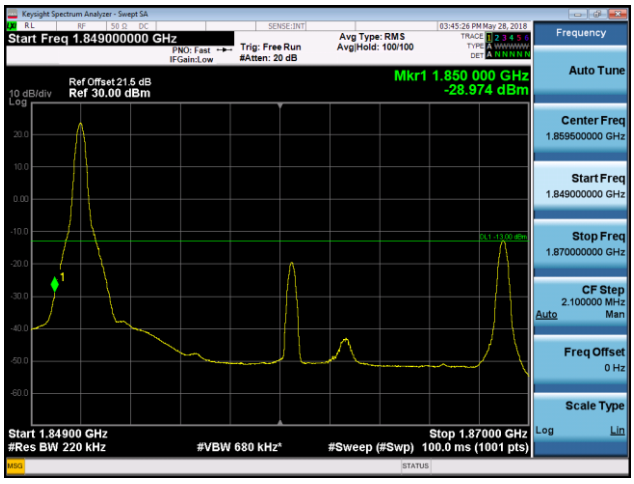
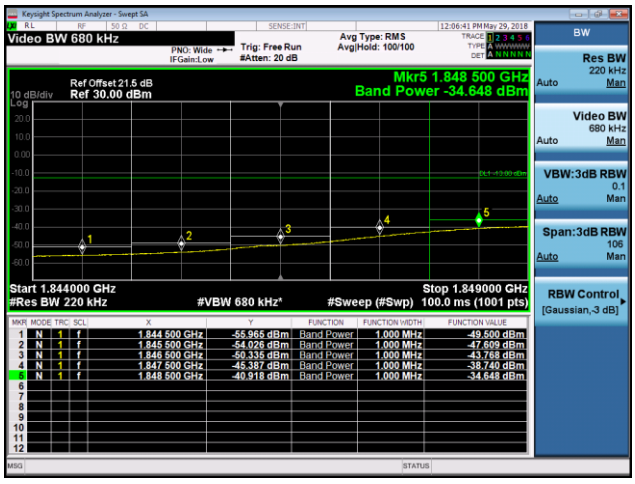
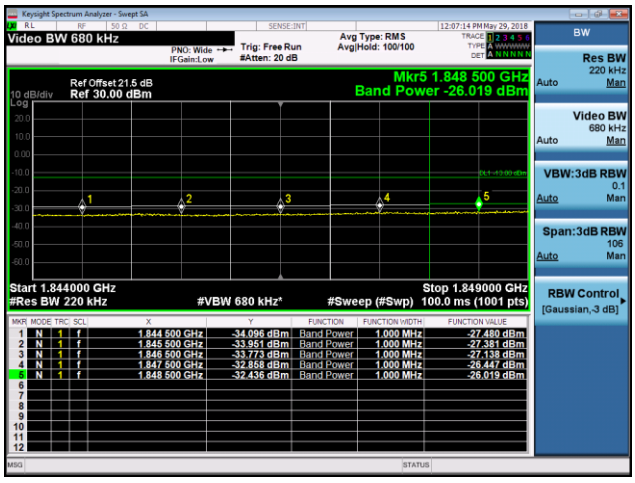
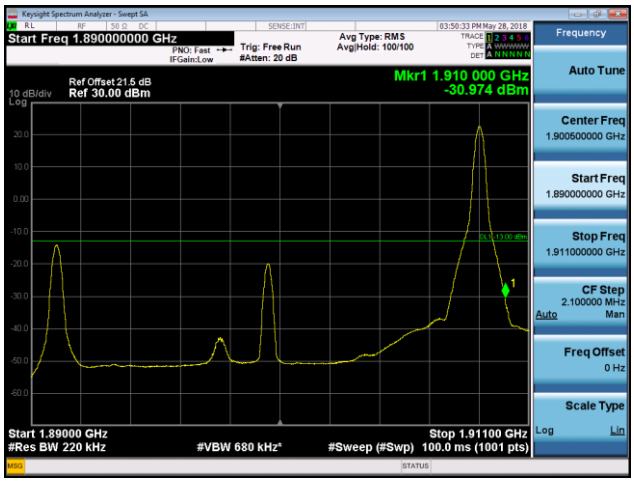
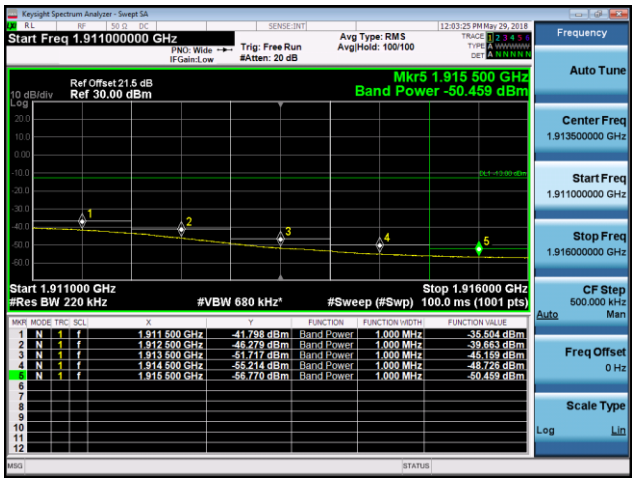
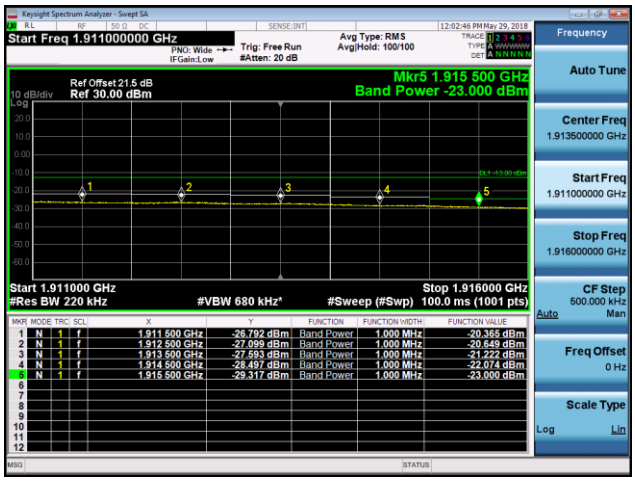
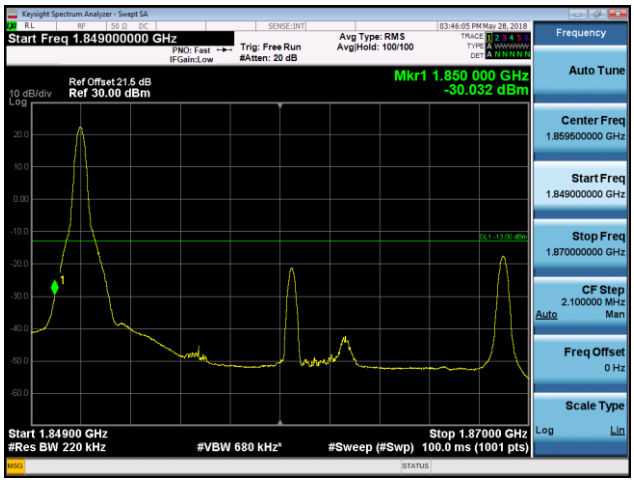
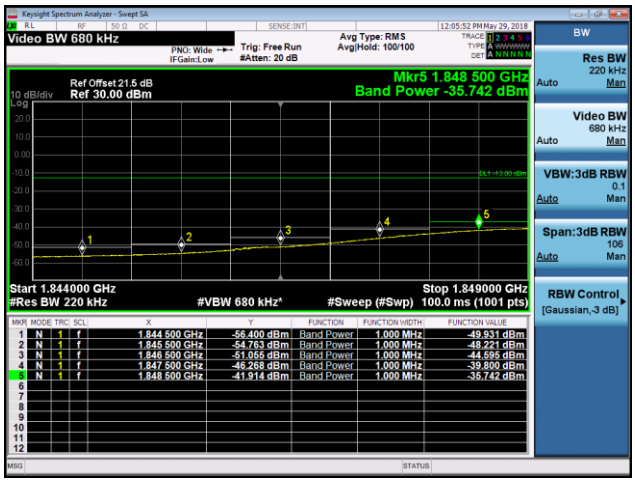
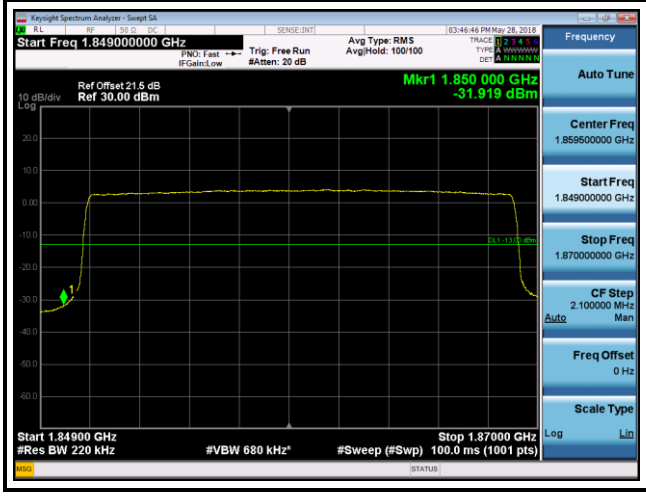
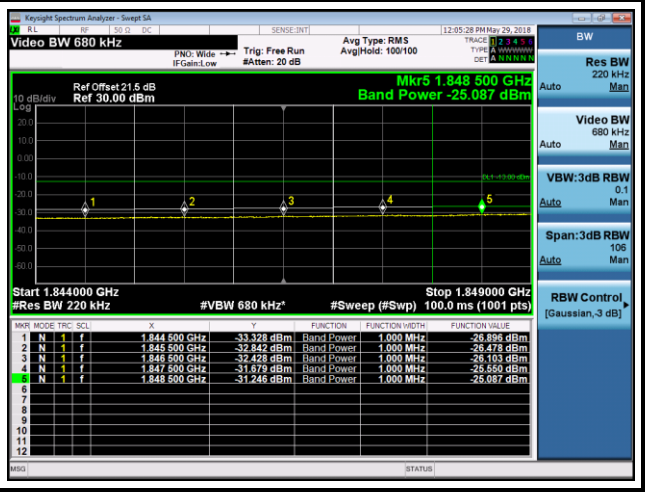
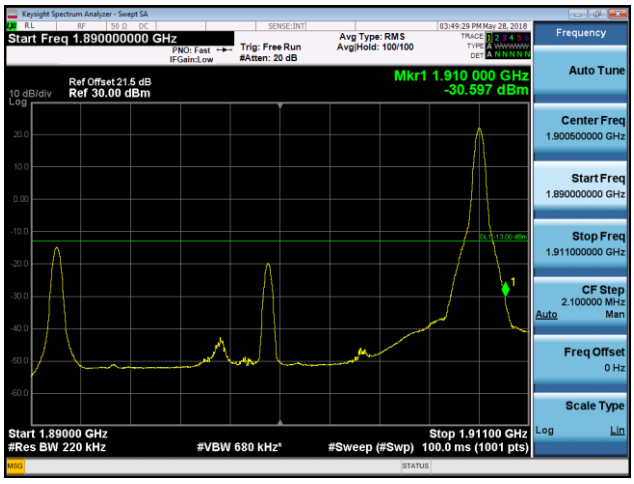
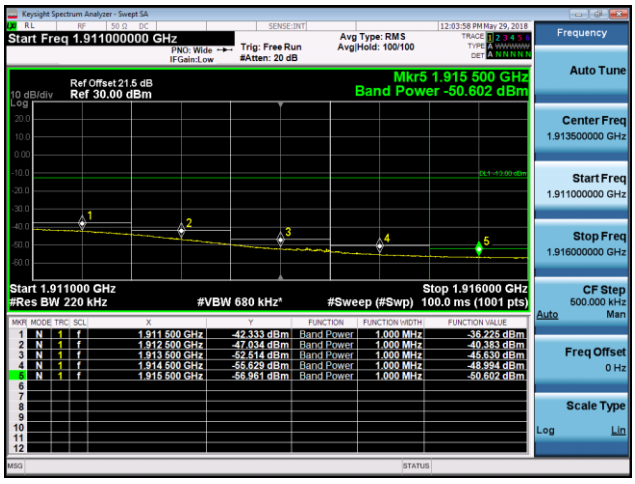
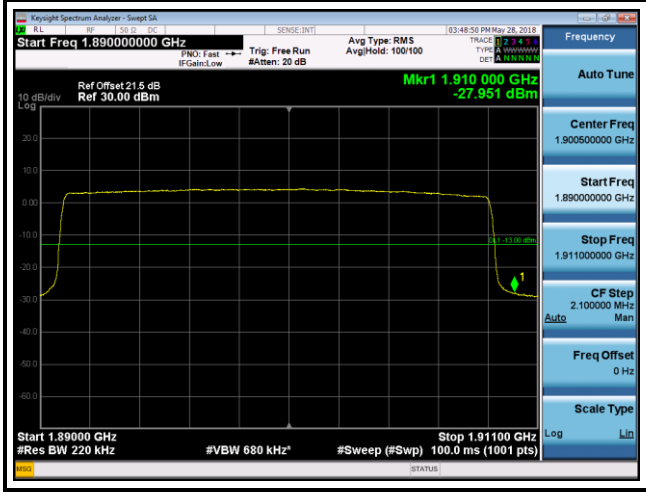
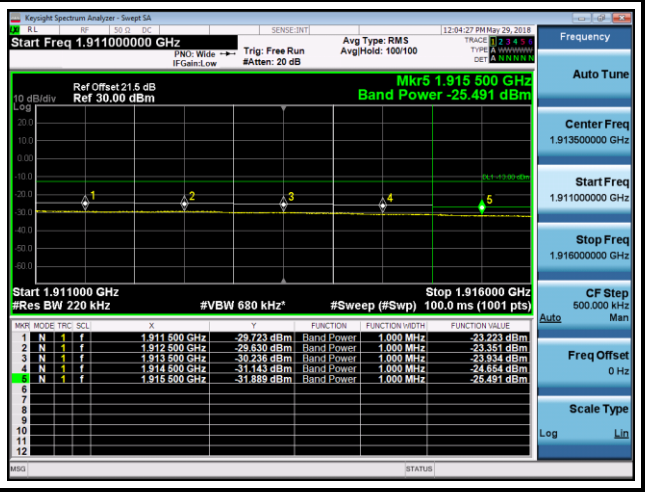
Mode	LTE Band 2, CB: 20MHz, QPSK				
Channel	18700	1 RB lower / Offset 0	**Channel**	18700	1 RB lower / Offset 0
					
