



# Appendix A: Transmitter Output Power



## 1 Result Table

### 1.1 Channel Power, Total

NOTE 1: If applicable, the EIRP [W] =  $10^{((\text{Channel Power [dBm]} + \text{Antenna Gain [dBi]})/10 - 3)}$ , and the ERP [W] = EIRP [W] / 1.64.

NOTE 2: When the EUT is put into service, the practical maximum antenna gain may exceed the value as below, and if exceed, the combination of the practical output power and the practical antenna gain should NOT exceed the required ERP/EIRP limit.

EUT Conf.	Ch. BW [MHz]	Channel Power [dBm]	Offset from Rated [dB]	Antenna Gain [dBi]	EIRP [W]	EIRP Limit [W]	Verdict
EUT Conf. 1	5	43.44	0.44	17	1106.6	2000.802	Pass
	10	43.35	0.35	17	1083.9	2000.803	Pass
	20	43.42	0.42	17	1101.5	2000.804	Pass
EUT Conf. 2	10&5	43.35	0.35	17	1083.9	2000.802	Pass
	10&20	42.97	-0.03	17	993.12	2000.803	Pass
	20&5	42.85	-0.15	17	966.05	2000.802	Pass
	20&20	42.77	-0.23	17	948.42	2000.804	Pass
EUT Conf. 3	20&20&20	44.46	-0.34	17	1399.6	2000.804	Pass
	10&20&20	44.45	-0.35	17	1396.4	2000.803	Pass
EUT Conf. 4	10&20&20&10	44.53	-0.27	17	1422.3	2000.803	Pass
EUT Conf. 5	20&20&20&20	44.69	-0.01	17	1475.7	2000.804	Pass
EUT Conf. 6	5	43.33	0.33	17	1078.9	2000.802	Pass
	10	43.23	0.23	17	1054.4	2000.802	Pass
	20	43.18	0.18	17	1042.3	2000.804	Pass
EUT Conf. 7	10&5	43.24	0.24	17	1056.8	2000.802	Pass
	10&20	43.09	0.09	17	1020.9	2000.802	Pass
	20&5	43.00	0	17	1000	2000.802	Pass
	20&20	42.91	-0.09	17	979.49	2000.804	Pass
EUT Conf. 8	20&20&20	44.32	-0.48	17	1355.2	2000.804	Pass
	10&20&20	44.56	-0.24	17	1432.2	2000.802	Pass
EUT Conf. 9	10&20&20&10	44.48	-0.32	17	1406	2000.802	Pass
EUT Conf. 10	20&20&20&20	44.47	-0.23	17	1402.8	2000.804	Pass
EUT Conf. 11	5	43.03	0.03	17	1006.9	2000.802	Pass
	10	43.06	0.06	17	1013.9	2000.803	Pass
	20	42.88	-0.12	17	972.75	2000.804	Pass
EUT Conf. 12	10&5	43.08	0.08	17	1018.6	2000.802	Pass
	10&20	43.16	0.16	17	1037.5	2000.803	Pass
	20&5	43.09	0.09	17	1020.9	2000.802	Pass
	20&20	42.87	-0.13	17	970.51	2000.804	Pass
EUT Conf. 13	20&20&20	44.38	-0.42	17	1374	2000.804	Pass



---

---

EUT Conf.	Ch. BW [MHz]	Channel Power [dBm]	Offset from Rated [dB]	Antenna Gain [dBi]	EIRP [W]	EIRP Limit [W]	Verdict
	10&20&20	44.68	-0.12	17	1472.3	2000.803	Pass
EUT Conf. 14	10&20&20&10	44.57	-0.23	17	1435.5	2000.803	Pass
EUT Conf. 15	20&20&20&20	44.59	-0.11	17	1442.1	2000.804	Pass



# Appendix B: Bandwidth



## 1 Result Table

### 1.1 Occupied Bandwidth

EUT Conf.	Ch. BW [MHz]	Occupied Bandwidth [MHz]	Verdict
EUT Conf. 1	5	4.5099	Pass
	10	9.0630	Pass
	20	17.886	Pass
EUT Conf. 6	5	4.5100	Pass
	10	9.0627	Pass
	20	17.884	Pass
EUT Conf. 11	5	4.5092	Pass
	10	9.0614	Pass
	20	17.873	Pass

