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# Appendix B

**E-UTRA BAND 26 (814MHz-824MHz)** 



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# 1. Effective (Isotropic) Radiated Power

## 1.1.Test Result

BAND	Bandwidth	Modulation	Channel RB Configuration		Conducted power (dBm)	Verdict
Band26	1.4MHz	QPSK	26697 1RB#0		24.37	PASS
Band26	1.4MHz	QPSK	26697	1RB#2	24.52	PASS
Band26	1.4MHz	QPSK	26697	1RB#5	24.24	PASS
Band26	1.4MHz	QPSK	26697	3RB#0	24.77	PASS
Band26	1.4MHz	QPSK	26697	3RB#1	24.70	PASS
Band26	1.4MHz	QPSK	26697	3RB#3	24.61	PASS
Band26	1.4MHz	QPSK	26697	6RB#0	23.49	PASS
Band26	1.4MHz	QPSK	26740	1RB#0	24.45	PASS
Band26	1.4MHz	QPSK	26740	1RB#2	24.71	PASS
Band26	1.4MHz	QPSK	26740	1RB#5	24.46	PASS
Band26	1.4MHz	QPSK	26740	3RB#0	24.62	PASS
Band26	1.4MHz	QPSK	26740	3RB#1	24.79	PASS
Band26	1.4MHz	QPSK	26740	3RB#3	24.61	PASS
Band26	1.4MHz	QPSK	26740	6RB#0	23.66	PASS
Band26	1.4MHz	QPSK	26783	1RB#0	24.35	PASS
Band26	1.4MHz	QPSK	26783	1RB#2	24.53	PASS
Band26	1.4MHz	QPSK	26783	1RB#5	24.24	PASS
Band26	1.4MHz	QPSK	26783	3RB#0	24.50	PASS
Band26	1.4MHz	QPSK	26783	3RB#1	24.62	PASS
Band26	1.4MHz	QPSK	26783	3RB#3	24.62	PASS
Band26	1.4MHz	QPSK	26783	6RB#0	23.52	PASS
Band26	1.4MHz	16QAM	26697	1RB#0	23.20	PASS
Band26	1.4MHz	16QAM	26697	1RB#2	23.09	PASS
Band26	1.4MHz	16QAM	26697	1RB#5	22.95	PASS
Band26	1.4MHz	16QAM	26697	3RB#0	23.34	PASS
Band26	1.4MHz	16QAM	26697	3RB#1	23.55	PASS
Band26	1.4MHz	16QAM	26697	3RB#3	23.62	PASS
Band26	1.4MHz	16QAM	26697	6RB#0	22.76	PASS
Band26	1.4MHz	16QAM	26740	1RB#0	23.57	PASS
Band26	1.4MHz	16QAM	26740	1RB#2	23.13	PASS
Band26	1.4MHz	16QAM	26740	1RB#5	22.94	PASS



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Band26	1.4MHz	16QAM	26740	3RB#0	23.72	PASS
Band26	1.4MHz	16QAM	26740	3RB#1	23.85	PASS
Band26	1.4MHz	16QAM	26740	3RB#3	23.80	PASS
Band26	1.4MHz	16QAM	26740	6RB#0	22.83	PASS
Band26	1.4MHz	16QAM	26783	1RB#0	23.50	PASS
Band26	1.4MHz	16QAM	26783	1RB#2	22.92	PASS
Band26	1.4MHz	16QAM	26783	1RB#5	23.45	PASS
Band26	1.4MHz	16QAM	26783	3RB#0	23.62	PASS
Band26	1.4MHz	16QAM	26783	3RB#1	23.78	PASS
Band26	1.4MHz	16QAM	26783	3RB#3	23.80	PASS
Band26	1.4MHz	16QAM	26783	6RB#0	22.85	PASS
Band26	3MHz	QPSK	26705	1RB#0	24.57	PASS
Band26	3MHz	QPSK	26705	1RB#8	24.20	PASS
Band26	3MHz	QPSK	26705	1RB#14	24.47	PASS
Band26	3MHz	QPSK	26705	8RB#0	23.61	PASS
Band26	3MHz	QPSK	26705	8RB#4	23.47	PASS
Band26	3MHz	QPSK	26705	8RB#7	23.39	PASS
Band26	3MHz	QPSK	26705	15RB#0	23.33	PASS
Band26	3MHz	QPSK	26740	1RB#0	24.81	PASS
Band26	3MHz	QPSK	26740	1RB#8	24.37	PASS
Band26	3MHz	QPSK	26740	1RB#14	24.73	PASS
Band26	3MHz	QPSK	26740	8RB#0	23.54	PASS
Band26	3MHz	QPSK	26740	8RB#4	23.64	PASS
Band26	3MHz	QPSK	26740	8RB#7	23.42	PASS
Band26	3MHz	QPSK	26740	15RB#0	23.58	PASS
Band26	3MHz	QPSK	26775	1RB#0	24.73	PASS
Band26	3MHz	QPSK	26775	1RB#8	24.47	PASS
Band26	3MHz	QPSK	26775	1RB#14	24.82	PASS
Band26	3MHz	QPSK	26775	8RB#0	23.35	PASS
Band26	3MHz	QPSK	26775	8RB#4	23.62	PASS
Band26	3MHz	QPSK	26775	8RB#7	23.57	PASS
Band26	3MHz	QPSK	26775	15RB#0	23.47	PASS
Band26	3MHz	16QAM	26705	1RB#0	23.08	PASS
Band26	3MHz	16QAM	26705	1RB#8	22.81	PASS
Band26	3MHz	16QAM	26705	1RB#14	23.05	PASS
Band26	3MHz	16QAM	26705	8RB#0	22.36	PASS
Band26	3MHz	16QAM	26705	8RB#4	22.35	PASS
Band26	3MHz	16QAM	26705	8RB#7	22.28	PASS
Band26	3MHz	16QAM	26705	15RB#0	22.51	PASS