Channel	18700	100% RB / Offset 0	**Channel**	18700	100% RB / Offset 0
					

Mode	LTE Band 2, CB: 20MHz, QPSK				
Channel	19100	1 RB upper / Offset 0	**Channel**	19100	1 RB upper / Offset 0
					
Channel	19100	100% RB / Offset 0	**Channel**	19100	100% RB / Offset 0
					

Mode	LTE Band 2, CB: 20MHz, 16QAM				
Channel	18700	1 RB lower / Offset 0	**Channel**	18700	1 RB lower / Offset 0
					
Channel	18700	100% RB / Offset 0	**Channel**	18700	100% RB / Offset 0
					

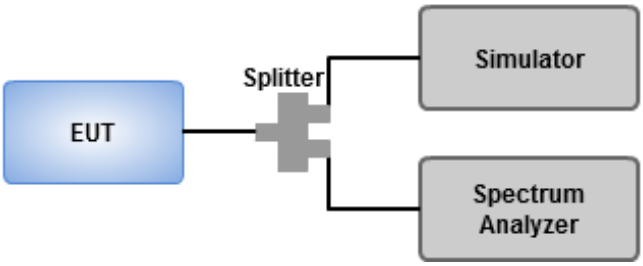
Mode	LTE Band 2, CB: 20MHz, 16QAM				
Channel	19100	1 RB upper / Offset 0	**Channel**	19100	1 RB upper / Offset 0
					
Channel	19100	100% RB / Offset 0	**Channel**	19100	100% RB / Offset 0
					

3.5 Occupied and 26 dB Bandwidth

3.5.1 Test Procedures

1. Set RBW = 20 / 30 / 51 / 100 / 200 / 200 kHz, VBW = 100 / 100 / 200 / 300 / 1000 / 1000 kHz for LTE channel bandwidth 1.4 / 3 / 5 / 10 / 15 / 20 MHz.
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.
5. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 26dB relative to the maximum level measured in the fundamental emission.

3.5.2 Test Setup



3.5.3 Test Result of Occupied Bandwidth

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
Band 2	-	-	-	-	-
Band 2_LTE_1.4MHz_(QPSK)_1TX	1.285M	1.09M	1M09G7D	1.26M	1.088M
Band 2_LTE_1.4MHz_(16QAM)_1TX	1.299M	1.092M	1M09W7D	1.271M	1.084M
Band 2_LTE_3MHz_(QPSK)_1TX	2.94M	2.689M	2M69G7D	2.903M	2.683M
Band 2_LTE_3MHz_(16QAM)_1TX	2.94M	2.688M	2M69W7D	2.918M	2.683M
Band 2_LTE_5MHz_(QPSK)_1TX	4.888M	4.492M	4M49G7D	4.85M	4.48M
Band 2_LTE_5MHz_(16QAM)_1TX	4.975M	4.482M	4M48W7D	4.85M	4.472M
Band 2_LTE_10MHz_(QPSK)_1TX	9.65M	8.955M	8M96G7D	9.525M	8.905M
Band 2_LTE_10MHz_(16QAM)_1TX	9.675M	8.939M	8M94W7D	9.525M	8.902M
Band 2_LTE_15MHz_(QPSK)_1TX	14.325M	13.422M	13M4G7D	14.175M	13.366M
Band 2_LTE_15MHz_(16QAM)_1TX	14.475M	13.446M	13M4W7D	14.288M	13.366M
Band 2_LTE_20MHz_(QPSK)_1TX	19M	17.87M	17M9G7D	18.75M	17.821M
Band 2_LTE_20MHz_(16QAM)_1TX	18.9M	17.835M	17M8W7D	18.85M	17.817M

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

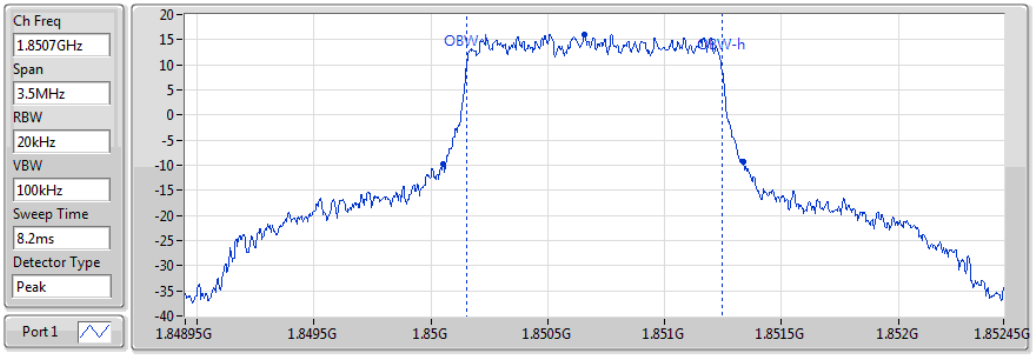
Mode	Result	RB	RB Start	Limit	P1-N dB (Hz)	P1-OBW (Hz)
Band 2_LTE_1.4MHz_(QPSK)_1TX	-	-	-	-	-	-
1850.7MHz	Pass	6	0	Inf	1.285M	1.09M
1880MHz	Pass	6	0	Inf	1.26M	1.089M
1909.3MHz	Pass	6	0	Inf	1.285M	1.088M
Band 2_LTE_1.4MHz_(16QAM)_1TX	-	-	-	-	-	-
1850.7MHz	Pass	6	0	Inf	1.299M	1.088M
1880MHz	Pass	6	0	Inf	1.271M	1.092M
1909.3MHz	Pass	6	0	Inf	1.285M	1.084M
Band 2_LTE_3MHz_(QPSK)_1TX	-	-	-	-	-	-
1851.5MHz	Pass	15	0	Inf	2.903M	2.686M
1880MHz	Pass	15	0	Inf	2.918M	2.683M
1908.5MHz	Pass	15	0	Inf	2.94M	2.689M
Band 2_LTE_3MHz_(16QAM)_1TX	-	-	-	-	-	-
1851.5MHz	Pass	15	0	Inf	2.925M	2.687M
1880MHz	Pass	15	0	Inf	2.918M	2.688M
1908.5MHz	Pass	15	0	Inf	2.94M	2.683M
Band 2_LTE_5MHz_(QPSK)_1TX	-	-	-	-	-	-
1852.5MHz	Pass	25	0	Inf	4.85M	4.492M

Mode	Result	RB	RB Start	Limit	P1-N dB (Hz)	P1-OBW (Hz)
1880MHz	Pass	25	0	Inf	4.888M	4.48M
1907.5MHz	Pass	25	0	Inf	4.875M	4.486M
Band 2_LTE_5MHz_(16QAM)_1TX	-	-	-	-	-	-
1852.5MHz	Pass	25	0	Inf	4.975M	4.472M
1880MHz	Pass	25	0	Inf	4.913M	4.482M
1907.5MHz	Pass	25	0	Inf	4.85M	4.479M
Band 2_LTE_10MHz_(QPSK)_1TX	-	-	-	-	-	-
1855MHz	Pass	50	0	Inf	9.525M	8.914M
1880MHz	Pass	50	0	Inf	9.525M	8.955M
1905MHz	Pass	50	0	Inf	9.65M	8.905M
Band 2_LTE_10MHz_(16QAM)_1TX	-	-	-	-	-	-
1855MHz	Pass	50	0	Inf	9.525M	8.939M
1880MHz	Pass	50	0	Inf	9.525M	8.914M
1905MHz	Pass	50	0	Inf	9.675M	8.902M
Band 2_LTE_15MHz_(QPSK)_1TX	-	-	-	-	-	-
1857.5MHz	Pass	75	0	Inf	14.325M	13.422M
1880MHz	Pass	75	0	Inf	14.213M	13.39M
1902.5MHz	Pass	75	0	Inf	14.175M	13.366M
Band 2_LTE_15MHz_(16QAM)_1TX	-	-	-	-	-	-
1857.5MHz	Pass	75	0	Inf	14.288M	13.446M
1880MHz	Pass	75	0	Inf	14.475M	13.39M
1902.5MHz	Pass	75	0	Inf	14.4M	13.366M
Band 2_LTE_20MHz_(QPSK)_1TX	-	-	-	-	-	-
1860MHz	Pass	100	0	Inf	19M	17.832M
1880MHz	Pass	100	0	Inf	18.75M	17.821M
1900MHz	Pass	100	0	Inf	18.85M	17.87M
Band 2_LTE_20MHz_(16QAM)_1TX	-	-	-	-	-	-
1860MHz	Pass	100	0	Inf	18.85M	17.824M
1880MHz	Pass	100	0	Inf	18.9M	17.835M
1900MHz	Pass	100	0	Inf	18.85M	17.817M

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

Band 2_LTE_1.4MHz_(QPSK)_1TX **EBW**

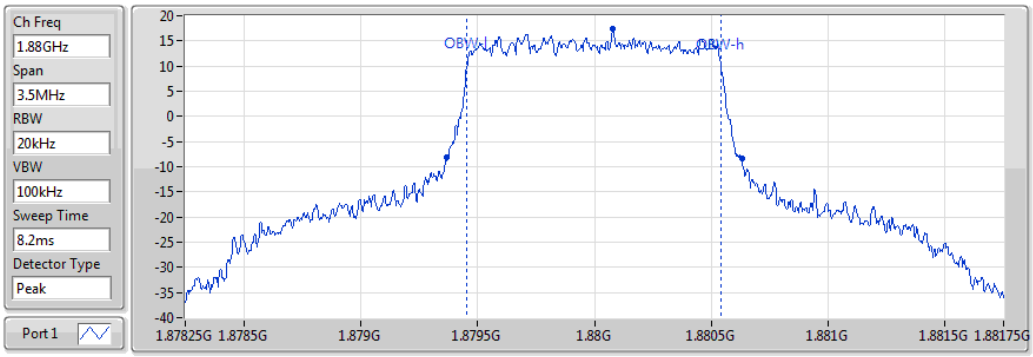
1850.7MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.285M	1.850053G	1.851337G	1.09M	1.850154G	1.851244G	Inf	1

Band 2_LTE_1.4MHz_(QPSK)_1TX **EBW**

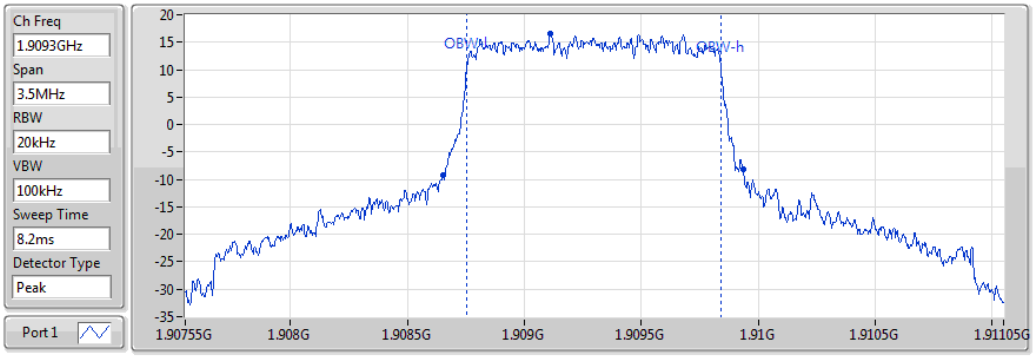
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.26M	1.87937G	1.88063G	1.089M	1.879454G	1.880543G	Inf	1