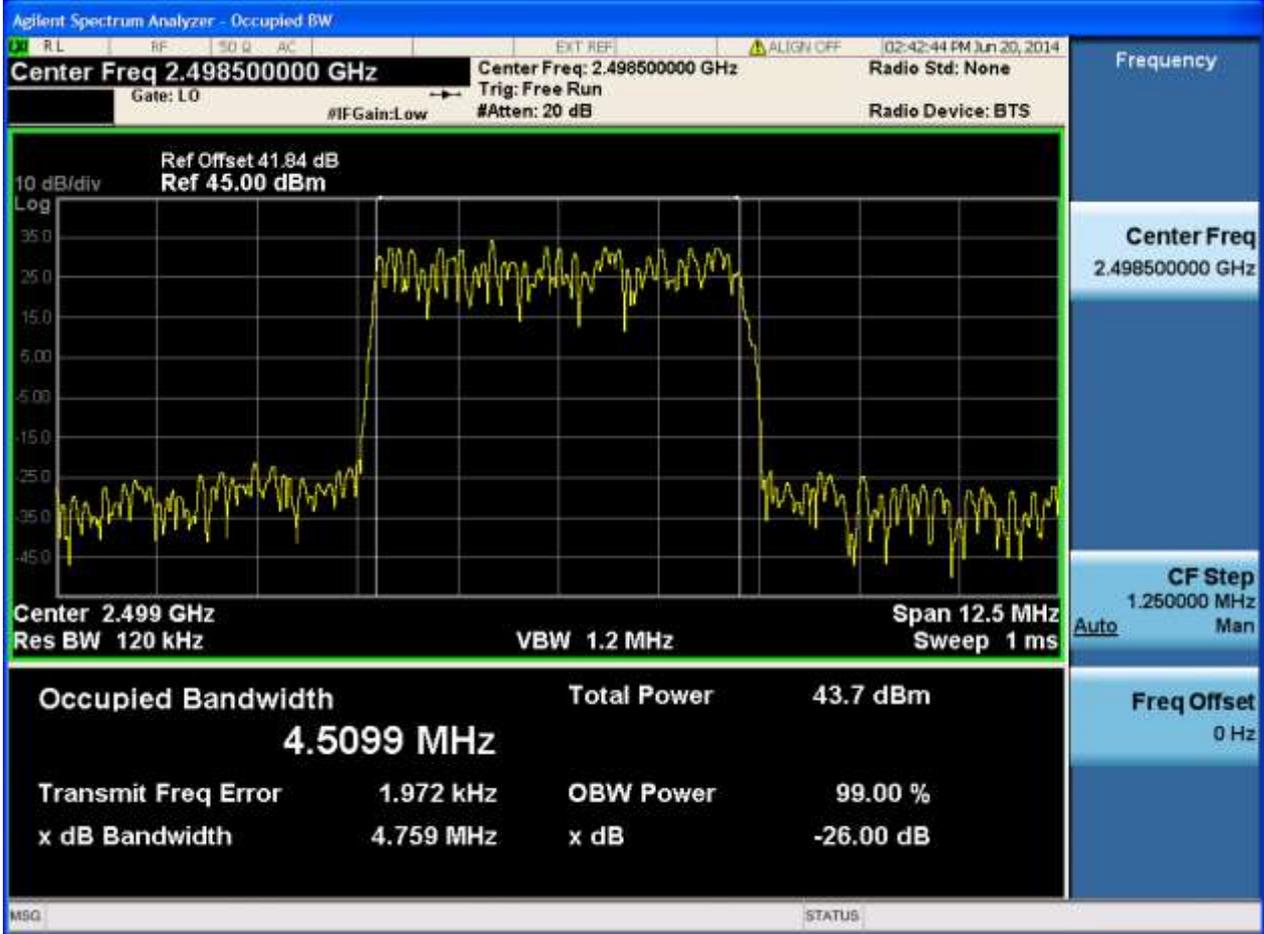


## 2 Test Plot

### 2.1 Occupied Bandwidth

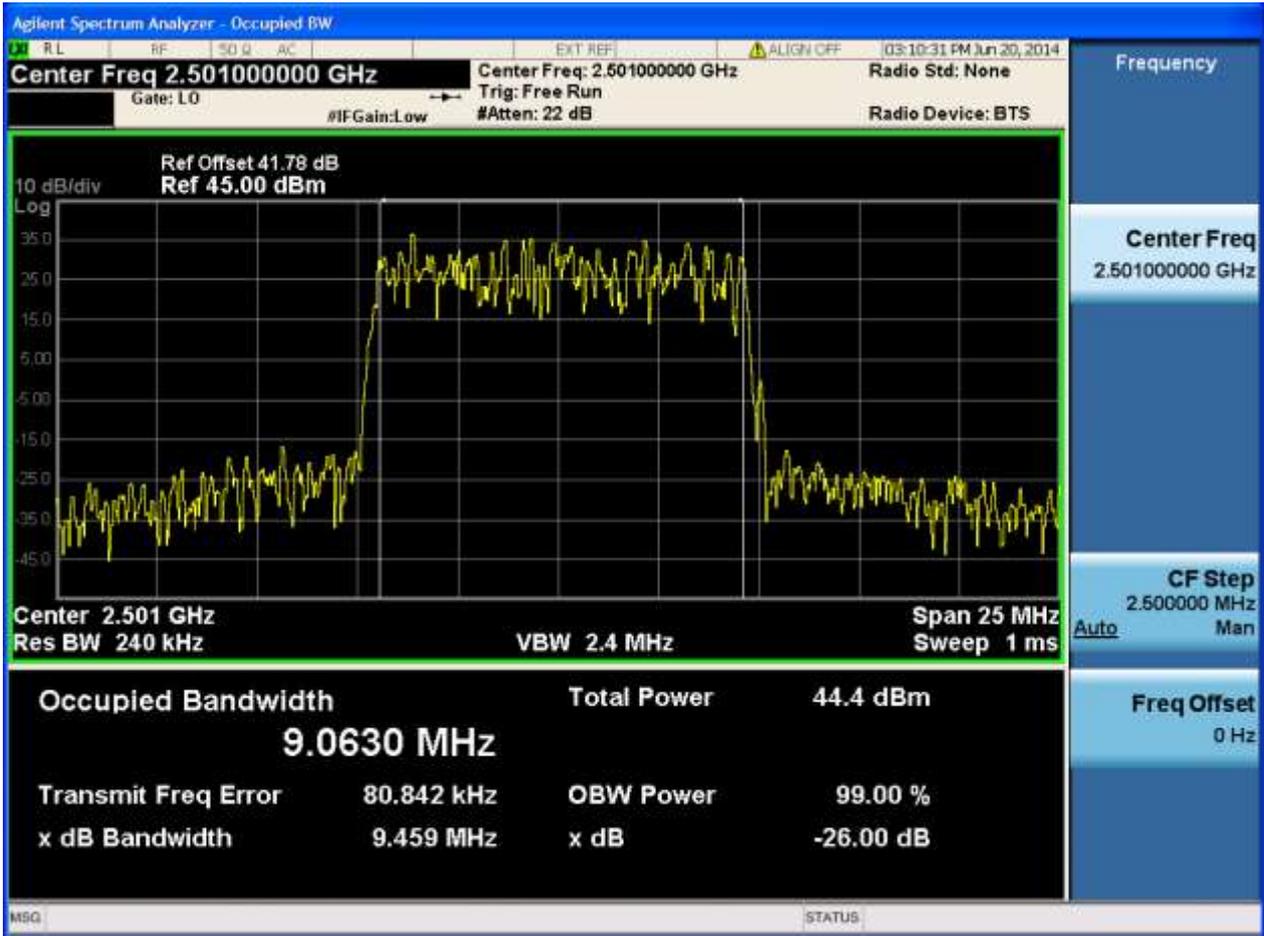
#### 2.1.1 EUT Conf. 1

Occupied Bandwidth-5M-B



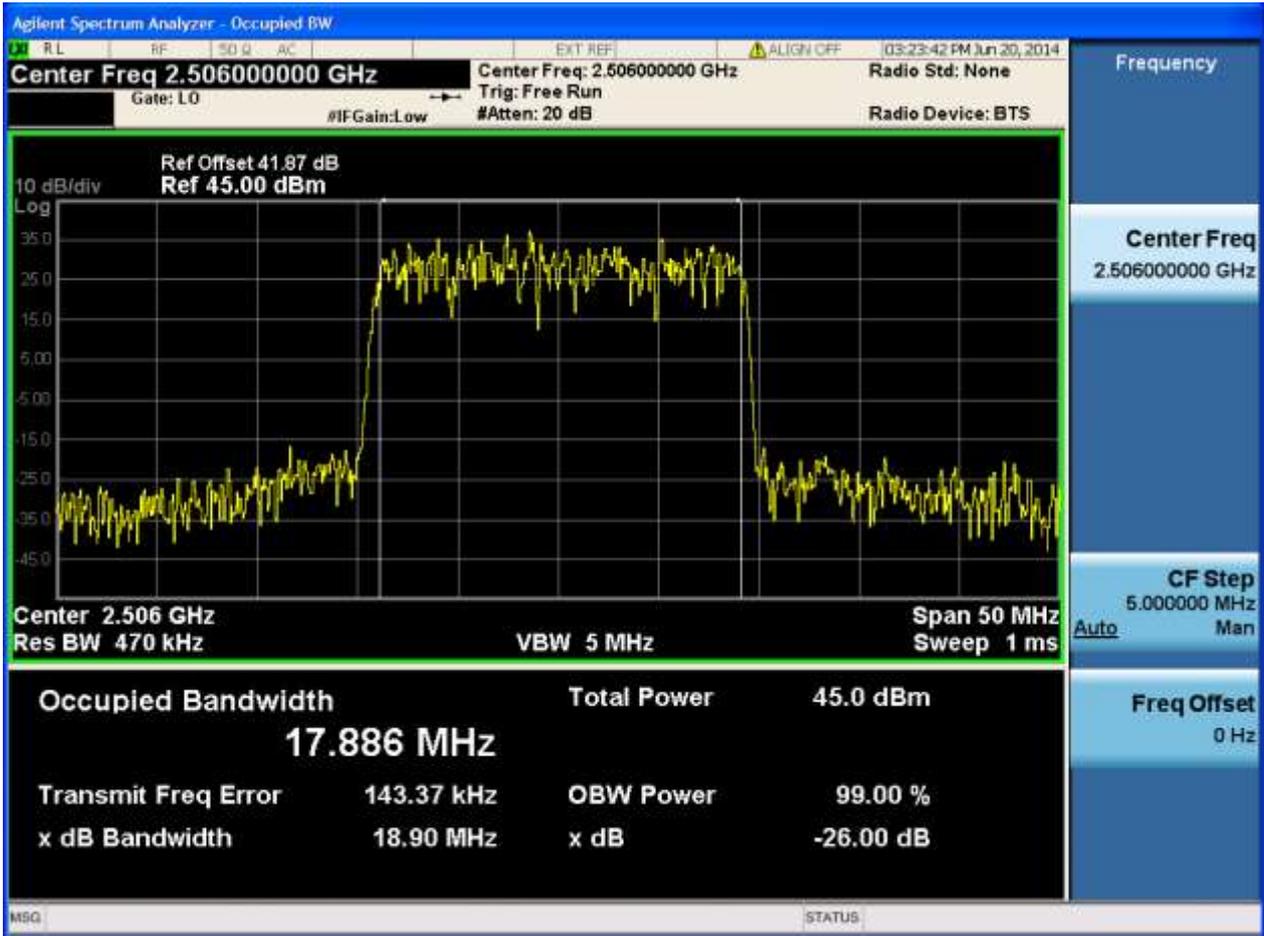


Occupied Bandwidth-10M-B



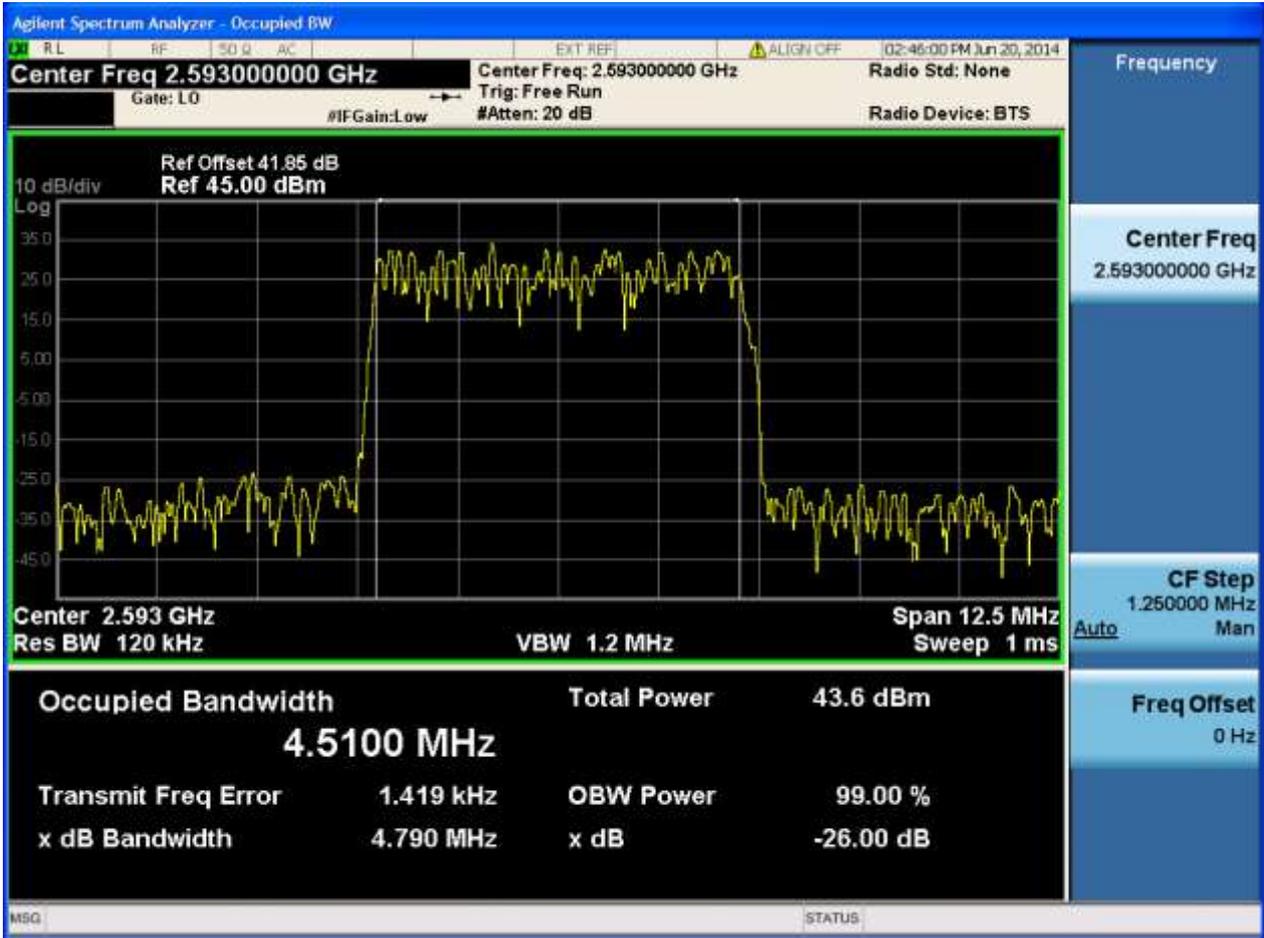


Occupied Bandwidth-20M-B



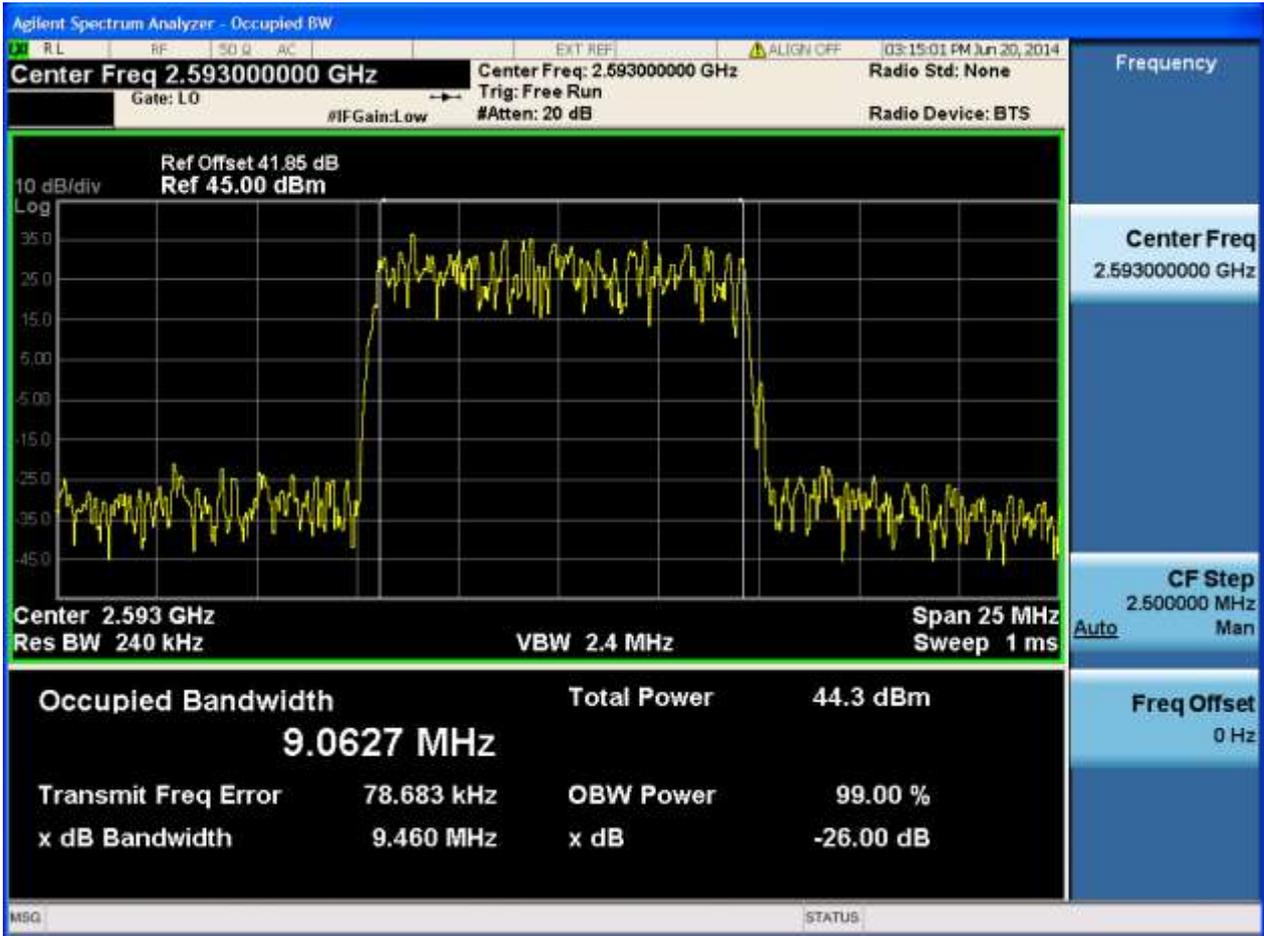
### 2.1.2 EUT Conf. 6

Occupied Bandwidth-5M-M



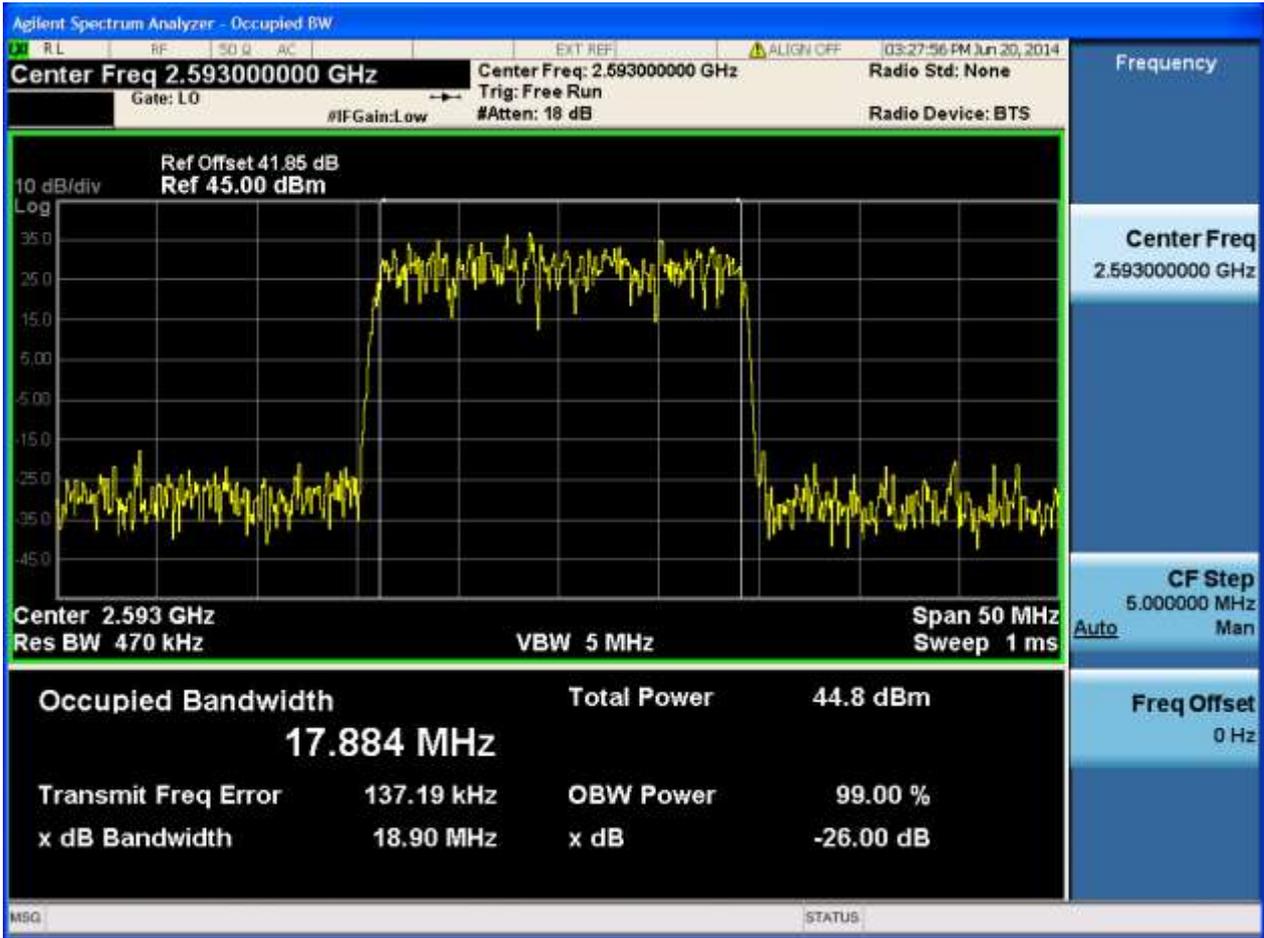


Occupied Bandwidth-10M-M



