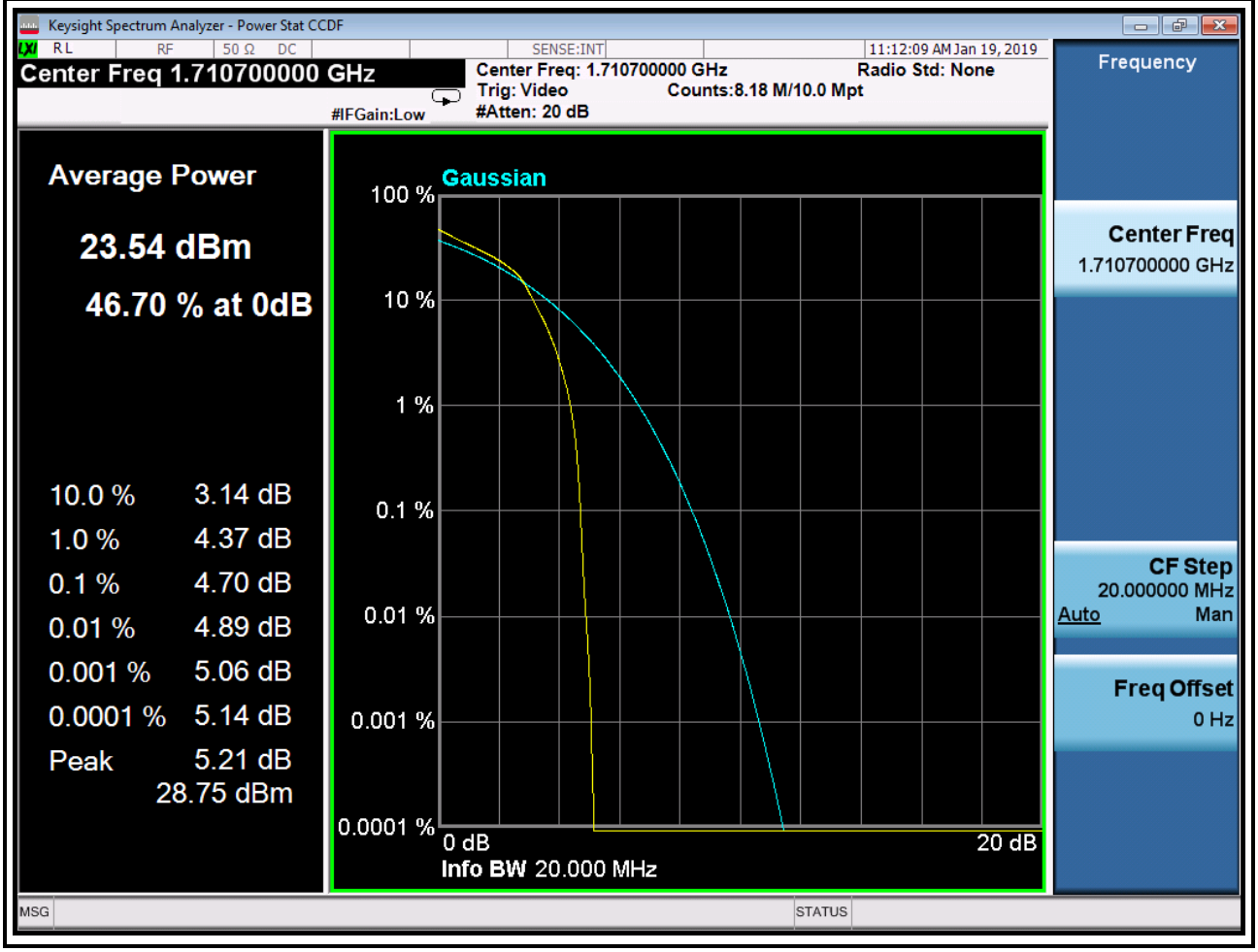
3.5.3 Test Setup



3.5.4 Test Result of Peak to Average Ratio

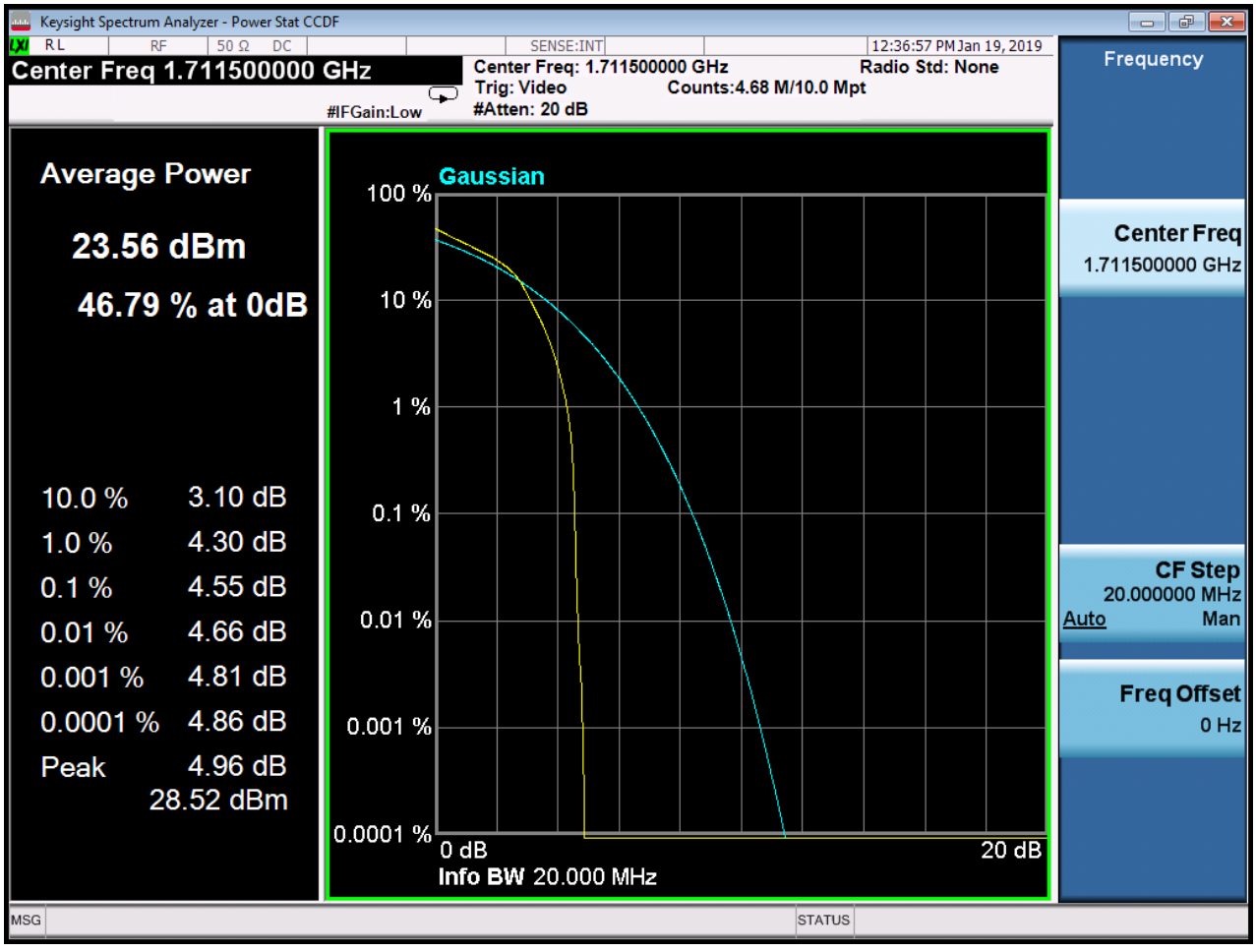
BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
1.4	QPSK	19957	1710.7	4.30
1.4	QPSK	20175	1732.5	4.15
1.4	QPSK	20393	1754.3	4.02
1.4	16QAM	19957	1710.7	4.70
1.4	16QAM	20175	1732.5	4.29
1.4	16QAM	20393	1754.3	4.22