Band 2_LTE_1.4MHz_(QPSK)_1TX **EBW**

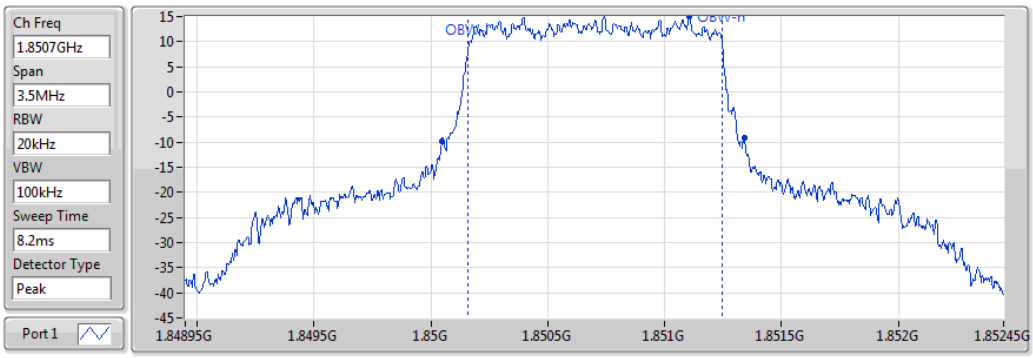
1909.3MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.285M	1.908653G	1.909937G	1.088M	1.908754G	1.909842G	Inf	1

Band 2_LTE_1.4MHz_(16QAM)_1TX **EBW**

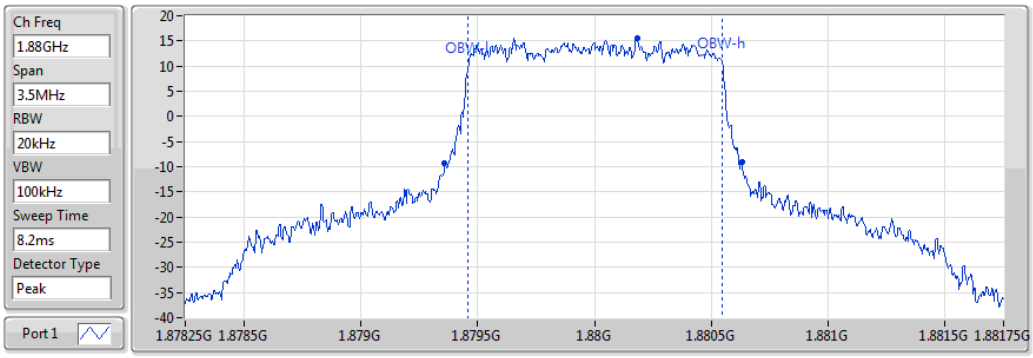
1850.7MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.299M	1.850046G	1.851344G	1.088M	1.850158G	1.851246G	Inf	1

Band 2_LTE_1.4MHz_(16QAM)_1TX **EBW**

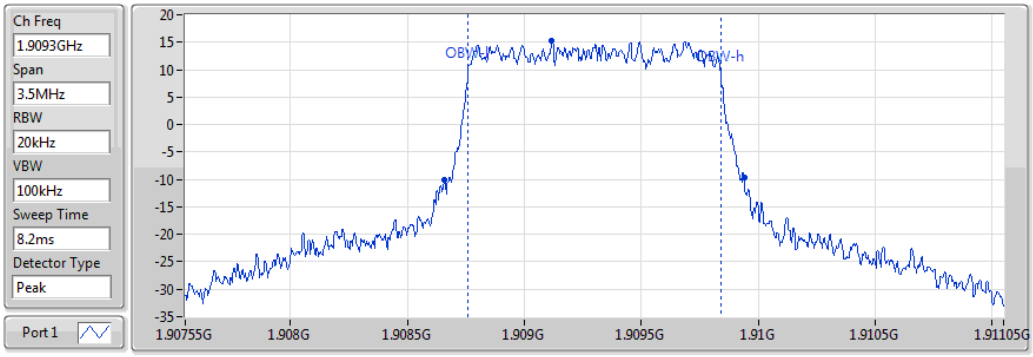
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.271M	1.87936G	1.88063G	1.092M	1.879457G	1.880549G	Inf	1

Band 2_LTE_1.4MHz_(16QAM)_1TX **EBW**

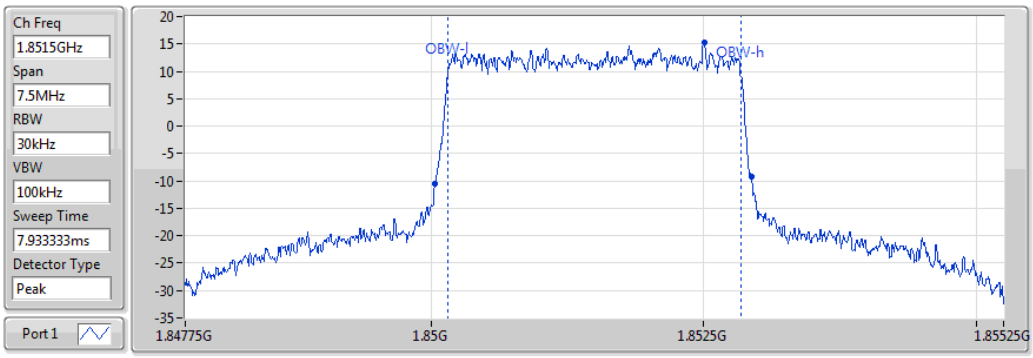
1909.3MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6	0	1.285M	1.908656G	1.909941G	1.084M	1.908758G	1.909842G	Inf	1

Band 2_LTE_3MHz_(QPSK)_1TX EBW

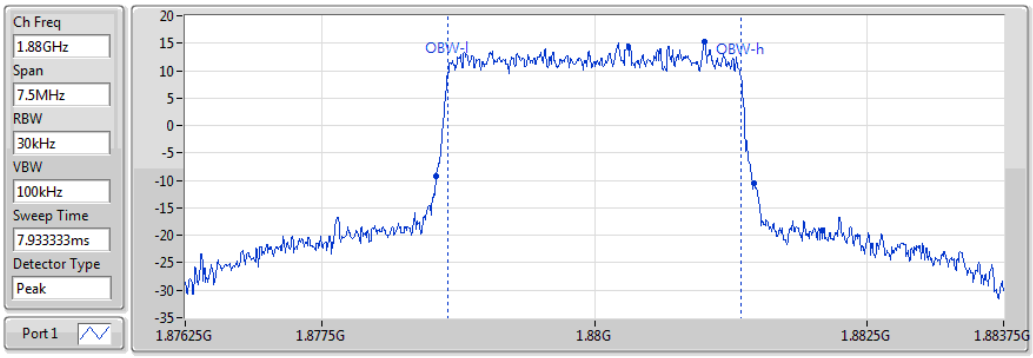
1851.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.903M	1.850038G	1.85294G	2.686M	1.850157G	1.852844G	Inf	1

Band 2_LTE_3MHz_(QPSK)_1TX EBW

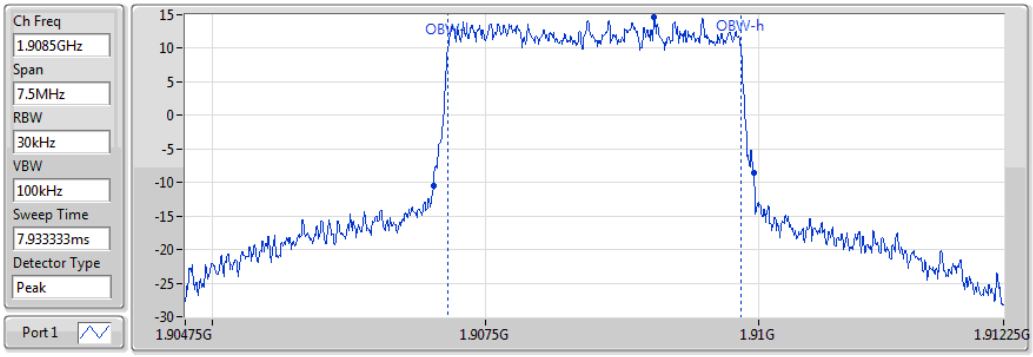
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.918M	1.878545G	1.881463G	2.683M	1.878656G	1.881338G	Inf	1

Band 2_LTE_3MHz_(QPSK)_1TX EBW

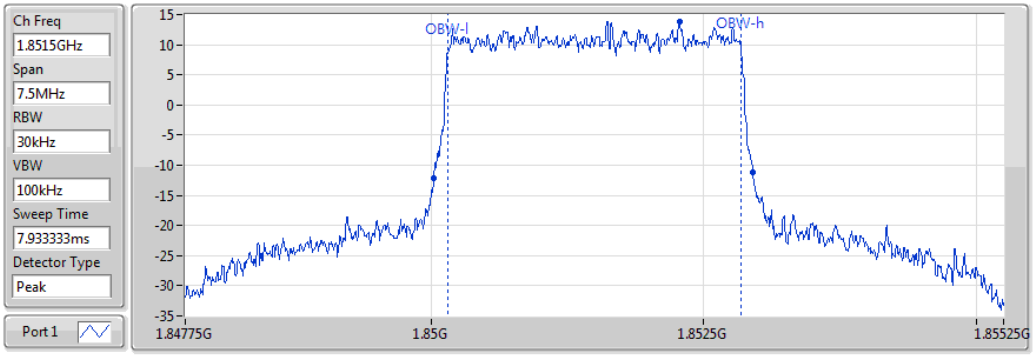
1908.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.94M	1.907023G	1.909963G	2.689M	1.907153G	1.909841G	Inf	1

Band 2_LTE_3MHz_(16QAM)_1TX EBW

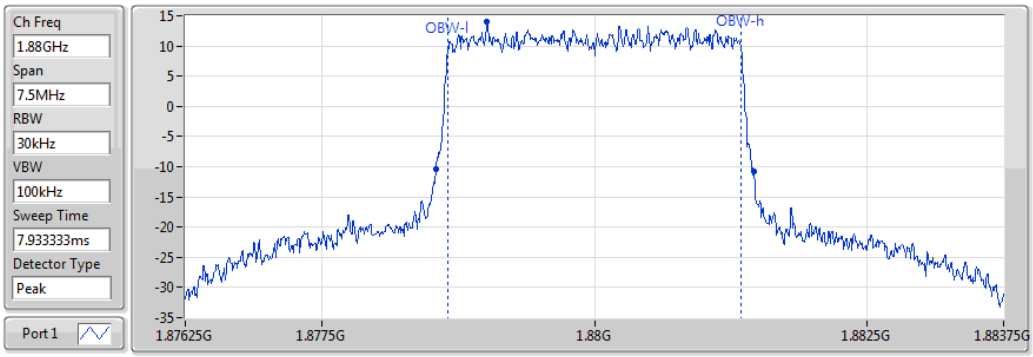
1851.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.925M	1.85003G	1.852955G	2.687M	1.850156G	1.852844G	Inf	1

Band 2_LTE_3MHz_(16QAM)_1TX EBW

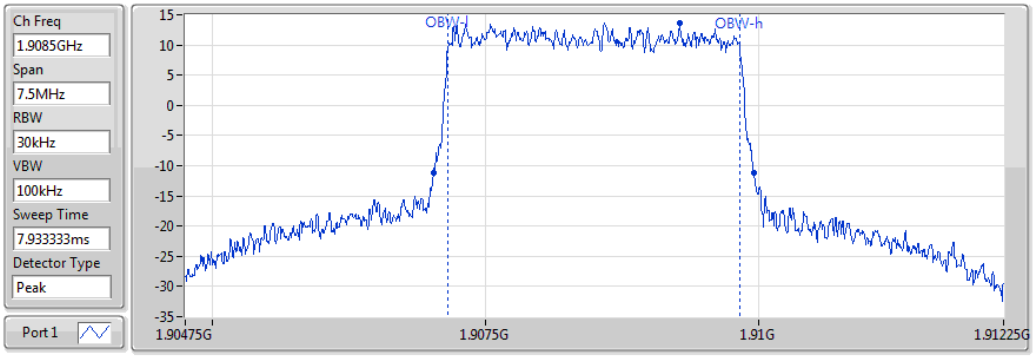
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.918M	1.878545G	1.881463G	2.688M	1.878657G	1.881345G	Inf	1