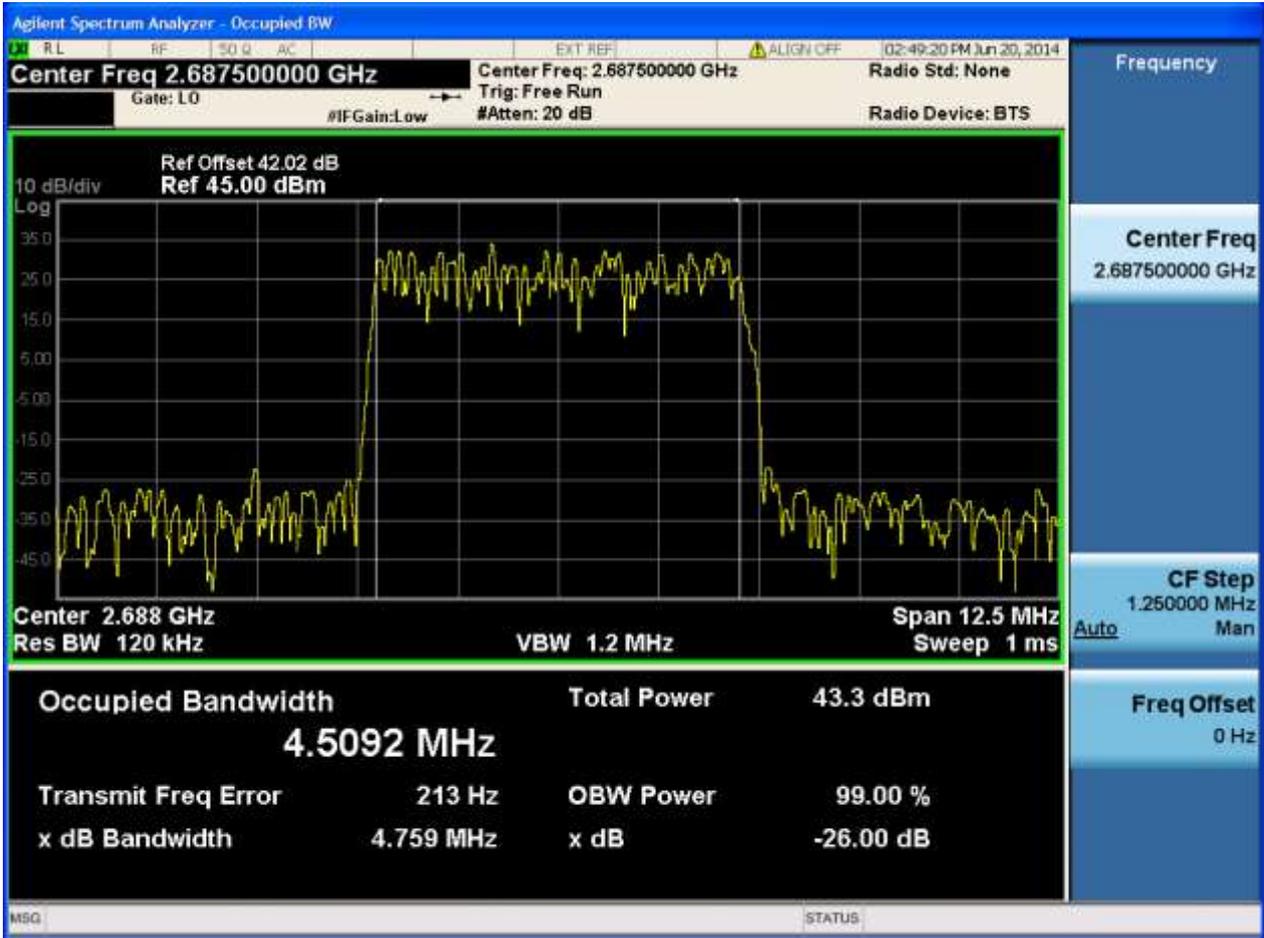


Occupied Bandwidth-20M-M



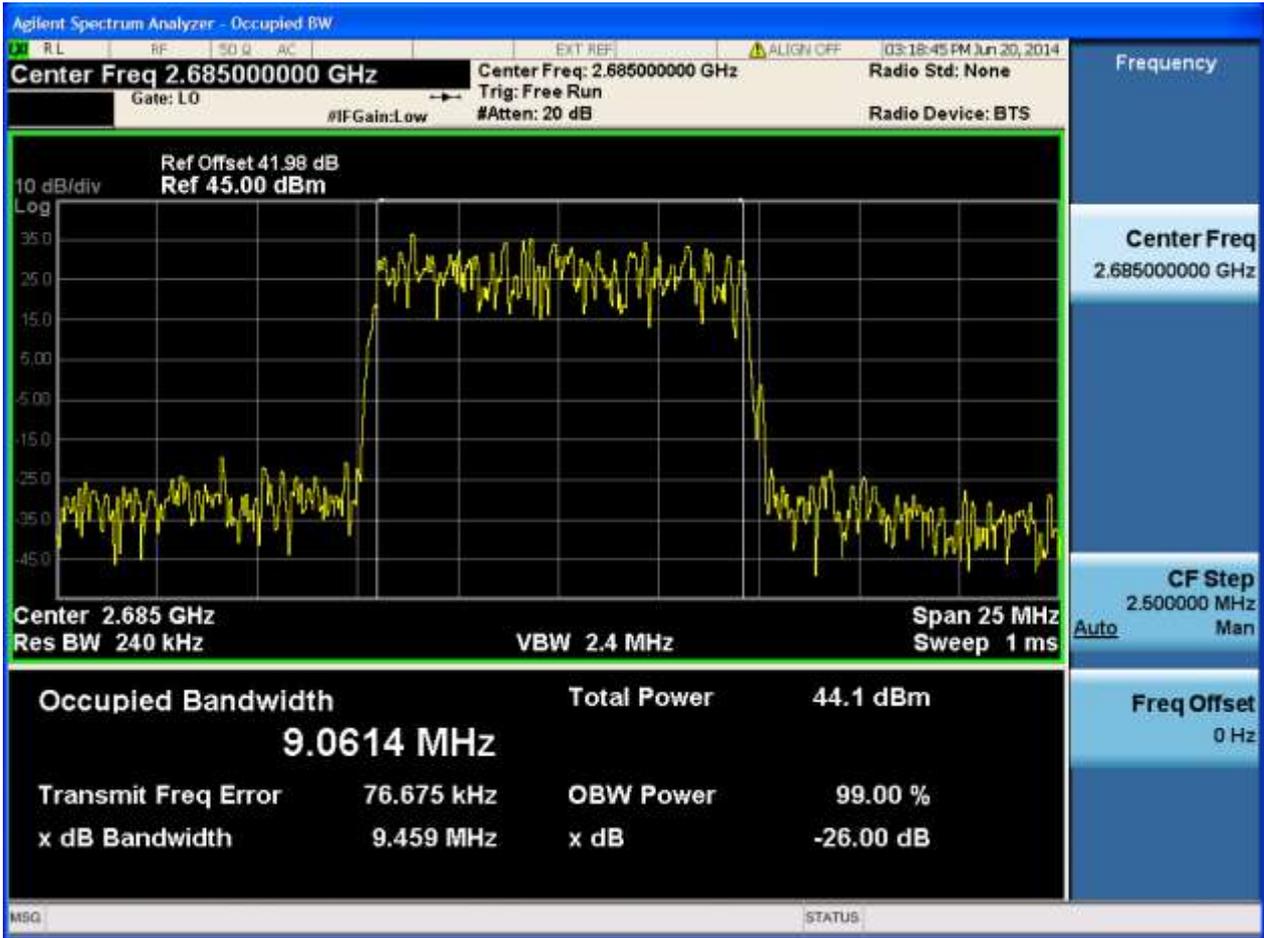
### 2.1.3 EUT Conf. 11

Occupied Bandwidth-5M-T



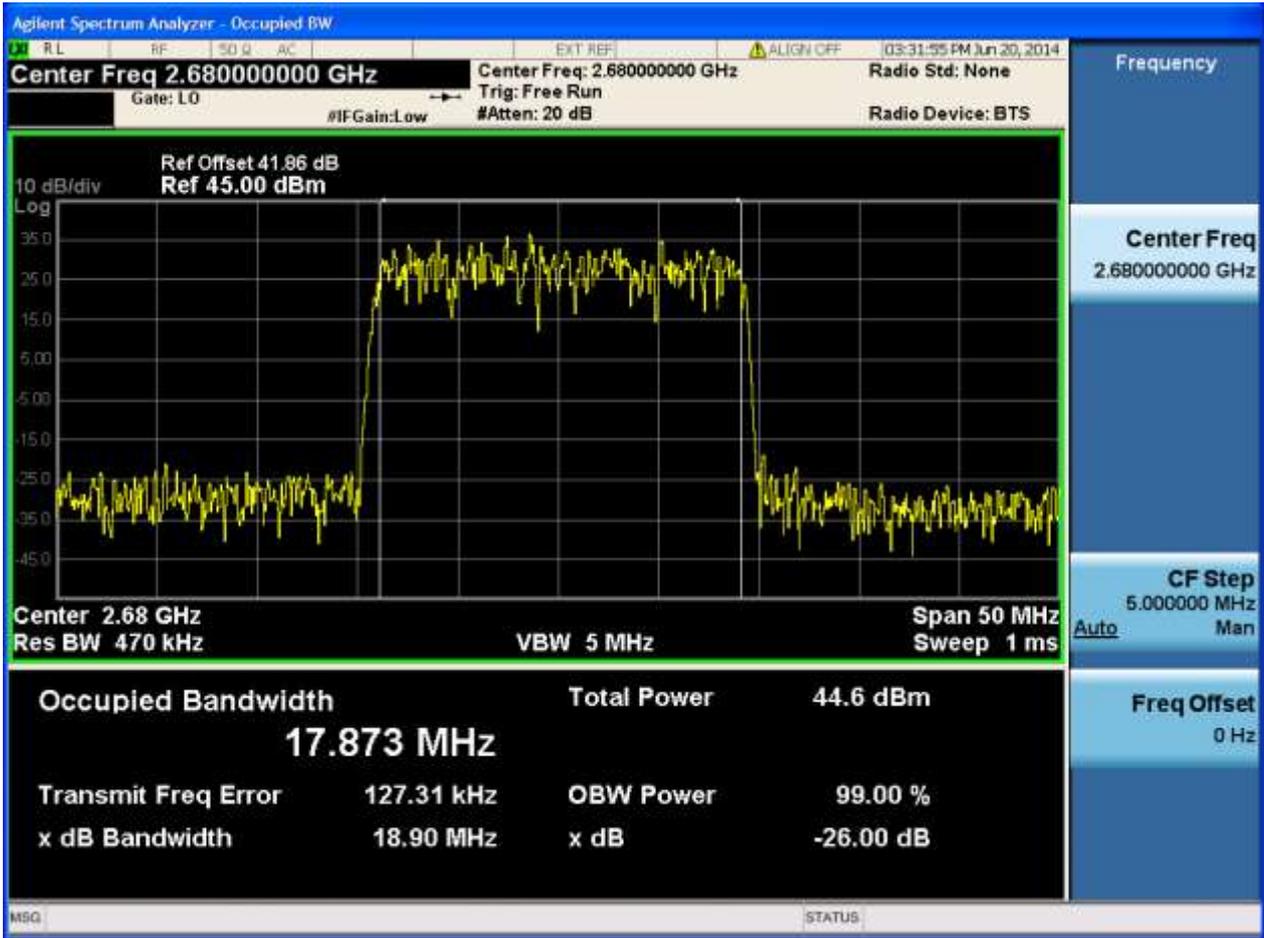


Occupied Bandwidth-10M-T





Occupied Bandwidth-20M-T





# Appendix C: Band Edges Compliance



## 1 Result Table

NOTE: The offset of measurement filter -3dB point may be considered when identifying the maximum emission for e.g. the CDMA, WCDMA, WiMAX, LTE systems.