Worst plot



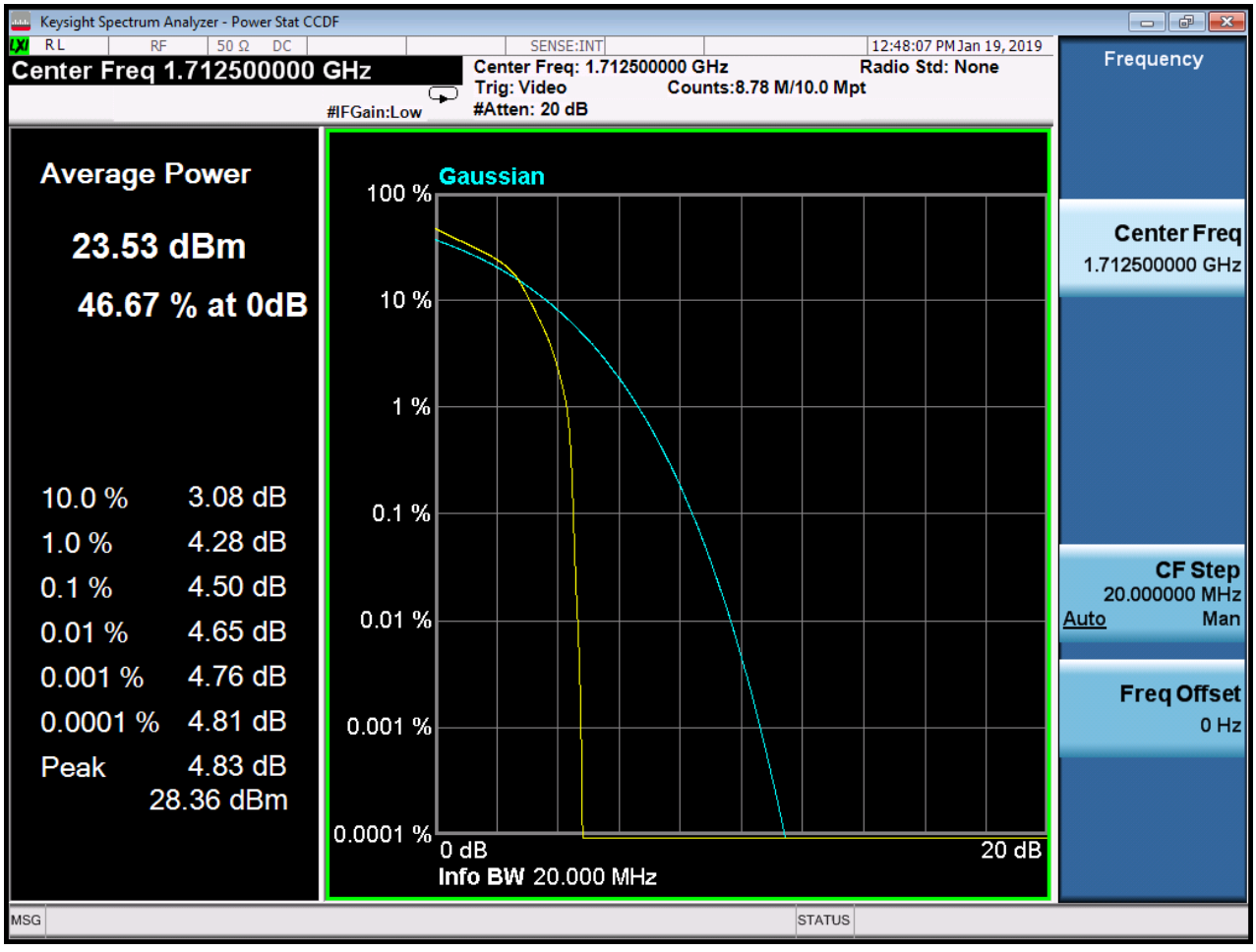
BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
3	QPSK	19965	1711.5	4.20
3	QPSK	20175	1732.5	3.99
3	QPSK	20385	1753.5	3.97
3	16QAM	19965	1711.5	4.55
3	16QAM	20175	1732.5	4.24
3	16QAM	20385	1753.5	4.22

