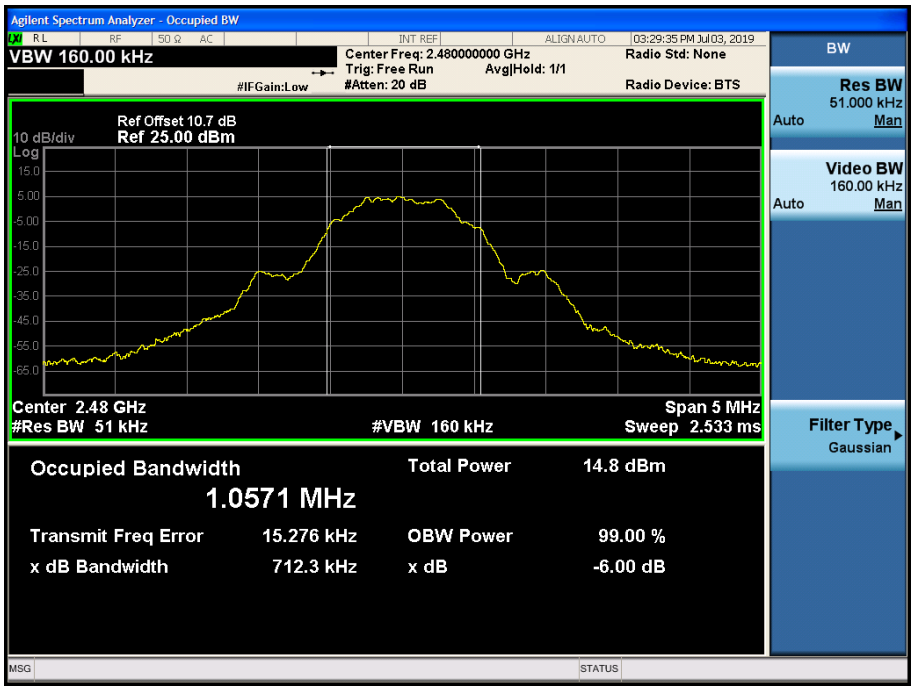
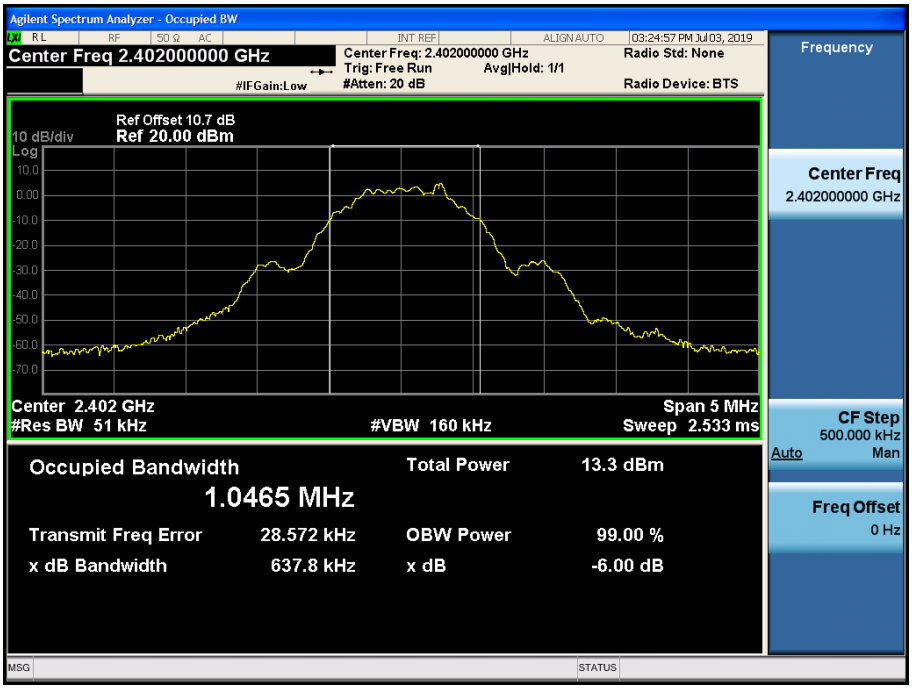
99 % Bandwidth plot (High-CH 39)

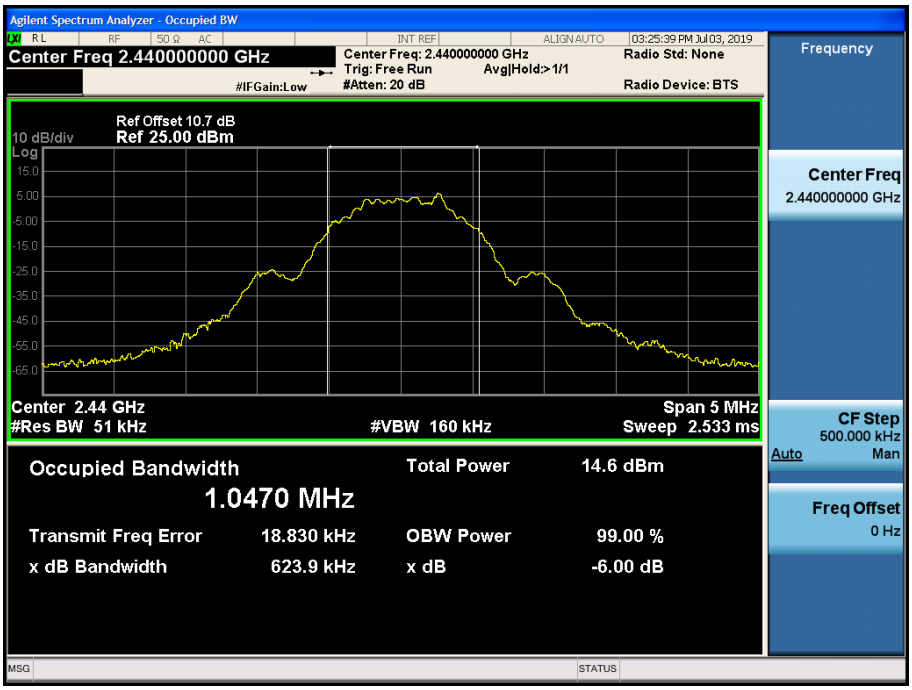


▣ 1M Bit/s (255 Byte) Test Plots

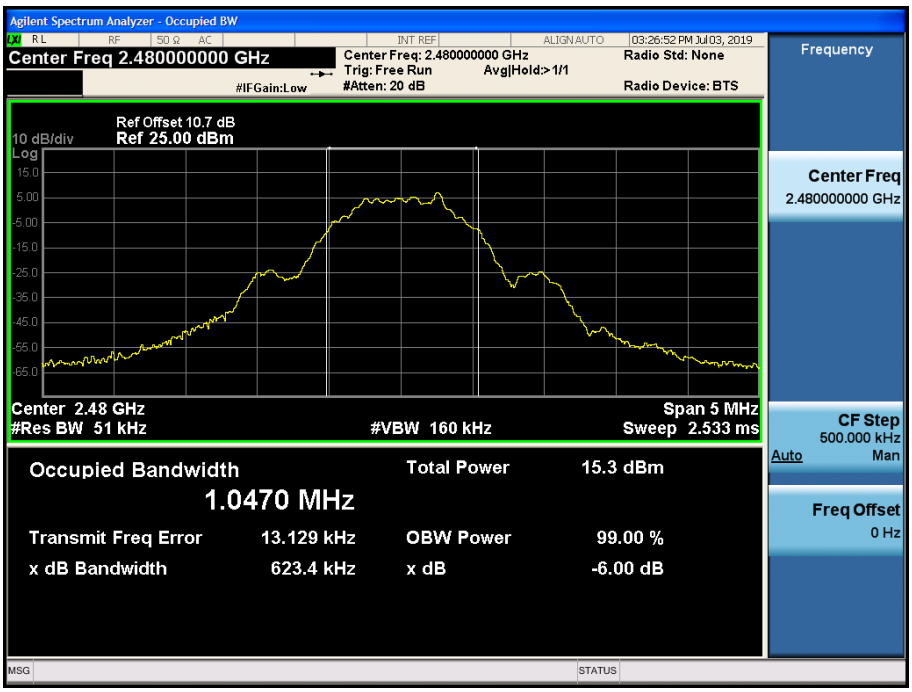
99 % Bandwidth plot (Low-CH 0)



99 % Bandwidth plot (Mid-CH 19)



99 % Bandwidth plot (High-CH 39)



9.3 OUTPUT POWER

Peak Power

Data rate (Bit/s)	Packet length (Byte)	LE Mode		Measured Power(dBm)	Limit (dBm)
		Frequency [MHz]	Channel		
1M	37	2402	0	7.565	30
		2440	19	8.937	
		2480	39	9.214	
	255	2402	0	7.409	
		2440	19	8.851	
		2480	39	9.066	

Average Power

Data rate (Bit/s)	Packet length (Byte)	LE Mode		Measured Power (dBm)	Duty Cycle Factor (dB)	Result (dBm)	Limit (dBm)
		Frequency [MHz]	Channel				
1M	37	2402	0	4.98	2.17	7.15	30
		2440	19	6.43	2.17	8.60	
		2480	39	6.66	2.17	8.83	
	255	2402	0	6.18	0.71	6.88	
		2440	19	7.97	0.71	8.67	
		2480	39	8.00	0.71	8.71	

Note :

1. Spectrum reading values are not plot data.
   The power results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz range that was rounded off to the closest tenth dB.
   So, 10.7 dB is offset for 2.4 GHz Band.

