

**EXHIBIT 6****INDEX OF SUBMITTED MEASURED DATA**

This exhibit contains the measured data for this equipment as follows:

**EXHIBIT 6A - RF Power Output****EXHIBIT 6B – Modulation Techniques and Occupied Bandwidth**

- 6B-1 – 806.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC only)
- 6B-2 – 806.025 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-3 – 809.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-4 – 809.025 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-5 – 815.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-6 – 815.025 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-7 – 815.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-8 – 815.025 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-9 – 823.9875 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-10 – 823.9875 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-11 – 823.9875 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-12 – 823.9875 MHz, QAM64 Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-13 – 851.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-14 – 854.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-15 – 859.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-16 – 859.025 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691
- 6B-17 – 868.9875 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask Y (IC Only)
- 6B-18 – 868.9875 MHz, DQPSK Data & Voice Modulation, 22K0D1W Mask B, 90.691

**EXHIBIT 6C - Conducted Spurious Emissions**

- 6C-1 – 11.2 Watts, 806.025 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)
- 6C-2 – 11.2 Watts, 809.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6C-3 – 11.2 Watts, 815.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6C-4 – 11.2 Watts, 823.9875 MHz, 25 kHz Channel Spacing, DQPSK
- 6C-5 – 11.2 Watts, 851.025 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)
- 6C-6 – 11.2 Watts, 854.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6C-7 – 11.2 Watts, 859.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6C-8 – 11.2 Watts, 868.9875 MHz, 25 kHz Channel Spacing, DQPSK

**EXHIBIT 6D – Radiated Spurious Emissions**

- 6D-1 – 11.2 Watts, 806.0125 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)
- 6D-2 – 11.2 Watts, 809.0125 MHz, 25 kHz Channel Spacing, DQPSK
- 6D-3 – 11.2 Watts, 815.0125 MHz, 25 kHz Channel Spacing, DQPSK
- 6D-4 – 11.2 Watts, 823.9875 MHz, 25 kHz Channel Spacing, DQPSK
- 6D-5 – 11.2 Watts, 851.025 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)
- 6D-6 – 11.2 Watts, 854.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6D-7 – 11.2 Watts, 859.025 MHz, 25 kHz Channel Spacing, DQPSK
- 6D-8 – 11.2 Watts, 868.9875 MHz, 25 kHz Channel Spacing, DQPSK

**EXHIBIT 6E – Frequency Stability**

- 6E-1 – 815.025 MHz (TMO) Frequency Stability vs. Temperature
- 6E-2 – 815.025 MHz (TMO) Frequency Stability vs. Supply Voltage
- 6E-3 – 859.025 MHz (DMO) Frequency Stability vs. Temperature
- 6E-4 – 859.025 MHz (DMO) Frequency Stability vs. Supply Voltage

**EXHIBIT 6F – Powerline Conducted Spurious Emission**

- 6F-1 – Ambient Noise
- 6F-2 – Power Supply Unit Alone (PSU)
- 6F-3 – Radio Off Line/Neutral
- 6F-4 – Radio on Standby Line/Neutral 851.025 MHz (DMO) (IC only)

6F-5 – Radio on Standby Line/Neutral 854.025 MHz (DMO)  
6F-6 – Radio on Standby Line/Neutral 859.025 MHz (DMO)  
6F-7 – Radio on Standby Line/Neutral 868.9875 MHz (DMO)  
6F-8 – Radio on Transmit Line/Neutral 851.025 MHz (DMO) (IC only)  
6F-9 – Radio on Transmit Line/Neutral 854.025 MHz (DMO)  
6F-10 – Radio on Transmit Line/Neutral 859.025 MHz (DMO)  
6F-11 – Radio on Transmit Line/Neutral 868.9875 MHz (DMO)  
6F-12 – Radio on Transmit Line/Neutral 806.0125 MHz (TMO) (IC Only)  
6F-13 – Radio on Transmit Line/Neutral 809.0125 MHz (TMO)  
6F-14 – Radio on Transmit Line/Neutral 815.0125 MHz (TMO)  
6F-15 – Radio on Transmit Line/Neutral 823.9875 MHz (TMO)

**EXHIBIT 6G – Adjacent Channel Power**

6G-1 – 815.025 MHz, 11.2W, 25 kHz channel spacing (DQPSK modulation)  
6G-2 – 815.025 MHz, 3.6W, 25 kHz channel spacing (DQPSK modulation)  
6G-3 – 815.025 MHz, 3.6W, 25 kHz channel spacing (QAM64 modulation)  
6G-4 – 859.025 MHz, 11.2W, 25 kHz channel spacing (DQPSK modulation)  
6G-5 – 859.025 MHz, 3.6W, 25 kHz channel spacing (DQPSK modulation)  
6G-6 – 859.025 MHz, 3.6W, 25 kHz channel spacing (QAM64 modulation)

*Remarks: QAM64 is not offered in DMO mode (frequency range 851-869MHz)*

**\*\* Please note that the above data were taken following the procedures and limits outlined in FCC R&O FCC-12-114A1 and RSS 119 during the month of April and November 2014. See Table 2 in Ex07\_test\_procedures**

**Radio model tested: AZM83UCS6TZ4AN**

**Important Note: The data in this test report meets or exceeds the technical requirements of FCC Rule Parts 90 and FCC R&O 12-114A1.**

**Pursuant to Note 6 of FCC Waiver 11-63, it allows a bandwidth of up to 22kHz providing the additional Adjacent Channel Power (ACP) requirements are met.**

**All transmit tests in exhibits 6C, 6D, and 6E were conducted at constant wave (CW) mode at max power, unless otherwise stipulated. This mode represents the worst case performance of the radio as the duty cycle is 100%. Tests in exhibit 6B were conducted at 11.2W for DQPSK modulation and 3.6W for QAM64 modulation respectively.**

**Lab details:**

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**FCC Registration Number 772092**