EUT Conf.	Ch. BW [MHz]	Maximum Emission [dBm]	Verdict
EUT Conf. 1	5	-22.46	Pass
	10	-23.47	Pass
	20	-26.26	Pass
EUT Conf. 4	10&20&20&10	-29.97	Pass
EUT Conf. 5	20&20&20&20	-21.26	Pass
EUT Conf. 11	5	-29.85	Pass
	10	-30.83	Pass
	20	-31.99	Pass
EUT Conf. 14	10&20&20&10	-31.22,	Pass
EUT Conf. 15	20&20&20&20	-25.13	Pass

## 2 Test Plot

### 2.1 EUT Conf. 1

Band Edge for Lower-5M-B





Band Edge for Lower-10M-B





Band Edge for Lower-20M-B



## 2.2 EUT Conf. 4

Band Edge for Lower-10+20+20+10M-B



### 2.3 EUT Conf. 5

Band Edge for Lower-20+20+20+20M-B



## 2.4 EUT Conf. 11

Band Edge for Upper-5M-T





Band Edge for Upper-10M-T





Band Edge for Upper-20M-T





## 2.5 EUT Conf. 14

Band Edge for Upper-10+20+20+10M-T



## 2.6 EUT Conf. 15

Band Edge for Upper-20+20+20+20M-T





# Appendix D: Spurious Emission at Antenna Terminals



## 1 Result Table

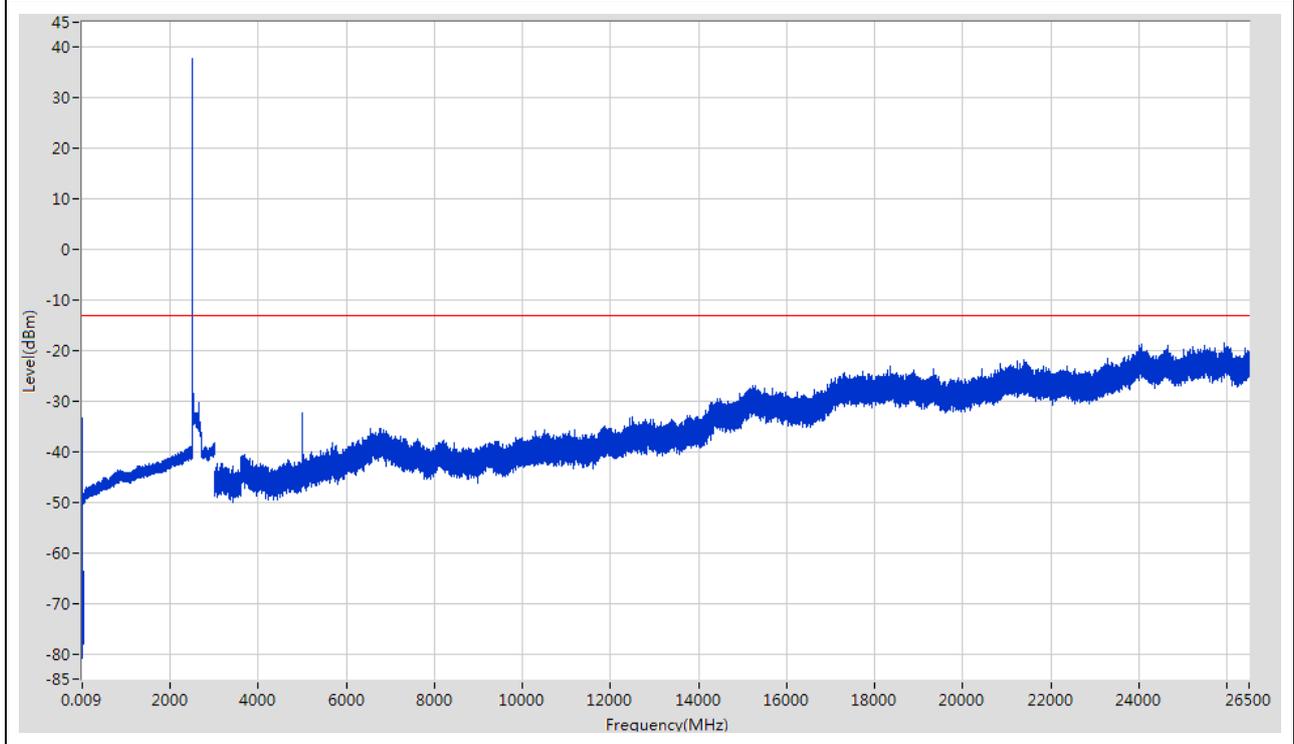
EUT Conf.	Ch. BW [MHz]	Maximum Emission [dBm]	Verdict
EUT Conf. 1	5	-18.56	Pass
	10	-19.26	Pass
	20	-18.35	Pass
EUT Conf. 4	10&20&20&10	-18.49	Pass
EUT Conf. 5	20&20&20&20	-18.41	Pass
EUT Conf. 6	5	-19.01	Pass
	10	-19.14	Pass
	20	-18.48	Pass
EUT Conf. 9	10&20&20&10	-18.67	Pass
EUT Conf. 10	20&20&20&20	-18.69	Pass
EUT Conf. 11	5	-18.84	Pass
	10	-18.98	Pass
	20	-18.37	Pass
EUT Conf. 14	10&20&20&10	-18.60	Pass
EUT Conf. 15	20&20&20&20	-18.59	Pass

## 2 Test Plot

### 2.1 EUT Conf. 1

TXCSE-5M-B

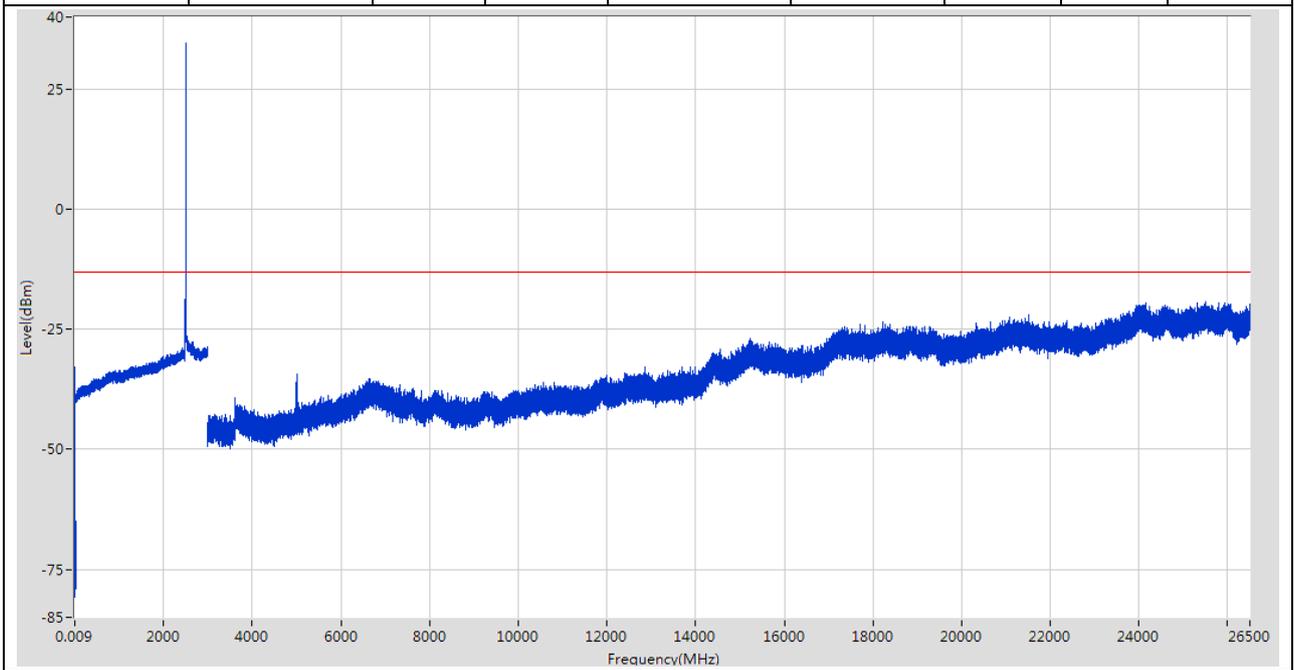
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-33.43	-13	Pass	1001
0.15	30	0.01	RMS	1.94412 M	-58.91	-13	Pass	14925
30	3000	1	RMS	2497.366153 M	37.69	-13	Work freq.	14850
3000	26500	1	RMS	25946.185231 M	-18.56	-13	Pass	117500





TXCSE -10M-B

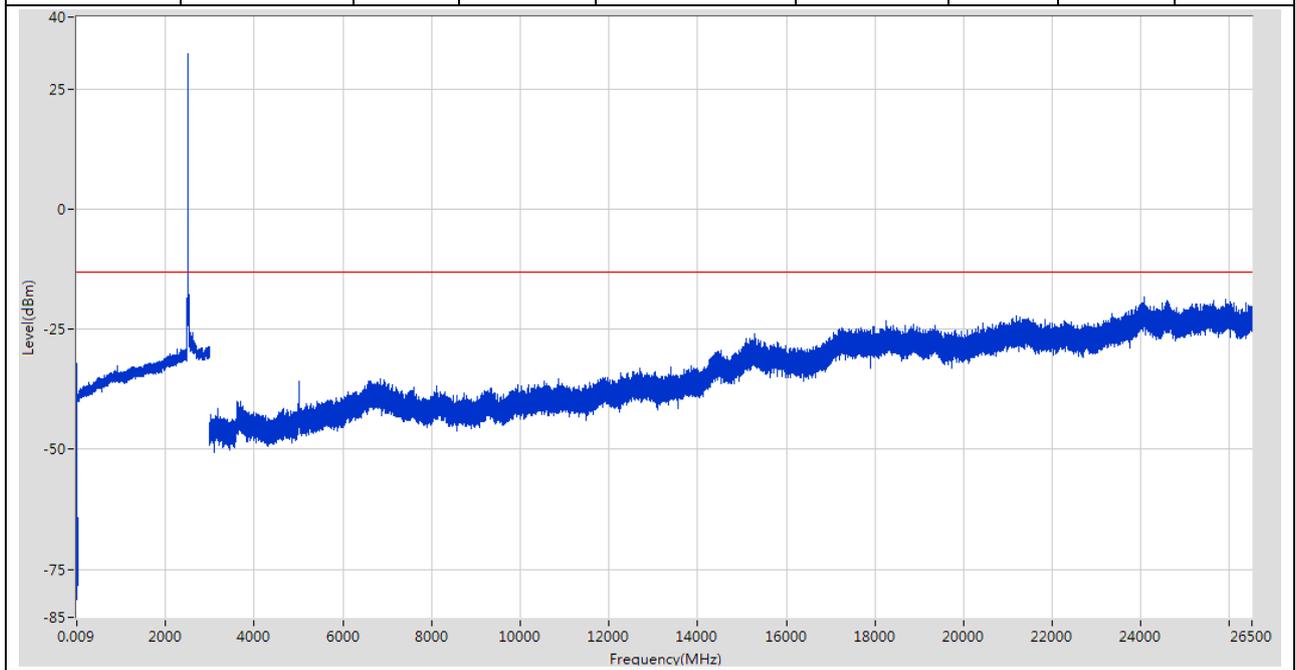
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.96	-13	Pass	1001
0.15	30	0.01	RMS	272.008 k	-57.93	-13	Pass	14925
30	3000	1	RMS	2499.966328 M	34.6	-13	Work freq.	14850
3000	26500	1	RMS	25507.573534 M	-19.26	-13	Pass	117500