Worst plot



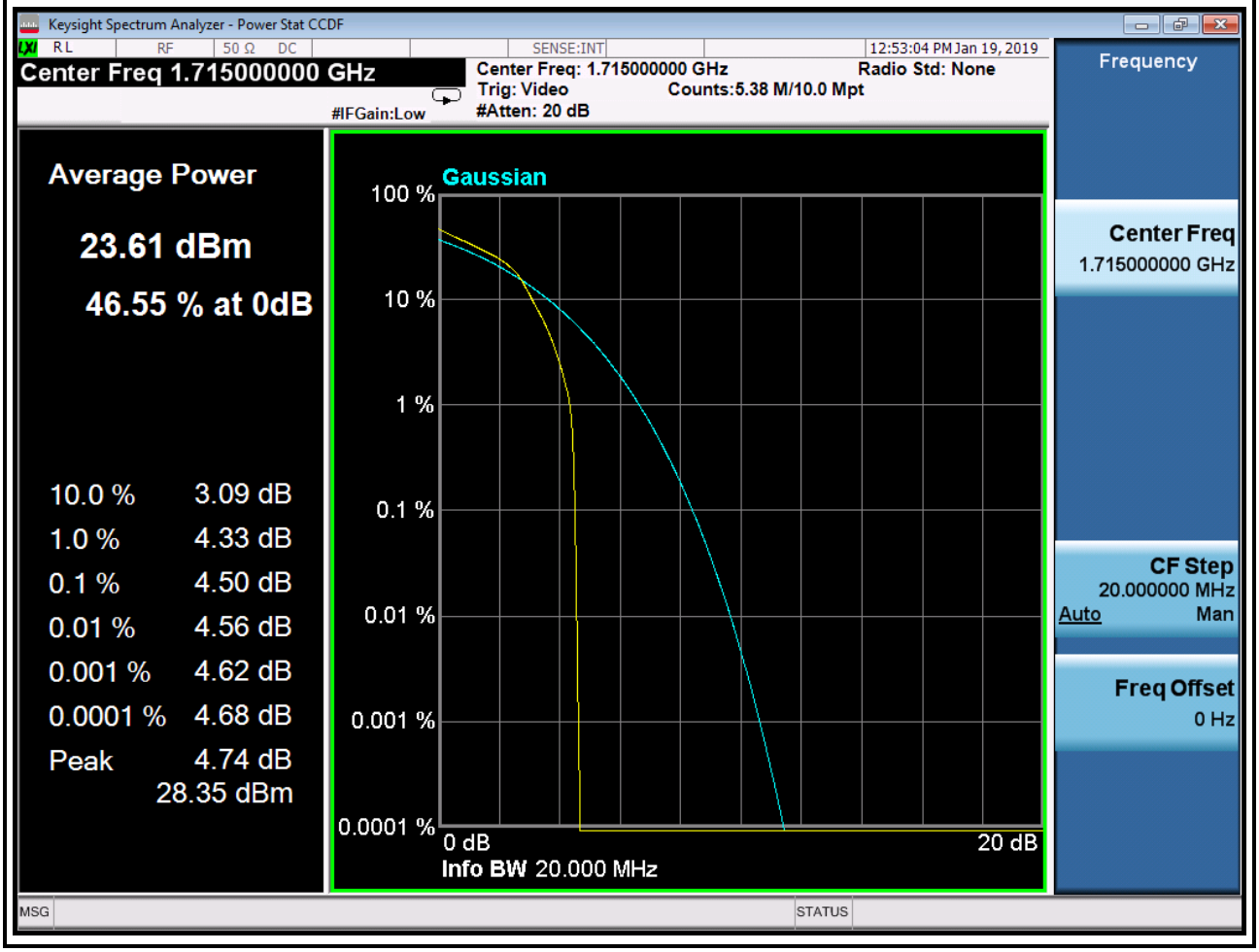
BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
5	QPSK	19975	1712.5	4.50
5	QPSK	20175	1732.5	4.09
5	QPSK	20375	1752.5	4.18
5	16QAM	19975	1712.5	4.18
5	16QAM	20175	1732.5	3.81
5	16QAM	20375	1752.5	3.82