Band 2_LTE_3MHz_(16QAM)_1TX EBW

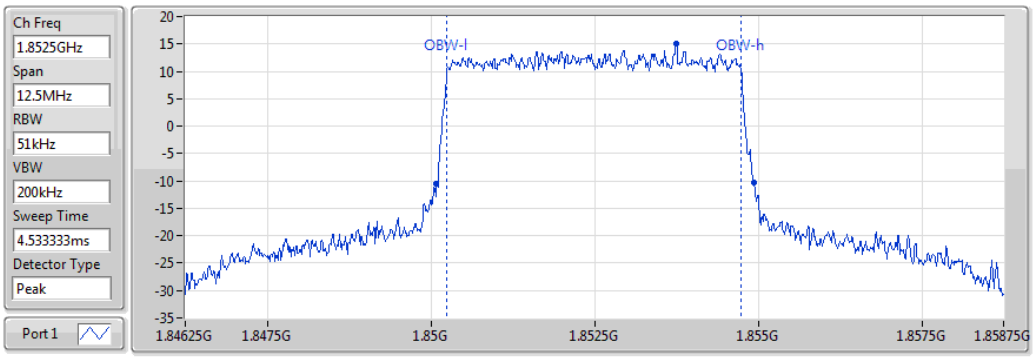
1908.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15	0	2.94M	1.907023G	1.909963G	2.683M	1.907155G	1.909838G	Inf	1

Band 2_LTE_5MHz_(QPSK)_1TX EBW

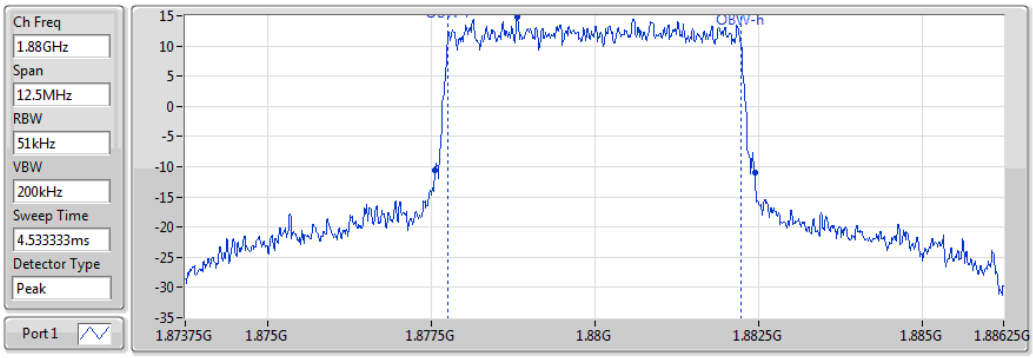
1852.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.85M	1.850088G	1.854938G	4.492M	1.850248G	1.85474G	Inf	1

Band 2_LTE_5MHz_(QPSK)_1TX EBW

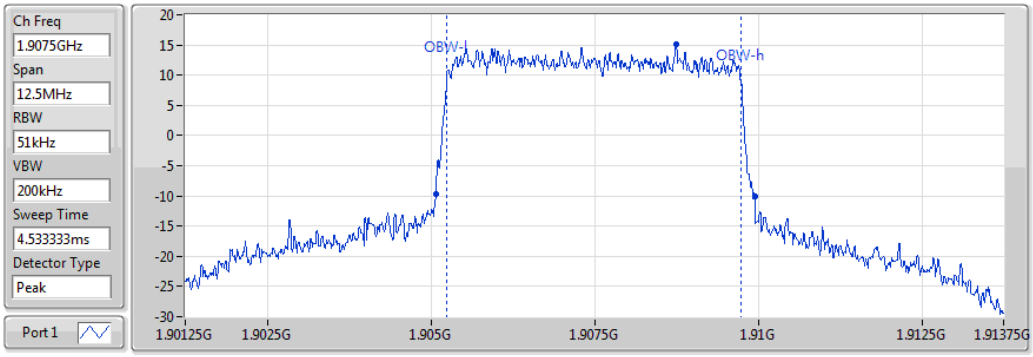
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.888M	1.877563G	1.88245G	4.48M	1.877758G	1.882239G	Inf	1

Band 2_LTE_5MHz_(QPSK)_1TX EBW

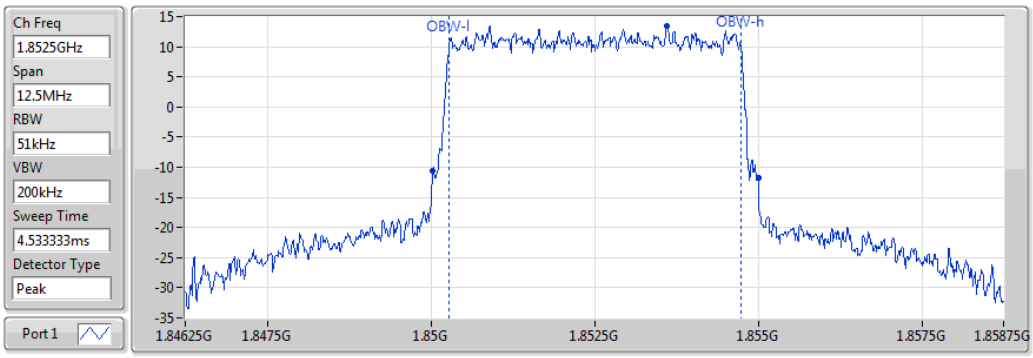
1907.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.875M	1.905075G	1.90995G	4.486M	1.905246G	1.909731G	Inf	1

Band 2_LTE_5MHz_(16QAM)_1TX **EBW**

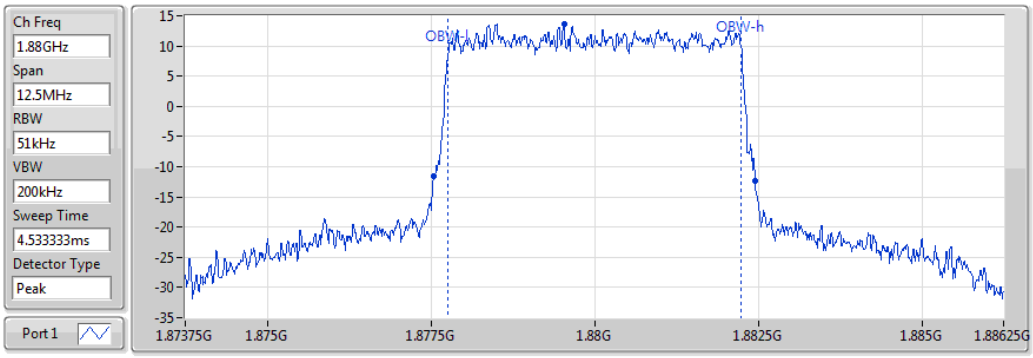
1852.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.975M	1.850025G	1.855G	4.472M	1.85027G	1.854743G	Inf	1

Band 2_LTE_5MHz_(16QAM)_1TX **EBW**

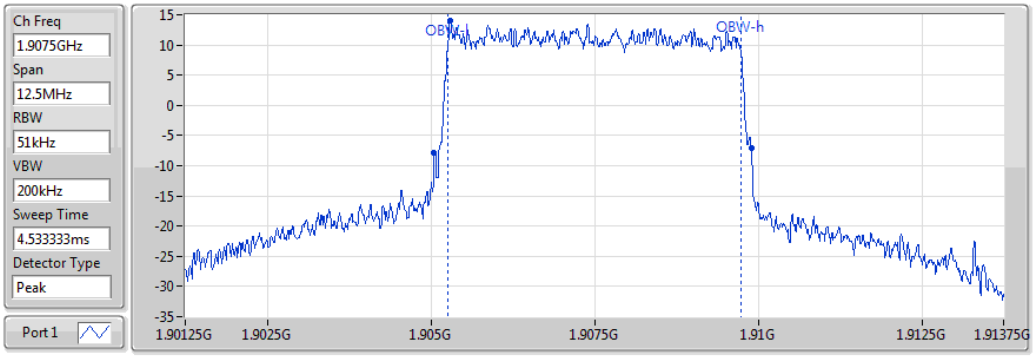
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.913M	1.877538G	1.88245G	4.482M	1.877763G	1.882245G	Inf	1

Band 2_LTE_5MHz_(16QAM)_1TX **EBW**

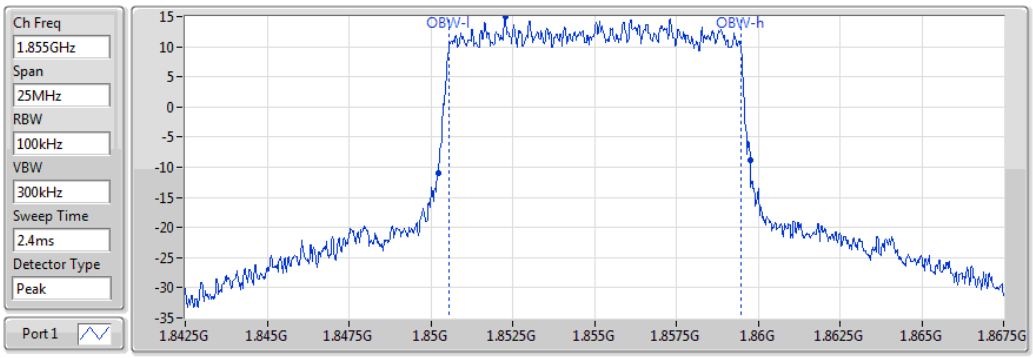
1907.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25	0	4.85M	1.90505G	1.9099G	4.479M	1.905255G	1.909734G	Inf	1

Band 2_LTE_10MHz_(QPSK)_1TX **EBW**

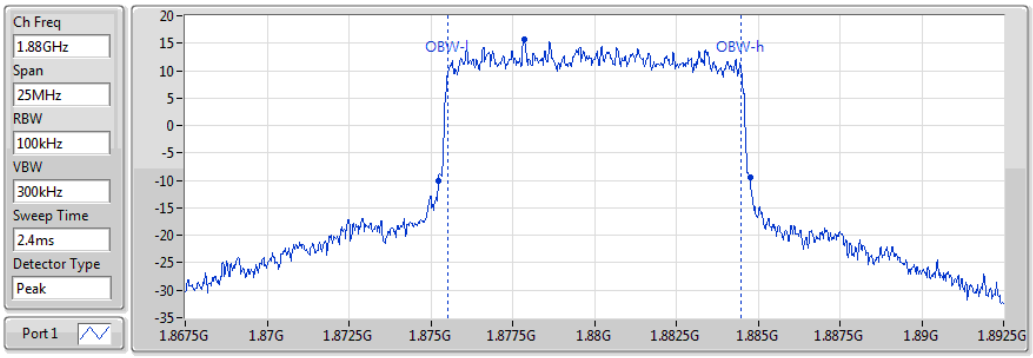
1855MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.525M	1.850225G	1.85975G	8.914M	1.850549G	1.859463G	Inf	1

Band 2_LTE_10MHz_(QPSK)_1TX **EBW**

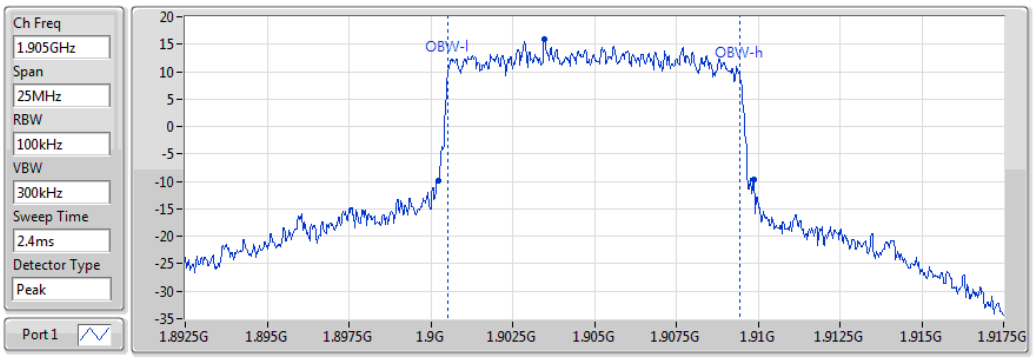
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.525M	1.875225G	1.88475G	8.955M	1.875528G	1.884484G	Inf	1