TXCSE -20M-B

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.19	-13	Pass	1001
0.15	30	0.01	RMS	270.008 k	-61.05	-13	Pass	14925
30	3000	1	RMS	2513.767257 M	32.29	-13	Work freq.	14850
3000	26500	1	RMS	24060.334939 M	-18.35	-13	Pass	117500

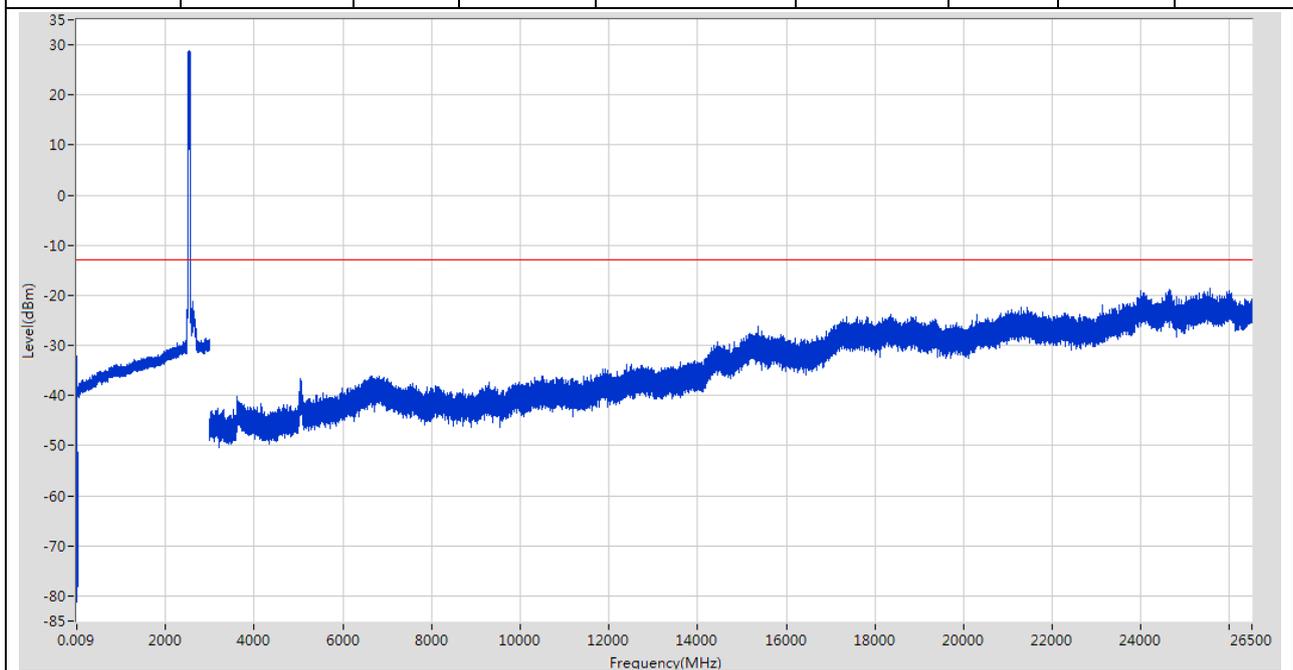




## 2.2 EUT Conf. 4

TXCSE -10+20+20+10M-B

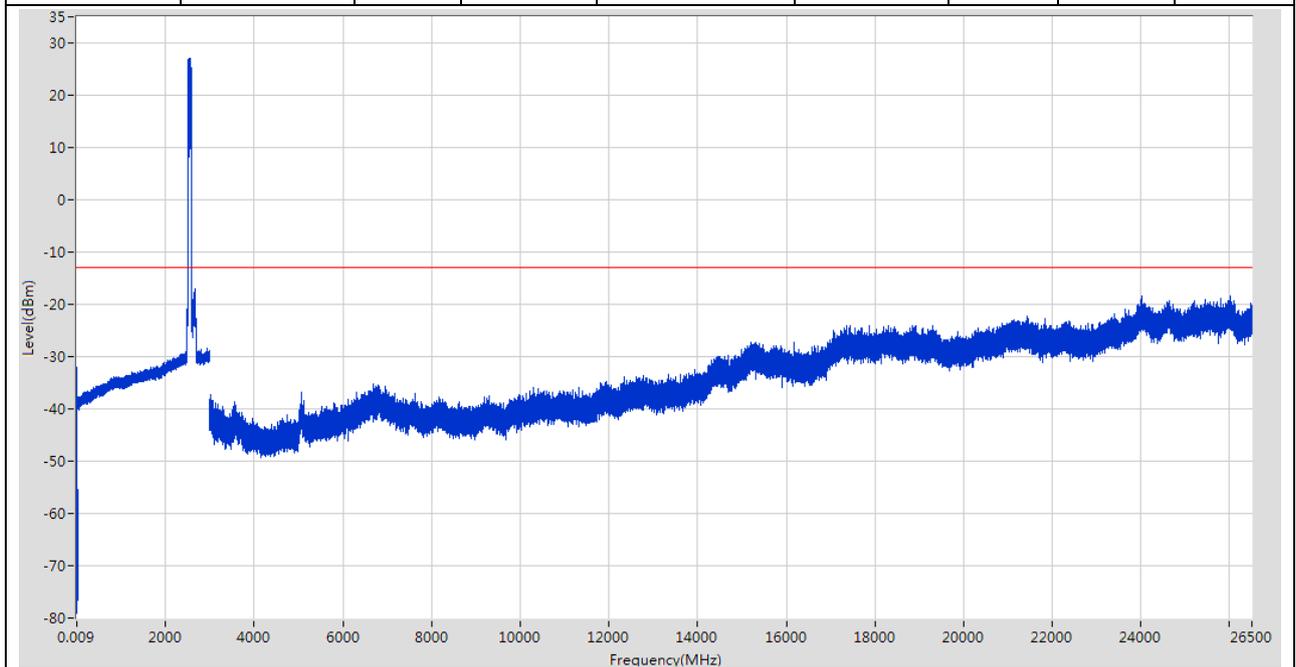
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.02	-13	Pass	1001
0.15	30	0.01	RMS	19.99933 M	-51.22	-13	Pass	14925
30	3000	1	RMS	2536.768806 M	28.93	-13	Work freq.	14850
3000	26500	1	RMS	25549.174643 M	-18.49	-13	Pass	117500



### 2.3 EUT Conf. 5

TXCSE -20+20+20+20M-B

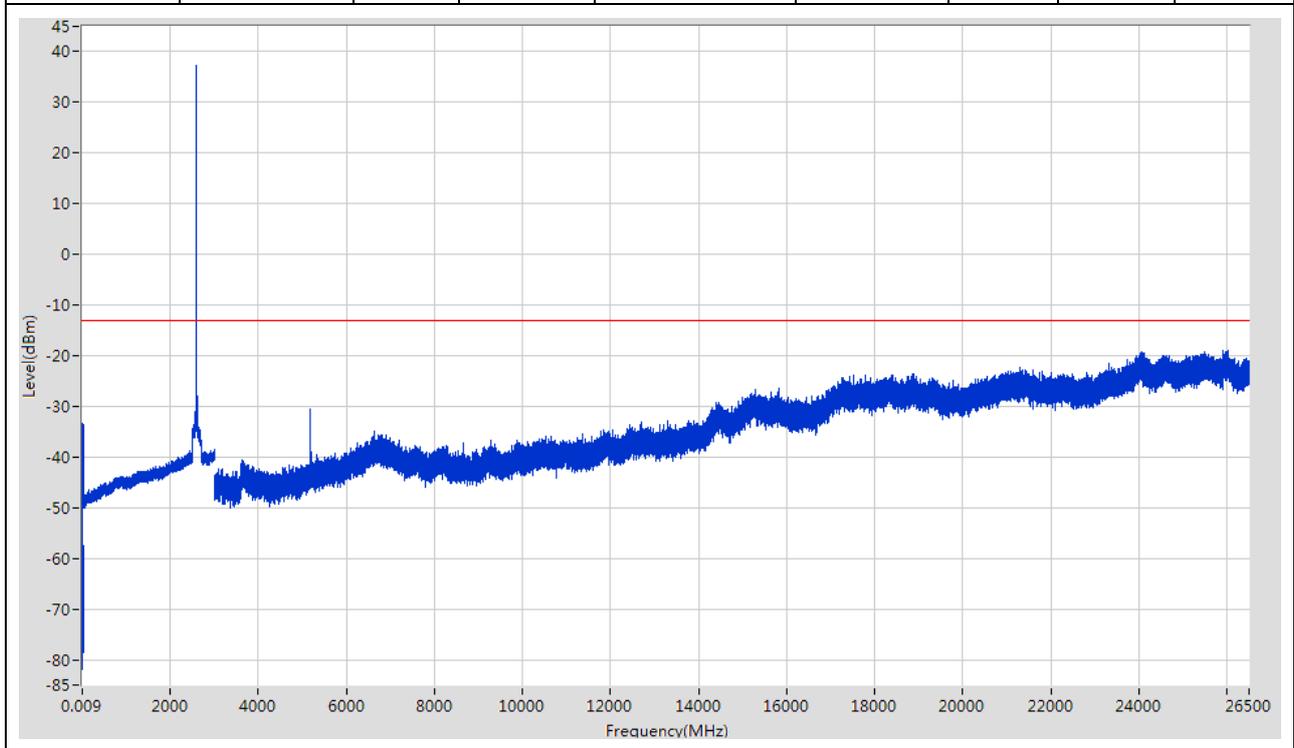
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.11	-13	Pass	1001
0.15	30	0.01	RMS	19.99733 M	-55.38	-13	Pass	14925
30	3000	1	RMS	2553.369924 M	27.11	-13	Work freq.	14850
3000	26500	1	RMS	26016.987119 M	-18.41	-13	Pass	117500



## 2.4 EUT Conf. 6

TXCSE -5M-M

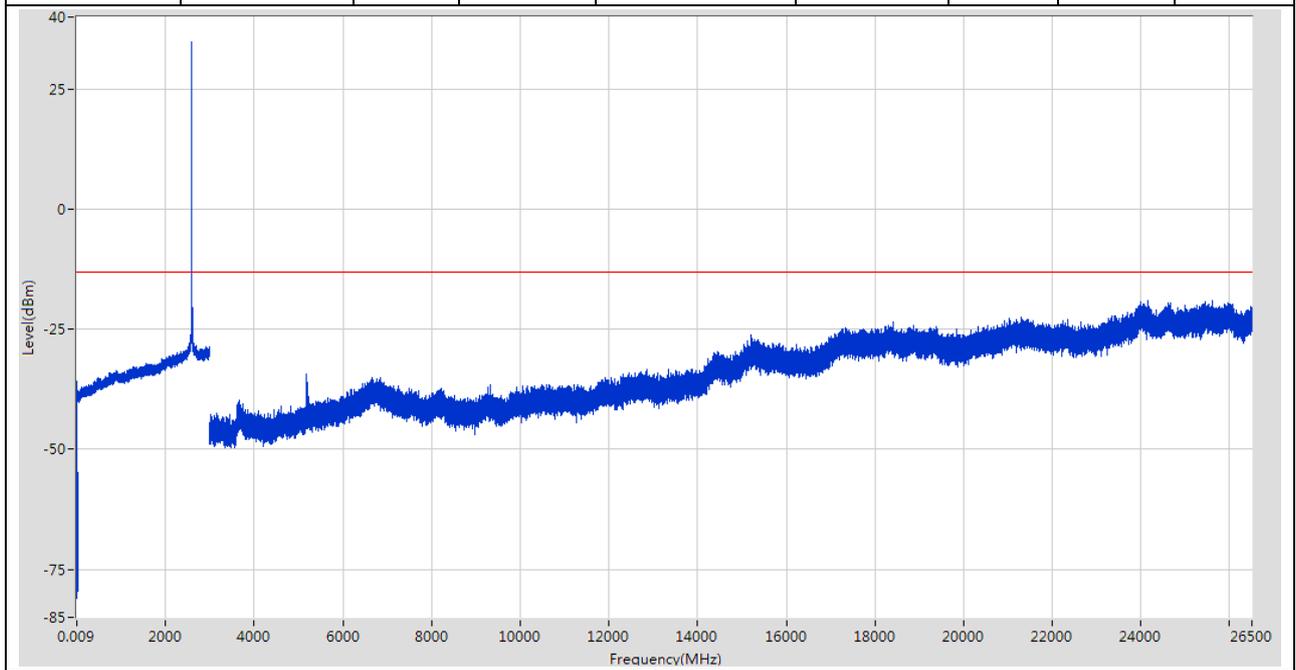
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-33.41	-13	Pass	1001
0.15	30	0.01	RMS	29.929995 M	-57.56	-13	Pass	14925
30	3000	1	RMS	2592.572564 M	37.21	-13	Work freq.	14850
3000	26500	1	RMS	26027.587402 M	-19.01	-13	Pass	117500