Worst plot



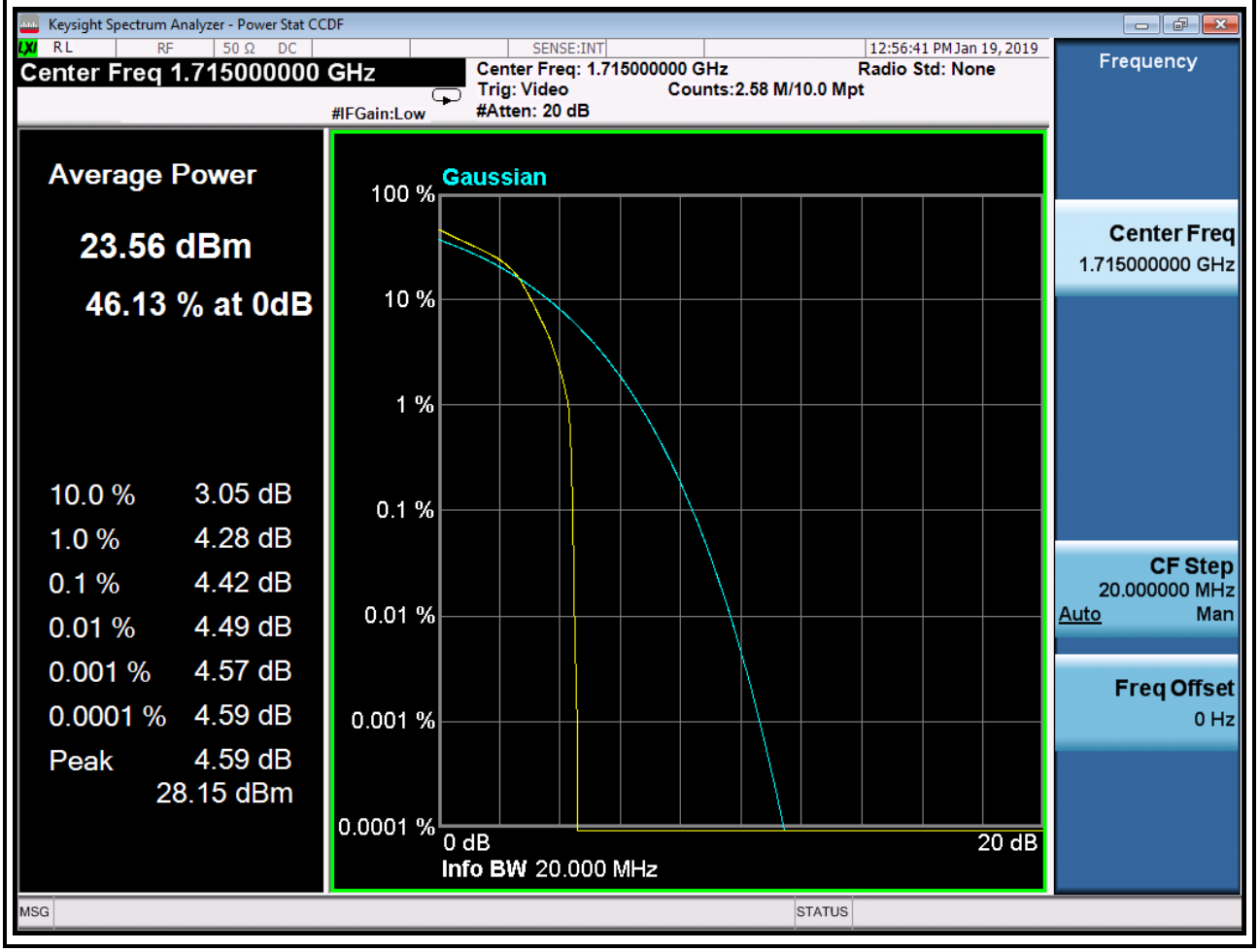
BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
10	QPSK	20000	1715.0	4.09
10	QPSK	20175	1732.5	3.77
10	QPSK	20350	1750.0	3.75
10	16QAM	20000	1715.0	4.50
10	16QAM	20175	1732.5	4.11
10	16QAM	20350	1750.0	4.17