**IC Registration Number 109AK**

**Contact person: SK Ho**

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**EXHIBIT 6A – RF POWER OUTPUT**

**11.2W POWER SETTING, FREQUENCY 806.025 MHz (IC Only)**

Measured RF Output Power:	11.2 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	3.4 Amperes

**3.6W POWER SETTING, FREQUENCY 806.025 MHz (IC Only)**

Measured RF Output Power:	3.6 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	2.1 Amperes

**LOW POWER SETTING, FREQUENCY 806.025 MHz (IC Only)**

Measured RF Output Power:	0.03 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 809.025 MHz**

Measured RF Output Power:	11.2 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	3.4 Amperes

**3.6W POWER SETTING, FREQUENCY 809.025 MHz**

Measured RF Output Power:	3.6 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	2.1 Amperes

**LOW POWER SETTING, FREQUENCY 809.025 MHz**

Measured RF Output Power:	0.03 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 815.025 MHz**

Measured RF Output Power:	11.2 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	3.3 Amperes

**3.6W POWER SETTING, FREQUENCY 815.025 MHz**

Measured RF Output Power:	3.6 Watts
Measured DC Voltage:	13.2 Volts
Measured DC Input Current:	2.1 Amperes

**LOW POWER SETTING, FREQUENCY 815.025 MHz**

Measured RF Output Power:	0.03 Watts
Measured DC Voltage:	13.2 Volts

Measured DC Input Current: 0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 823.9875 MHz**

Measured RF Output Power: 11.2 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 3.2 Amperes

**3.6W POWER SETTING, FREQUENCY 823.9875 MHz**

Measured RF Output Power: 3.6 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 2.1 Amperes

**LOW POWER SETTING, FREQUENCY 823.9875 MHz**

Measured RF Output Power: 0.03 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 851.025 MHz (IC Only)**

Measured RF Output Power: 11.2 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 3.3 Amperes

**3.6W POWER SETTING, FREQUENCY 851.025 MHz (IC Only)**

Measured RF Output Power: 3.5 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 2.1 Amperes

**LOW POWER SETTING, FREQUENCY 851.025 MHz (IC Only)**

Measured RF Output Power: 0.03 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 854.025 MHz**

Measured RF Output Power: 11.2 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 3.3 Amperes

**3.6W POWER SETTING, FREQUENCY 854.025 MHz**

Measured RF Output Power: 3.6 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 2.0 Amperes

**LOW POWER SETTING, FREQUENCY 854.025 MHz**

Measured RF Output Power: 0.03 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 859.025 MHz**

Measured RF Output Power: 11.2 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 3.3 Amperes

**3.6W POWER SETTING, FREQUENCY 859.025 MHz**

Measured RF Output Power: 3.6 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 2.0 Amperes

**LOW POWER SETTING, FREQUENCY 859.025 MHz**

Measured RF Output Power: 0.03 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 0.9 Amperes

**11.2W POWER SETTING, FREQUENCY 868.9875 MHz**

Measured RF Output Power: 11.2 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 3.2 Amperes

**3.6W POWER SETTING, FREQUENCY 868.9875 MHz**

Measured RF Output Power: 3.5 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 2.0 Amperes

**LOW POWER SETTING, FREQUENCY 868.9875 MHz**

Measured RF Output Power: 0.03 Watts  
Measured DC Voltage: 13.2 Volts  
Measured DC Input Current: 0.9 Amperes

**EXHIBIT 6B – Modulation Techniques**

High Performance Data (HPD) Digital Modulation (25 kHz Channelization, Digital Data)

Necessary Bandwidth Calculation:

The necessary bandwidth of the modulation signal is not calculable per the formulas defined in 47 CFR 2.202 (b). Specifically, although the modulation for this emission is a composite modulation, the equations given in the composite tables in 2.202 are not applicable since none of them adequately approximate the form of digital modulation used. The necessary bandwidth of 22.0 kHz is based upon a 99% power measurement of the transmitter spectrum, per 2.202 (a).

Per CFR Title 47, Part 2, Section 2.201:

- Main carrier is amplitude and angle modulated ..... **D**
- Single channel containing quantized or digital information  
without the use of modulating sub carrier, excluding time division ..... **1**
- Data transmission, telemetry, telecommand ..... **D**

The complete emissions designator for this transmitter is **22K0D1D**.

High Performance Data (HPD) Digital Modulation (25 kHz Channelization, Digital Voice & Data)

Necessary Bandwidth Calculation:

The necessary bandwidth of the modulation signal is not calculable per the formulas defined in 47 CFR 2.202 (b). Specifically, although the modulation for this emission is a composite modulation, the equations given in the composite tables in 2.202 are not applicable since none of them adequately approximate the form of digital modulation used. The necessary bandwidth of 22.0 kHz is based upon a 99% power measurement of the transmitter spectrum, per 2.202 (a).

Per CFR Title 47, Part 2, Section 2.201:

- Main carrier is amplitude and angle modulated ..... **D**
- Single channel containing quantized or digital information  
without the use of modulating sub carrier, excluding time division ..... **1**
- Telephony (including sound broadcasting) ..... **E**

The complete emissions designator for this transmitter is **22K0D1E**.

High Performance Data (HPD) Digital Modulation (25 kHz Channelization, Digital Voice & Data)

Necessary Bandwidth Calculation:

The necessary bandwidth of the modulation signal is not calculable per the formulas defined in 47 CFR 2.202 (b). Specifically, although the modulation for this emission is a composite modulation, the equations given in the composite tables in 2.202 are not applicable since none of them adequately approximate the form of digital modulation used. The necessary bandwidth of 22.0 kHz is based upon a 99% power measurement of the transmitter spectrum, per 2.202 (a).

Per CFR Title 47, Part 2, Section 2.201:

- Main carrier is amplitude and angle modulated ..... **D**
- Single channel containing quantized or digital information  
without the use of modulating sub carrier, excluding time division ..... **1**
- Combination of the above ..... **W**

The complete emissions designator for this transmitter is **22K0D1W**.

