

## Appendix B

### RF Test Data for BT V4.0(BLE) (Conducted Measurement)

**Product Name:** Set top box

**Trade Mark:** N/A

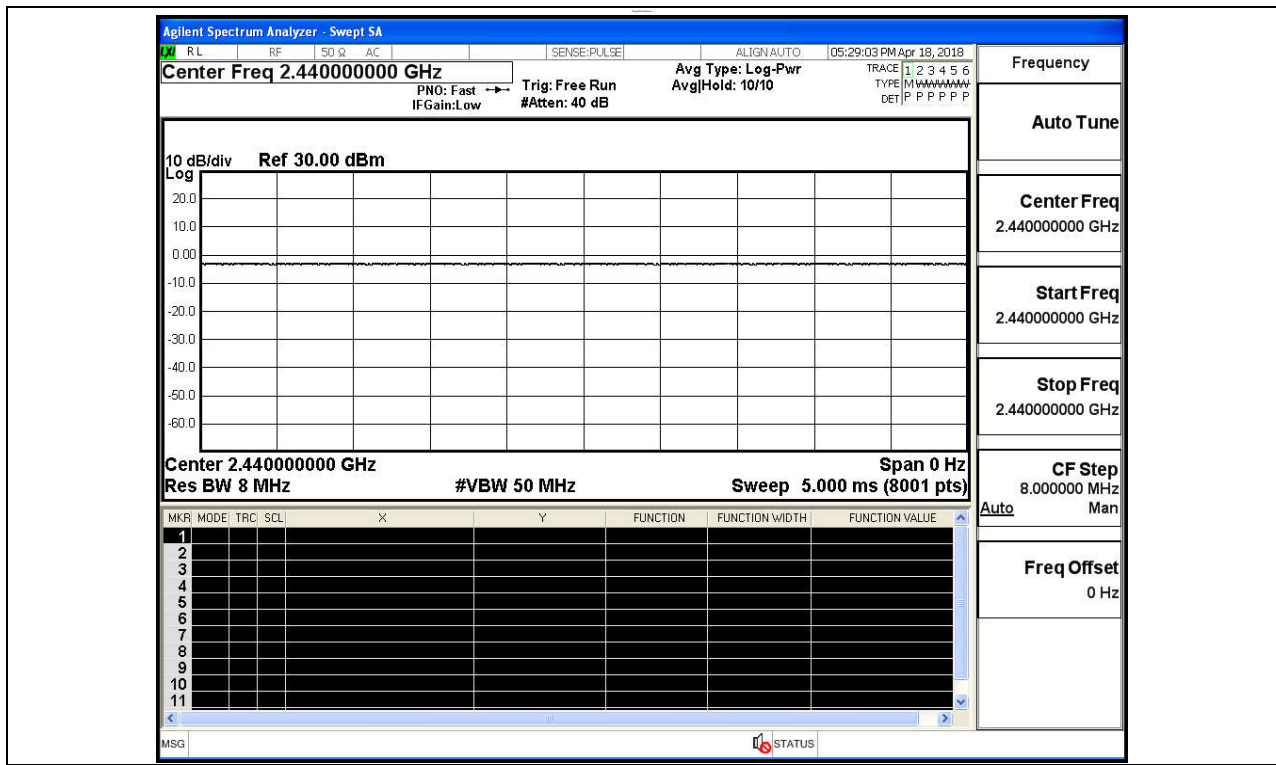
**Test Model:** J5S

#### Environmental Conditions

Temperature:	24.1° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden Zhuo

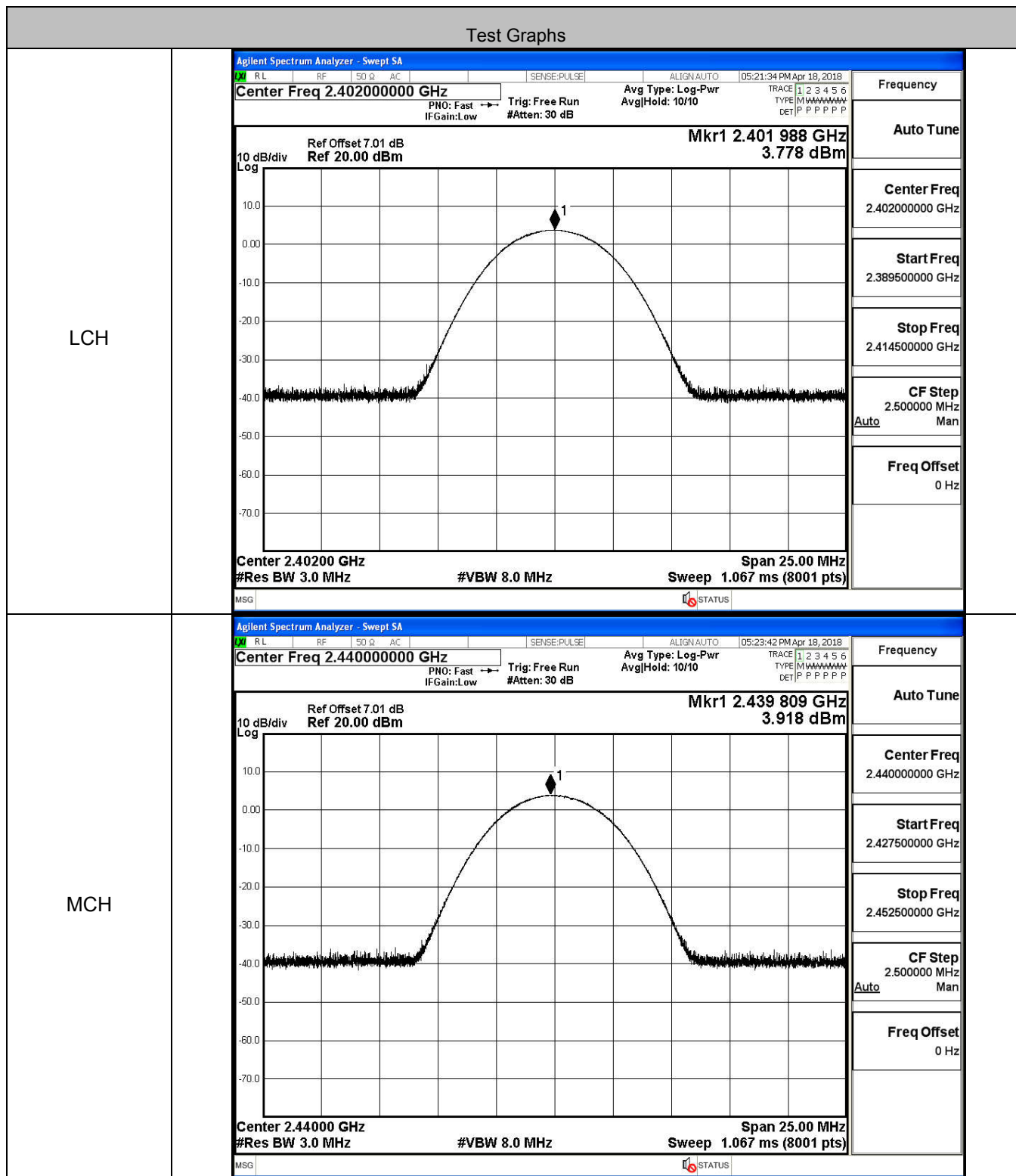
#### B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
BT LE	2440	Ant1	100	PASS



### B.2 Maximum Conducted Peak Output Power

Mode	Channel	Conduct Peak Power[dBm]	Limit [dBm]	Verdict
BT LE	LCH	3.778	30	PASS
BT LE	MCH	3.918	30	PASS
BT LE	HCH	4.027	30	PASS