TXCSE -10M-M

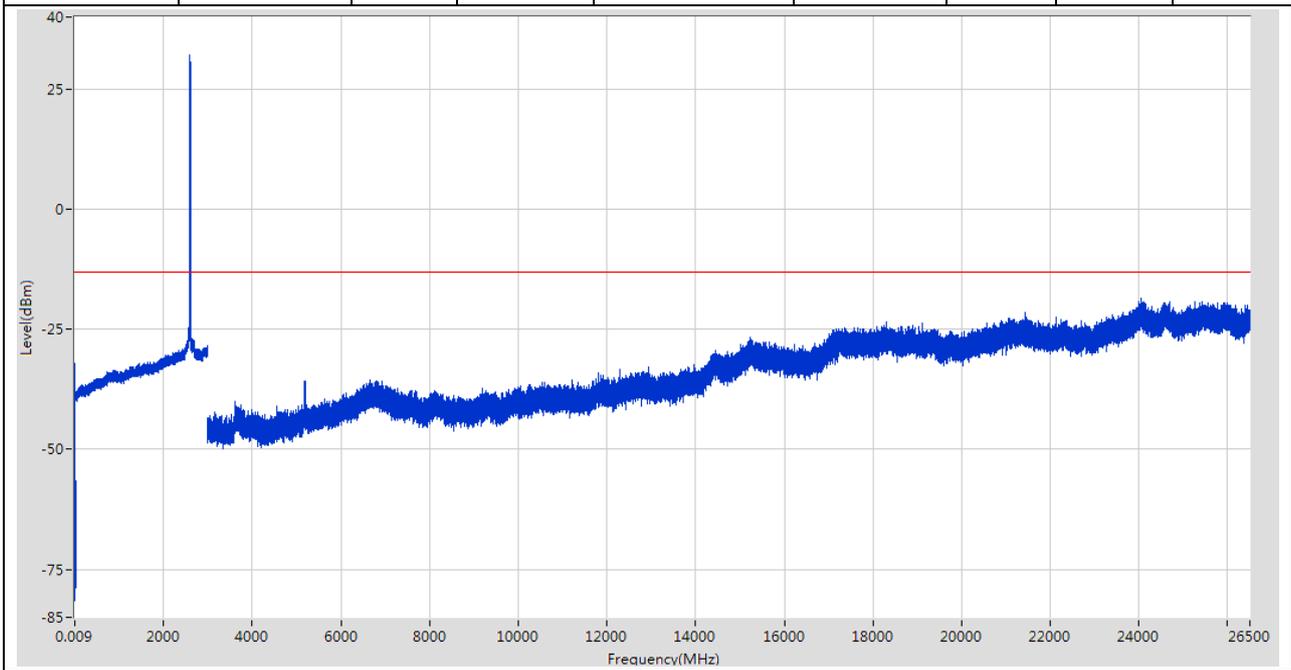
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-35.93	-13	Pass	1001
0.15	30	0.01	RMS	29.965998 M	-54.87	-13	Pass	14925
30	3000	1	RMS	2589.572362 M	34.71	-13	Work freq.	14850
3000	26500	1	RMS	25599.775993 M	-19.14	-13	Pass	117500





TXCSE -20M-M

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.19	-13	Pass	1001
0.15	30	0.01	RMS	29.475965 M	-56.64	-13	Pass	14925
30	3000	1	RMS	2592.172537 M	32.05	-13	Work freq.	14850
3000	26500	1	RMS	24045.334539 M	-18.48	-13	Pass	117500

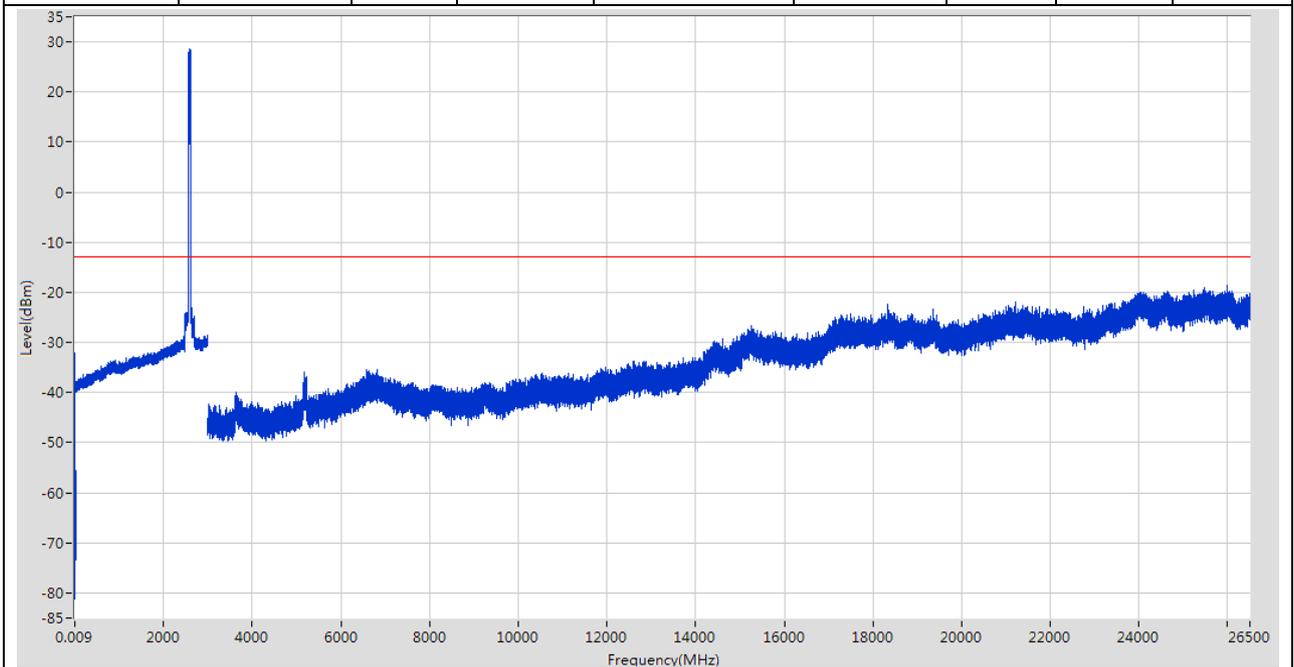




## 2.5 EUT Conf. 9

TXCSE -10+20+20+10M-M

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.18	-13	Pass	1001
0.15	30	0.01	RMS	20.00133 M	-55.48	-13	Pass	14925
30	3000	1	RMS	2597.572901 M	28.49	-13	Work freq.	14850
3000	26500	1	RMS	25993.186484 M	-18.67	-13	Pass	117500

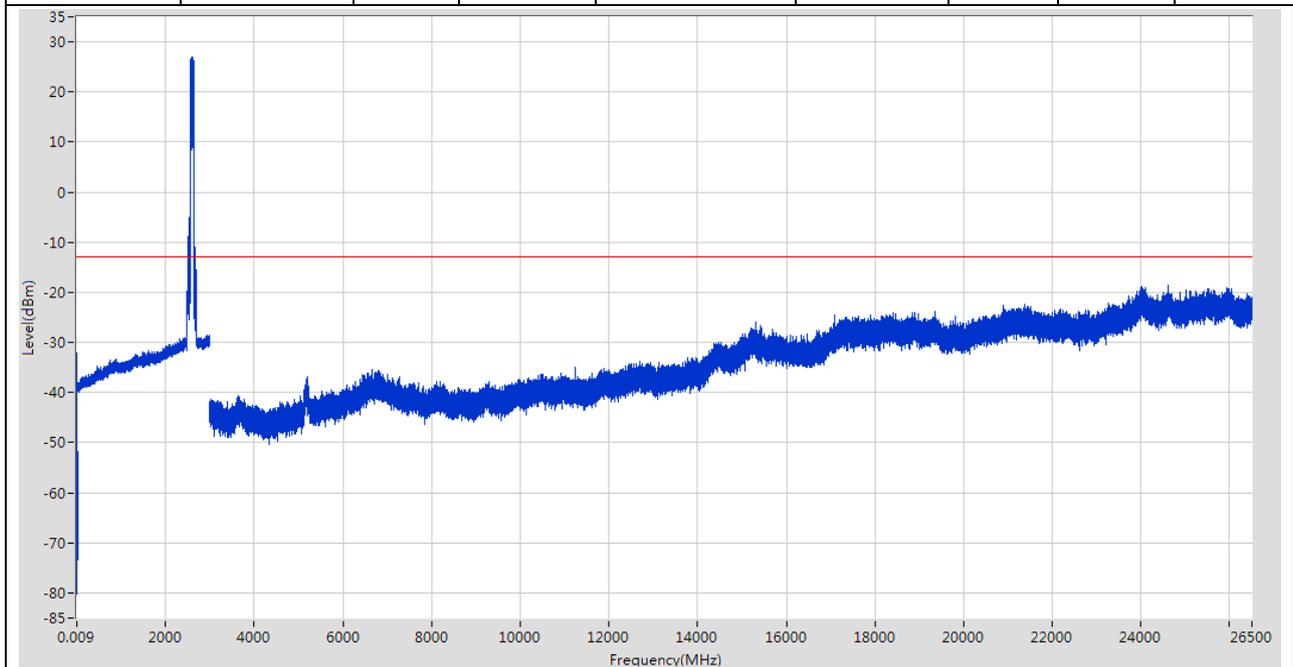




## 2.6 EUT Conf. 10

TXCSE -20+20+20+20M-M

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.11	-13	Pass	1001
0.15	30	0.01	RMS	19.99933 M	-51.84	-13	Pass	14925
30	3000	1	RMS	2609.373695 M	26.91	-13	Work freq.	14850
3000	26500	1	RMS	24610.949623 M	-18.69	-13	Pass	117500