9.4 POWER SPECTRAL DENSITY

Frequency (MHz)	Channel No.	Mode	Test Result			
			Measured Power(dBm)	Duty Cycle Factor(dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
2402	0	1M Bit 37 Byte	-12.105	2.17	-9.933	8
2440	19		-11.759	2.17	-9.587	
2480	39		-10.068	2.17	-7.896	

Note :

1. Spectrum reading values are not plot data.
   The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz range that was rounded off to the closest tenth dB.
   So, 10.7 is offset for 2.4 GHz Band.

▣ 1M Bit/s (37 Byte) Test Plots

Power Spectral Density (Low-CH 0)

Power Spectral Density (Mid-CH 19)

Power Spectral Density (High-CH 39)

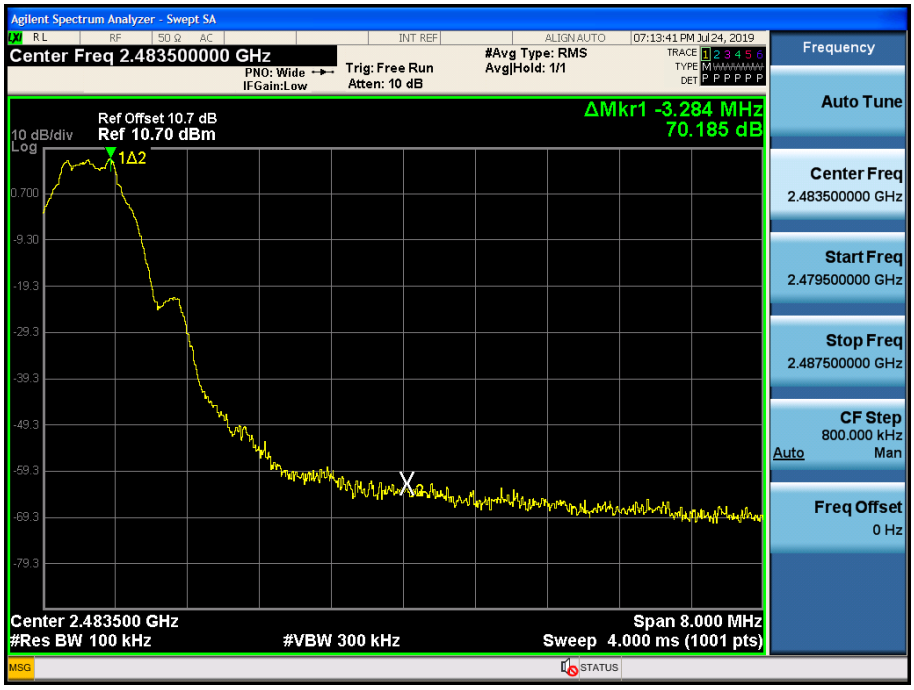
9.5 BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Result : please refer to the plot below.
In order to simplify the report, attached plots were only the worst case channel and data rate.

▣ 1M Bit/s (37 Byte) Test Plots -BandEdge

Low-CH 0

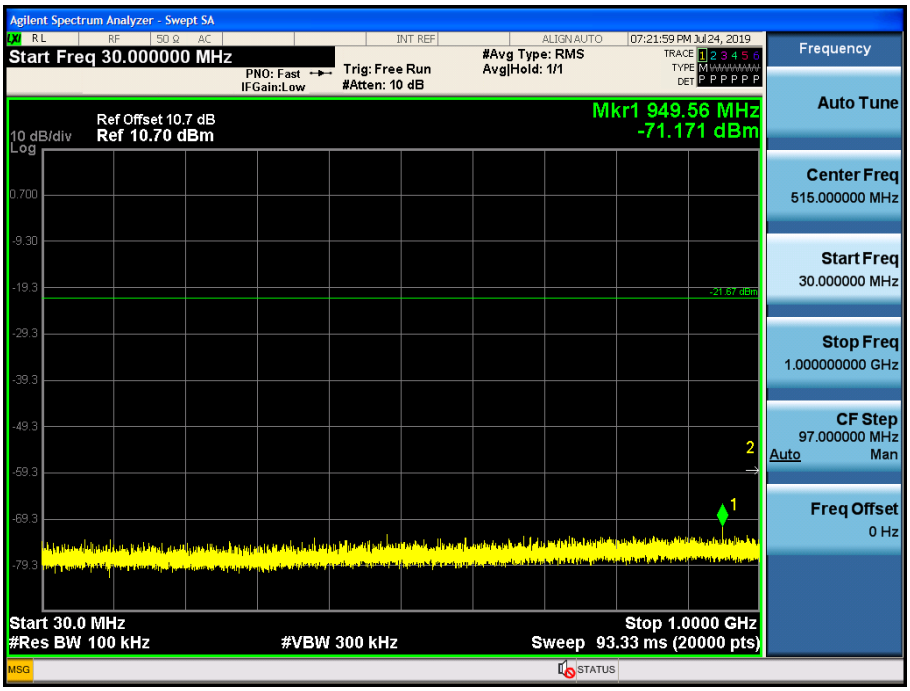
High-CH 39



▣ 1M Bit/s (37 Byte) Test Plots -Conducted Spurious Emission

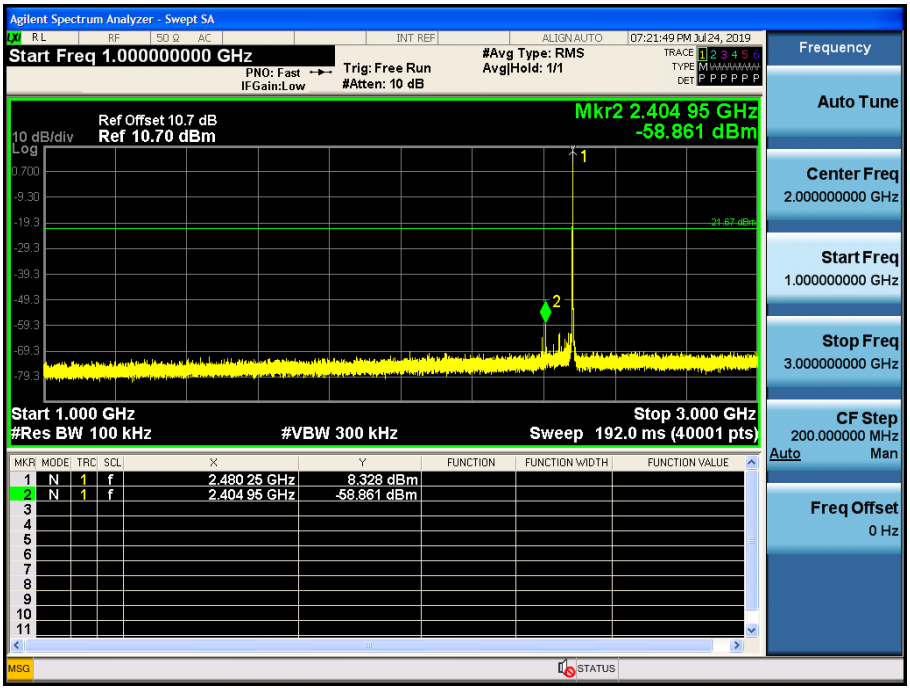
30 MHz ~ 1 GHz

Conducted Spurious Emission (High-CH 39)



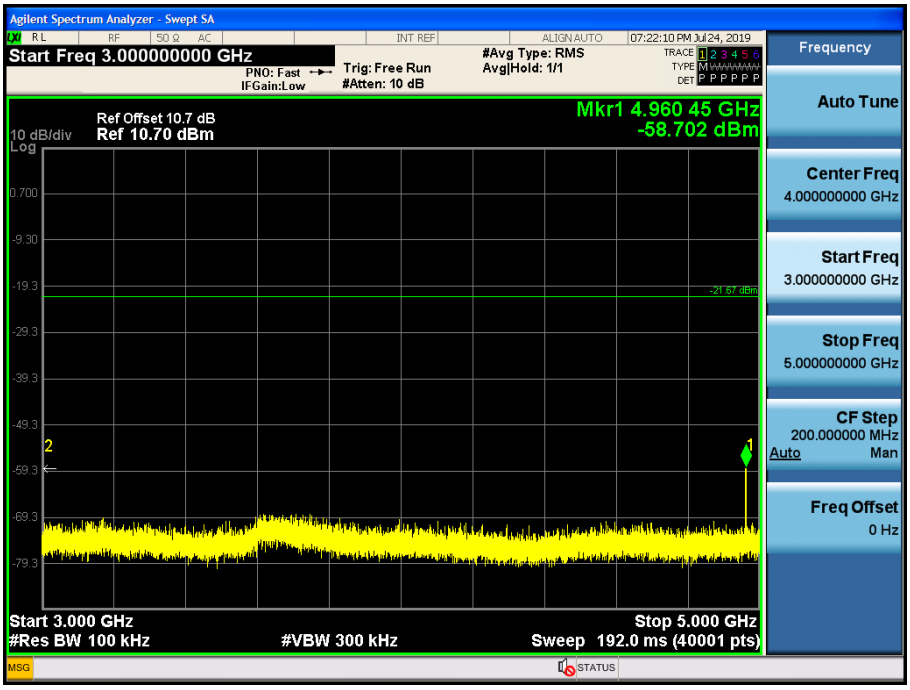
1 GHz ~ 3 GHz

Conducted Spurious Emission (High-CH 39)