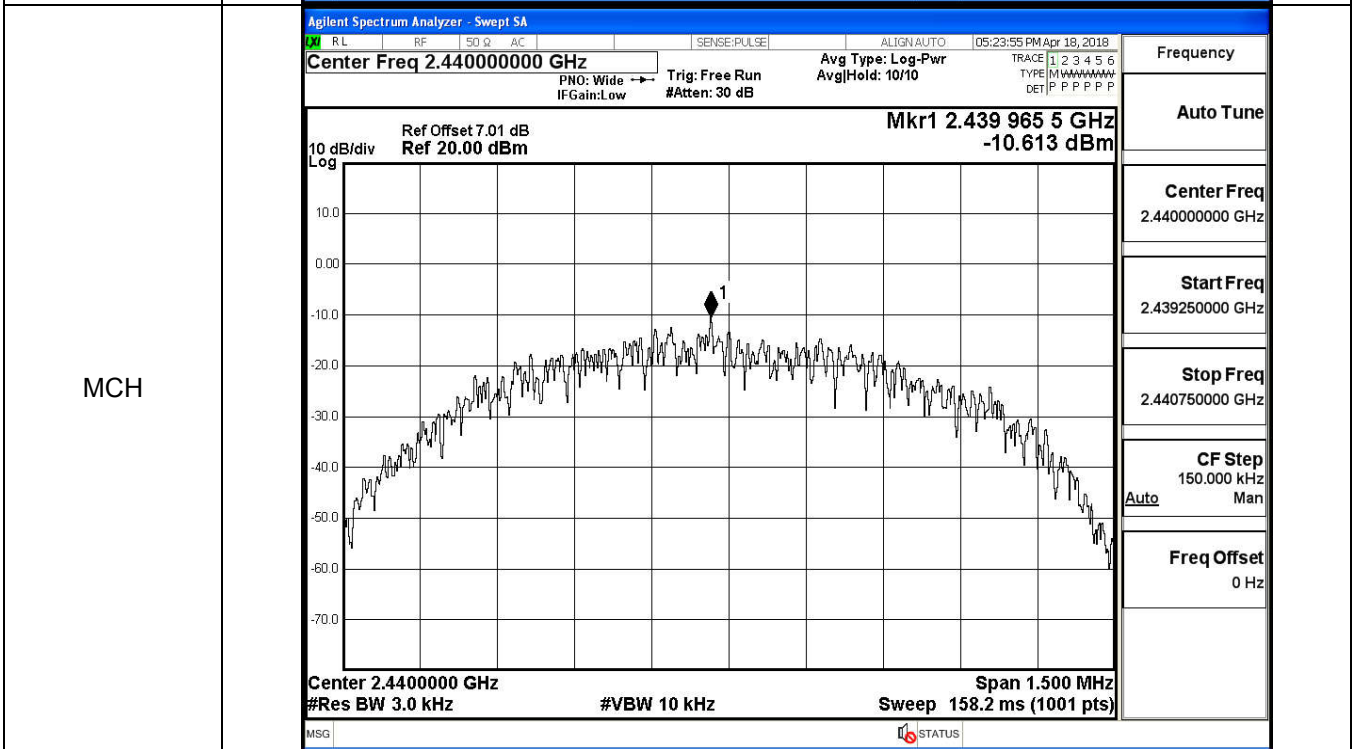
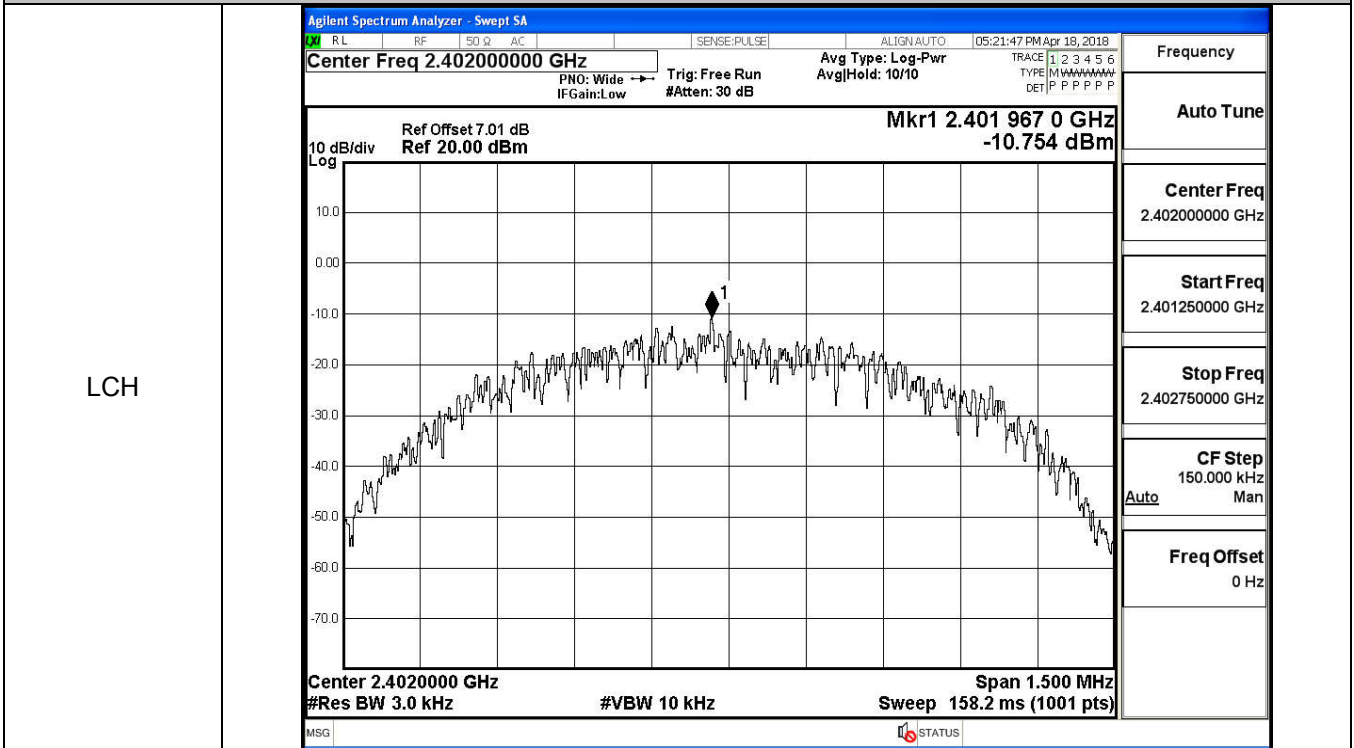




### B.3 Maximum Power Spectral Density

Mode	Channel	PSD [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
BT LE	LCH	-10.754	8	PASS
BT LE	MCH	-10.613	8	PASS
BT LE	HCH	-10.546	8	PASS