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Band26	3MHz	16QAM	26740	1RB#0	23.20	PASS
Band26	3MHz	16QAM	26740	1RB#8	23.02	PASS
Band26	3MHz	16QAM	26740	1RB#14	23.25	PASS
Band26	3MHz	16QAM	26740	8RB#0	22.50	PASS
Band26	3MHz	16QAM	26740	8RB#4	22.59	PASS
Band26	3MHz	16QAM	26740	8RB#7	22.50	PASS
Band26	3MHz	16QAM	26740	15RB#0	22.78	PASS
Band26	3MHz	16QAM	26775	1RB#0	22.95	PASS
Band26	3MHz	16QAM	26775	1RB#8	23.06	PASS
Band26	3MHz	16QAM	26775	1RB#14	22.86	PASS
Band26	3MHz	16QAM	26775	8RB#0	22.57	PASS
Band26	3MHz	16QAM	26775	8RB#4	22.42	PASS
Band26	3MHz	16QAM	26775	8RB#7	22.53	PASS
Band26	3MHz	16QAM	26775	15RB#0	22.77	PASS
Band26	5MHz	QPSK	26715	1RB#0	24.43	PASS
Band26	5MHz	QPSK	26715	1RB#12	24.19	PASS
Band26	5MHz	QPSK	26715	1RB#24	24.36	PASS
Band26	5MHz	QPSK	26715	12RB#0	23.41	PASS
Band26	5MHz	QPSK	26715	12RB#6	23.18	PASS
Band26	5MHz	QPSK	26715	12RB#13	23.35	PASS
Band26	5MHz	QPSK	26715	25RB#0	23.53	PASS
Band26	5MHz	QPSK	26740	1RB#0	24.55	PASS
Band26	5MHz	QPSK	26740	1RB#12	24.19	PASS
Band26	5MHz	QPSK	26740	1RB#24	24.57	PASS
Band26	5MHz	QPSK	26740	12RB#0	23.47	PASS
Band26	5MHz	QPSK	26740	12RB#6	23.31	PASS
Band26	5MHz	QPSK	26740	12RB#13	23.46	PASS
Band26	5MHz	QPSK	26740	25RB#0	23.53	PASS
Band26	5MHz	QPSK	26765	1RB#0	24.56	PASS
Band26	5MHz	QPSK	26765	1RB#12	24.36	PASS
Band26	5MHz	QPSK	26765	1RB#24	24.74	PASS
Band26	5MHz	QPSK	26765	12RB#0	23.30	PASS
Band26	5MHz	QPSK	26765	12RB#6	23.40	PASS
Band26	5MHz	QPSK	26765	12RB#13	23.62	PASS
Band26	5MHz	QPSK	26765	25RB#0	23.41	PASS
Band26	5MHz	16QAM	26715	1RB#0	23.47	PASS
Band26	5MHz	16QAM	26715	1RB#12	23.22	PASS
Band26	5MHz	16QAM	26715	1RB#24	22.80	PASS
Band26	5MHz	16QAM	26715	12RB#0	22.13	PASS
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	,				,	_
Band26	5MHz	16QAM	26715	12RB#6	22.48	PASS
Band26	5MHz	16QAM	26715	12RB#13	22.48	PASS
Band26	5MHz	16QAM	26715	25RB#0	22.60	PASS
Band26	5MHz	16QAM	26740	1RB#0	23.03	PASS
Band26	5MHz	16QAM	26740	1RB#12	23.13	PASS
Band26	5MHz	16QAM	26740	1RB#24	22.75	PASS
Band26	5MHz	16QAM	26740	12RB#0	22.35	PASS
Band26	5MHz	16QAM	26740	12RB#6	22.36	PASS
Band26	5MHz	16QAM	26740	12RB#13	22.44	PASS
Band26	5MHz	16QAM	26740	25RB#0	22.55	PASS
Band26	5MHz	16QAM	26765	1RB#0	22.83	PASS
Band26	5MHz	16QAM	26765	1RB#12	23.60	PASS
Band26	5MHz	16QAM	26765	1RB#24	22.64	PASS
Band26	5MHz	16QAM	26765	12RB#0	22.49	PASS
Band26	5MHz	16QAM	26765	12RB#6	22.61	PASS
Band26	5MHz	16QAM	26765	12RB#13	22.55	PASS
Band26	5MHz	16QAM	26765	25RB#0	22.45	PASS
Band26	10MHz	QPSK	26740	1RB#0	24.31	PASS
Band26	10MHz	QPSK	26740	1RB#24	24.09	PASS
Band26	10MHz	QPSK	26740	1RB#49	24.62	PASS
Band26	10MHz	QPSK	26740	25RB#0	23.46	PASS
Band26	10MHz	QPSK	26740	25RB#12	23.22	PASS
Band26	10MHz	QPSK	26740	25RB#25	23.43	PASS
Band26	10MHz	QPSK	26740	50RB#0	23.57	PASS
Band26	10MHz	16QAM	26740	1RB#0	23.07	PASS
Band26	10MHz	16QAM	26740	1RB#24	23.10	PASS
Band26	10MHz	16QAM	26740	1RB#49	23.09	PASS
Band26	10MHz	16QAM	26740	25RB#0	22.49	PASS
Band26	10MHz	16QAM	26740	25RB#12	22.63	PASS
Band26	10MHz	16QAM	26740	25RB#25	22.46	PASS
Band26	10MHz	16QAM	26740	50RB#0	22.67	PASS

#### Remark

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] - Cable Loss [dB] + Gain [dBi]



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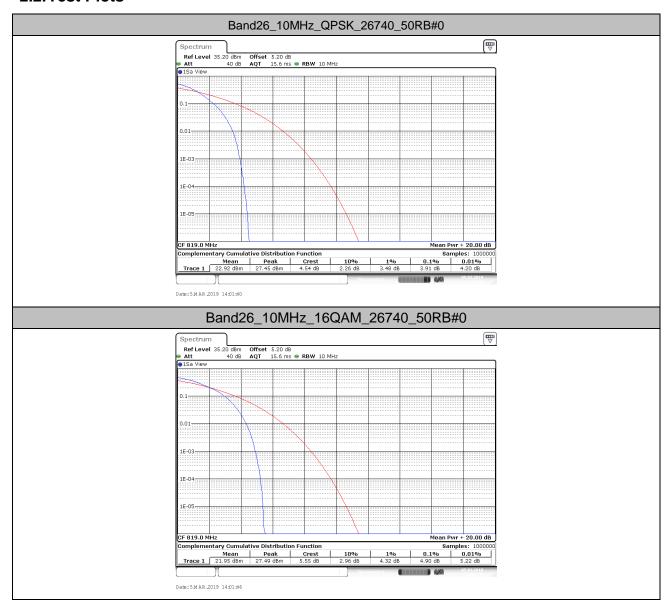
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# 2. Peak-to-Average Ratio(CCDF)

## 2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band26	10MHz	QPSK	26740	50RB#0	3.91	13	PASS
Band26	10MHz	16QAM	26740	50RB#0	4.90	13	PASS

#### 2.2. Test Plots





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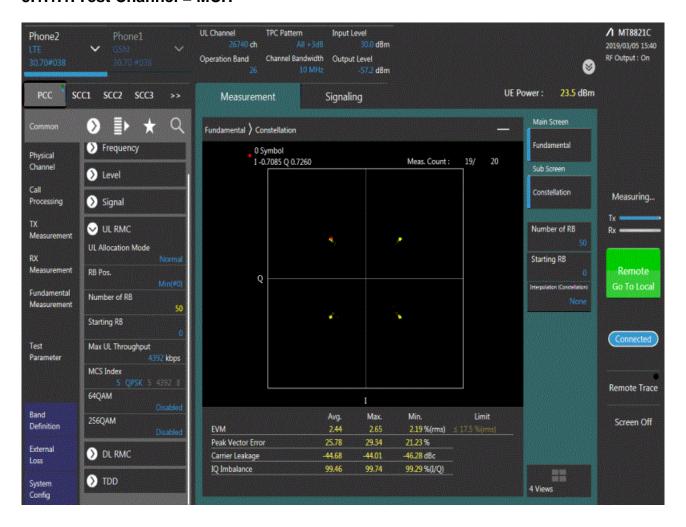
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## 3. Modulation Characteristics

## 3.1.Test BAND = LTE BAND26

### 3.1.1. Test Mode = LTE /TM1 10MHz

### 3.1.1.1. Test Channel = MCH

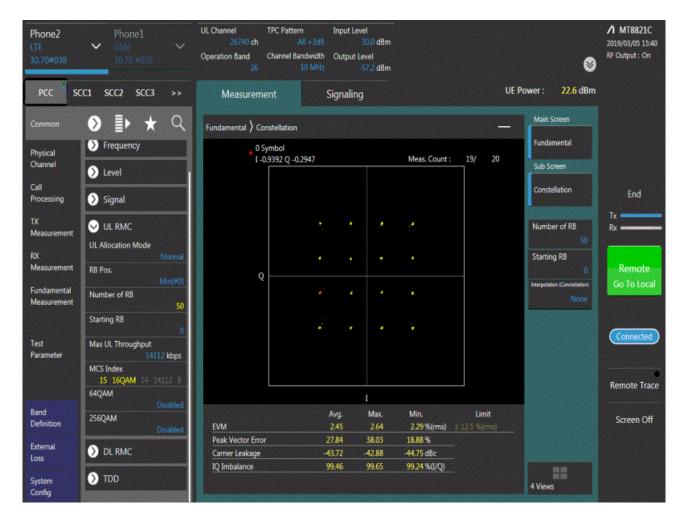




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#### 3.1.2. Test Mode = LTE /TM2 10MHz