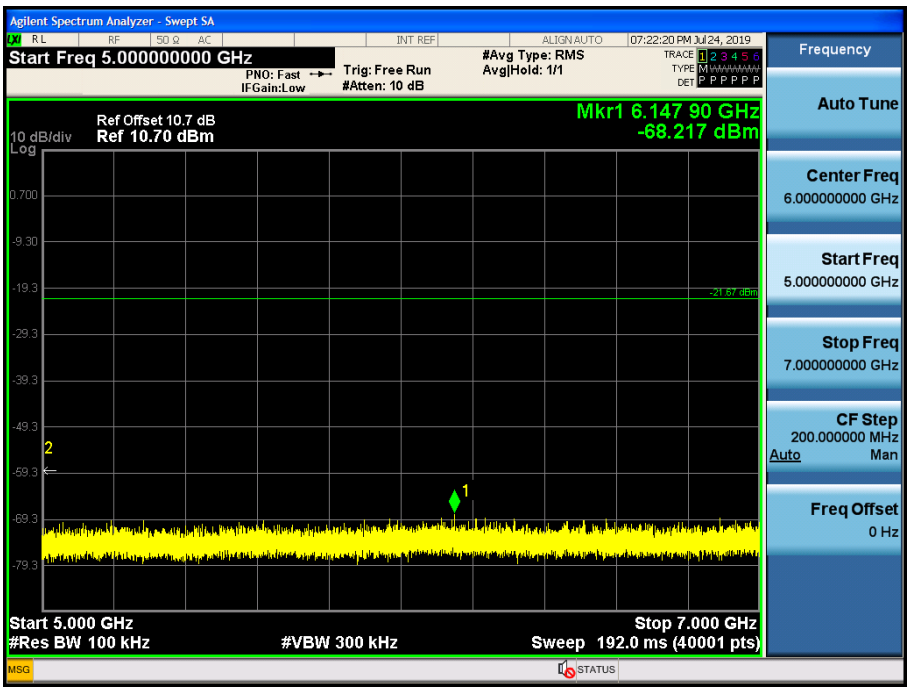
3 GHz ~ 5 GHz

Conducted Spurious Emission (High-CH 39)



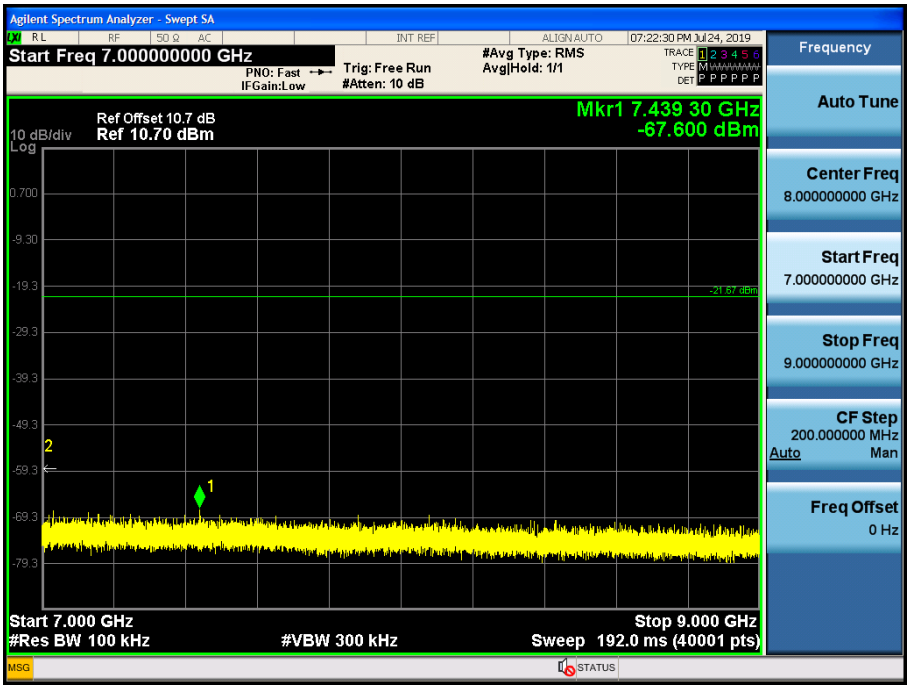
5 GHz ~ 7 GHz

Conducted Spurious Emission (High-CH 39)



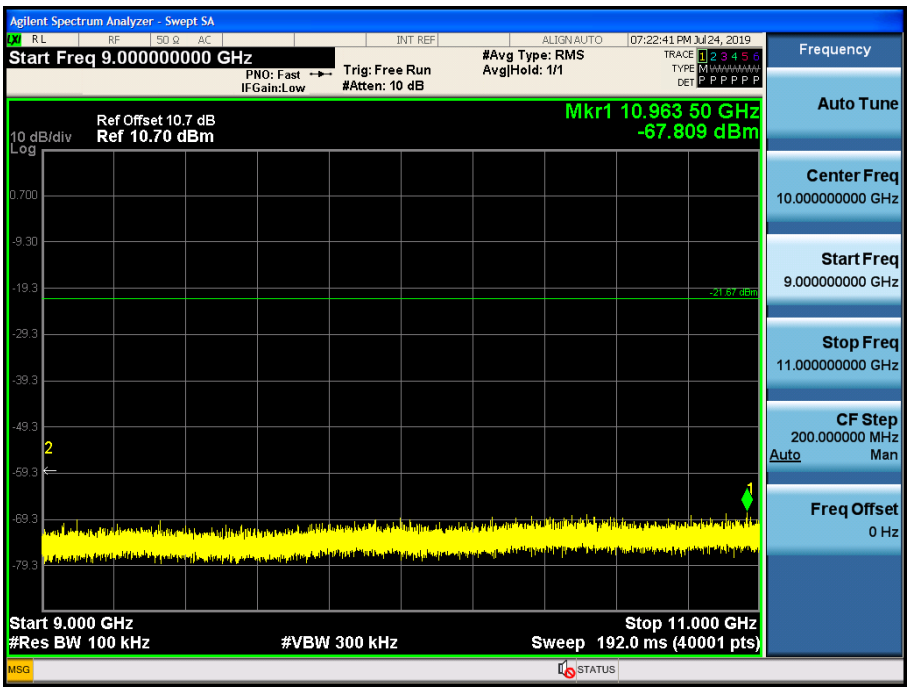
7 GHz ~ 9 GHz

Conducted Spurious Emission (High-CH 39)



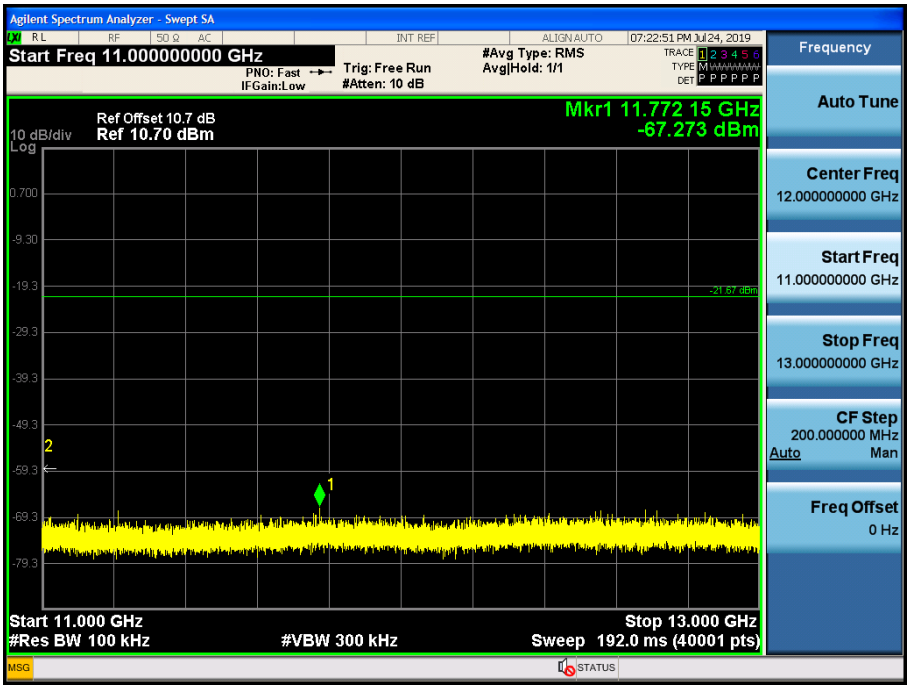
9 GHz ~ 11 GHz

Conducted Spurious Emission (High-CH 39)