#### Test Graphs



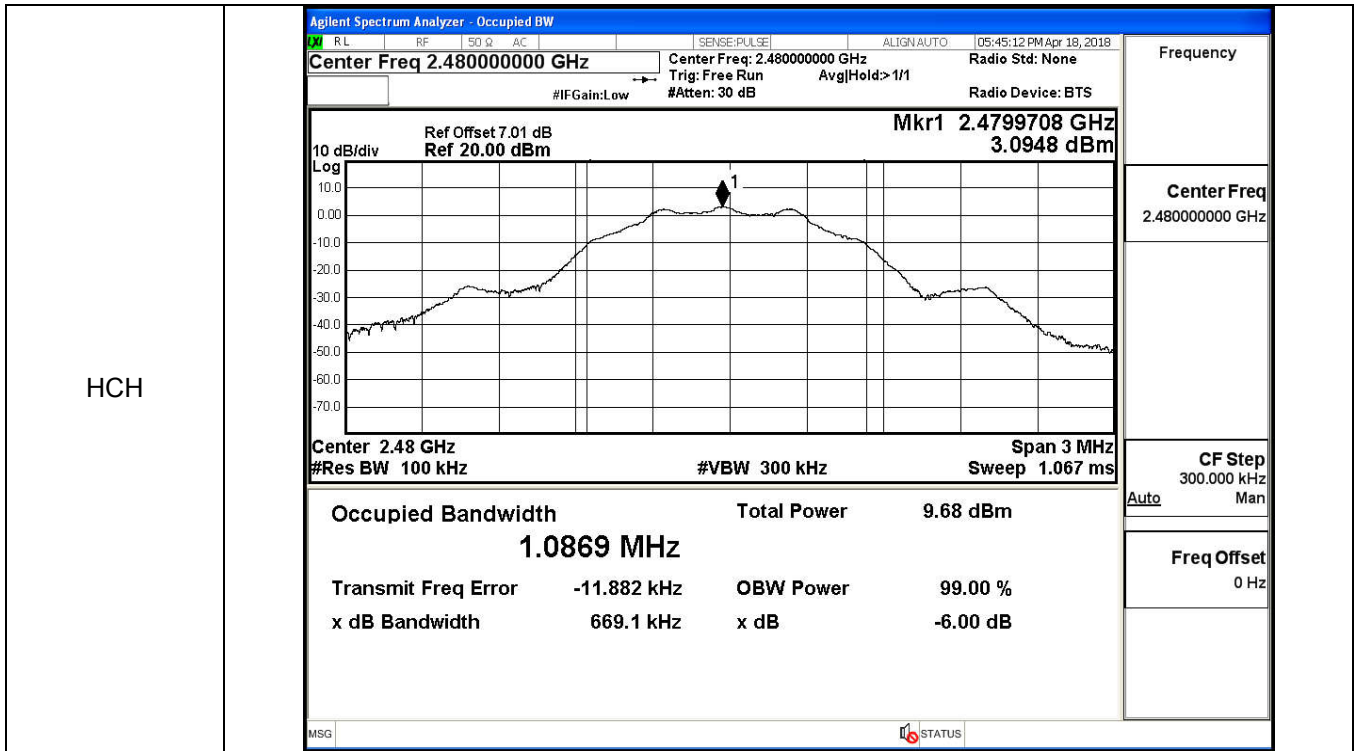


**B.4 6dB Bandwidth**

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
BT LE	LCH	0.6682	≥0.5	PASS
BT LE	MCH	0.6744	≥0.5	PASS
BT LE	HCH	0.6691	≥0.5	PASS

Test Graphs

LCH	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz</p> <p>Center Freq: 2.40200000 GHz</p> <p>Mkr1 2.4019659 GHz</p> <p>10 dB/div</p> <p>Ref Offset 7.01 dB</p> <p>Ref 20.00 dBm</p> <p>Occupied Bandwidth 1.0833 MHz</p> <p>Total Power 9.65 dBm</p> <p>Transmit Freq Error -7.488 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 668.2 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.40200000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>
	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz</p> <p>Center Freq: 2.44000000 GHz</p> <p>Mkr1 2.4399734 GHz</p> <p>10 dB/div</p> <p>Ref Offset 7.01 dB</p> <p>Ref 20.00 dBm</p> <p>Occupied Bandwidth 1.0849 MHz</p> <p>Total Power 9.53 dBm</p> <p>Transmit Freq Error -9.218 kHz</p> <p>OBW Power 99.00 %</p> <p>x dB Bandwidth 674.4 kHz</p> <p>x dB -6.00 dB</p>	<p>Frequency</p> <p>Center Freq 2.44000000 GHz</p> <p>CF Step 300.000 kHz</p> <p>Freq Offset 0 Hz</p>



### B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	2.935	-45.791	-17.065	PASS
BT LE	MCH	3.033	-45.711	-16.967	PASS
BT LE	HCH	3.09	-44.422	-16.910	PASS