Band 2_LTE_10MHz_(QPSK)_1TX **EBW**

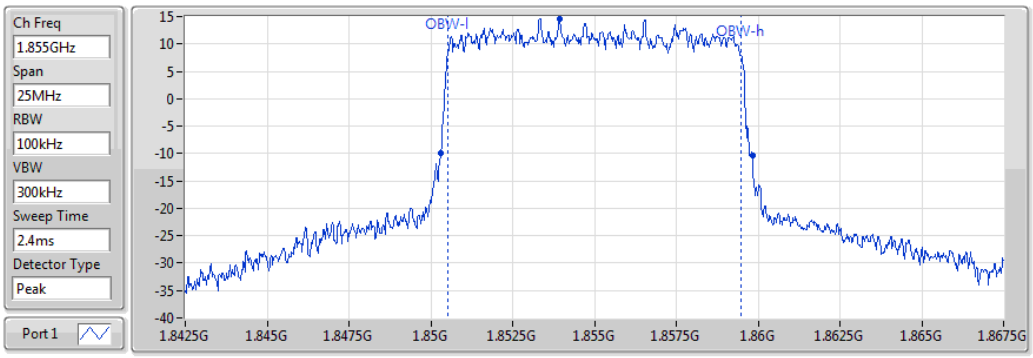
1905MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.65M	1.900225G	1.909875G	8.905M	1.900536G	1.909441G	Inf	1

Band 2_LTE_10MHz_(16QAM)_1TX **EBW**

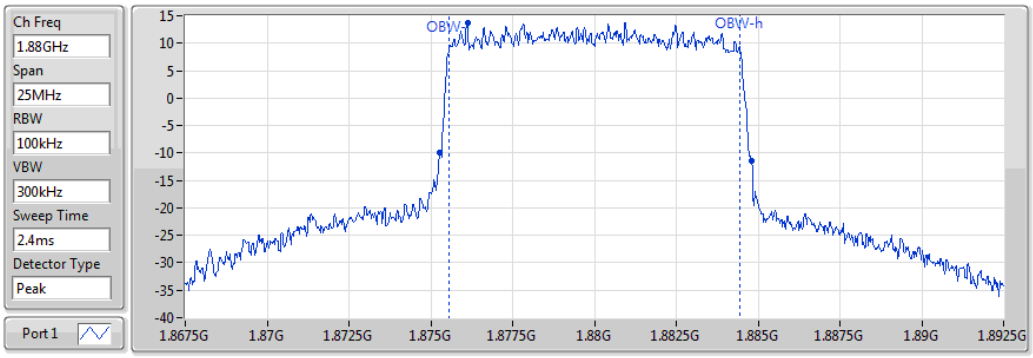
1855MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.525M	1.8503G	1.859825G	8.939M	1.850539G	1.859478G	Inf	1

Band 2_LTE_10MHz_(16QAM)_1TX **EBW**

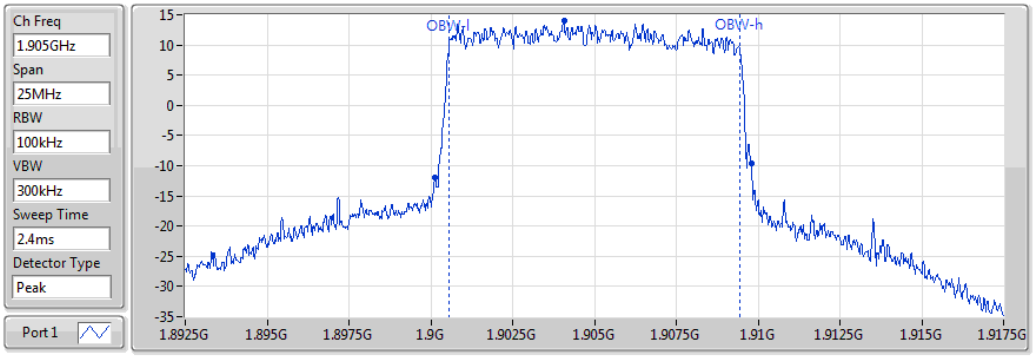
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.525M	1.875275G	1.8848G	8.914M	1.875544G	1.884459G	Inf	1

Band 2_LTE_10MHz_(16QAM)_1TX **EBW**

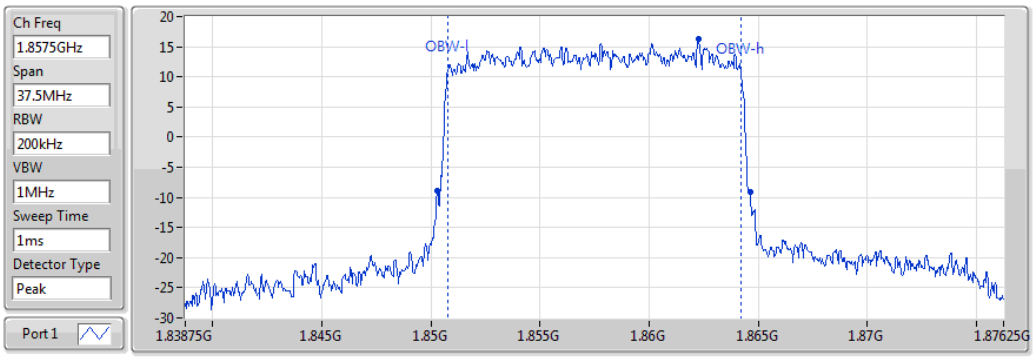
1905MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
50	0	9.675M	1.900125G	1.9098G	8.902M	1.900546G	1.909447G	Inf	1

Band 2_LTE_15MHz_(QPSK)_1TX **EBW**

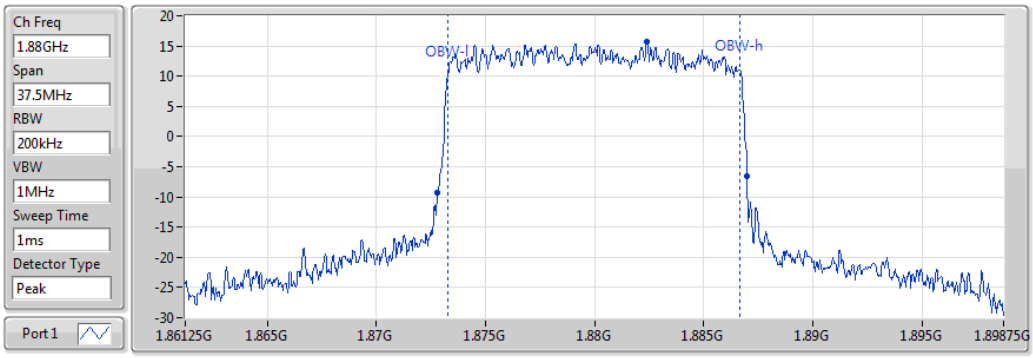
1857.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.325M	1.8503G	1.864625G	13.422M	1.850786G	1.864207G	Inf	1

Band 2_LTE_15MHz_(QPSK)_1TX **EBW**

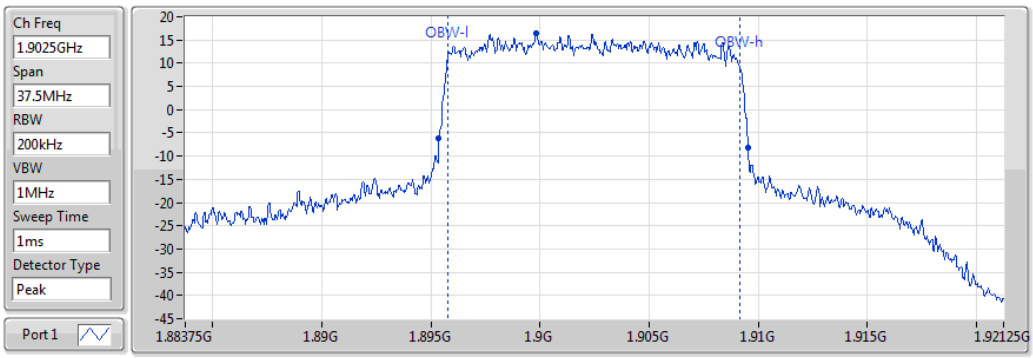
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.213M	1.8728G	1.887013G	13.39M	1.8733G	1.886691G	Inf	1

Band 2_LTE_15MHz_(QPSK)_1TX **EBW**

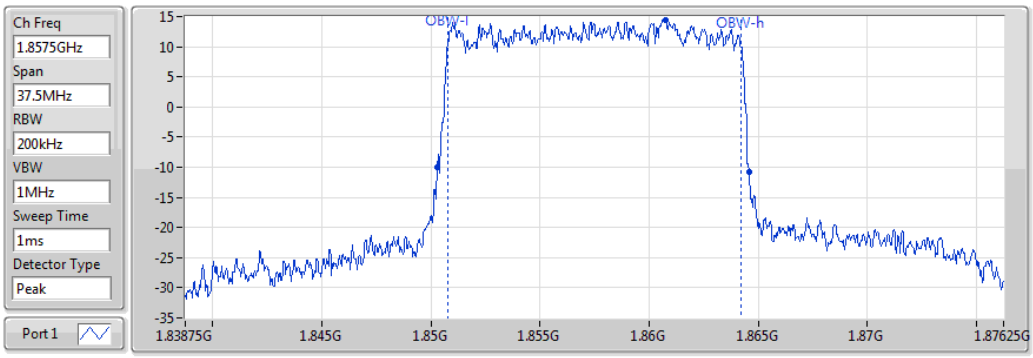
1902.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.175M	1.895375G	1.90955G	13.366M	1.895776G	1.909142G	Inf	1

Band 2_LTE_15MHz_(16QAM)_1TX **EBW**

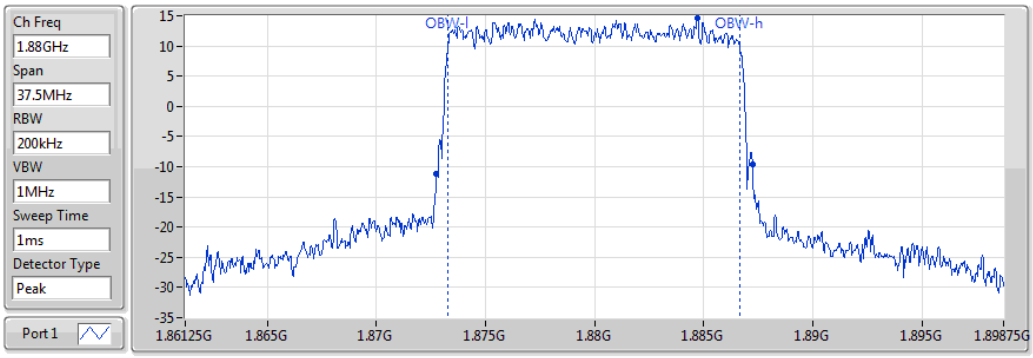
1857.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.288M	1.8503G	1.864588G	13.446M	1.850786G	1.864232G	Inf	1

Band 2_LTE_15MHz_(16QAM)_1TX **EBW**

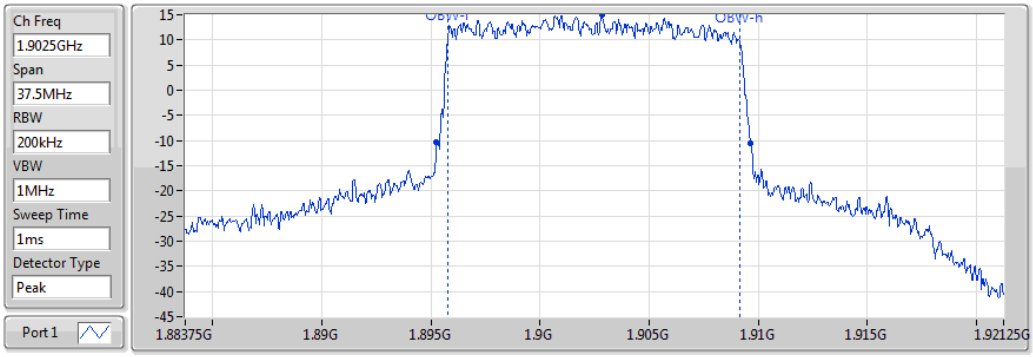
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.475M	1.872763G	1.887238G	13.39M	1.873299G	1.886689G	Inf	1

Band 2_LTE_15MHz_(16QAM)_1TX **EBW**

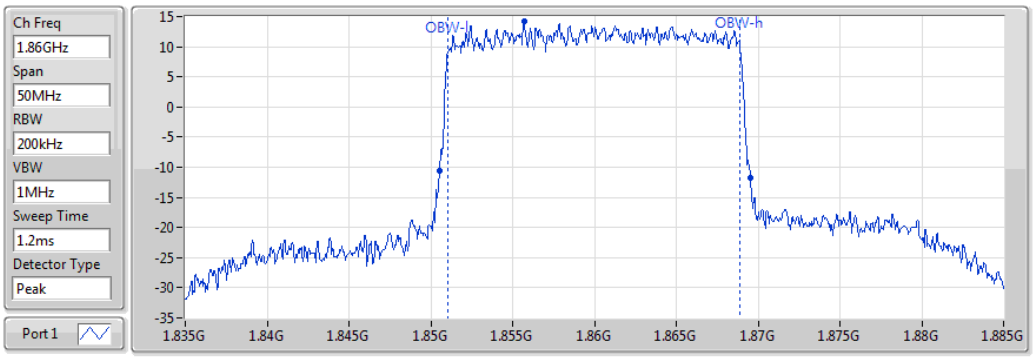
1902.5MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75	0	14.4M	1.895263G	1.909663G	13.366M	1.895805G	1.909171G	Inf	1