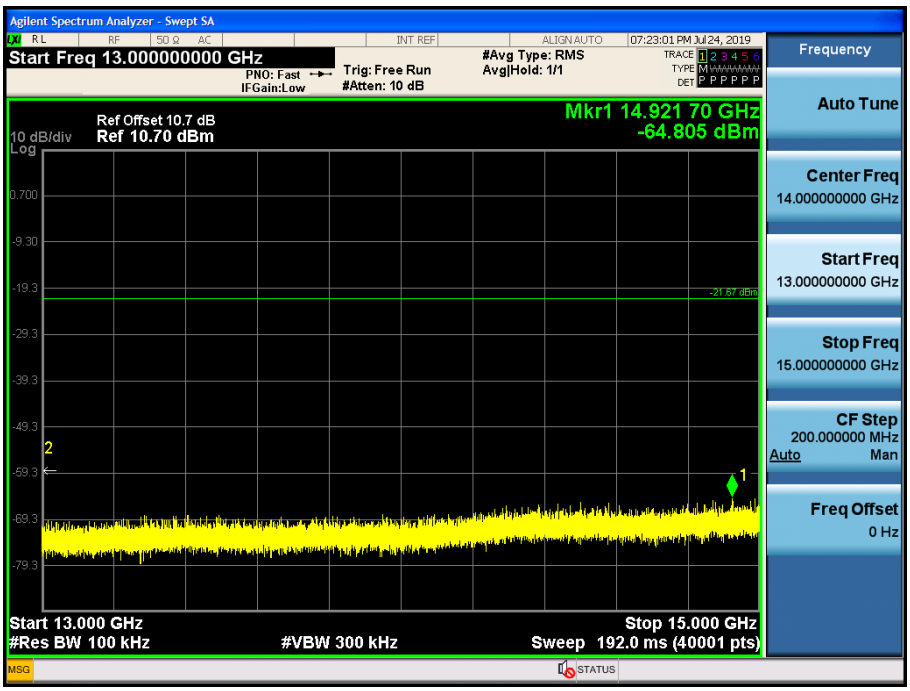
11 GHz ~ 13 GHz

Conducted Spurious Emission (High-CH 39)



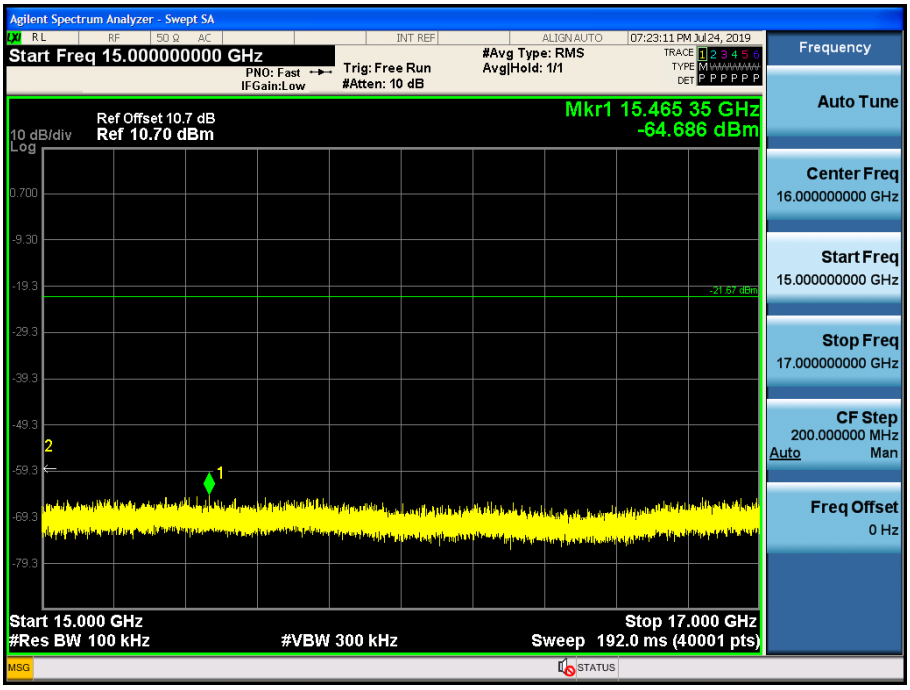
13 GHz ~ 15 GHz

Conducted Spurious Emission (High-CH 39)



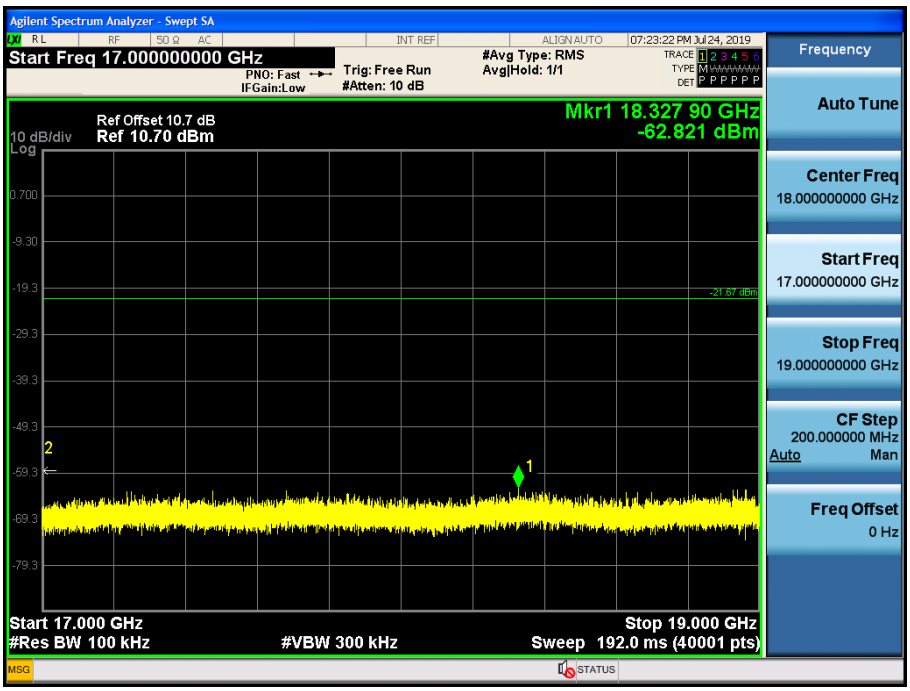
15 GHz ~ 17 GHz

Conducted Spurious Emission (High-CH 39)



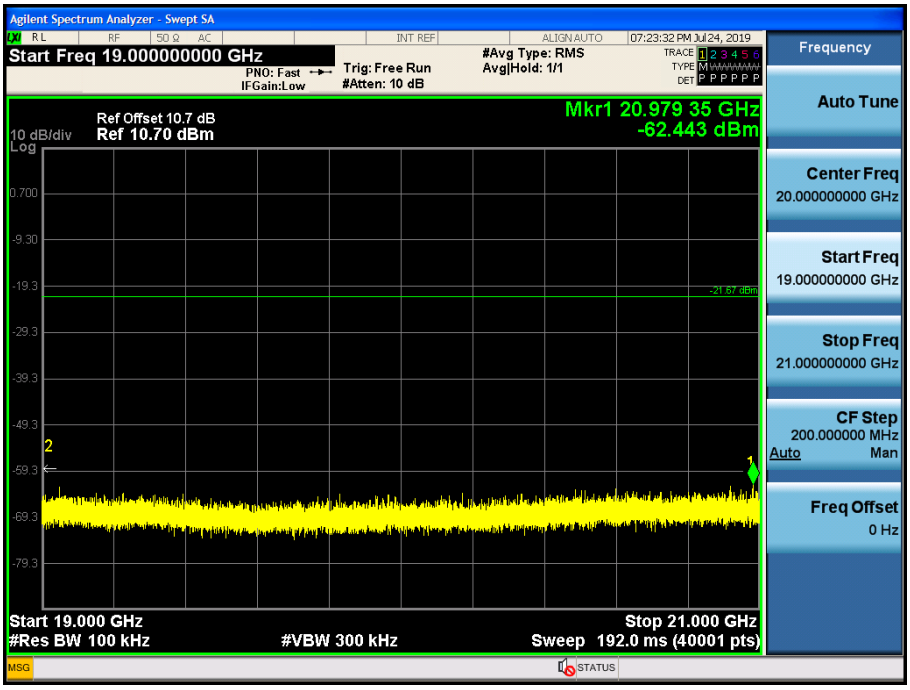
17 GHz ~ 19 GHz

Conducted Spurious Emission (High-CH 39)



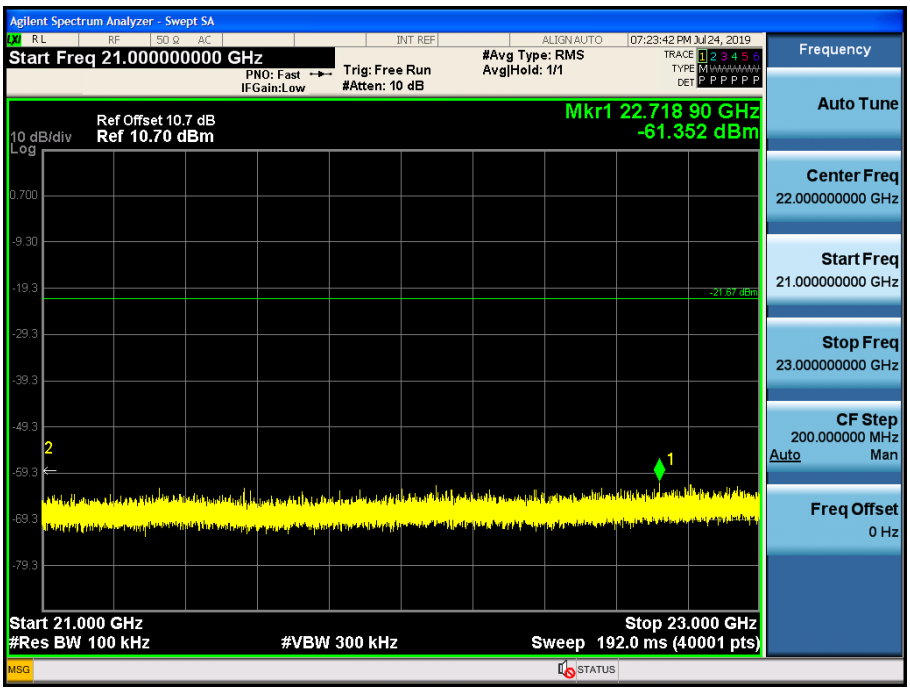
19 GHz ~ 21 GHz

Conducted Spurious Emission (High-CH 39)