Worst plot



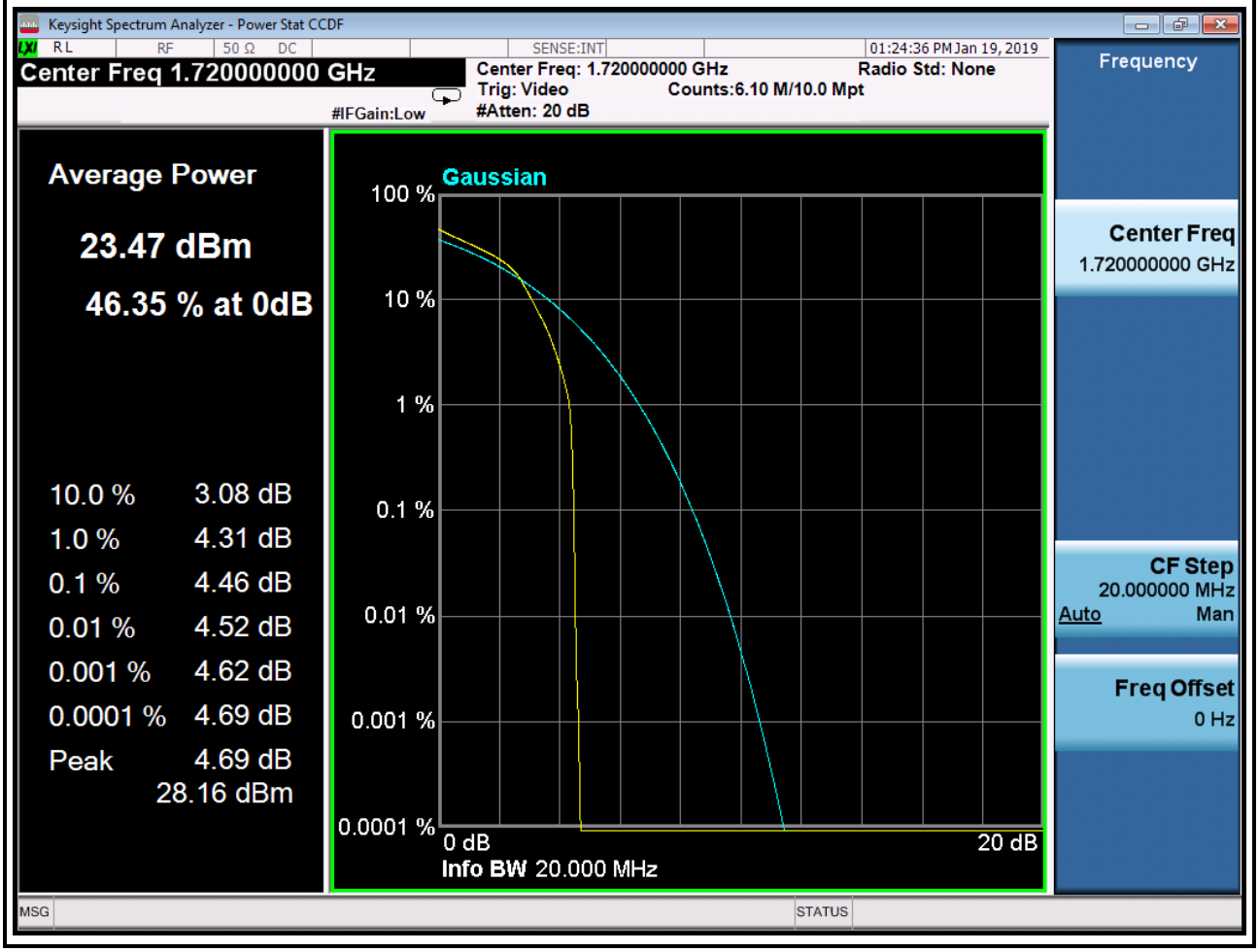
BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
15	QPSK	20025	1717.5	4.05
15	QPSK	20175	1732.5	3.73
15	QPSK	20325	1747.5	3.72
15	16QAM	20025	1717.5	4.42
15	16QAM	20175	1732.5	4.10
15	16QAM	20325	1747.5	4.14