### 3.1.2.1. Test Channel = MCH





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## 4. 26dB Bandwidth and Occupied Bandwidth

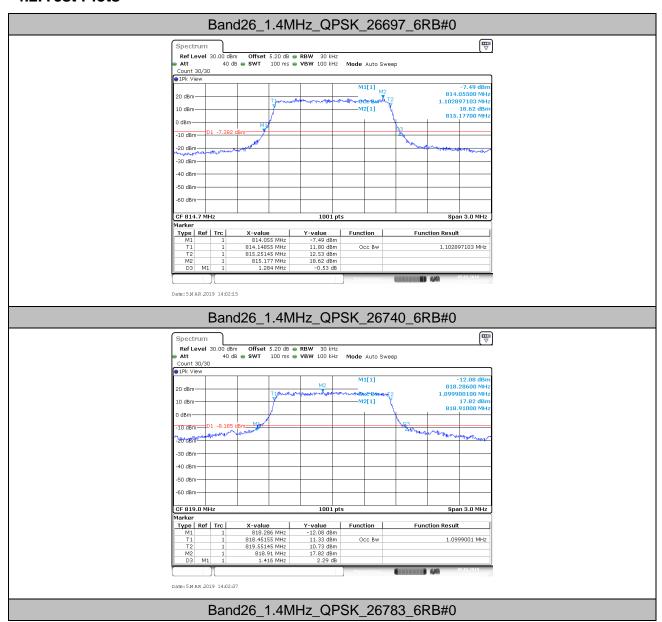
## 4.1.Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band26	1.4MHz	QPSK	26697	6RB#0	1.103	1.284	PASS
Band26	1.4MHz	QPSK	26740	6RB#0	1.1	1.416	PASS
Band26	1.4MHz	QPSK	26783	6RB#0	1.097	1.317	PASS
Band26	1.4MHz	16QAM	26697	6RB#0	1.1	1.314	PASS
Band26	1.4MHz	16QAM	26740	6RB#0	1.094	1.314	PASS
Band26	1.4MHz	16QAM	26783	6RB#0	1.103	1.311	PASS
Band26	3MHz	QPSK	26705	15RB#0	2.697	2.988	PASS
Band26	3MHz	QPSK	26740	15RB#0	2.703	3.024	PASS
Band26	3MHz	QPSK	26775	15RB#0	2.703	2.964	PASS
Band26	3MHz	16QAM	26705	15RB#0	2.691	2.988	PASS
Band26	3MHz	16QAM	26740	15RB#0	2.697	2.994	PASS
Band26	3MHz	16QAM	26775	15RB#0	2.703	3.000	PASS
Band26	5MHz	QPSK	26715	25RB#0	4.466	4.950	PASS
Band26	5MHz	QPSK	26740	25RB#0	4.486	5.020	PASS
Band26	5MHz	QPSK	26765	25RB#0	4.486	4.960	PASS
Band26	5MHz	16QAM	26715	25RB#0	4.476	4.960	PASS
Band26	5MHz	16QAM	26740	25RB#0	4.486	4.940	PASS
Band26	5MHz	16QAM	26765	25RB#0	4.466	4.920	PASS
Band26	10MHz	QPSK	26740	50RB#0	8.911	9.580	PASS
Band26	10MHz	16QAM	26740	50RB#0	8.891	9.600	PASS



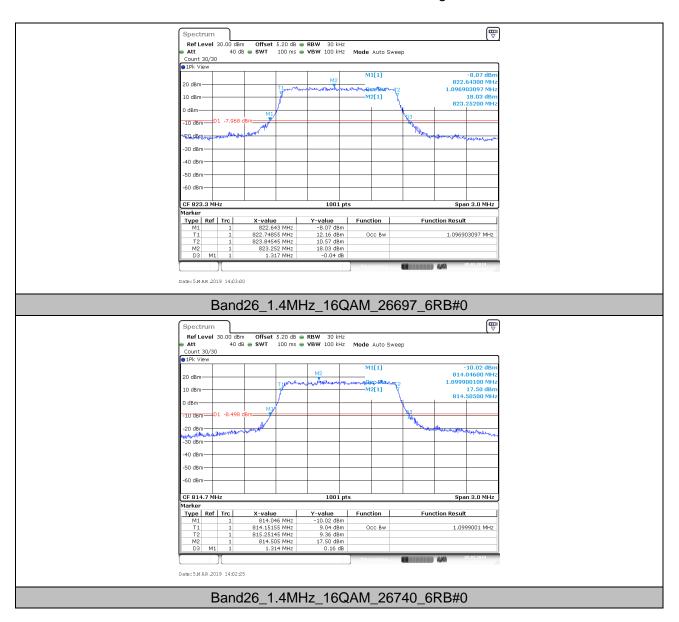
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#### 4.2. Test Plots



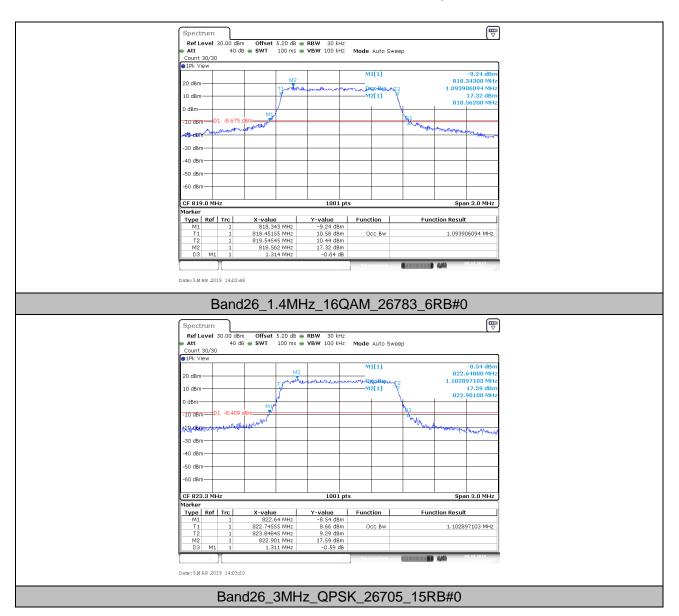


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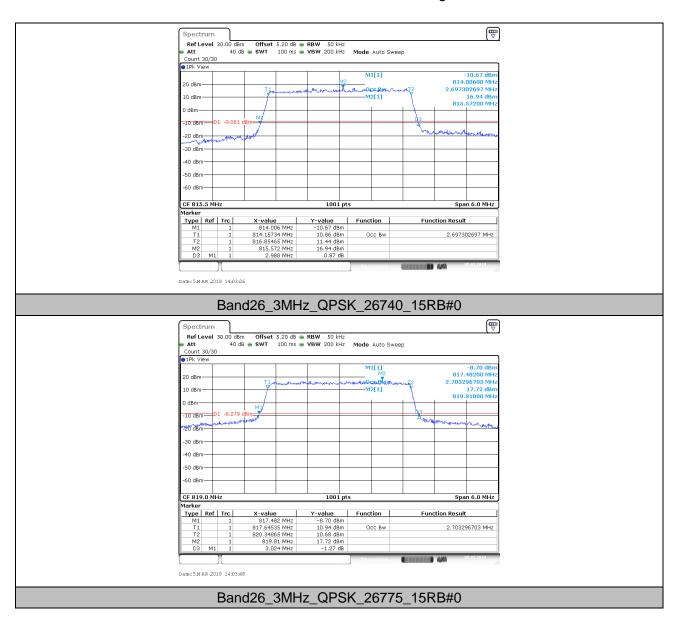