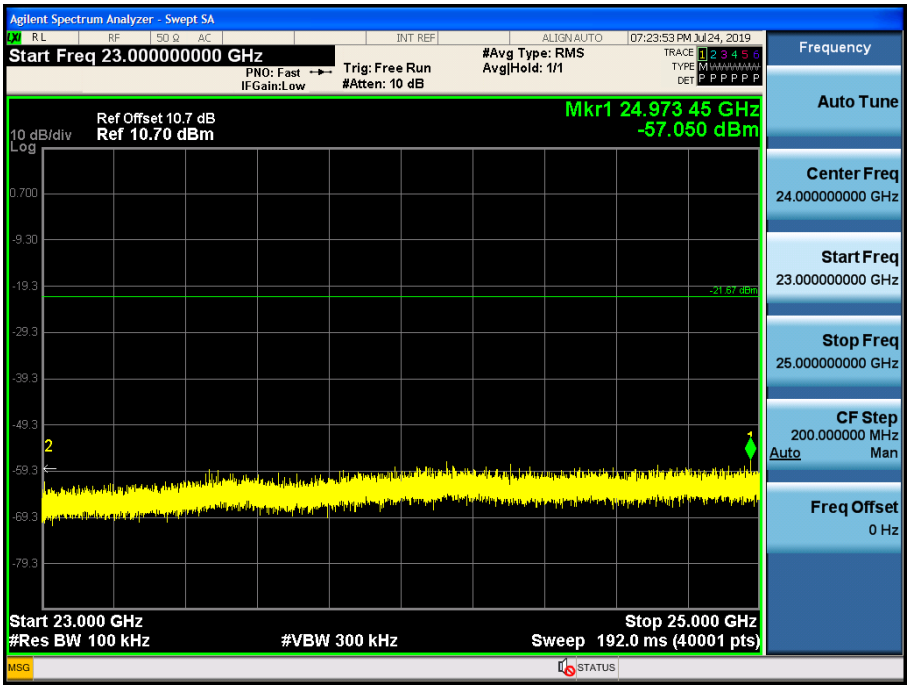
21 GHz ~ 23 GHz

Conducted Spurious Emission (High-CH 39)



23 GHz ~ 25 GHz

Conducted Spurious Emission (High-CH 39)



9.6 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30MHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = 40*log (specific distance / test distance) (dB)
3. Limit line = specific Limits (dBuV) + Distance extrapolation factor
4. Radiated test is performed with hopping off.

Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.

Frequency Range : Above 1 GHz

Mode : 1M Bit/s (37 Byte)

Operation Mode: CH Low

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4804	47.88	0.00	0.44	V	48.32	73.98	25.66	PK
4804	36.89	2.17	0.44	V	39.5	53.98	14.48	AV
7206	48.24	0.00	9.25	V	57.485	73.98	16.50	PK
7206	35.68	2.17	9.25	V	47.095	53.98	6.89	AV
4804	47.84	0.00	0.44	H	48.28	73.98	25.70	PK
4804	36.91	2.17	0.44	H	39.52	53.98	14.46	AV
7206	48.12	0.00	9.25	H	57.365	73.98	16.62	PK
7206	35.70	2.17	9.25	H	47.115	53.98	6.86	AV

Operation Mode: CH Mid

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4880	48.44	0.00	0.96	V	49.4	73.98	24.58	PK
4880	36.41	2.17	0.96	V	39.54	53.98	14.44	AV
7320	47.91	0.00	9.14	V	57.05	73.98	16.93	PK
7320	36.02	2.17	9.14	V	47.33	53.98	6.65	AV
4880	48.25	0.00	0.96	H	49.21	73.98	24.77	PK
4880	36.50	2.17	0.96	H	39.63	53.98	14.35	AV
7320	48.01	0.00	9.14	H	57.15	73.98	16.83	PK
7320	35.89	2.17	9.14	H	47.2	53.98	6.78	AV

Operation Mode: CH High

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4960	47.59	0.00	0.66	V	48.25	73.98	25.73	PK
4960	36.35	2.17	0.66	V	39.18	53.98	14.80	AV
7440	46.33	0.00	10.16	V	56.49	73.98	17.49	PK
7440	34.41	2.17	10.16	V	46.74	53.98	7.24	AV
4960	47.54	0.00	0.66	H	48.2	73.98	25.78	PK
4960	36.39	2.17	0.66	H	39.22	53.98	14.76	AV
7440	46.55	0.00	10.16	H	56.71	73.98	17.27	PK
7440	34.49	2.17	10.16	H	46.82	53.98	7.16	AV

Mode : 1M Bit/s (255 Byte)

Operation Mode: CH Low

Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4804	47.96	0.00	0.44	V	48.40	73.98	25.58	PK
4804	35.94	0.71	0.44	V	37.09	53.98	16.89	AV
7206	48.03	0.00	9.25	V	57.275	73.98	16.71	PK
7206	35.75	0.71	9.25	V	45.705	53.98	8.28	AV
4804	48.08	0.00	0.44	H	48.52	73.98	25.46	PK
4804	35.99	0.71	0.44	H	37.14	53.98	16.84	AV
7206	47.77	0.00	9.25	H	57.015	73.98	16.97	PK
7206	35.81	0.71	9.25	H	45.765	53.98	8.22	AV

Operation Mode: CH Mid

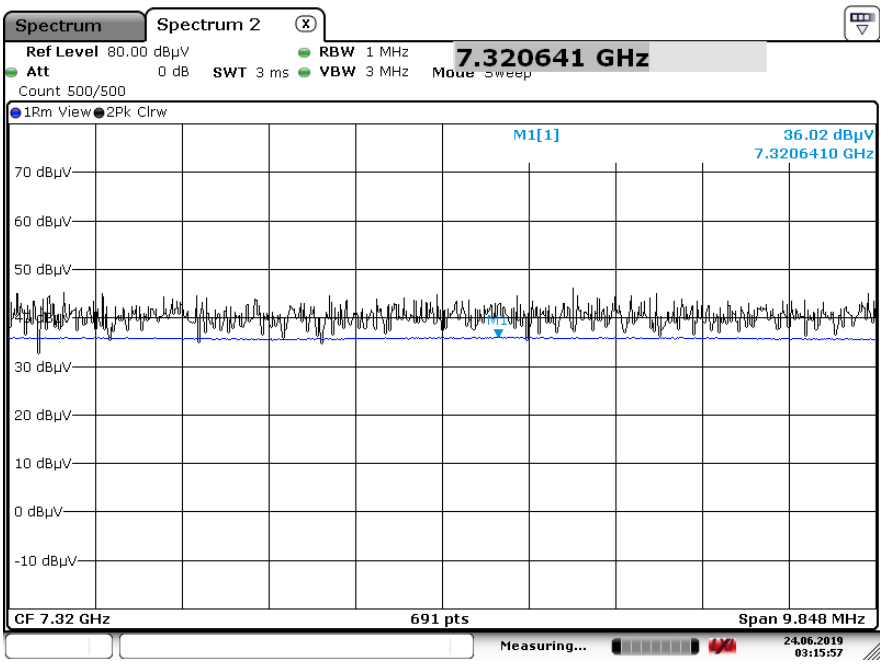
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4880	48.62	0.00	0.96	V	49.58	73.98	24.40	PK
4880	36.51	0.71	0.96	V	38.18	53.98	15.80	AV
7320	48.56	0.00	9.14	V	57.7	73.98	16.28	PK
7320	36.03	0.71	9.14	V	45.88	53.98	8.10	AV
4880	49.25	0.00	0.96	H	50.21	73.98	23.77	PK
4880	36.53	0.71	0.96	H	38.2	53.98	15.78	AV
7320	48.14	0.00	9.14	H	57.28	73.98	16.70	PK
7320	36.00	0.71	9.14	H	45.85	53.98	8.13	AV