**Conducted Antenna Occupied Bandwidth**

*Spectrum Analyzer setting as below:*

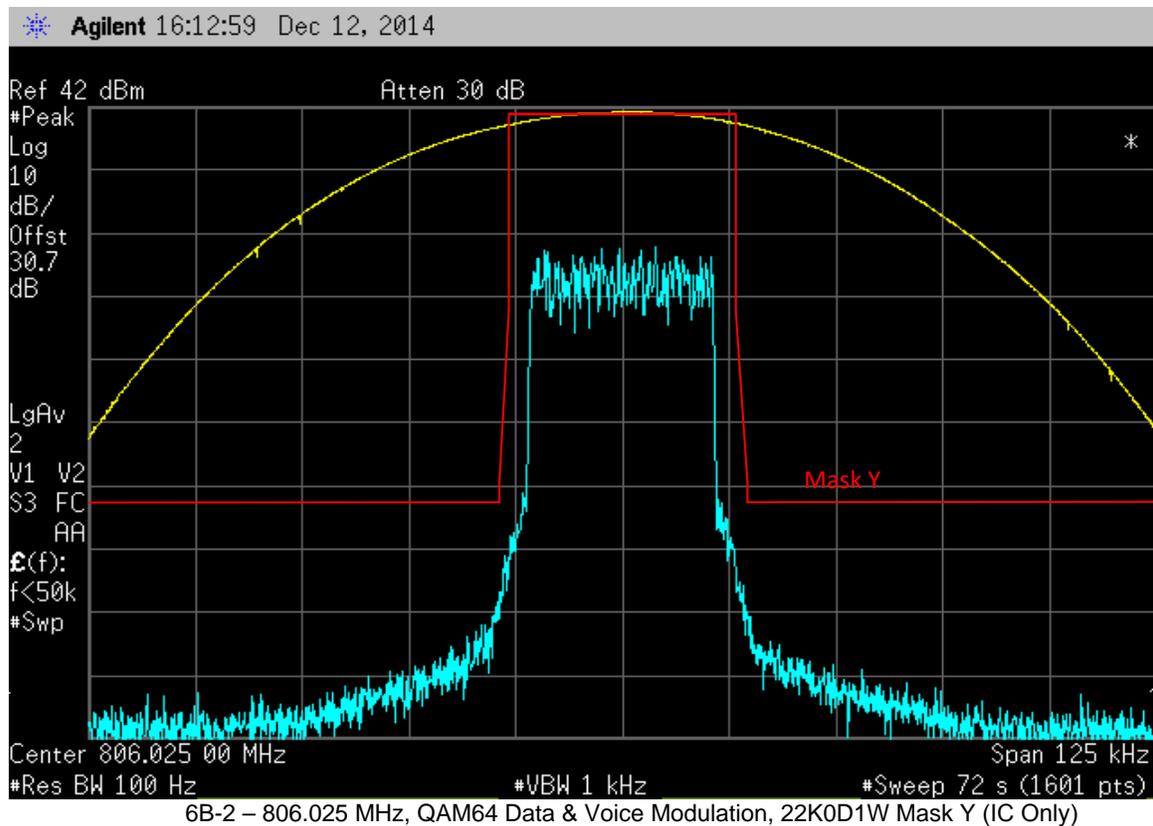
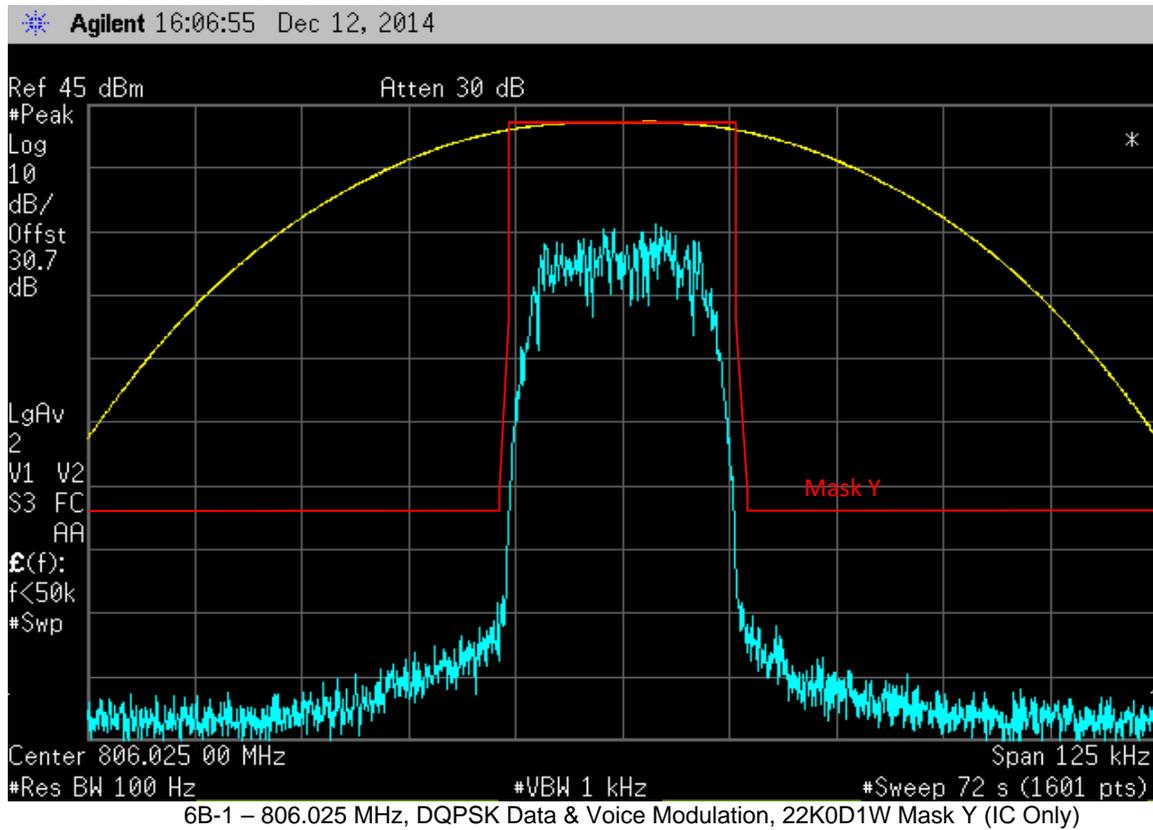
*RBW = 300 Hz, VBW = 3 kHz, Span = 40 kHz*