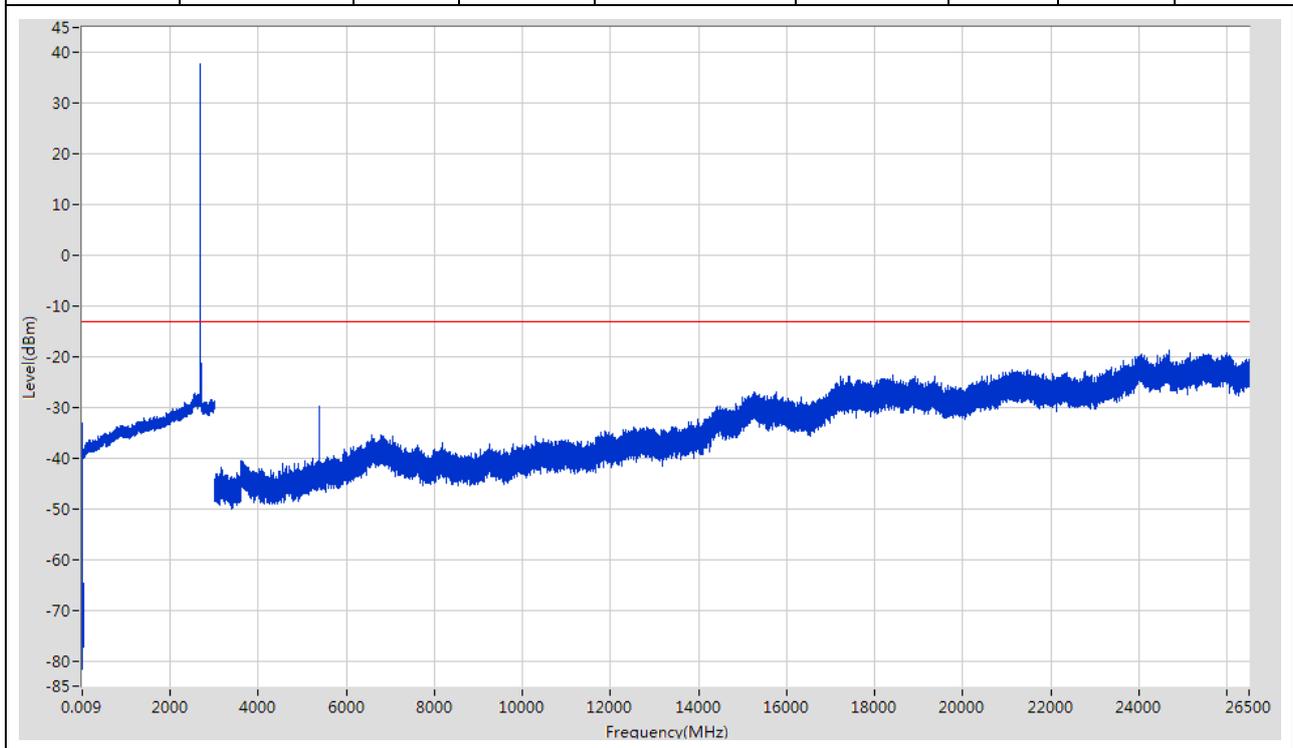




## 2.7 EUT Conf. 11

TXCSE -5M-T

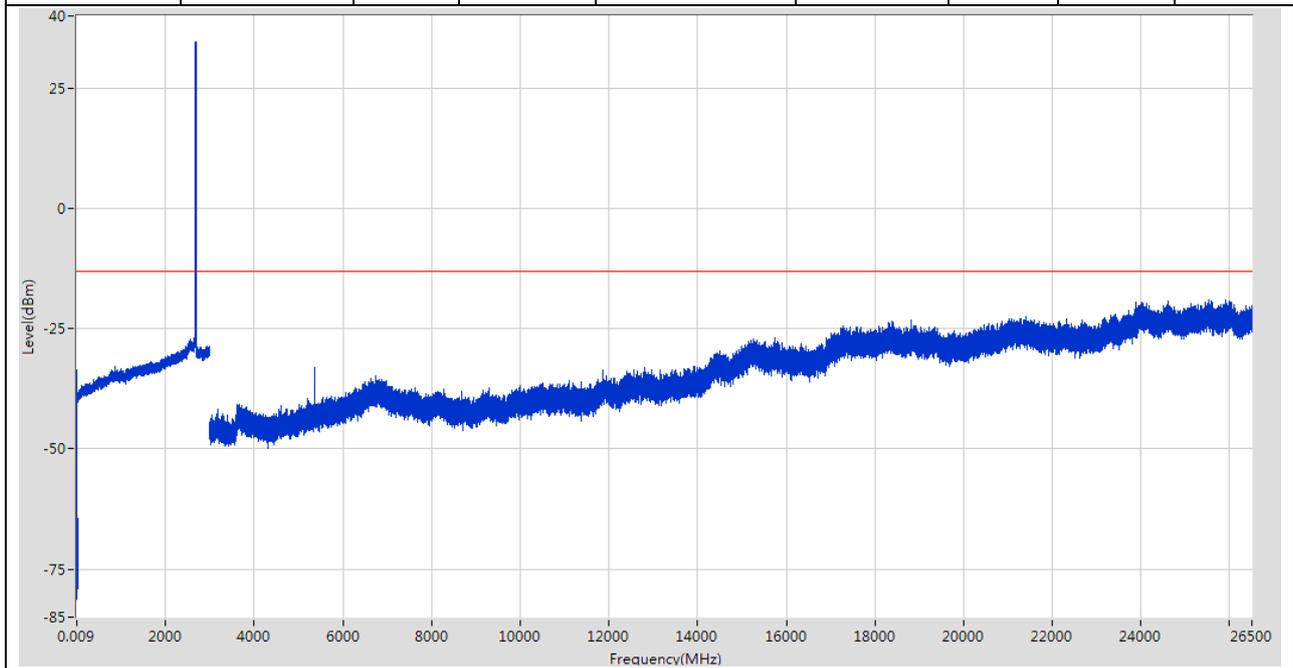
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-33.08	-13	Pass	1001
0.15	30	0.01	RMS	270.008 k	-60.56	-13	Pass	14925
30	3000	1	RMS	2686.378881 M	37.91	-13	Work freq.	14850
3000	26500	1	RMS	24696.551905 M	-18.84	-13	Pass	117500





TXCSE -10M-T

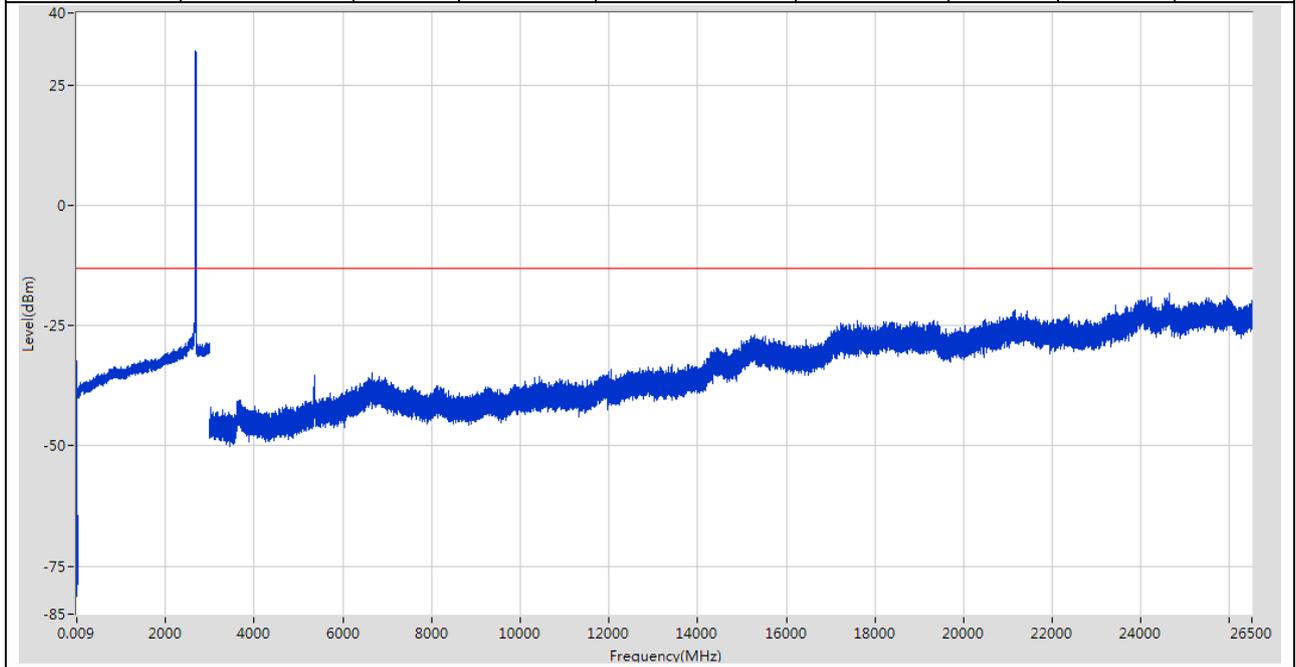
Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-33.64	-13	Pass	1001
0.15	30	0.01	RMS	270.008 k	-61.39	-13	Pass	14925
30	3000	1	RMS	2681.578557 M	34.63	-13	Work freq.	14850
3000	26500	1	RMS	25916.584441 M	-18.98	-13	Pass	117500





TXCSE -20M-T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.27	-13	Pass	1001
0.15	30	0.01	RMS	272.008 k	-62.14	-13	Pass	14925
30	3000	1	RMS	2681.578557 M	32.05	-13	Work freq.	14850
3000	26500	1	RMS	24631.550172 M	-18.37	-13	Pass	117500

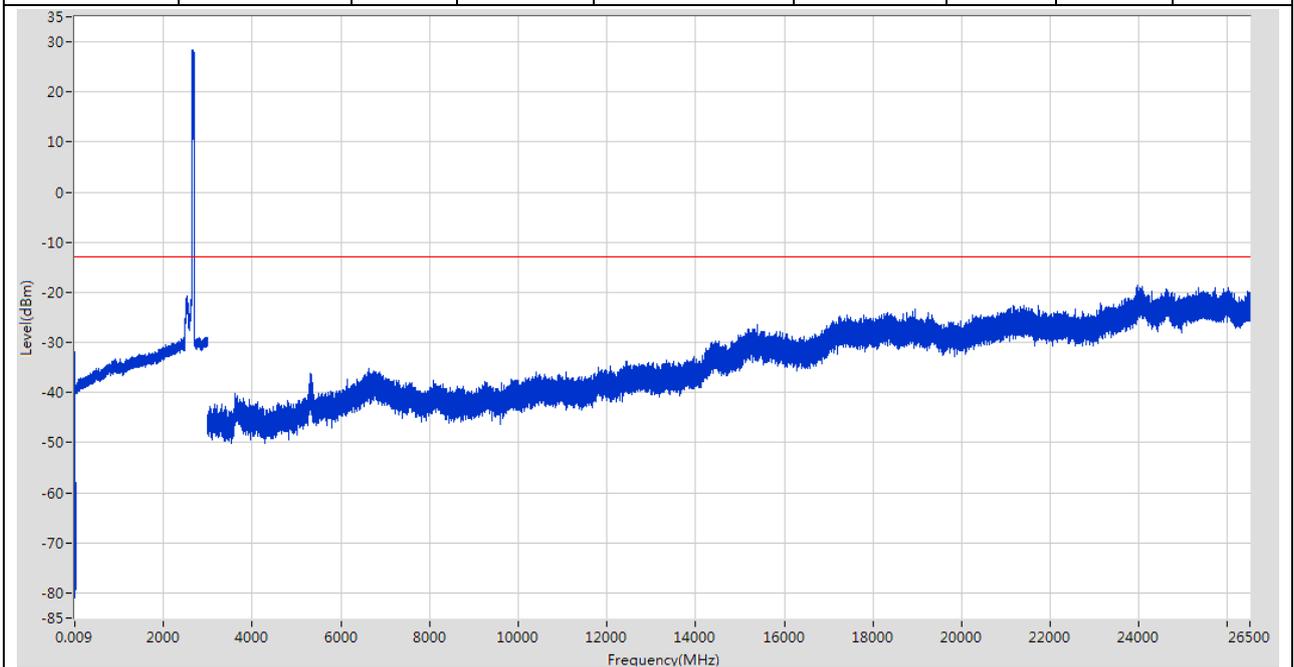




### 2.8 EUT Conf. 14

TXCSE -10+20+20+10M-T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-31.89	-13	Pass	1001
0.15	30	0.01	RMS	20.00133 M	-57.88	-13	Pass	14925
30	3000	1	RMS	2652.776618 M	28.45	-13	Work freq.	14850
3000	26500	1	RMS	23976.732709 M	-18.6	-13	Pass	117500