Band 2_LTE_20MHz_(QPSK)_1TX EBW

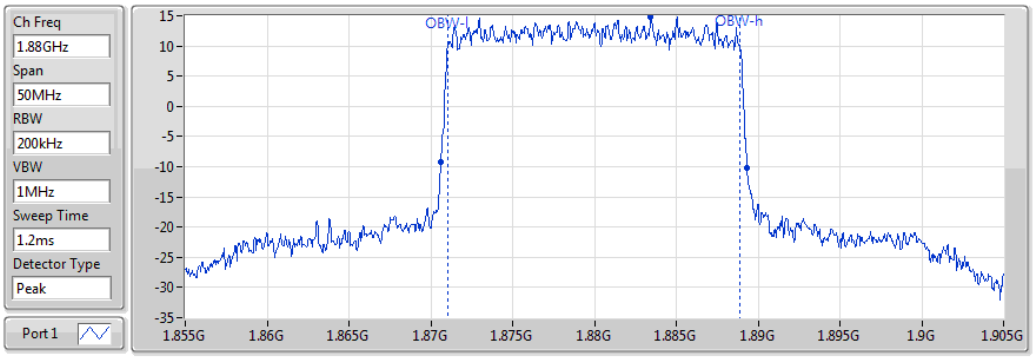
1860MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	19M	1.85055G	1.86955G	17.832M	1.851068G	1.8689G	Inf	1

Band 2_LTE_20MHz_(QPSK)_1TX EBW

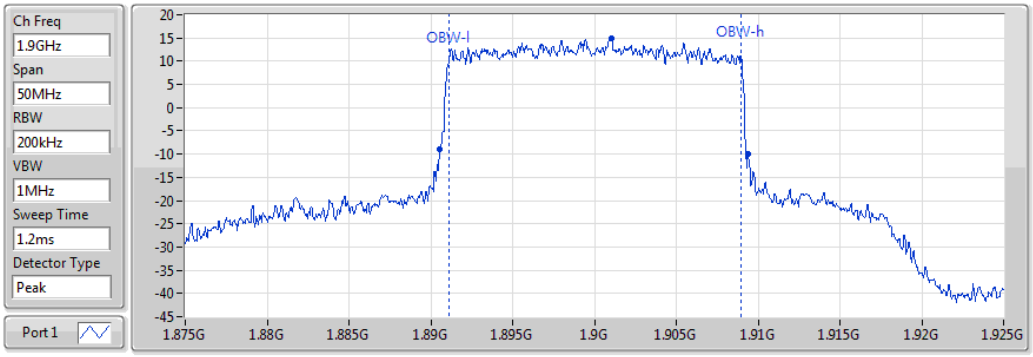
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	18.75M	1.8706G	1.88935G	17.821M	1.871064G	1.888885G	Inf	1

Band 2_LTE_20MHz_(QPSK)_1TX EBW

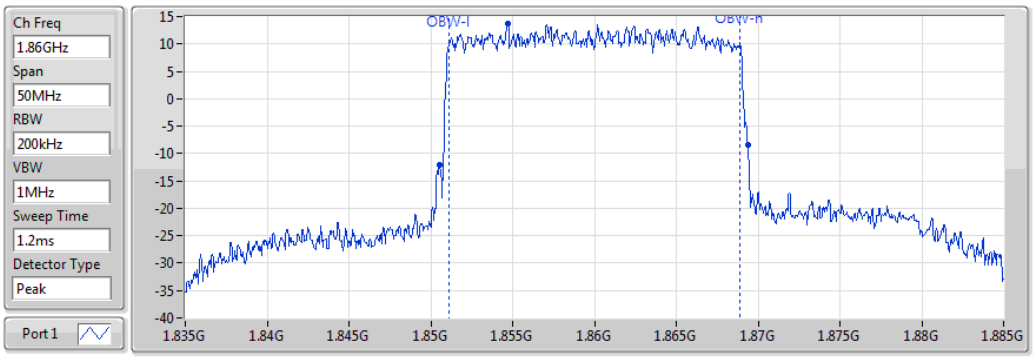
1900MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	18.85M	1.89055G	1.9094G	17.87M	1.89108G	1.90895G	Inf	1

Band 2_LTE_20MHz_(16QAM)_1TX **EBW**

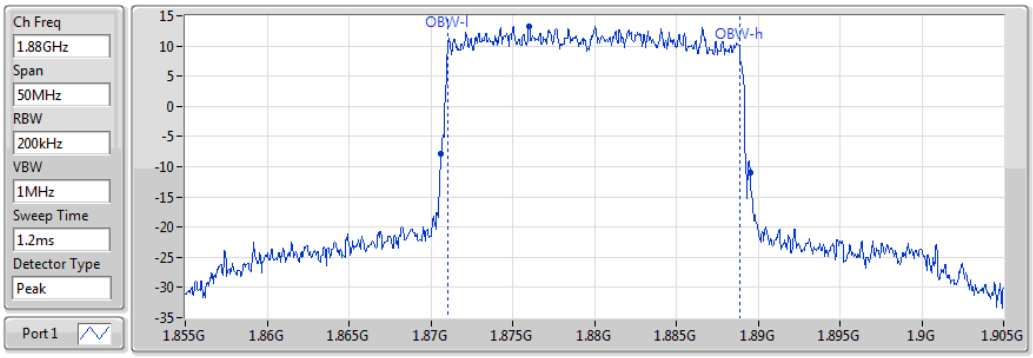
1860MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	18.85M	1.85055G	1.8694G	17.824M	1.851088G	1.868912G	Inf	1

Band 2_LTE_20MHz_(16QAM)_1TX **EBW**

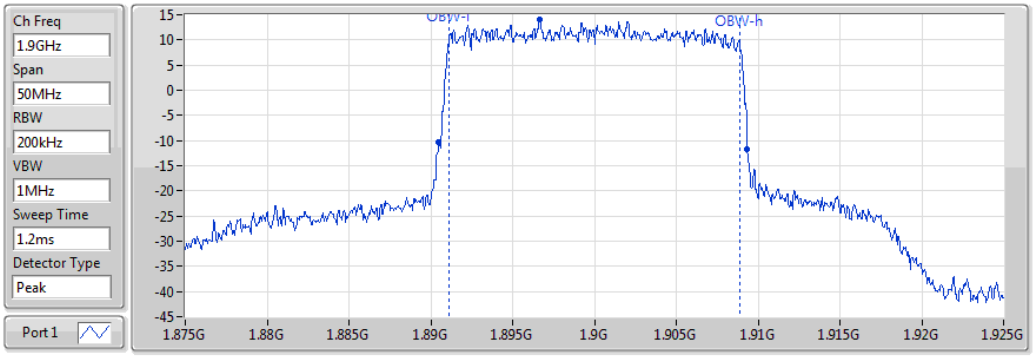
1880MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	18.9M	1.8706G	1.8895G	17.835M	1.871072G	1.888907G	Inf	1

Band 2_LTE_20MHz_(16QAM)_1TX **EBW**

1900MHz



RB	RB Start	26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
100	0	18.85M	1.8905G	1.90935G	17.817M	1.891083G	1.908901G	Inf	1

3.6 Peak to Average Ratio

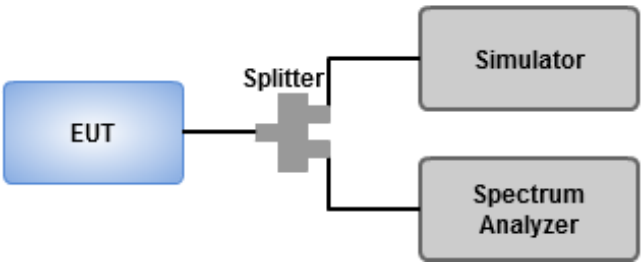
3.6.1 Limit of Peak to Average Ratio

Peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.6.2 Test Procedures

1. Enable CCDF function of spectrum analyzer and set RBW = 10MHz.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PAPR level associated with a probability of 0.1%.