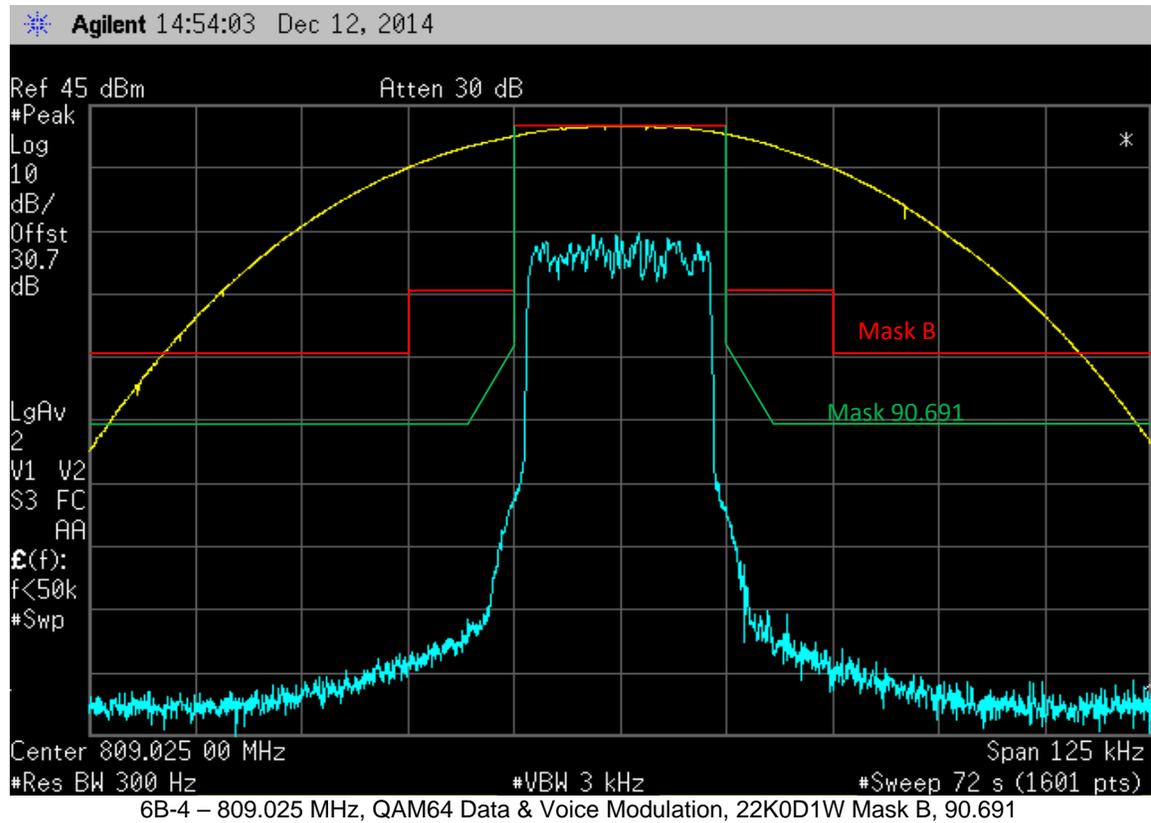
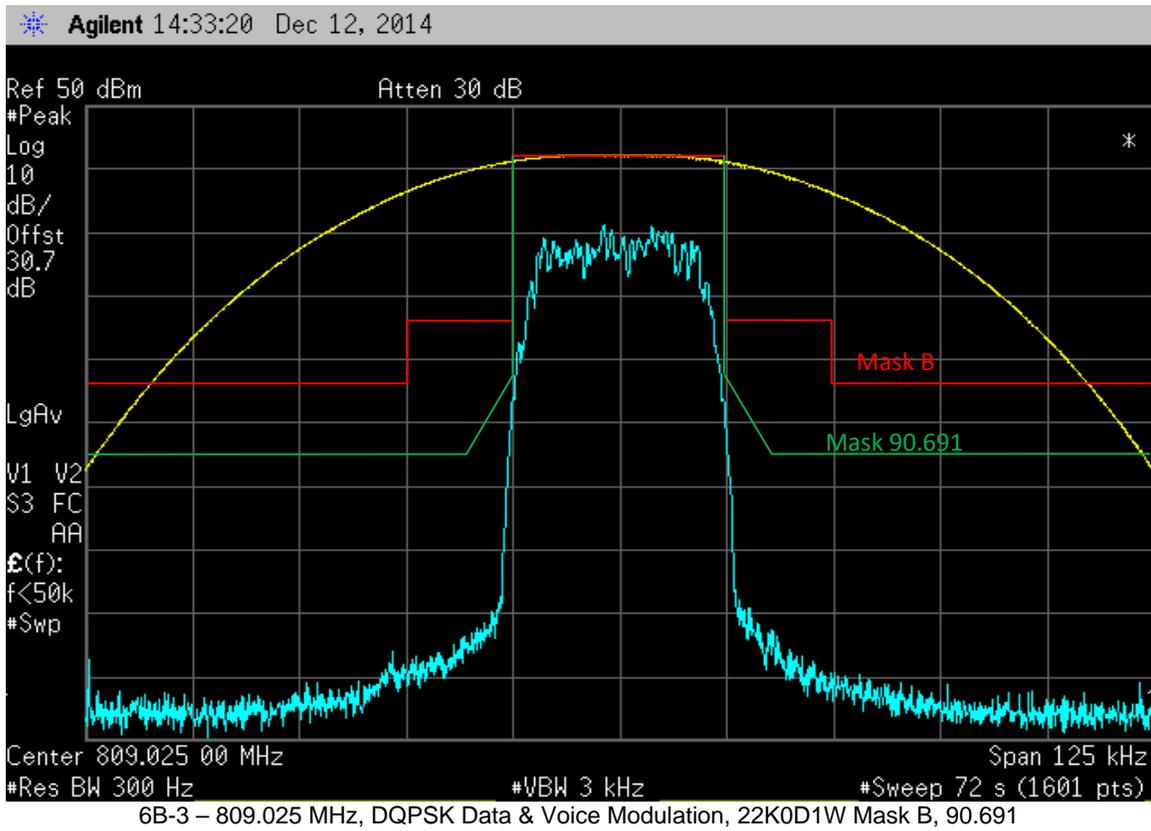
<b>Mode</b>	<b>Modulation</b>	<b>Frequency Range</b>	<b>Bandwidth Power (99%)</b>
TMO Mode, 11.2W	DQPSK	815.025 MHz	20.86 kHz
DMO Mode, 11.2W	DQPSK	859.025 MHz	20.87 kHz
TMO Mode, 3.6W	QAM	815.025 MHz	21.22 kHz