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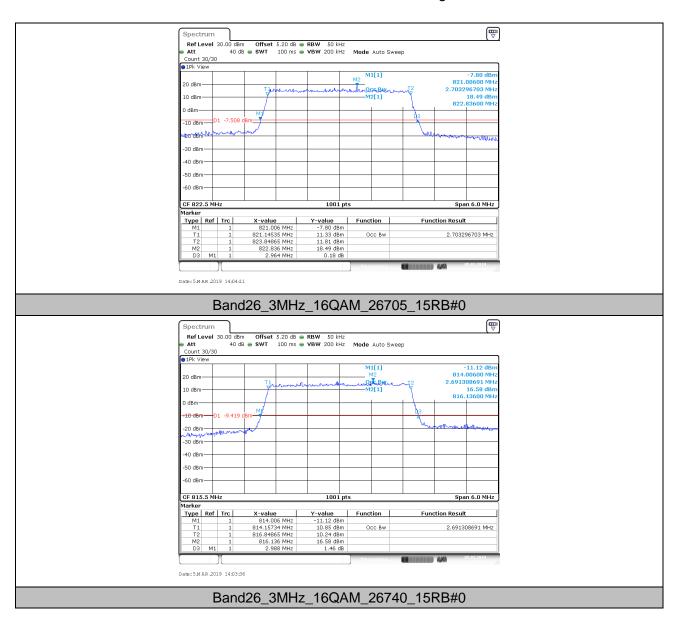


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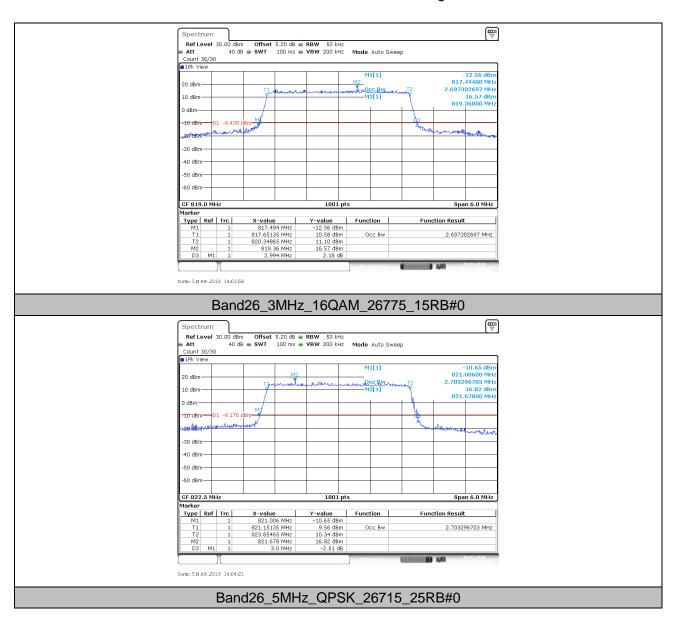


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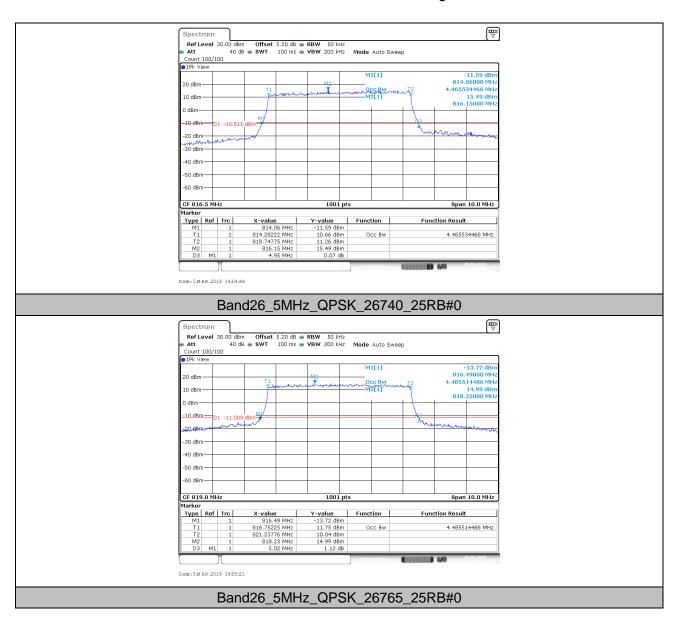


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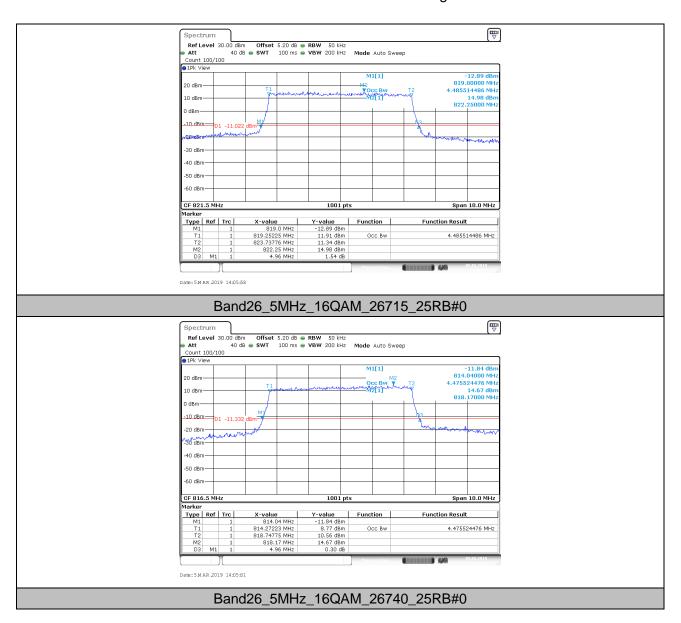


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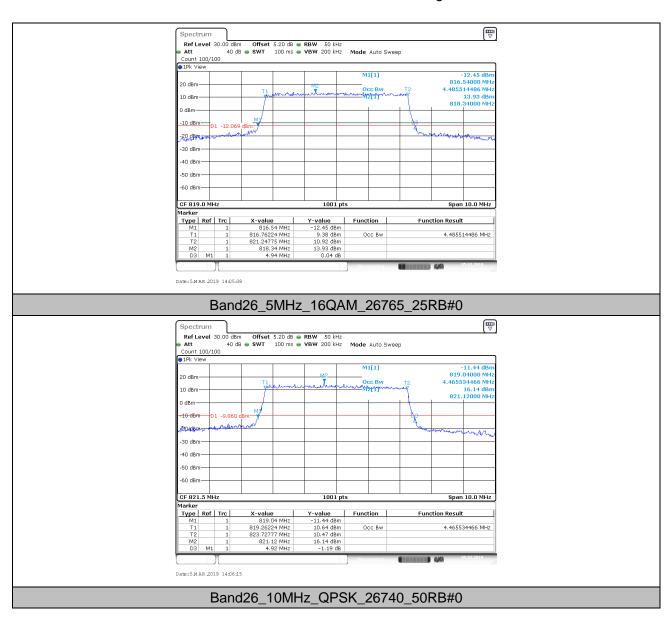