Operation Mode: CH High

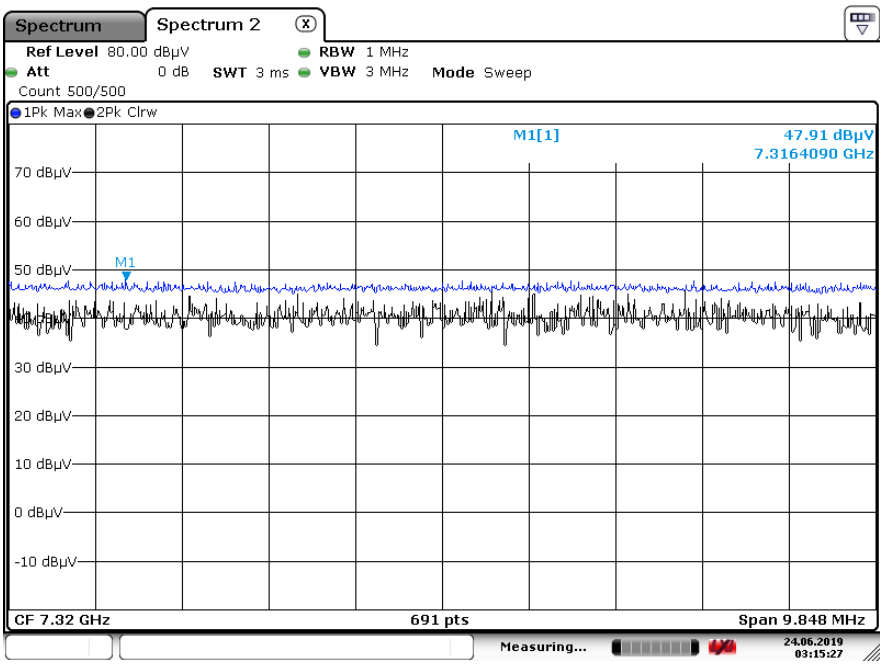
Frequency [MHz]	Reading [dBuV]	Duty Cycle Factor [dB]	A.F + C.L - A.G + D.F [dB]	Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
4960	48.52	0.00	0.66	V	49.18	73.98	24.80	PK
4960	36.40	0.71	0.66	V	37.77	53.98	16.21	AV
7440	46.15	0.00	10.16	V	56.31	73.98	17.67	PK
7440	34.48	0.71	10.16	V	45.35	53.98	8.63	AV
4960	47.95	0.00	0.66	H	48.61	73.98	25.37	PK
4960	36.44	0.71	0.66	H	37.81	53.98	16.17	AV
7440	46.18	0.00	10.16	H	56.34	73.98	17.64	PK
7440	34.53	0.71	10.16	H	45.4	53.98	8.58	AV

▣ 1M Bit 37 Byte Test Plots (Worst case : Z-V)

Radiated Spurious Emissions plot – Average Reading (Ch.19 3rd Harmonic)

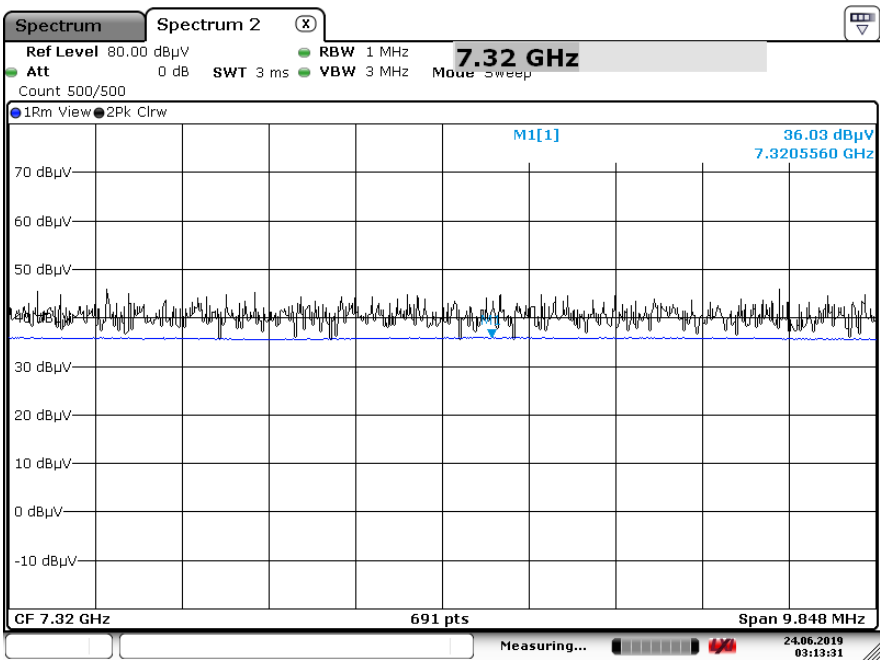


Radiated Spurious Emissions plot – Peak Reading (Ch.19 3rd Harmonic)

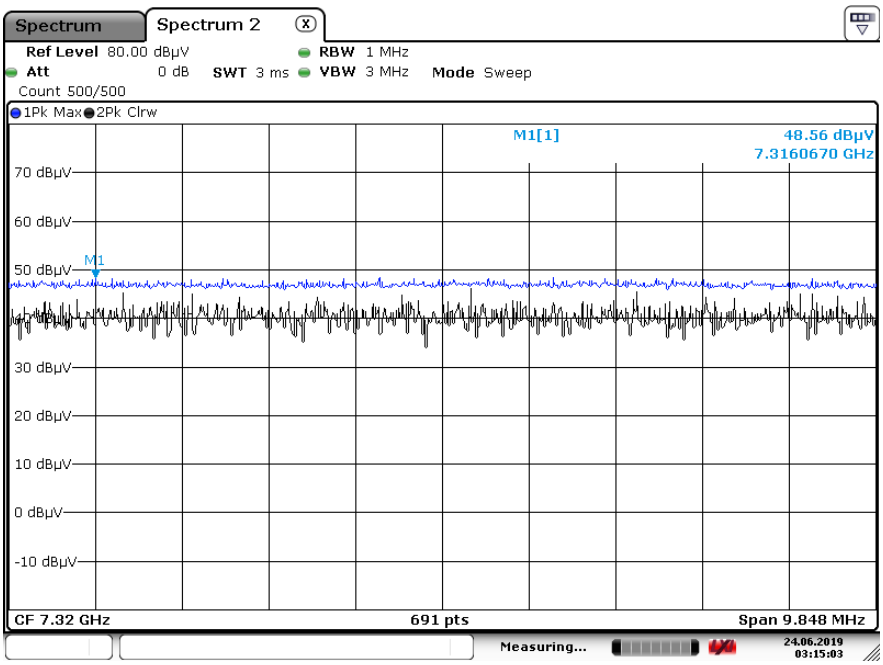


▣ 1M Bit 255 Byte Test Plots (Worst case : Z-V)

Radiated Spurious Emissions plot – Average Reading (Ch.19 3rd Harmonic)



Radiated Spurious Emissions plot – Peak Reading (Ch.19 3rd Harmonic)



Note:

Plot of worst case are only reported.

9.7 RADIATED RESTRICTED BAND EDGES

Mode : 1M Bit/s 37 byte

Operating Frequency 2402 MHz

Channel No. 0

Frequency [MHz]	Reading [dBuV/m]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -AMP+ATT. [dB]	Ant. Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	17.74	0.00	33.39	H	51.13	73.98	22.85	PK
2390.0	8.32	2.17	33.39	H	43.88	53.98	10.10	AV
2390.0	18.28	0.00	33.39	V	51.67	73.98	22.31	PK
2390.0	8.49	2.17	33.39	V	44.05	53.98	9.93	AV

Operating Frequency 2480 MHz

Channel No. 39

Frequency [MHz]	Reading [dBuV/m]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -AMP+ATT. [dB]	Ant. Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2483.5	20.18	0.00	33.39	H	53.57	73.98	20.41	PK
2483.5	8.38	2.17	33.39	H	43.94	53.98	10.04	AV
2483.5	20.38	0.00	33.39	V	53.77	73.98	20.21	PK
2483.5	8.56	2.17	33.39	V	44.12	53.98	9.86	AV

Mode : 1M Bit/s 255 byte

Operating Frequency 2402 MHz

Channel No. 0

Frequency [MHz]	Reading [dBuV/m]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -AMP+ATT [dB]	Ant. Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2390.0	19.78	0.00	33.39	H	53.17	73.98	20.81	PK
2390.0	8.33	0.71	33.39	H	42.43	53.98	11.55	AV
2390.0	19.51	0.00	33.39	V	52.90	73.98	21.08	PK
2390.0	8.45	0.71	33.39	V	42.55	53.98	11.43	AV