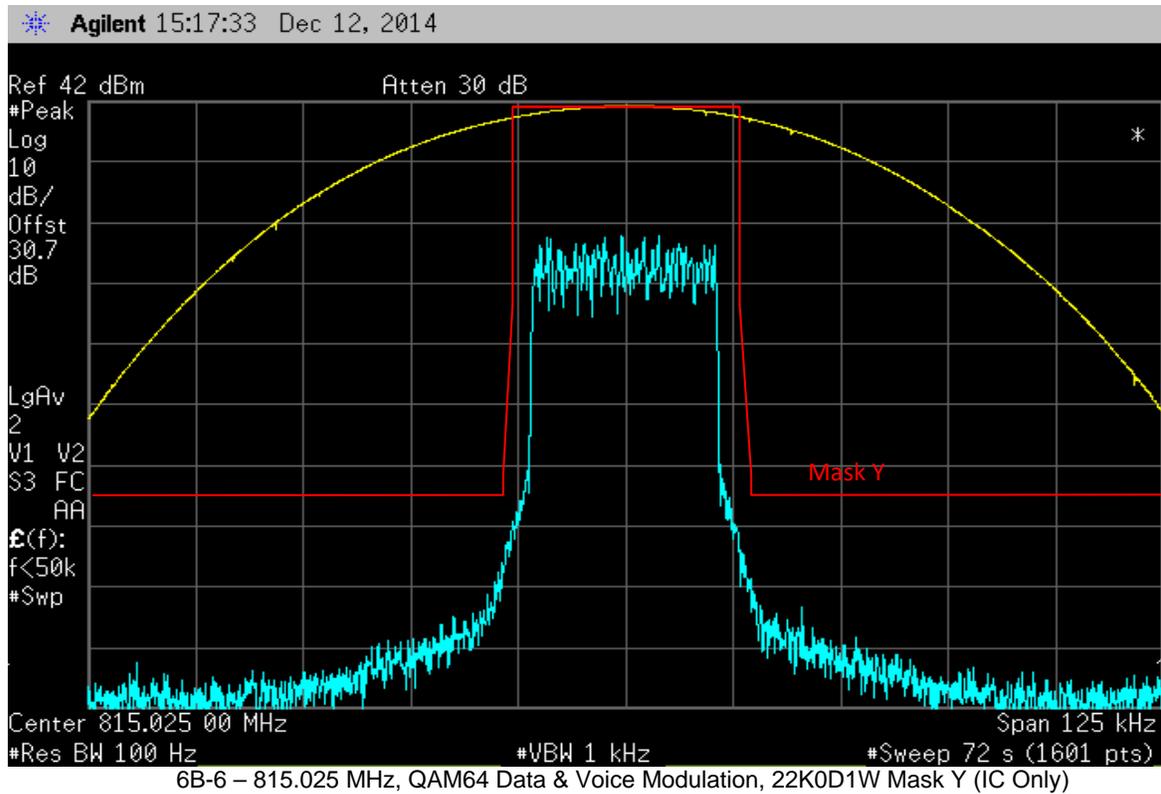
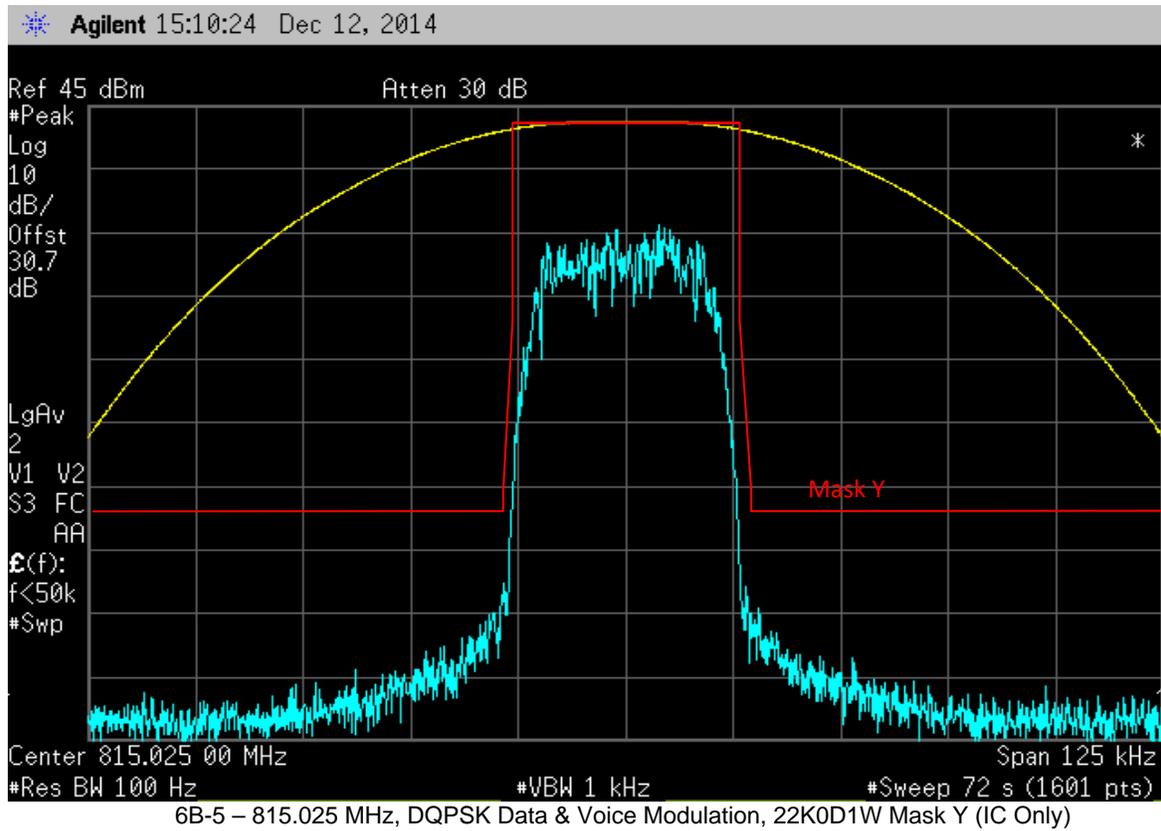
*\*Note: QAM modulation is not applicable for DMO mode*