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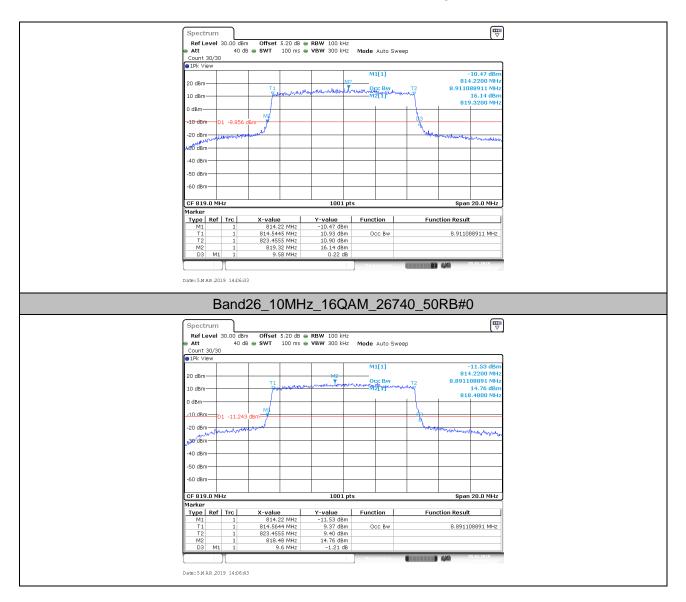


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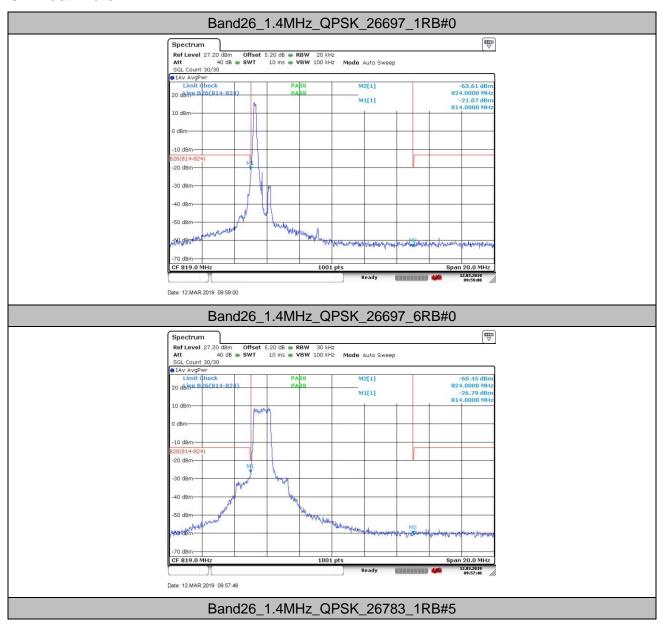
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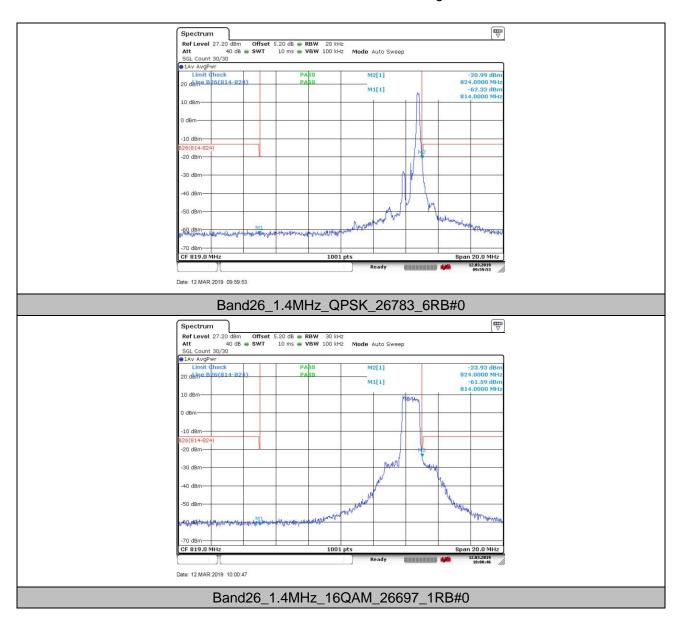
## 5. Band Edge Compliance

## 5.1. Test Plots





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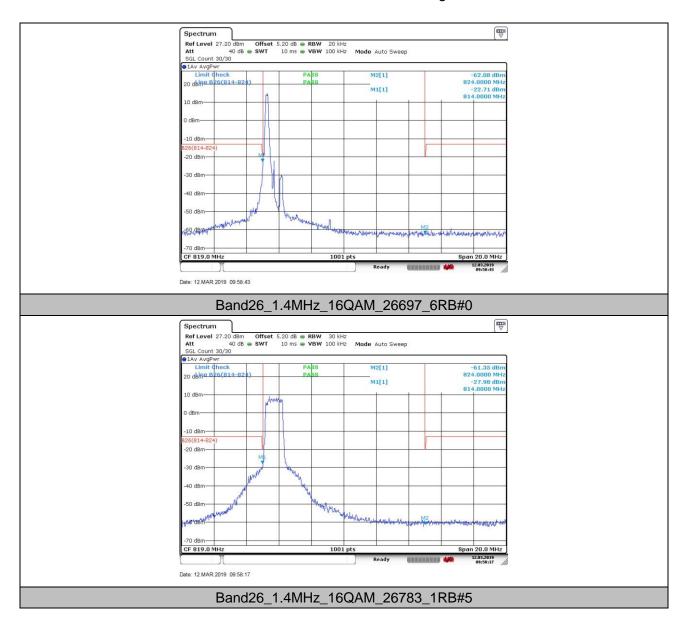
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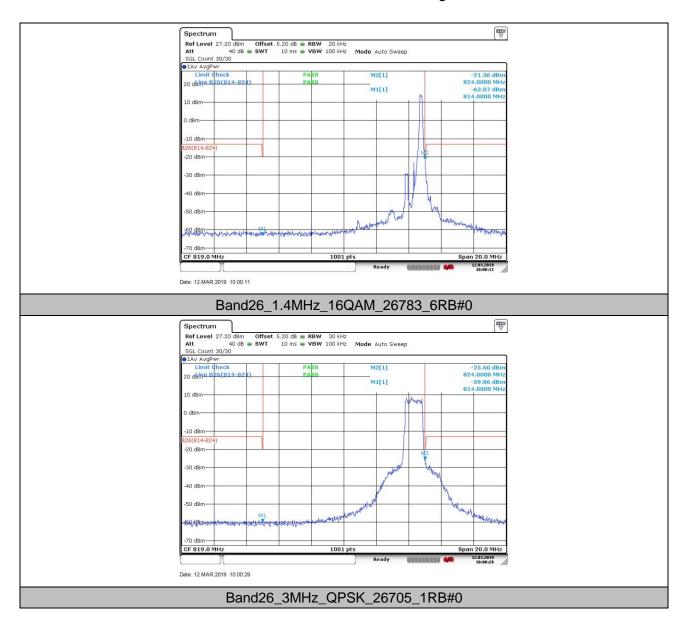
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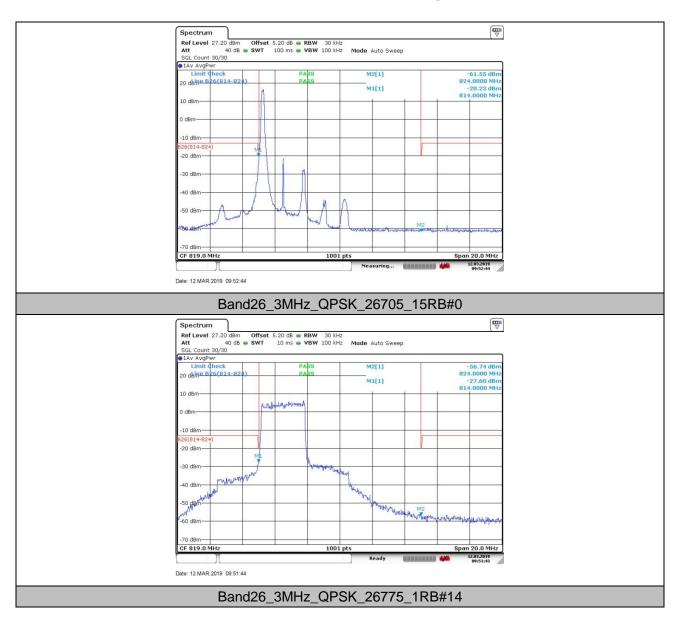