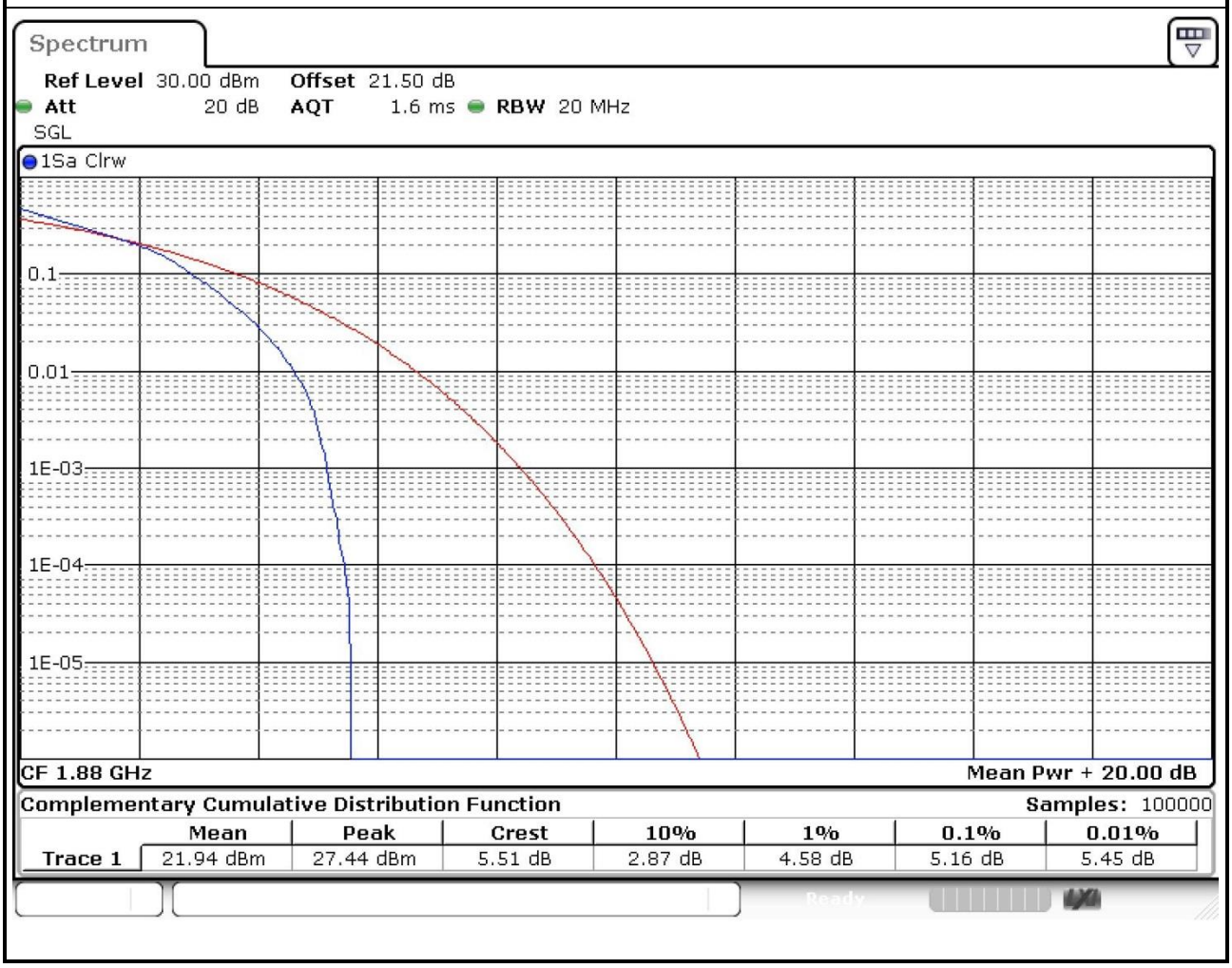
3.6.3 Test Setup



3.6.4 Test Result of Peak to Average ratio

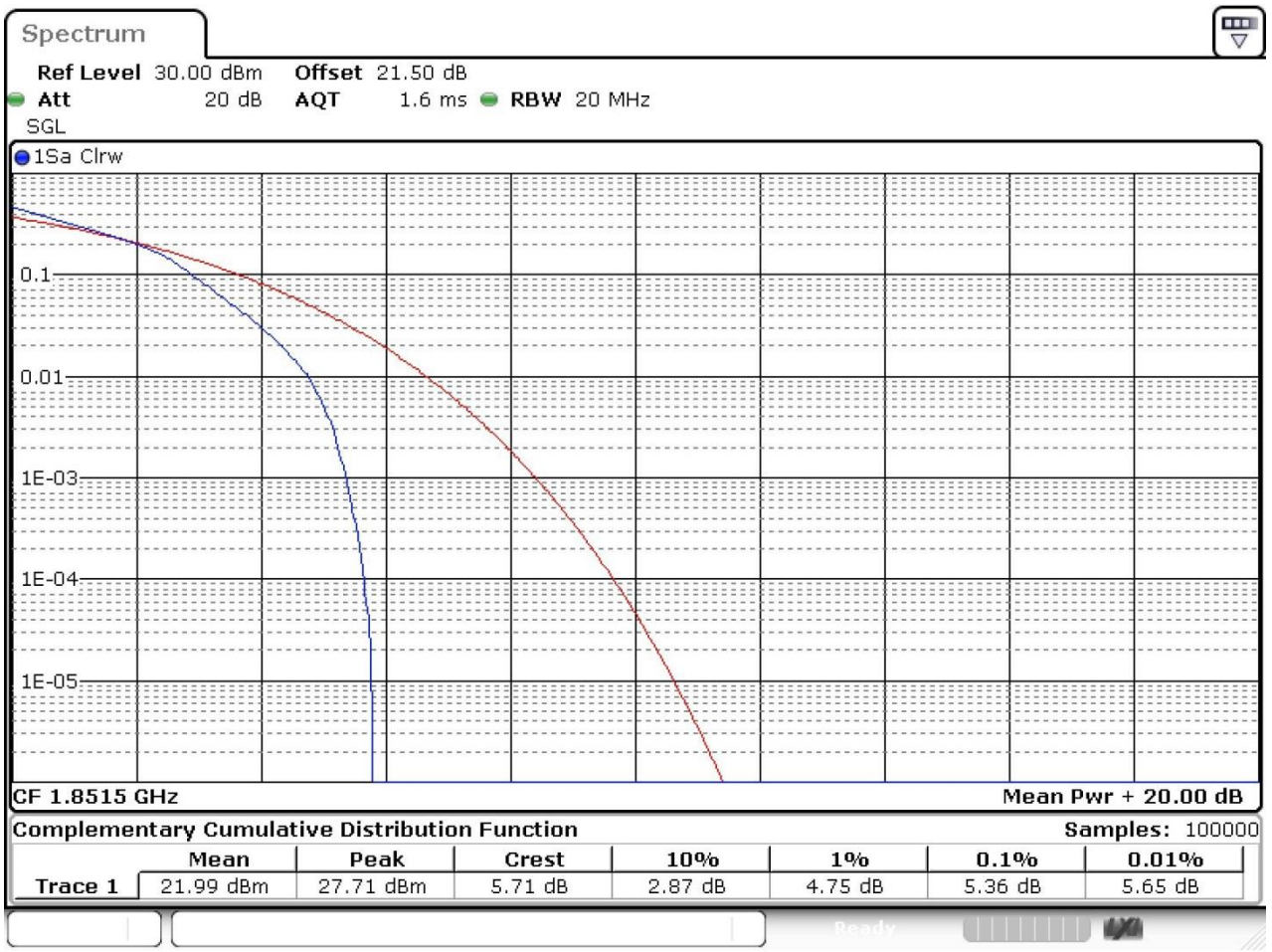
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	1.4	QPSK	18607	1850.7	4.35
LTE Band 2	1.4	QPSK	18900	1880.0	4.29
LTE Band 2	1.4	QPSK	19193	1909.3	3.97
LTE Band 2	1.4	16QAM	18607	1850.7	5.07
LTE Band 2	1.4	16QAM	18900	1880.0	5.16
LTE Band 2	1.4	16QAM	19193	1909.3	4.75

Worst plots



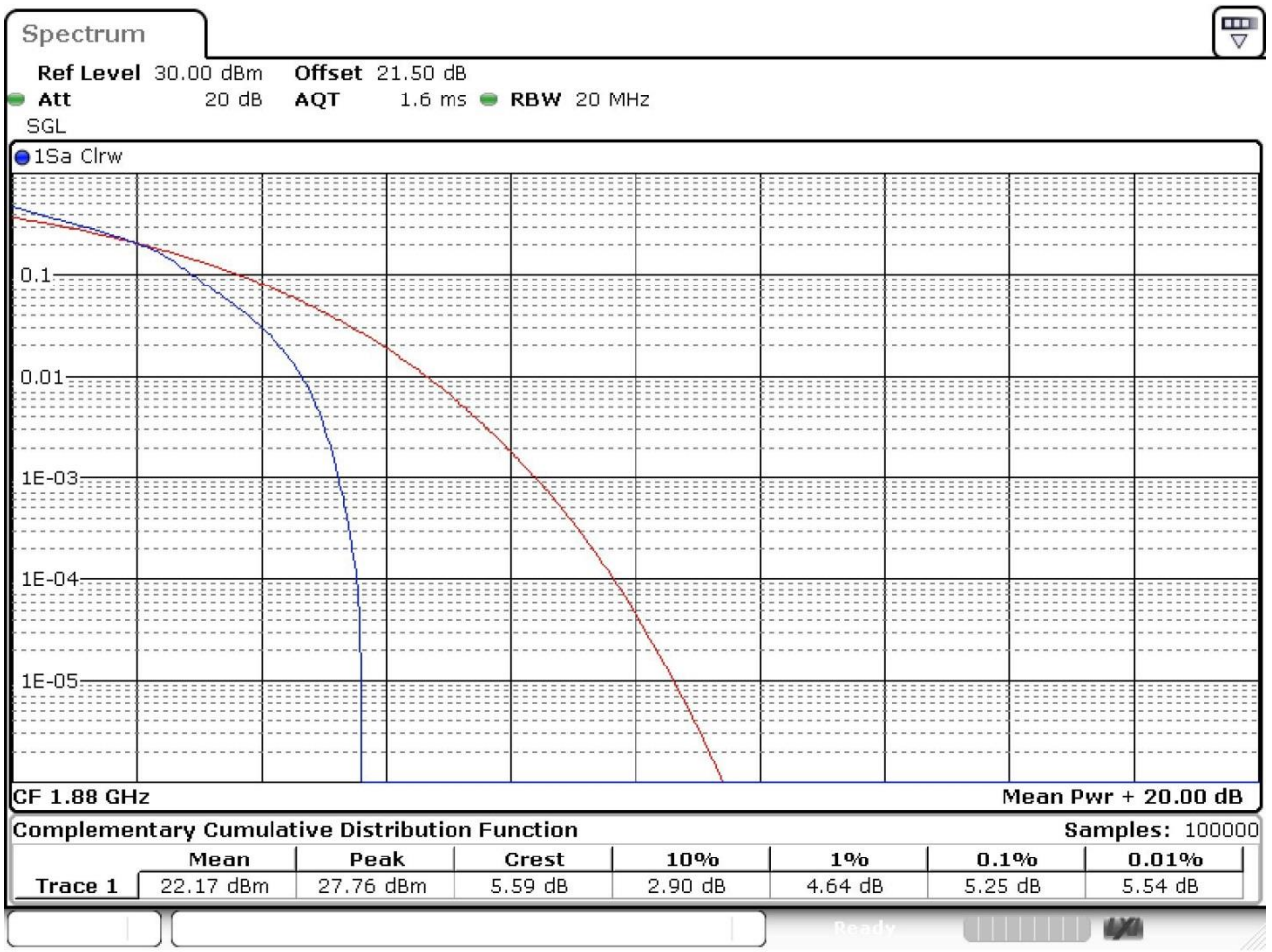
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	3	QPSK	18615	1851.5	4.41
LTE Band 2	3	QPSK	18900	1880.0	4.38
LTE Band 2	3	QPSK	19185	1908.5	3.68
LTE Band 2	3	16QAM	18615	1851.5	5.36
LTE Band 2	3	16QAM	18900	1880.0	5.25
LTE Band 2	3	16QAM	19185	1908.5	4.55

Worst plots



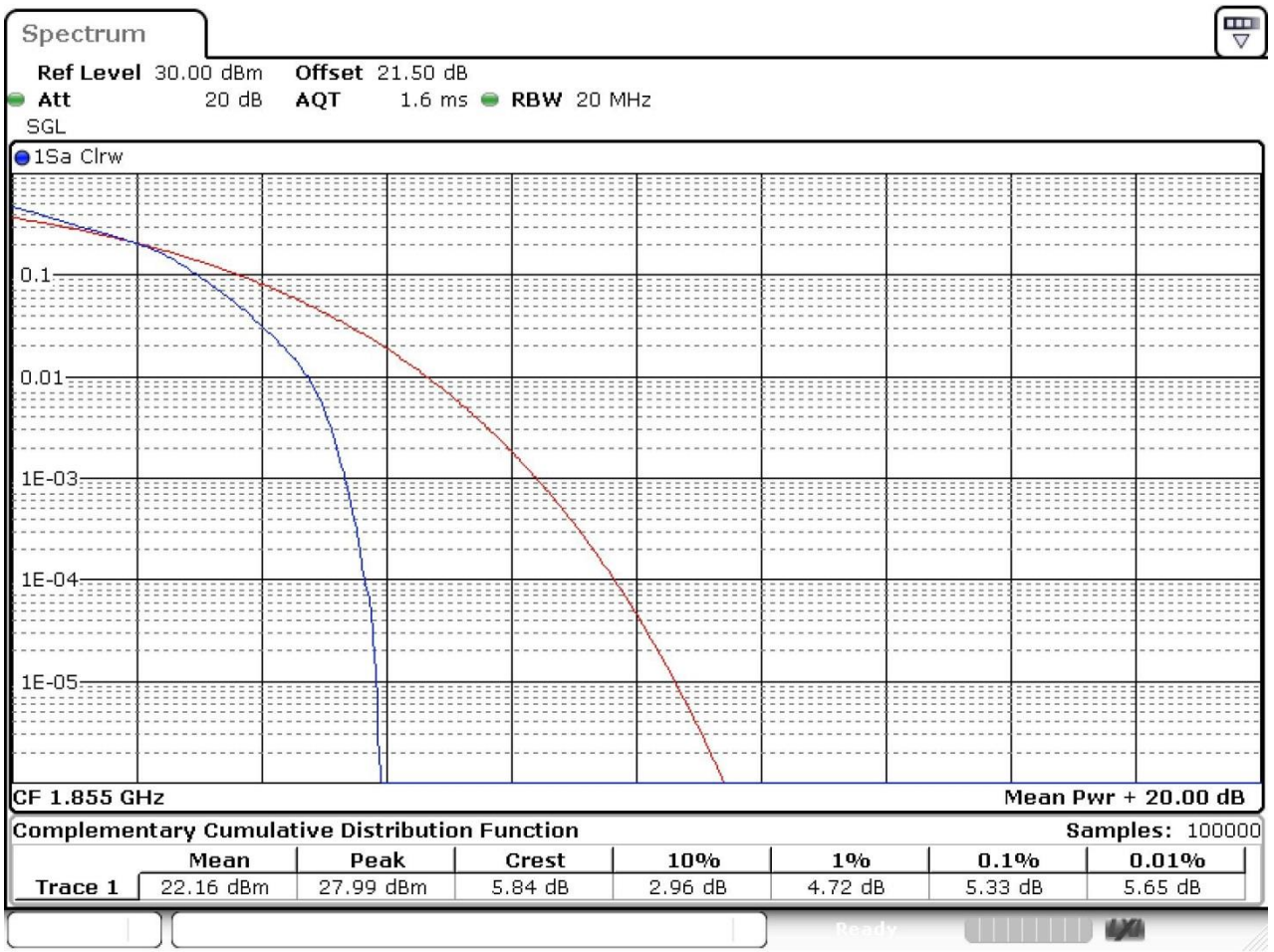
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	5	QPSK	18625	1852.5	4.32
LTE Band 2	5	QPSK	18900	1880.0	4.38
LTE Band 2	5	QPSK	19175	1907.5	3.68
LTE Band 2	5	16QAM	18625	1852.5	5.13
LTE Band 2	5	16QAM	18900	1880.0	5.25
LTE Band 2	5	16QAM	19175	1907.5	4.52