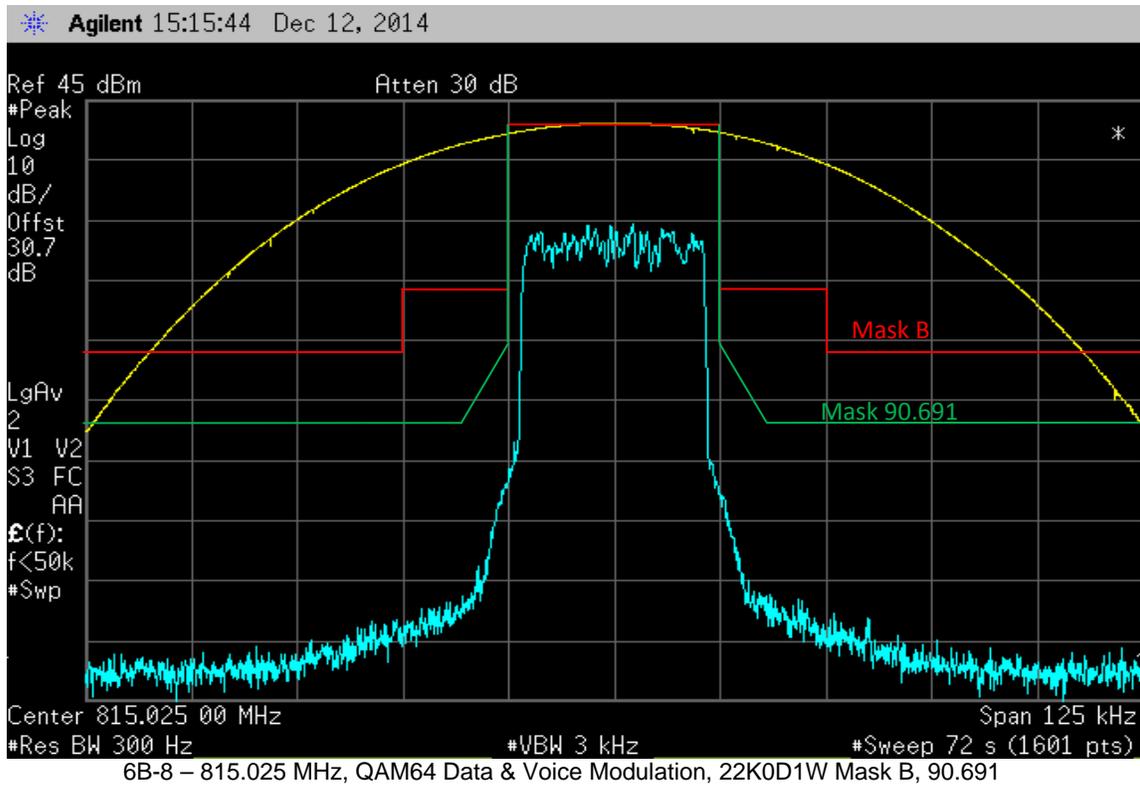
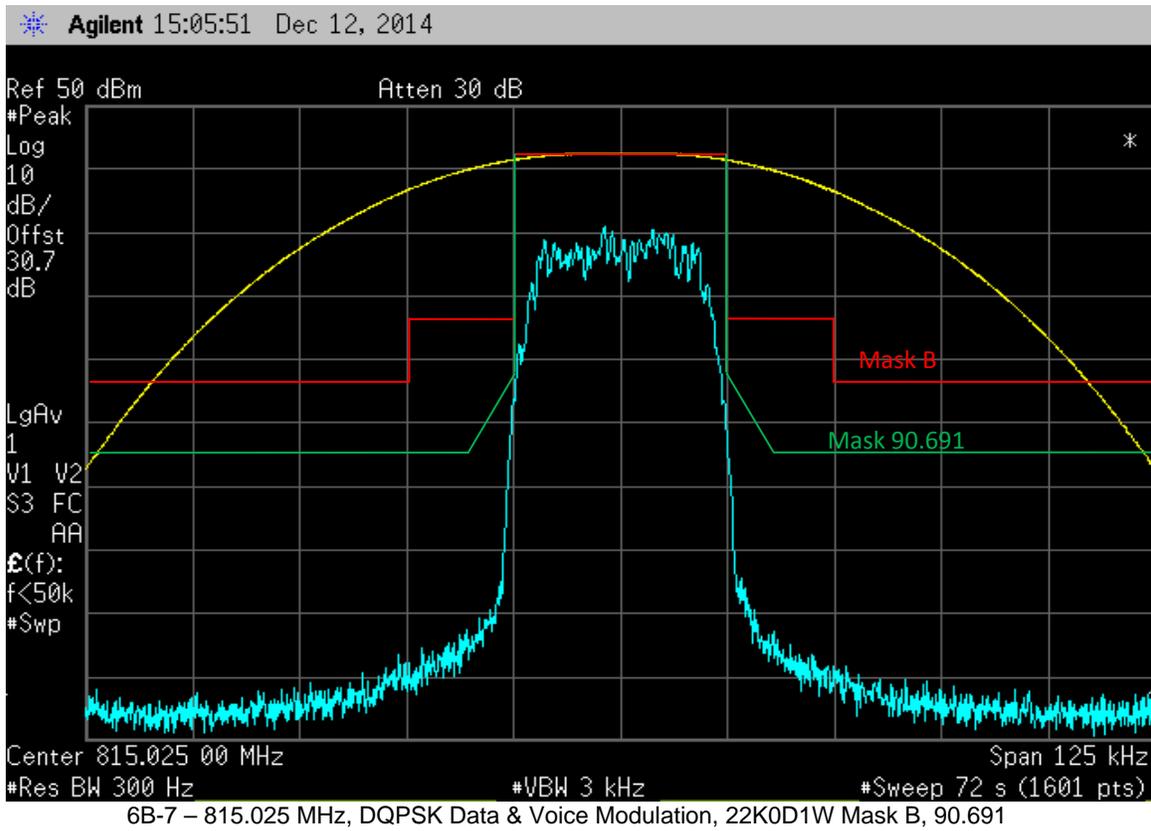
As per R&O FCC 12-114A1, for TETRA that are designed to operate with a 25 kHz channel spacing may be authorized up to a **22 kHz** bandwidth if the equipment meets the adjacent channel power (ACP) limits.