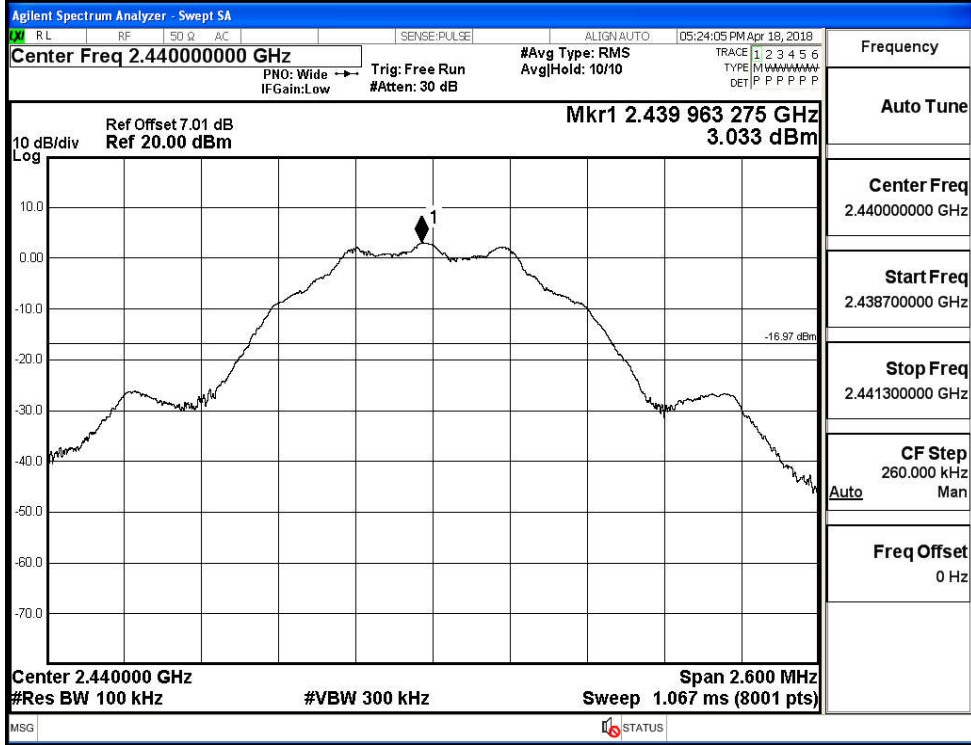
BT LE LCH Graphs

Pref/BT LE/LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.402000000 GHz</p> <p>Start Freq 2.400700000 GHz</p> <p>Stop Freq 2.403300000 GHz</p> <p>CF Step 260.000 kHz Auto Man</p> <p>Freq Offset 0 Hz</p>
		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 12.515000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 25.000000000 GHz</p> <p>CF Step 2.497000000 GHz Auto Man</p> <p>Freq Offset 0 Hz</p>
Puw/BT LE/LCH		