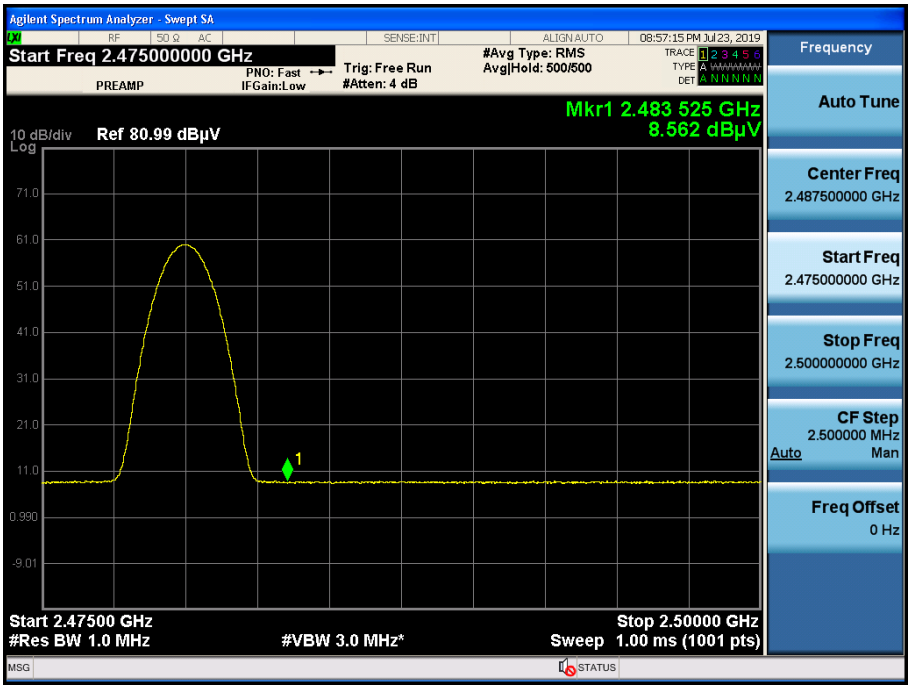
Operating Frequency 2480 MHz

Channel No. 39

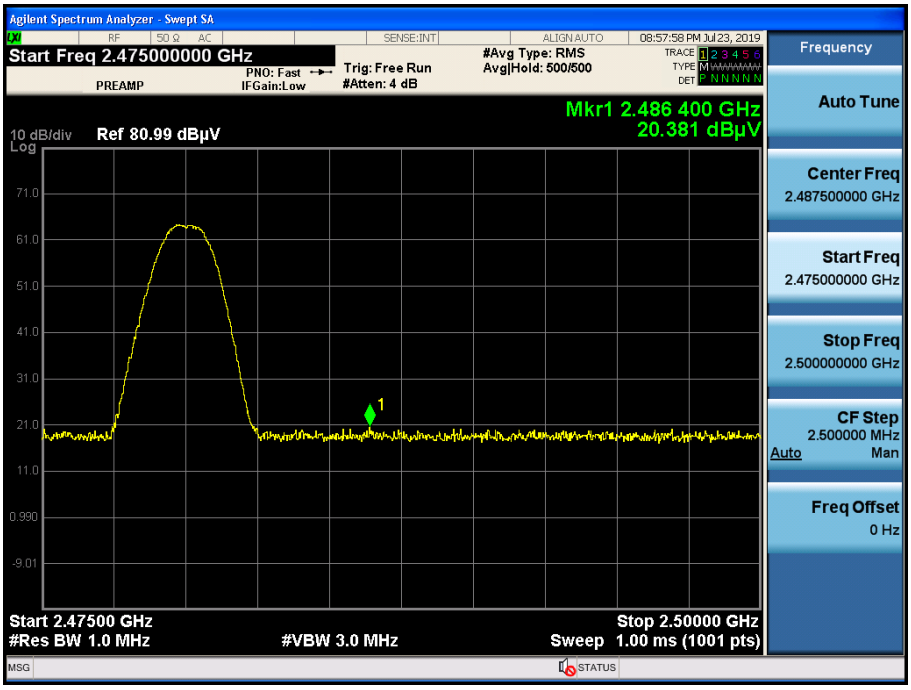
Frequency [MHz]	Reading [dBuV/m]	Duty Cycle Factor [dB]	A.F.+C.L.+D.F -AMP+ATT [dB]	Ant. Pol. [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
2483.5	20.44	0.00	33.39	H	53.83	73.98	20.15	PK
2483.5	8.70	0.71	33.39	H	42.80	53.98	11.18	AV
2483.5	20.63	0.00	33.39	V	54.02	73.98	19.96	PK
2483.5	8.80	0.71	33.39	V	42.90	53.98	11.08	AV

▣ Mode : 1M Bit/s (37 Byte) Test Plots (Worst case : Y-V)

Radiated Restricted Band Edges plot – Average Reading (Ch.39)

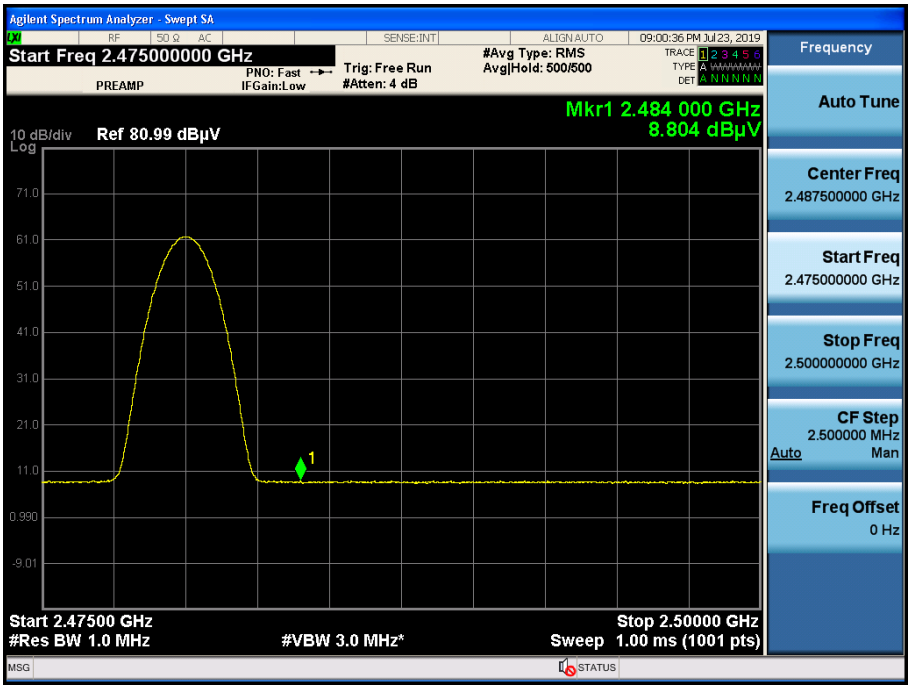


Radiated Restricted Band Edges plot – Peak Reading (Ch.39)

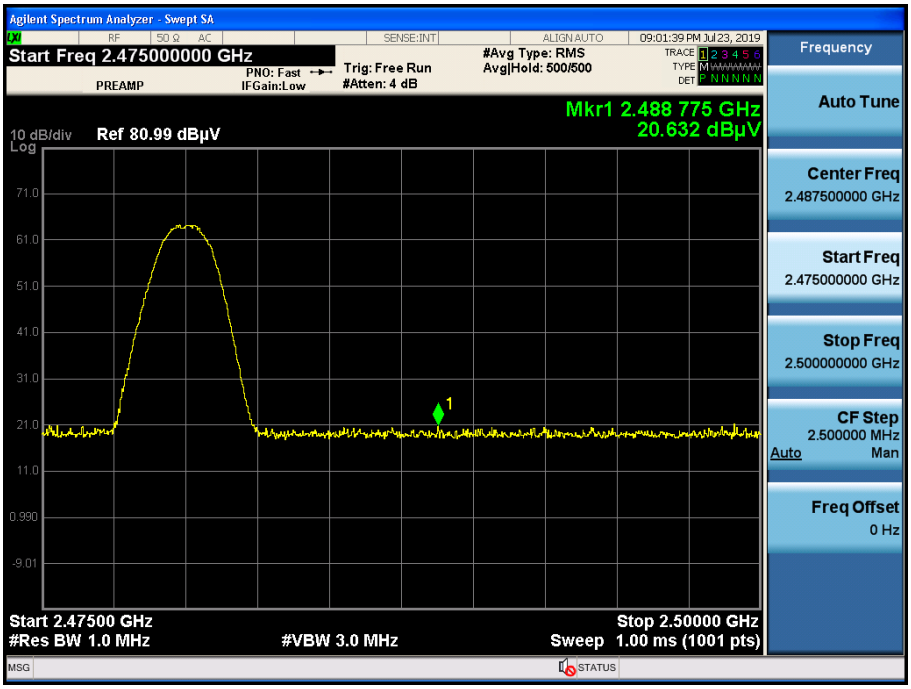


▣ Mode : 1M Bit/s (255 Byte) Test Plots (Worst case : Y-V)

Radiated Restricted Band Edges plot – Average Reading (Ch.39)



Radiated Restricted Band Edges plot – Peak Reading (Ch.39)



Note:

Plot of worst case are only reported.

9.8 RECEIVER SPURIOUS EMISSIONS

Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.

Frequency Range : Above 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

9.9 POWERLINE CONDUCTED EMISSIONS

Conducted Emissions (Line 1)

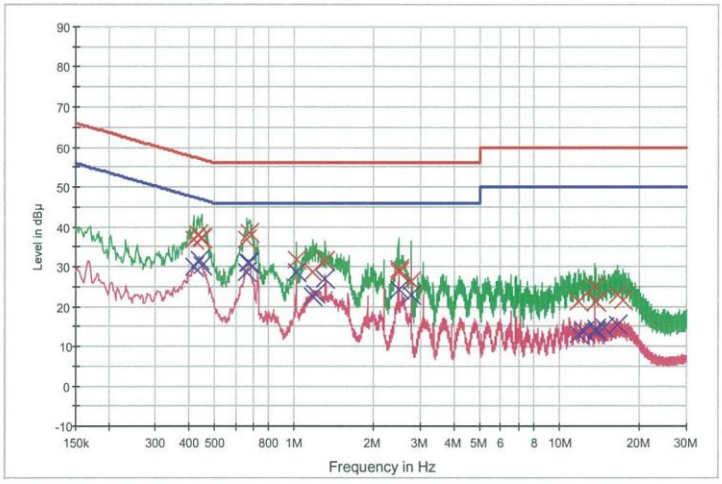
BT LE L1 1 / 2

HCT TEST Report

Common Information

EUT:	SM-R825U
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	BT LE L1

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.418000	36.8	9.000	Off	L1	9.7	20.7	57.5
0.436000	38.2	9.000	Off	L1	9.7	18.9	57.1
0.444000	37.0	9.000	Off	L1	9.7	20.0	57.0
0.448000	37.0	9.000	Off	L1	9.7	19.9	56.9
0.666000	36.9	9.000	Off	L1	9.8	19.1	56.0
0.678000	38.4	9.000	Off	L1	9.8	17.6	56.0
1.020000	31.5	9.000	Off	L1	9.8	24.5	56.0
1.182000	28.8	9.000	Off	L1	9.8	27.2	56.0
1.312000	31.4	9.000	Off	L1	9.9	24.6	56.0
2.470000	28.7	9.000	Off	L1	9.9	27.3	56.0
2.474000	29.4	9.000	Off	L1	9.9	26.6	56.0
2.762000	26.2	9.000	Off	L1	9.9	29.8	56.0
11.786000	21.2	9.000	Off	L1	10.3	38.8	60.0
13.562000	24.9	9.000	Off	L1	10.4	35.1	60.0
13.712000	21.1	9.000	Off	L1	10.4	38.9	60.0
16.432000	22.9	9.000	Off	L1	10.5	37.1	60.0
16.448000	22.9	9.000	Off	L1	10.5	37.1	60.0
17.368000	21.7	9.000	Off	L1	10.5	38.3	60.0