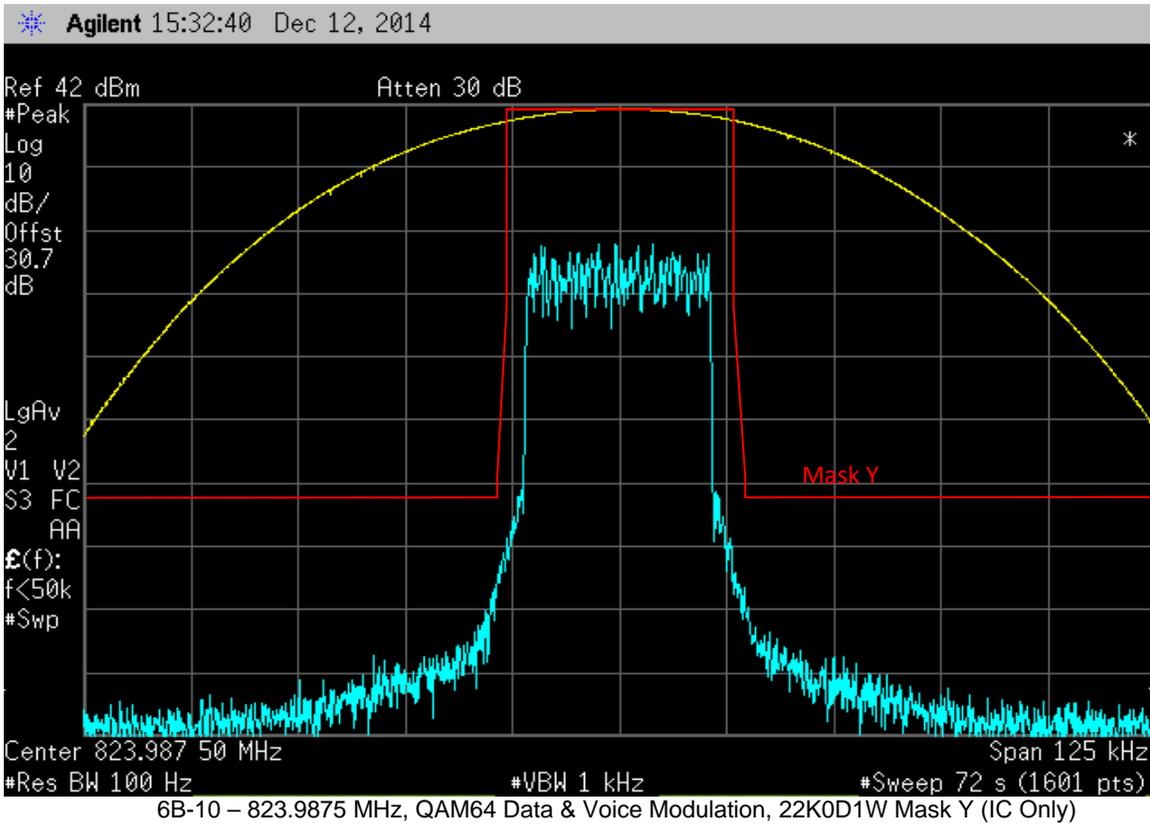
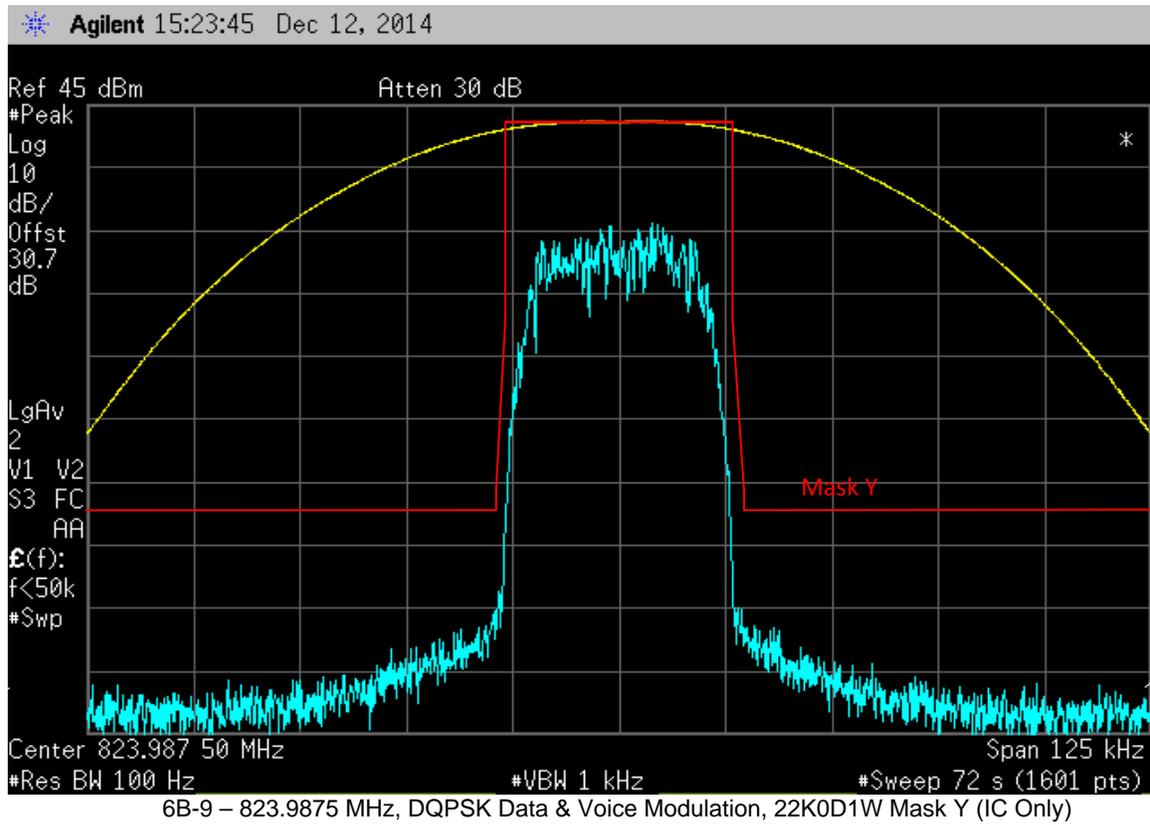
OCCUPIED BANDWIDTH MEASUREMENT