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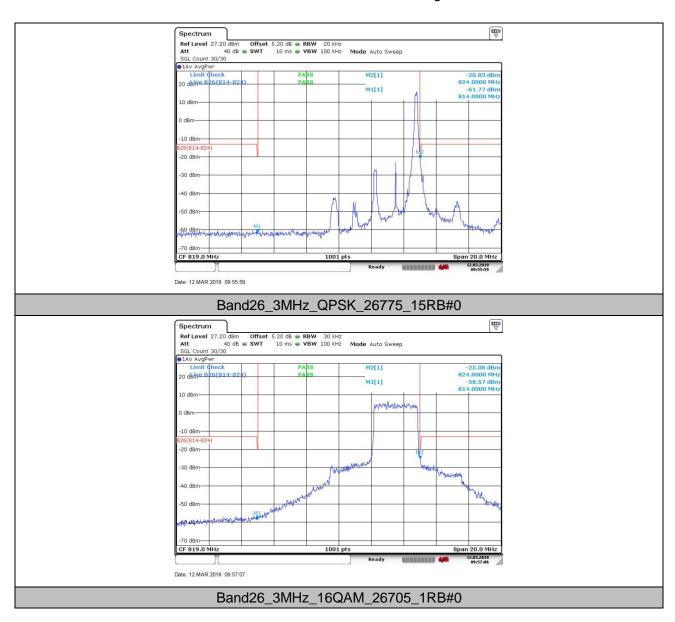


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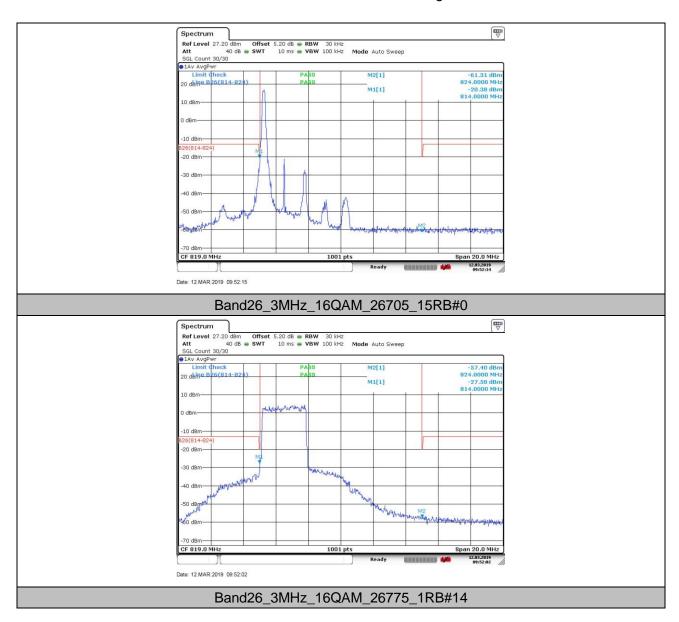


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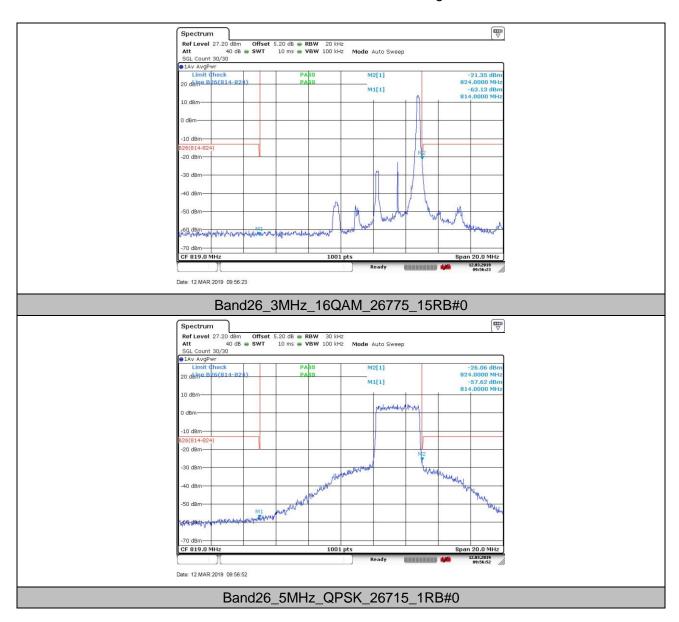


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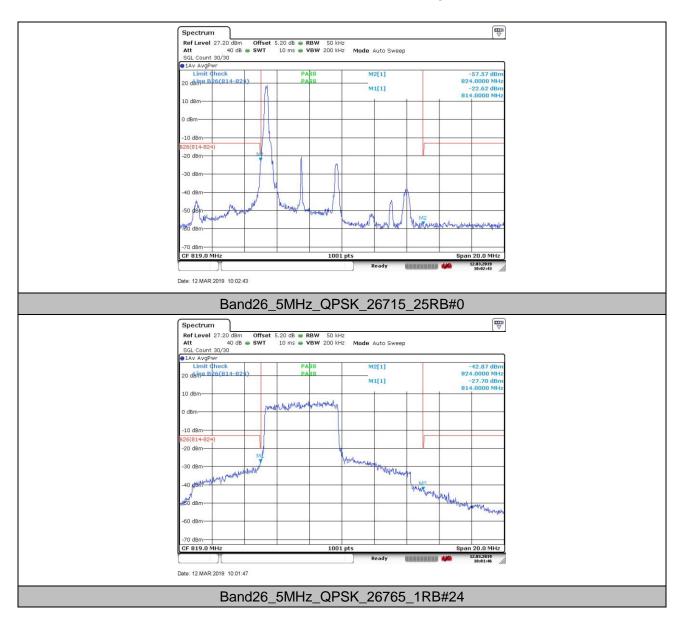