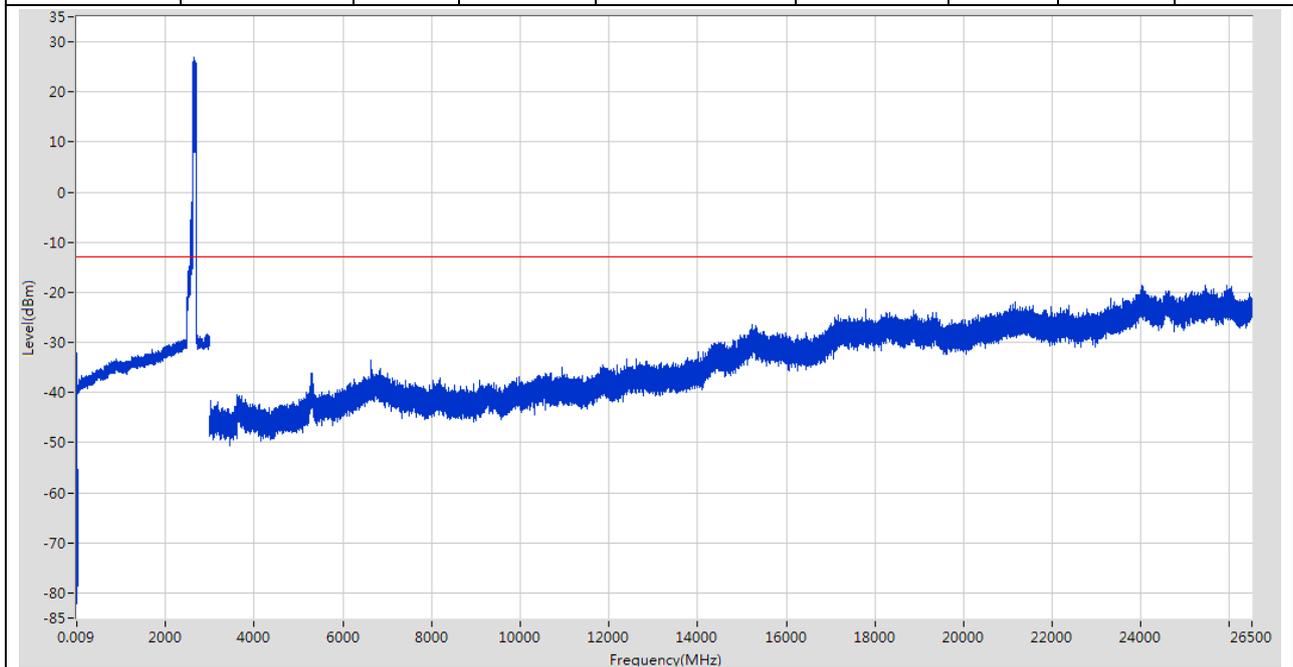




## 2.9 EUT Conf. 15

TXCSE -20+20+20+20M-T

Start Frequency [MHz]	Stop Frequency [MHz]	RBW [MHz]	Detector	Frequency [Hz]	Emission [dBm]	Limit [dBm]	Verdict	Sweep Point
0.009	0.15	0.001	RMS	81.615 k	-32.11	-13	Pass	1001
0.15	30	0.01	RMS	19.99933 M	-55.28	-13	Pass	14925
30	3000	1	RMS	2652.776618 M	26.98	-13	Work freq.	14850
3000	26500	1	RMS	25437.571667 M	-18.59	-13	Pass	117500





# Appendix E: Field Strength of Spurious Radiation



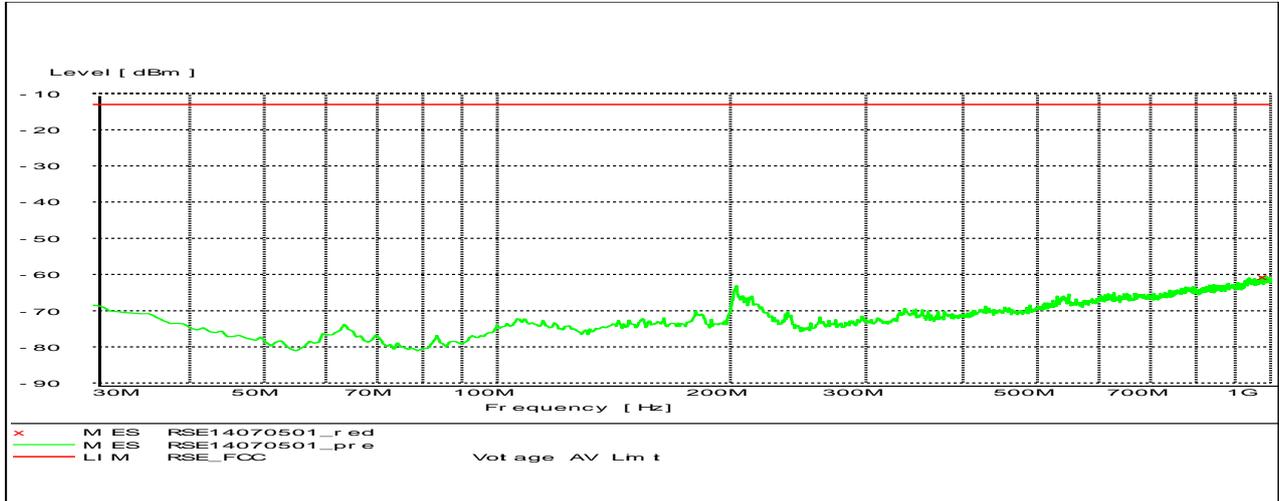
## 1 Result Table

Test Range	EUT Conf.	Maximum Emission [dBm]	Verdict
30 MHz to 1 GHz	Worst Case (EUT Conf. 9)	< -13	Pass
1 GHz to 18 GHz	Worst Case (EUT Conf. 9)	< -13	Pass
18 GHz to 26.5 GHz	Worst Case (EUT Conf. 9)	< -13	Pass

## 2 Test Plot

### 2.1 Test range of "30 MHz to 1 GHz"

#### 2.1.1 Worst Case (EUT Conf. 9)



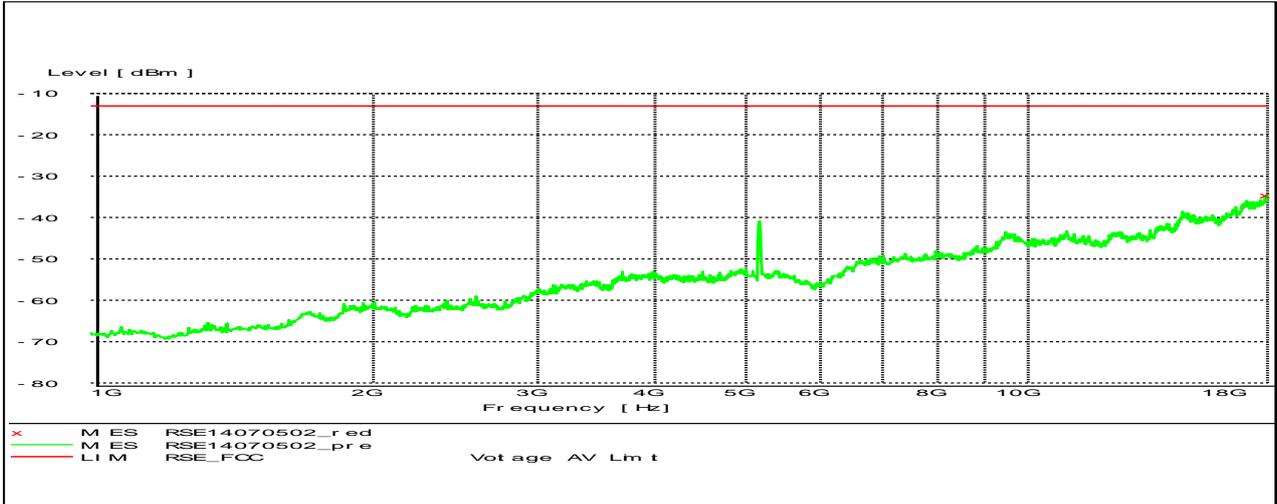
#### MEASUREMENT RESULT: "RSE14070501\_red"

2014-7-5 9:54

Frequency	Level	Transd	Limit	Margin	Det.	Height	Azimuth	Polarization
MHz	dBm	dB	dBm	dB	dB	cm	deg	deg
982.928000	-60.60	-96.2	-13	47.6	---	100.0	270.00	VERTICAL

## 2.2 Test range of “1 GHz to 18 GHz”

### 2.2.1 EUT Conf. 9



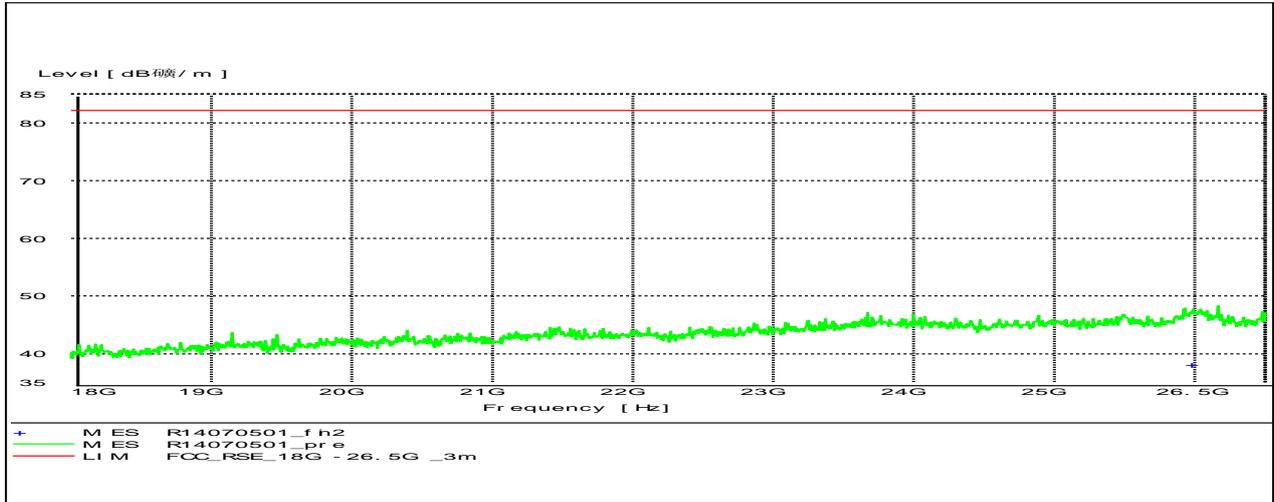
#### MEASUREMENT RESULT: "RSE14070502\_red"

2014-7-5 10:46

Frequency	Level	Transd	Limit	Margin	Det.	Height	Azimuth	Polarization
MHz	dBm	dB	dBm	dBm	dB	cm	deg	deg
17989.600000	-34.40	-78.0	-13	21.4	---	200.0	90.00	HORIZONTAL

## 2.3 Test range of "18 GHz to 26.5 GHz"

### 2.3.1 Worst Case (EUT Conf. 9)



#### MEASUREMENT RESULT: "R14070501\_fin2"

2014-7-5 11:29

Frequency	Level	Transd	Limit	Margin	Det.	Height	Azimuth	Polarization
MHz	dBμV/m	dB	dBμV/m	dB	dB	cm	deg	deg
25987.000000	38.20	35.2	1000.0	961.8	AV	150.0	167.00	HORIZONTAL

(The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.)



# Appendix F: Frequency Stability

## 1 Result Table

### 1.1 Frequency Error

(1) Frequency Error vs. Temperature:

EUT Conf.	Voltage	Temperature	Ch. BW [MHz]	Freq. Error, f(offset) [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
EUT Conf. 6	100%	-30 °C	5	-4.6856	-0.00181	---	Pass
			10	-4.1715	-0.00161	---	Pass
			20	-5.9211	-0.00228	---	Pass
		-20 °C	5	-4.9129	-0.00189	---	Pass
			10	-7.4335	-0.00287	---	Pass
			20	-4.1460	-0.00160	---	Pass
		-10 °C	5	-5.1922	-0.00200	---	Pass
			10	-4.2501	-0.00164	---	Pass
			20	-6.1499	-0.00237	---	Pass
		0 °C	5	-3.3475	-0.00129	---	Pass
			10	-3.8404	-0.00148	---	Pass
			20	-5.1348	-0.00198	---	Pass
		+10 °C	5	-3.1610	-0.00122	---	Pass
			10	-4.3016	-0.00166	---	Pass
			20	-5.0717	-0.00196	---	Pass
		+20 °C	5	-4.0092	-0.00155	---	Pass
			10	-11.517	-0.00444	---	Pass
			20	-7.4641	-0.00288	---	Pass
		+30 °C	5	-3.4559	-0.00133	---	Pass
			10	-5.1742	-0.00200	---	Pass
			20	-6.1829	-0.00238	---	Pass
		+40 °C	5	-3.2104	-0.00124	---	Pass
			10	-4.7317	-0.00182	---	Pass
			20	-7.8445	-0.00303	---	Pass
		+50 °C	5	-5.5774	-0.00215	---	Pass
			10	-3.4653	-0.00134	---	Pass
			20	-1.4680	-0.00057	---	Pass



(2) Frequency Error vs. Voltage:

EUT Conf.	Temperature	Voltage	Ch. BW [MHz]	Freq. Error, f(offset) [Hz]	Freq. vs. rated [ppm]	Freq. vs. 20 °C [ppm]	Verdict
EUT Conf. 6	+20 °C	85 %	5	-6.0876,	-0.00235,	---	Pass
			10	-5.6686,	-0.00219,	---	Pass
			20	-2.7104	-0.00105	---	Pass
		100 %	5	-5.5618,	-0.00214,	---	Pass
			10	-5.8644,	-0.00226,	---	Pass
			20	-8.1839	-0.00316	---	Pass
		115 %	5	-3.7290,	-0.00144,	---	Pass
			10	-4.1549,	-0.00160,	---	Pass
			20	-11.617	-0.00448	---	Pass

END