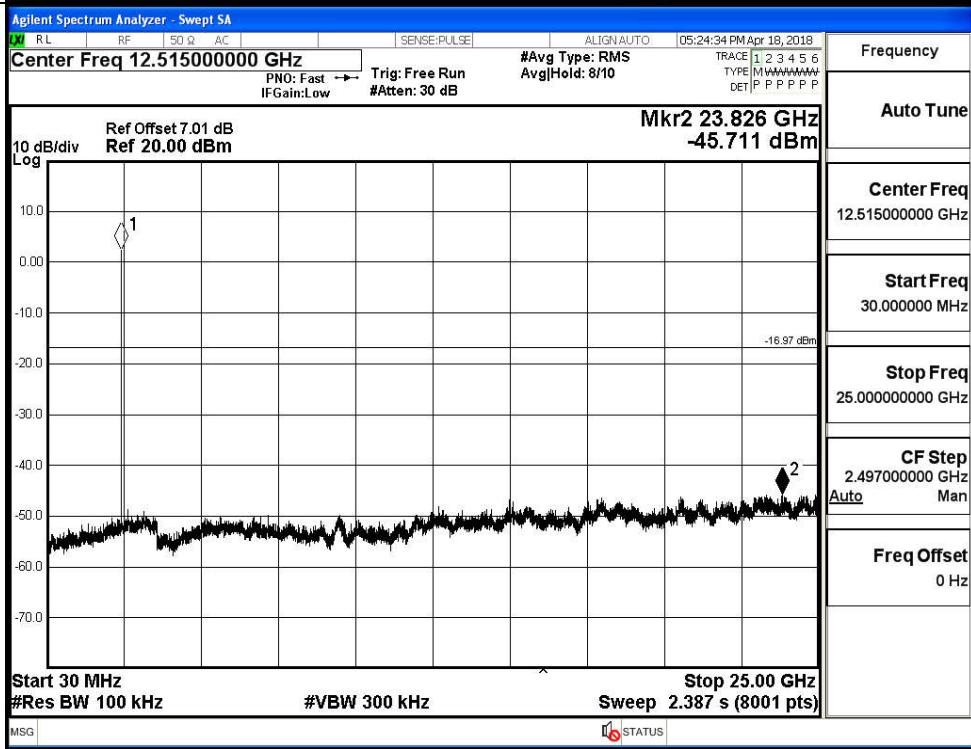


BT LE MCH Graphs

Pref/BT LE/MCH

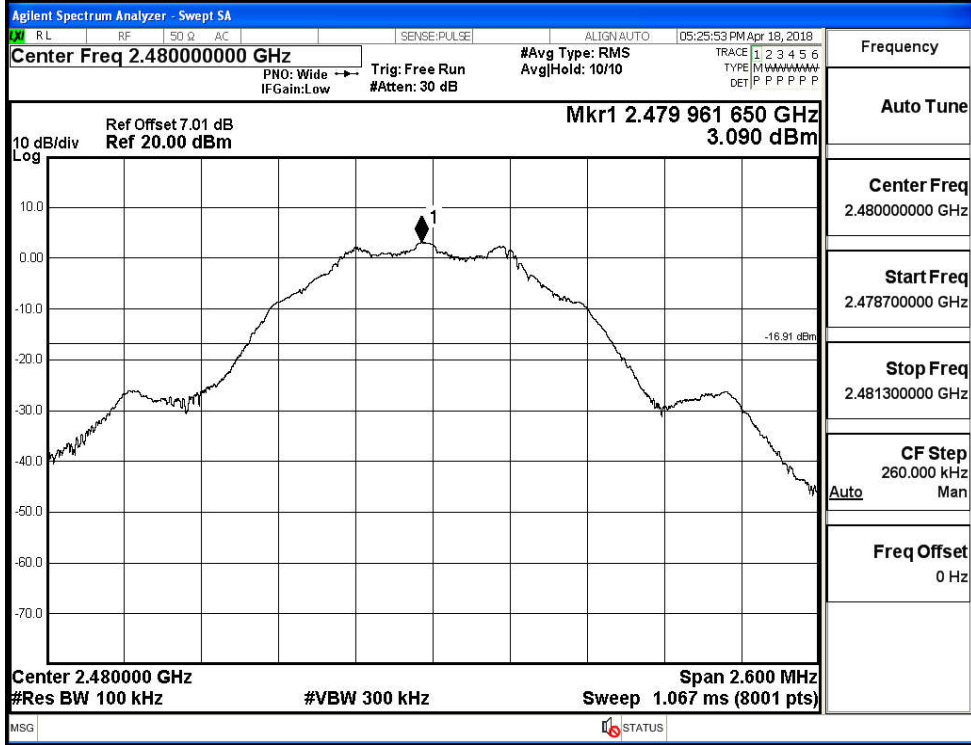


Puw/BT LE/MCH