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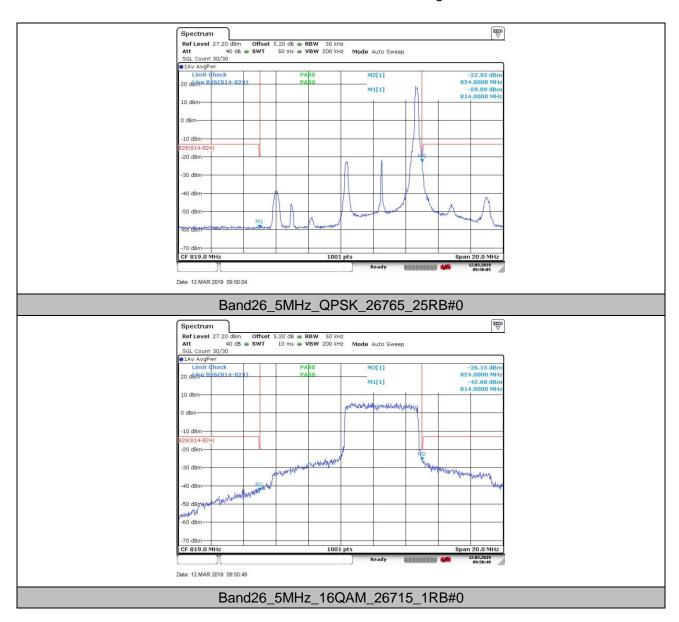


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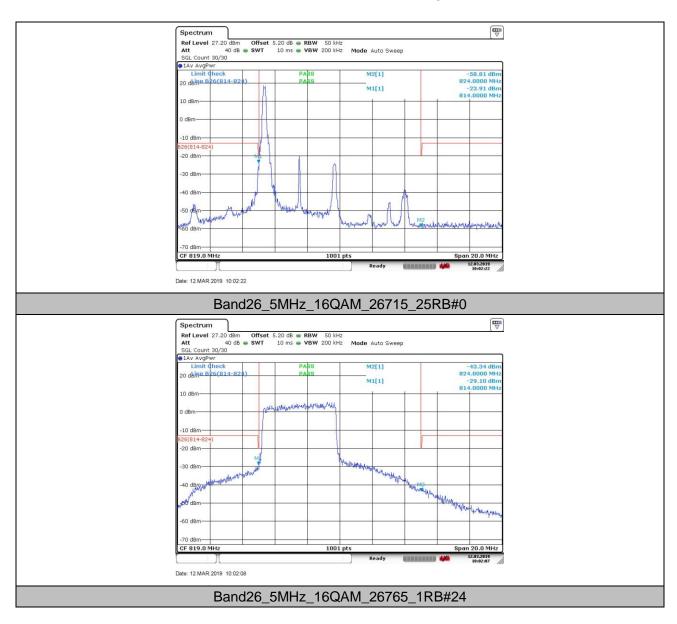


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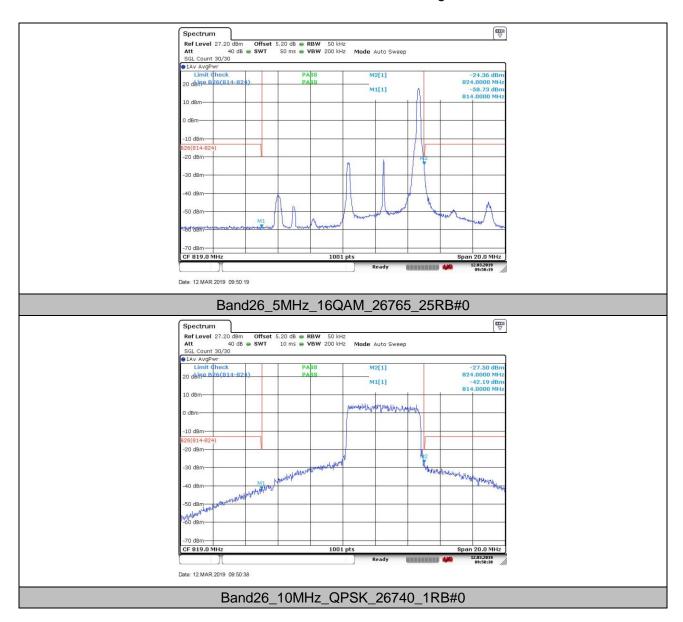


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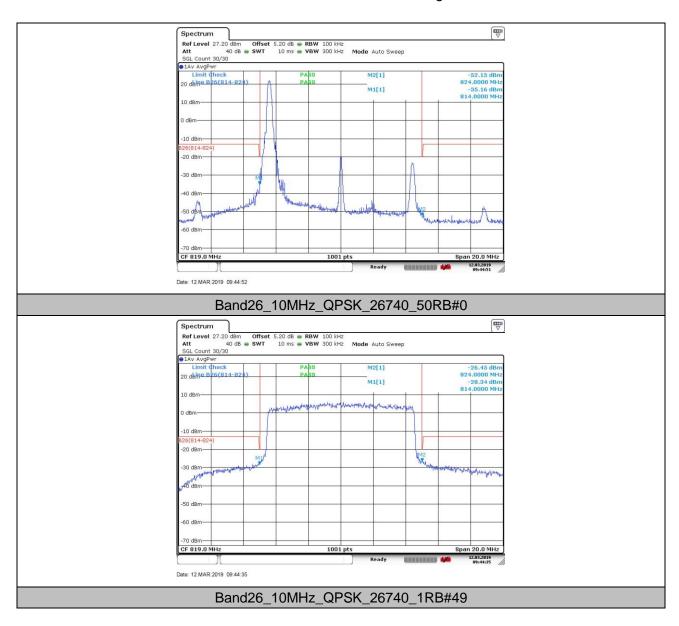
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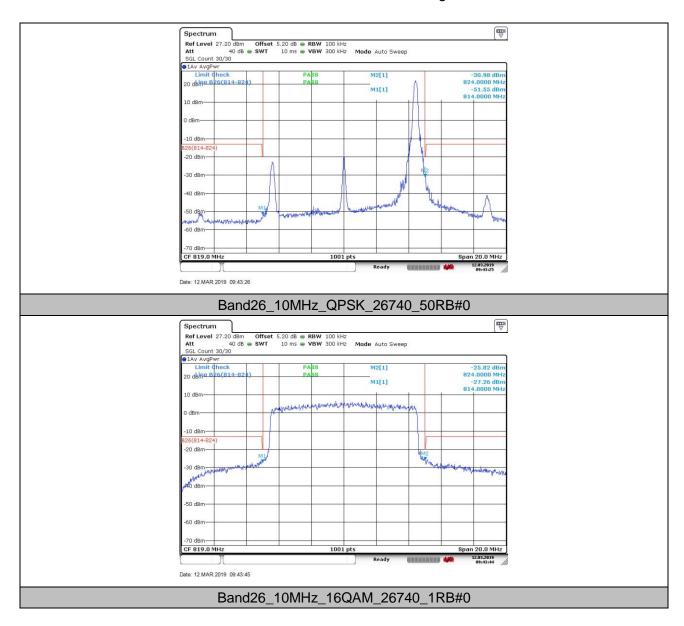
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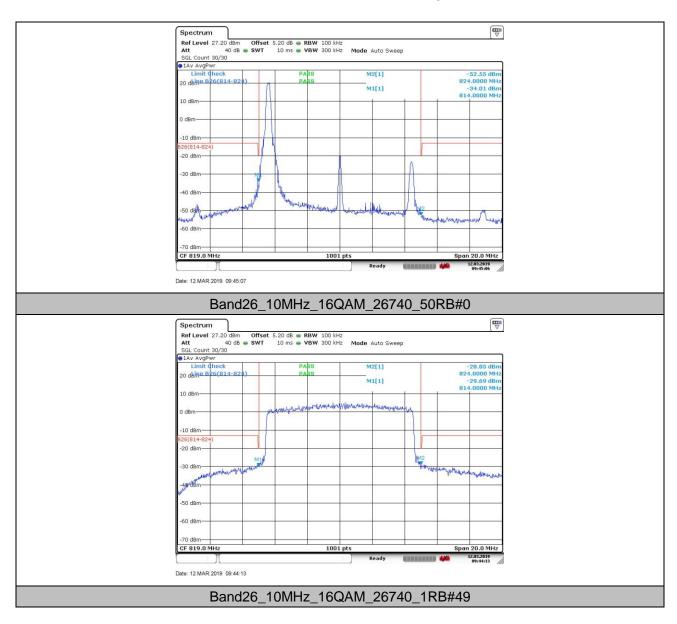
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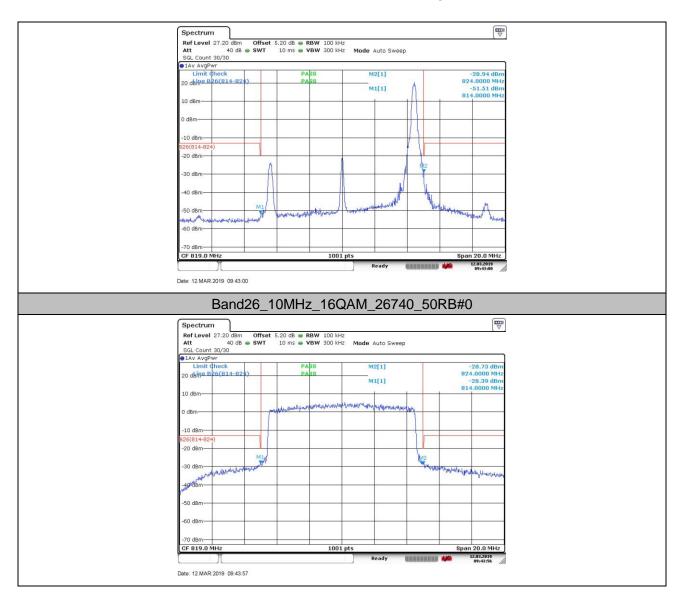