Worst plots



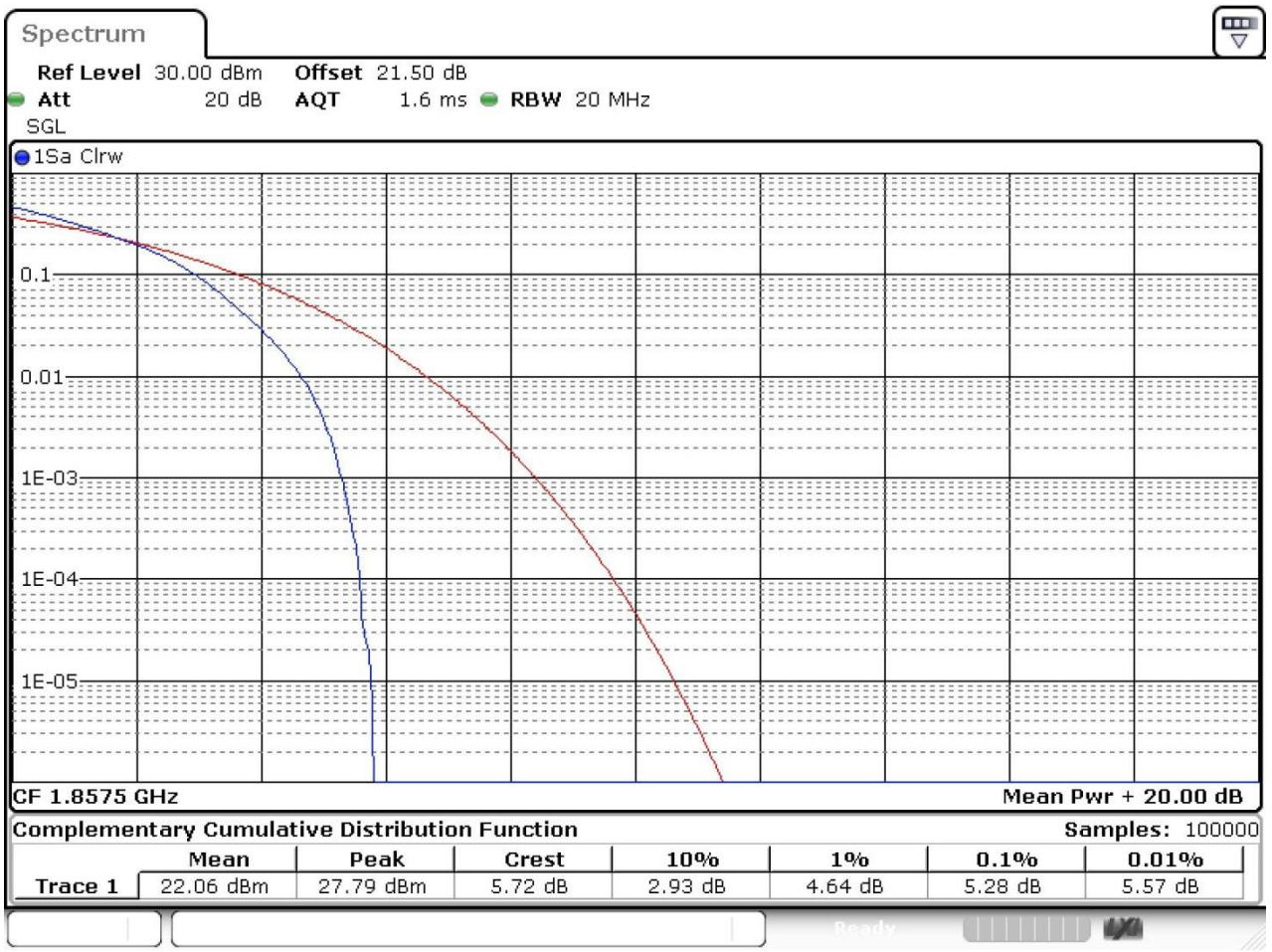
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	10	QPSK	18650	1855.0	4.43
LTE Band 2	10	QPSK	18900	1880.0	4.38
LTE Band 2	10	QPSK	19150	1905.0	3.91
LTE Band 2	10	16QAM	18650	1855.0	5.33
LTE Band 2	10	16QAM	18900	1880.0	5.19
LTE Band 2	10	16QAM	19150	1905.0	4.75

Worst plots



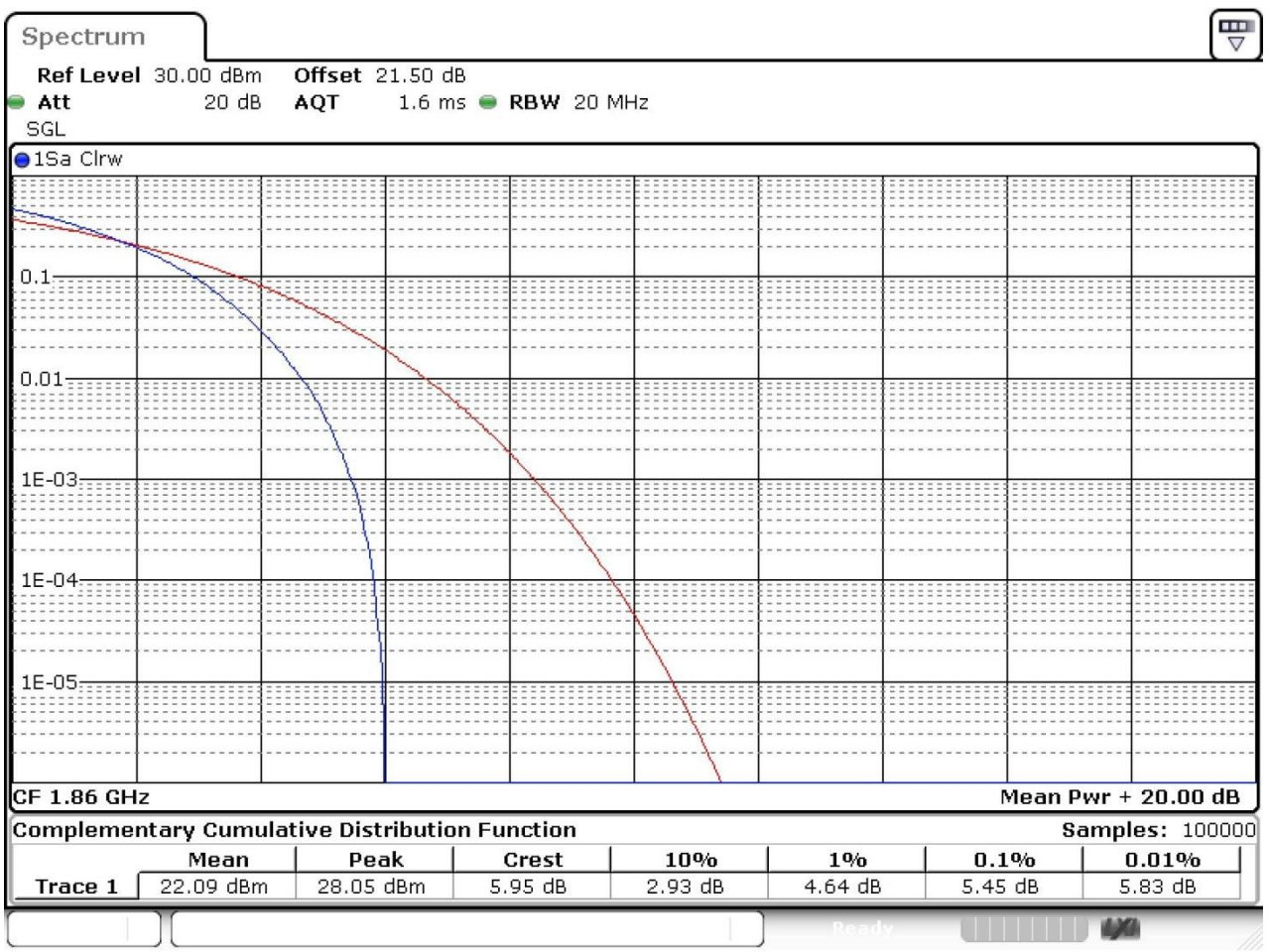
Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	15	QPSK	18675	1857.5	4.41
LTE Band 2	15	QPSK	18900	1880.0	4.35
LTE Band 2	15	QPSK	19125	1902.5	4.09
LTE Band 2	15	16QAM	18675	1857.5	5.28
LTE Band 2	15	16QAM	18900	1880.0	5.25
LTE Band 2	15	16QAM	19125	1902.5	4.99

Worst plots



Mode	CB (MHz)	Modulation	Channel	Frequency (MHz)	Peak to Average ratio (dB)
LTE Band 2	20	QPSK	18700	1860.0	4.38
LTE Band 2	20	QPSK	18900	1880.0	4.35
LTE Band 2	20	QPSK	19100	1900.0	4.29
LTE Band 2	20	16QAM	18700	1860.0	5.45
LTE Band 2	20	16QAM	18900	1880.0	5.39
LTE Band 2	20	16QAM	19100	1900.0	5.33

Worst plots



3.7 Frequency Stability

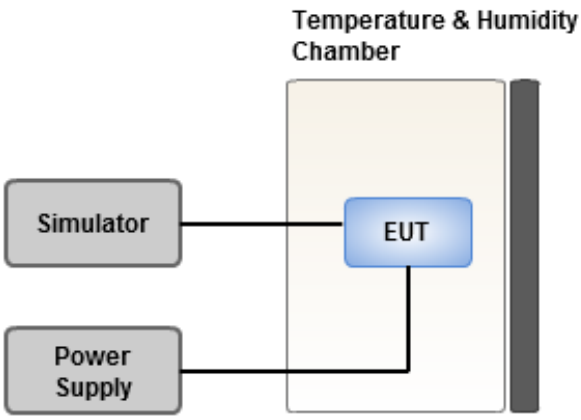
3.7.1 Limit of Frequency Stability

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

3.7.2 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.

3.7.3 Test Setup



3.7.4 Test Result of Frequency Stability

LTE Band 2, CB: 1.4MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.022	2.5
T20°CVmin	120	0.023	2.5
T50°CVnom	120	0.019	2.5
T40°CVnom	120	0.018	2.5
T30°CVnom	120	0.02	2.5
T20°CVnom	120	0.021	2.5
T10°CVnom	120	0.022	2.5
T0°CVnom	120	0.023	2.5
T-10°CVnom	120	0.021	2.5
T-20°CVnom	120	0.024	2.5
T-30°CVnom	120	0.022	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

LTE Band 2, CB: 3MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.019	2.5
T20°CVmin	120	0.016	2.5
T50°CVnom	120	0.021	2.5
T40°CVnom	120	0.019	2.5
T30°CVnom	120	0.018	2.5
T20°CVnom	120	0.018	2.5
T10°CVnom	120	0.017	2.5
T0°CVnom	120	0.016	2.5
T-10°CVnom	120	0.018	2.5
T-20°CVnom	120	0.02	2.5
T-30°CVnom	120	0.019	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

LTE Band 2, CB: 5MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.024	2.5
T20°CVmin	120	0.023	2.5
T50°CVnom	120	0.022	2.5
T40°CVnom	120	0.018	2.5
T30°CVnom	120	0.019	2.5
T20°CVnom	120	0.02	2.5
T10°CVnom	120	0.021	2.5
T0°CVnom	120	0.022	2.5
T-10°CVnom	120	0.022	2.5
T-20°CVnom	120	0.023	2.5
T-30°CVnom	120	0.021	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

LTE Band 2, CB: 10MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.024	2.5
T20°CVmin	120	0.023	2.5
T50°CVnom	120	0.023	2.5
T40°CVnom	120	0.021	2.5
T30°CVnom	120	0.019	2.5
T20°CVnom	120	0.018	2.5
T10°CVnom	120	0.021	2.5
T0°CVnom	120	0.022	2.5
T-10°CVnom	120	0.023	2.5
T-20°CVnom	120	0.021	2.5
T-30°CVnom	120	0.019	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

LTE Band 2, CB: 15MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.018	2.5
T20°CVmin	120	0.016	2.5
T50°CVnom	120	0.015	2.5
T40°CVnom	120	0.016	2.5
T30°CVnom	120	0.018	2.5
T20°CVnom	120	0.019	2.5
T10°CVnom	120	0.02	2.5
T0°CVnom	120	0.021	2.5
T-10°CVnom	120	0.019	2.5
T-20°CVnom	120	0.022	2.5
T-30°CVnom	120	0.024	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

LTE Band 2, CB: 20MHz			
Temperature (°C)	**Voltage (ac)**	**Frequency Drift (ppm)**	**Limit (ppm)**
T20°CVmax	120	0.023	2.5
T20°CVmin	120	0.024	2.5
T50°CVnom	120	0.022	2.5
T40°CVnom	120	0.021	2.5
T30°CVnom	120	0.022	2.5
T20°CVnom	120	0.019	2.5
T10°CVnom	120	0.019	2.5
T0°CVnom	120	0.021	2.5
T-10°CVnom	120	0.022	2.5
T-20°CVnom	120	0.023	2.5
T-30°CVnom	120	0.021	2.5
Vnom [Vac]: 120	Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30

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

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