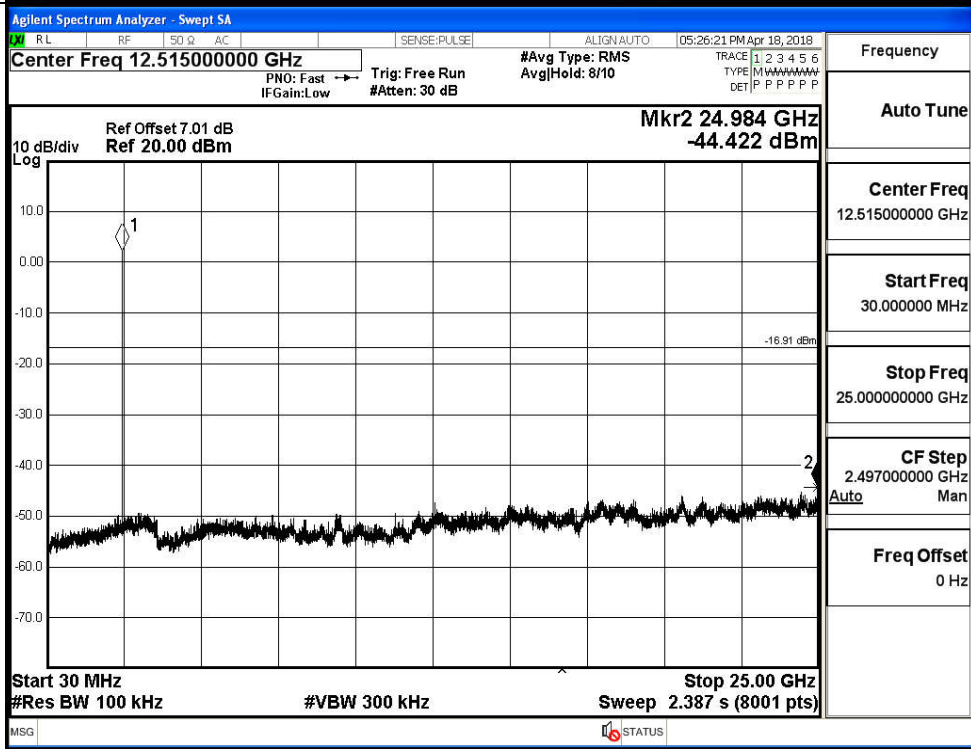


BT LE HCH Graphs

Pref/BT LE/HCH



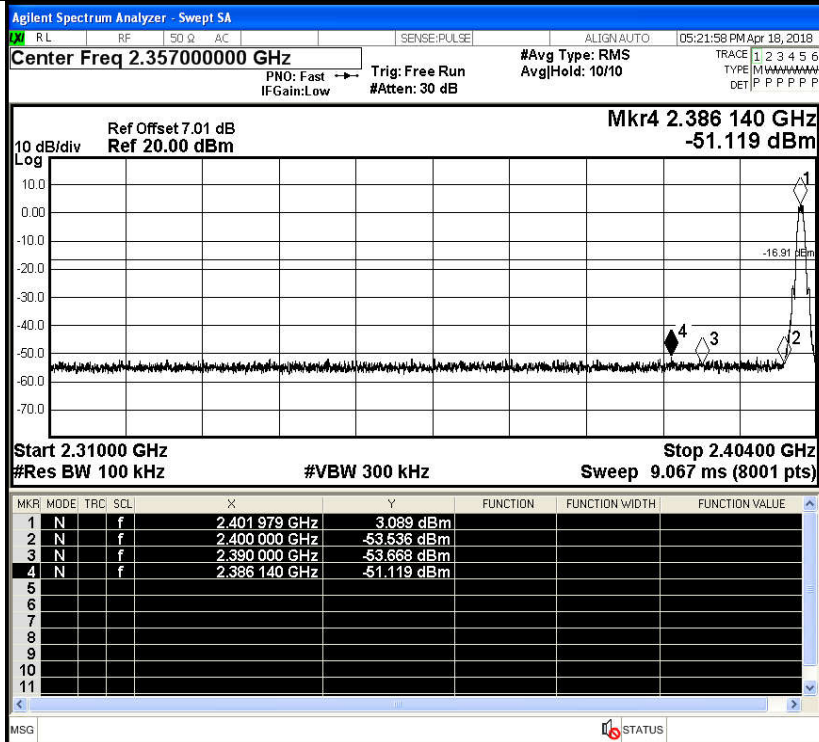
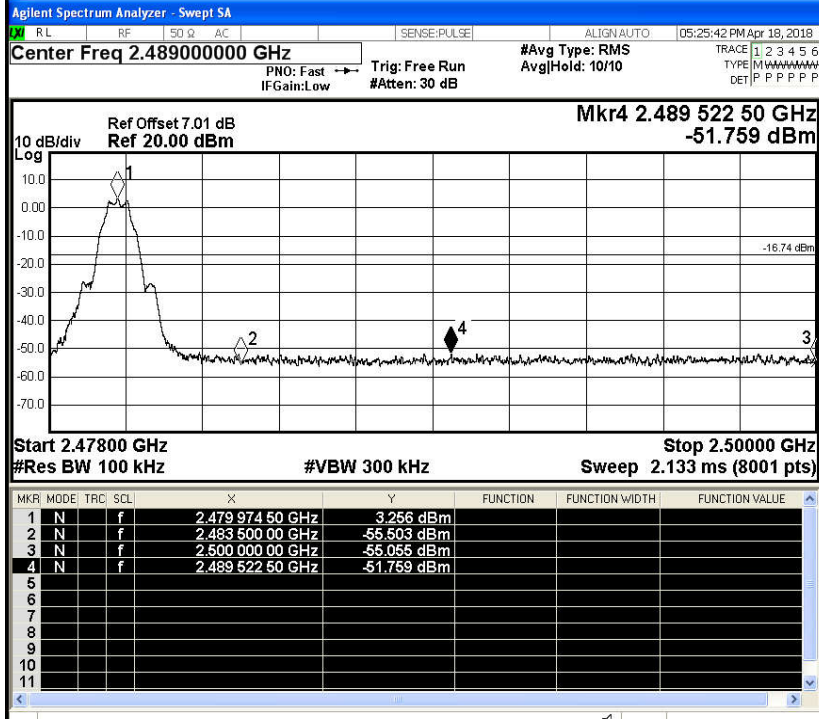
Puw/BT LE/HCH