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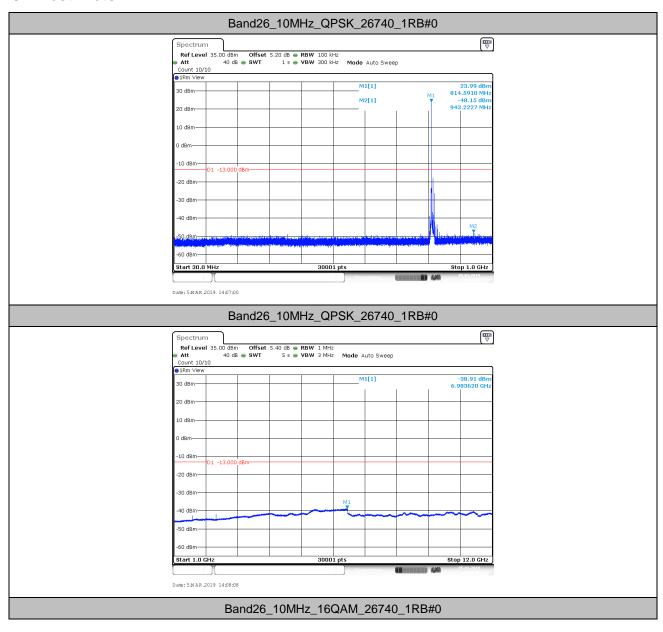
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## 6. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k \* (Span / RBW)" with k = 4 and 5, which results in an acceptable level error of less than 0.5 dB.

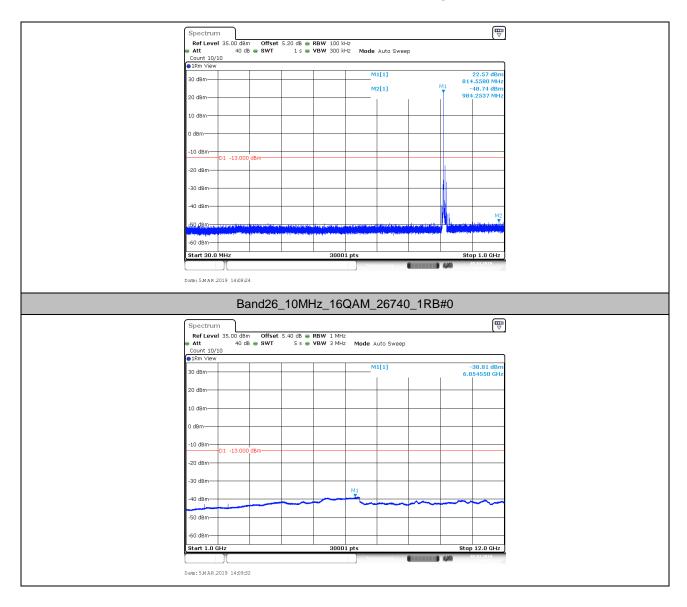
Remark2: only the worst case data displayed in this report.

#### 6.1. Test Plots





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## 7. Field Strength of Spurious Radiation

## 7.1.Test BAND = LTE BAND 26

#### 7.1.1. Test Mode =LTE/TM1 10MHz RB1#0

### 7.1.1.1. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
104.293333	-68.97	-13.00	55.97	Vertical
144.006667	-73.08	-13.00	60.08	Vertical
1629.000000	-57.05	-13.00	44.05	Vertical
2444.000000	-49.65	-13.00	36.65	Vertical
3257.887500	-67.33	-13.00	54.33	Vertical
4072.500000	-66.52	-13.00	53.52	Vertical
62.433333	-76.74	-13.00	63.74	Horizontal
143.960000	-77.25	-13.00	64.25	Horizontal
1629.000000	-57.49	-13.00	44.49	Horizontal
2443.500000	-52.71	-13.00	39.71	Horizontal
4072.500000	-62.79	-13.00	49.79	Horizontal
8960.662500	-60.90	-13.00	47.90	Horizontal

#### Remark:

- 1) The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



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## 8. Frequency Stability

## 8.1. Frequency Vs Voltage

	Voltage														
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict					
Band26	10MHz	QPSK	26740	50RB#0	VL	NT	-1.50	-0.001832	±2.5	PASS					
Band26	10MHz	QPSK	26740	50RB#0	VN	NT	-2.10	-0.002564	±2.5	PASS					
Band26	10MHz	QPSK	26740	50RB#0	VH	NT	-2.00	-0.002442	±2.5	PASS					
Band26	10MHz	16QAM	26740	50RB#0	VL	NT	-0.40	-0.000488	±2.5	PASS					
Band26	10MHz	16QAM	26740	50RB#0	VN	NT	-1.30	-0.001587	±2.5	PASS					
Band26	10MHz	16QAM	26740	50RB#0	VH	NT	-1.00	-0.001221	±2.5	PASS					

## 8.2. Frequency Vs Temperature

	Temperature													
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict				
Band26	10MHz	QPSK	26740	50RB#0	NV	-30	-1.20	-0.001465	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	-20	-1.40	-0.001709	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	0	-0.70	-0.000855	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	10	-1.60	-0.001954	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	20	-2.90	-0.003541	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	30	-2.10	-0.002564	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	40	-2.20	-0.002686	±2.5	PASS				
Band26	10MHz	QPSK	26740	50RB#0	NV	50	-2.50	-0.003053	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	-30	-0.40	-0.000488	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	-20	-1.50	-0.001832	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	0	-1.70	-0.002076	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	10	-1.40	-0.001709	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	20	-2.40	-0.002930	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	30	-1.60	-0.001954	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	40	-0.50	-0.000611	±2.5	PASS				
Band26	10MHz	16QAM	26740	50RB#0	NV	50	-2.00	-0.002442	±2.5	PASS				

The End