Worst plot



BW (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average Ratio (dB)
20	QPSK	20050	1720.0	4.03
20	QPSK	20175	1732.5	3.75
20	QPSK	20300	1745.0	3.73
20	16QAM	20050	1720.0	4.46
20	16QAM	20175	1732.5	4.14
20	16QAM	20300	1745.0	4.13

Worst plot



3.6 Frequency Stability

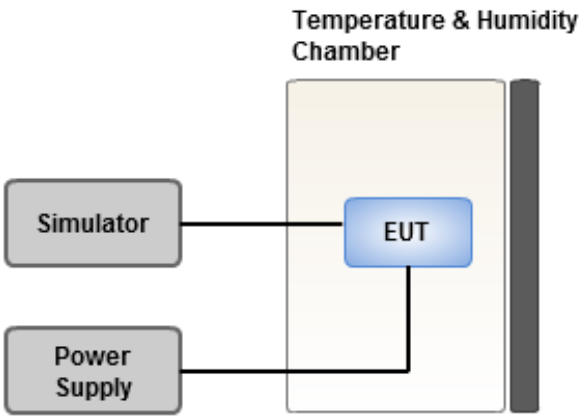
3.6.1 Limit of Frequency Stability

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.6.2 Test Procedures

1. EUT was placed at temperature chamber and connected to an external power supply.
2. Temperature and voltage condition shall be tested to confirm frequency stability.
3. The test shall be performed under normal and extreme condition for temperature and voltage.
4. Tem Link up EUT and simulator. Confirm frequency drift value of simulator and record it.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Temperature (°C)	Frequency Drift (ppm)					
	CB: 1.4MHz	CB: 3MHz	CB: 5MHz	CB: 10MHz	CB: 15MHz	CB: 20MHz
T20°CVmax	-0.01	-0.011	-0.011	-0.011	-0.012	-0.012
T20°CVmin	-0.011	-0.01	-0.011	-0.01	-0.012	-0.011
T75°CVnom	-0.022	-0.021	-0.02	-0.023	-0.023	-0.023
T70°CVnom	-0.021	-0.02	-0.019	-0.021	-0.022	-0.023
T60°CVnom	-0.019	-0.019	-0.018	-0.02	-0.017	-0.022
T50°CVnom	-0.018	-0.018	-0.017	-0.019	-0.016	-0.019
T40°CVnom	-0.018	-0.017	-0.017	-0.018	-0.015	-0.019
T30°CVnom	-0.015	-0.015	-0.016	-0.013	-0.013	-0.018
T20°CVnom	-0.011	-0.013	-0.013	-0.011	-0.012	-0.012
T10°CVnom	-0.01	-0.012	-0.012	-0.01	-0.011	-0.011
T0°CVnom	-0.01	-0.012	-0.011	-0.009	-0.011	-0.011
T-10°CVnom	-0.01	-0.011	-0.011	-0.009	-0.01	-0.011
T-20°CVnom	-0.009	-0.01	-0.01	-0.01	-0.01	-0.01
T-30°CVnom	-0.009	-0.01	-0.01	-0.011	-0.009	-0.01
T-35°CVnom	-0.008	-0.09	-0.009	-0.009	-0.009	-0.09
Vnom [V]: 3.6		Vmax [V]: 3.7		Vmin [V]: 2.45		
Tnom [°C]: 20		Tmax [°C]: 75		Tmin [°C]: -35		

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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