**B.6 Band-edge for RF Conducted Emissions**

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
BT LE	LCH	3.089	-51.119	-16.91	PASS
BT LE	HCH	3.256	-51.759	-16.74	PASS

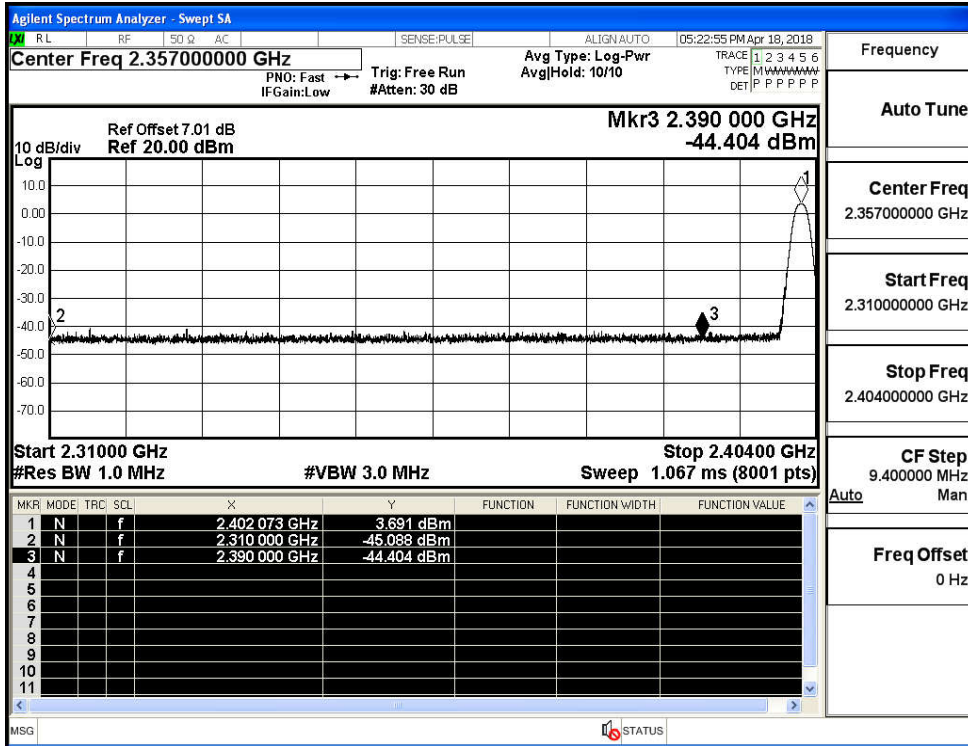
Test Graphs

LCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.35700000 GHz</p> <p>Start Freq 2.31000000 GHz</p> <p>Stop Freq 2.40400000 GHz</p> <p>CF Step 9.400000 MHz</p> <p>Freq Offset 0 Hz</p>
HCH		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.48900000 GHz</p> <p>Start Freq 2.47800000 GHz</p> <p>Stop Freq 2.50000000 GHz</p> <p>CF Step 2.200000 MHz</p> <p>Freq Offset 0 Hz</p>