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BT LE L1 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.418000	29.9	9.000	Off	L1	9.7	17.6	47.5
0.438000	31.8	9.000	Off	L1	9.7	15.3	47.1
0.448000	30.4	9.000	Off	L1	9.7	16.6	46.9
0.666000	28.7	9.000	Off	L1	9.8	17.3	46.0
0.674000	31.0	9.000	Off	L1	9.8	15.0	46.0
0.680000	30.9	9.000	Off	L1	9.8	15.1	46.0
1.018000	28.6	9.000	Off	L1	9.8	17.4	46.0
1.182000	22.7	9.000	Off	L1	9.8	23.3	46.0
1.200000	23.2	9.000	Off	L1	9.8	22.8	46.0
1.312000	26.9	9.000	Off	L1	9.9	19.1	46.0
2.474000	24.2	9.000	Off	L1	9.9	21.8	46.0
2.764000	22.9	9.000	Off	L1	9.9	23.1	46.0
11.786000	13.1	9.000	Off	L1	10.3	36.9	50.0
12.376000	13.6	9.000	Off	L1	10.3	36.4	50.0
13.656000	14.4	9.000	Off	L1	10.4	35.6	50.0
13.712000	13.6	9.000	Off	L1	10.4	36.4	50.0
14.694000	14.7	9.000	Off	L1	10.4	35.3	50.0
16.448000	15.4	9.000	Off	L1	10.5	34.6	50.0

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Conducted Emissions (Line 2)

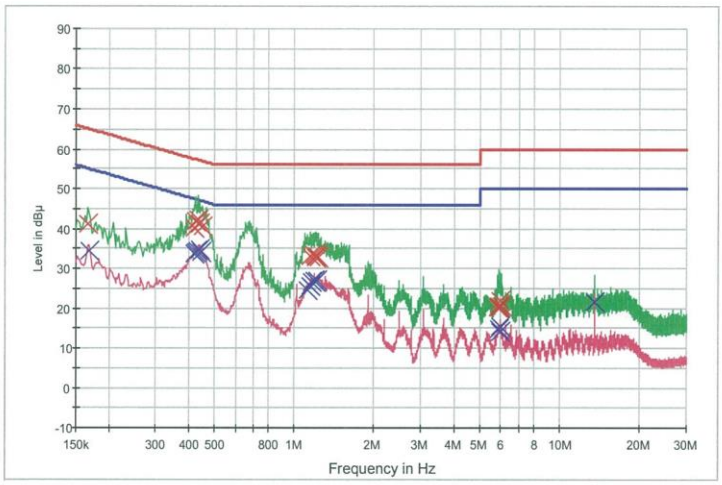
BT LE N 1 / 2

HCT TEST Report

Common Information

EUT:	SM-R825U
Manufacturer:	SAMSUNG
Test Site:	SHIELD ROOM
Operating Conditions:	BT LE N

FCC CLASS B_Exten Cable



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.166000	41.1	9.000	Off	N	9.8	24.0	65.2
0.420000	40.2	9.000	Off	N	9.9	17.3	57.4
0.424000	41.8	9.000	Off	N	9.9	15.6	57.4
0.434000	42.3	9.000	Off	N	9.9	14.9	57.2
0.438000	41.3	9.000	Off	N	9.9	15.8	57.1
0.452000	40.5	9.000	Off	N	9.9	16.3	56.8
1.146000	33.2	9.000	Off	N	10.0	22.8	56.0
1.186000	33.4	9.000	Off	N	10.0	22.6	56.0
1.204000	32.7	9.000	Off	N	10.0	23.3	56.0
1.210000	32.9	9.000	Off	N	10.0	23.1	56.0
1.214000	33.0	9.000	Off	N	10.0	23.0	56.0
1.228000	32.7	9.000	Off	N	10.0	23.3	56.0
5.862000	20.1	9.000	Off	N	10.3	39.9	60.0
5.878000	20.4	9.000	Off	N	10.3	39.6	60.0
5.904000	20.1	9.000	Off	N	10.3	39.9	60.0
5.948000	20.2	9.000	Off	N	10.3	39.8	60.0
5.958000	22.0	9.000	Off	N	10.3	38.0	60.0
6.020000	20.4	9.000	Off	N	10.3	39.6	60.0

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BT LE N 2 / 2

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.168000	34.3	9.000	Off	N	9.8	20.7	55.1
0.418000	33.6	9.000	Off	N	9.9	13.9	47.5
0.426000	34.2	9.000	Off	N	9.9	13.2	47.3
0.432000	34.5	9.000	Off	N	9.9	12.7	47.2
0.438000	34.7	9.000	Off	N	9.9	12.4	47.1
0.446000	34.2	9.000	Off	N	9.9	12.8	46.9
1.126000	24.7	9.000	Off	N	10.0	21.3	46.0
1.146000	25.7	9.000	Off	N	10.0	20.3	46.0
1.162000	26.5	9.000	Off	N	10.0	19.5	46.0
1.188000	27.0	9.000	Off	N	10.0	19.0	46.0
1.200000	26.7	9.000	Off	N	10.0	19.3	46.0
1.218000	26.8	9.000	Off	N	10.0	19.2	46.0
5.888000	14.8	9.000	Off	N	10.3	35.2	50.0
5.896000	14.7	9.000	Off	N	10.3	35.3	50.0
5.960000	15.6	9.000	Off	N	10.3	34.4	50.0
5.976000	14.1	9.000	Off	N	10.3	35.9	50.0
5.996000	14.0	9.000	Off	N	10.3	36.0	50.0
13.558000	21.7	9.000	Off	N	10.6	28.4	50.0

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10. LIST OF TEST EQUIPMENT

Conducted Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216 / LISN	12/12/2018	Annual	102245
Rohde & Schwarz	ESCI / Test Receiver	06/18/2019	Annual	100033
ESPAC	SU-642 /Temperature Chamber	03/12/2019	Annual	0093008124
Agilent	N9020A / Signal Analyzer	05/23/2019	Annual	MY51110085
Agilent	N9020A / Signal Analyzer	05/24/2019	Annual	MY52090906
Agilent	N9030A / Signal Analyzer	01/10/2019	Annual	MY49431210
Rohde & Schwarz	OSP 120 / Power Measurement Set	07/24/2019	Annual	101231
Agilent	N1911A / Power Meter	04/10/2019	Annual	MY45100523
Agilent	N1921A / Power Sensor	04/10/2019	Annual	MY52260025
Agilent	87300B / Directional Coupler	11/20/2018	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	05/24/2019	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	06/18/2019	Annual	KR75303960
Agilent	8493C / Attenuator(10 dB)	07/02/2019	Annual	07560
Rohde & Schwarz	EMC32 / Software	N/A	N/A	N/A
HCT CO., LTD.	FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	N/A	N/A

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

Radiated Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	08/23/2018	Biennial	1513-175
Schwarzbeck	VULB 9168 / Hybrid Antenna	03/22/2019	Biennial	760
Schwarzbeck	VULB 9160 / TRILOG Antenna	08/09/2018	Biennial	9160-3368
Schwarzbeck	BBHA 9120D / Horn Antenna	04/29/2019	Biennial	9120D-937
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	12/04/2017	Biennial	BBHA9170541
Rohde & Schwarz	FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer	09/03/2018	Annual	100688
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	09/28/2018	Annual	101068-SZ
Agilent	N9020A / Signal Analyzer	05/23/2019	Annual	MY51110085
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	05/23/2019	Annual	8
Wainwright Instruments	WHKX7.0/18G-8SS / High Pass Filter	05/03/2019	Annual	29
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	06/19/2019	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	01/03/2019	Annual	2
Api tech.	18B-03 / Attenuator (3 dB)	06/04/2019	Annual	1
Agilent	8493C-10 / Attenuator(10 dB)	07/15/2019	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	07/01/2019	Annual	22964
CERNEX	CBL06185030 / Power Amplifier	07/01/2019	Annual	22965
CERNEX	CBL18265035 / Power Amplifier	01/03/2019	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	06/18/2019	Annual	25956

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.

2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date

11. ANNEX A_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-1907-FI020-P