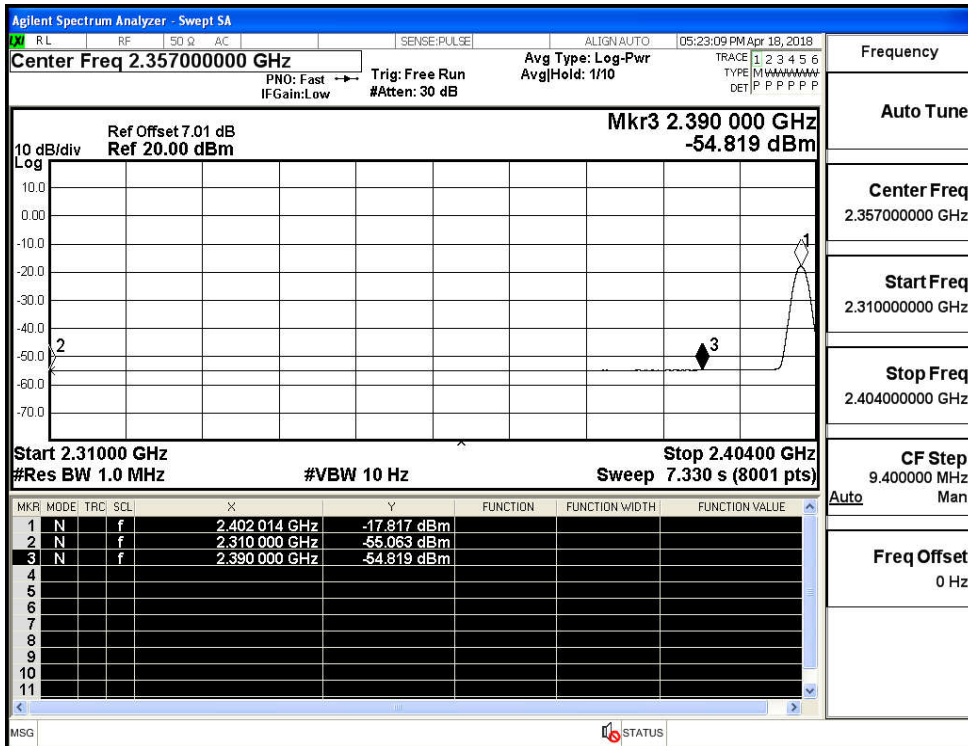
**B.7 Restrict-band band-edge measurements**

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdi
BT LE	2402	Ant1	2310.0	-45.09	2.0	0	52.11	PEAK	74	PASS
		Ant1	2310.0	-55.06	2.0	0	42.14	AV	54	PASS
		Ant1	2390.0	-44.40	2.0	0	52.80	PEAK	74	PASS
		Ant1	2390.0	-54.82	2.0	0	42.38	AV	54	PASS
	2480	Ant1	2483.5	-43.35	2.0	0	53.85	PEAK	74	PASS
		Ant1	2483.5	-54.37	2.0	0	42.83	AV	54	PASS
		Ant1	2500.0	-44.37	2.0	0	52.83	PEAK	74	PASS
		Ant1	2500.0	-54.44	2.0	0	42.76	AV	54	PASS

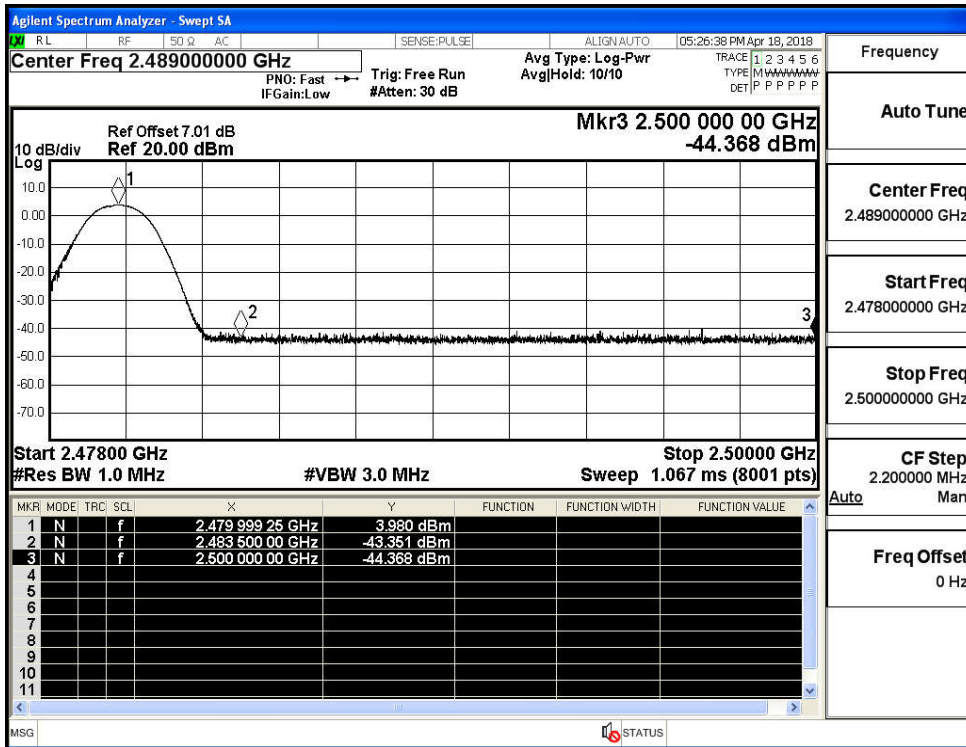
Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_AV



Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_PEAK



Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_AV