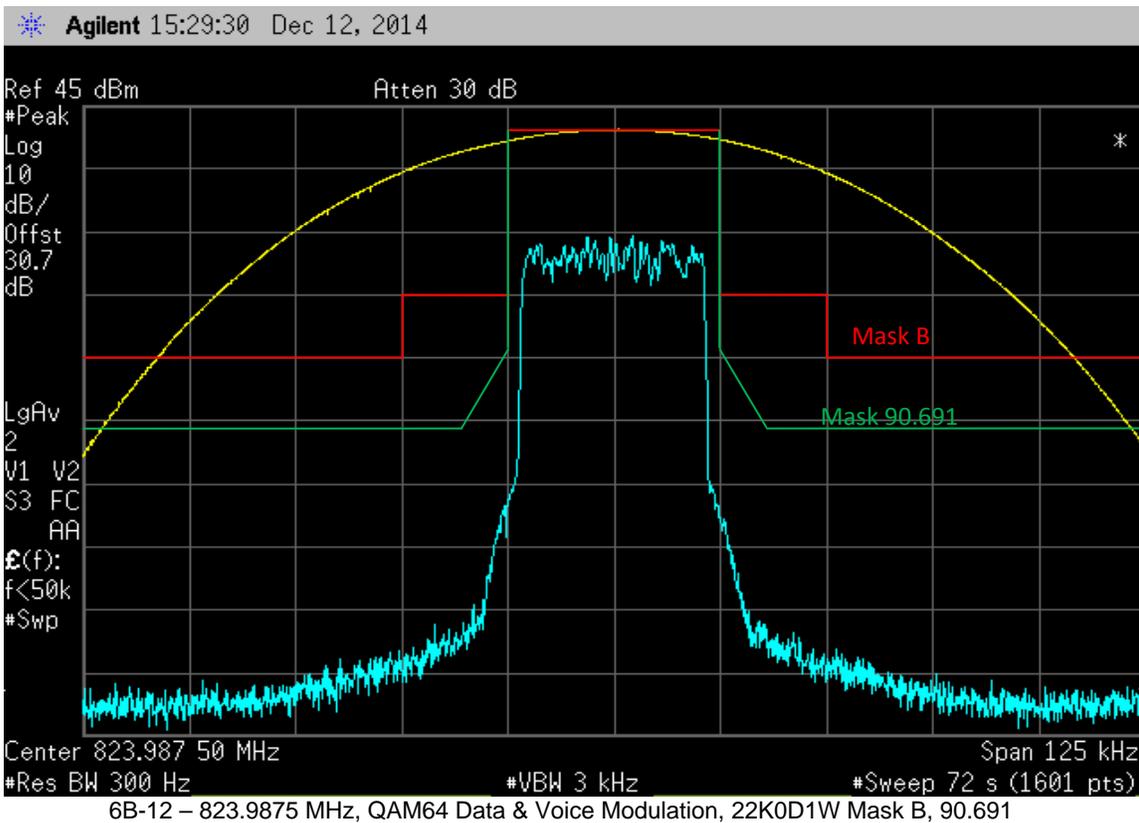
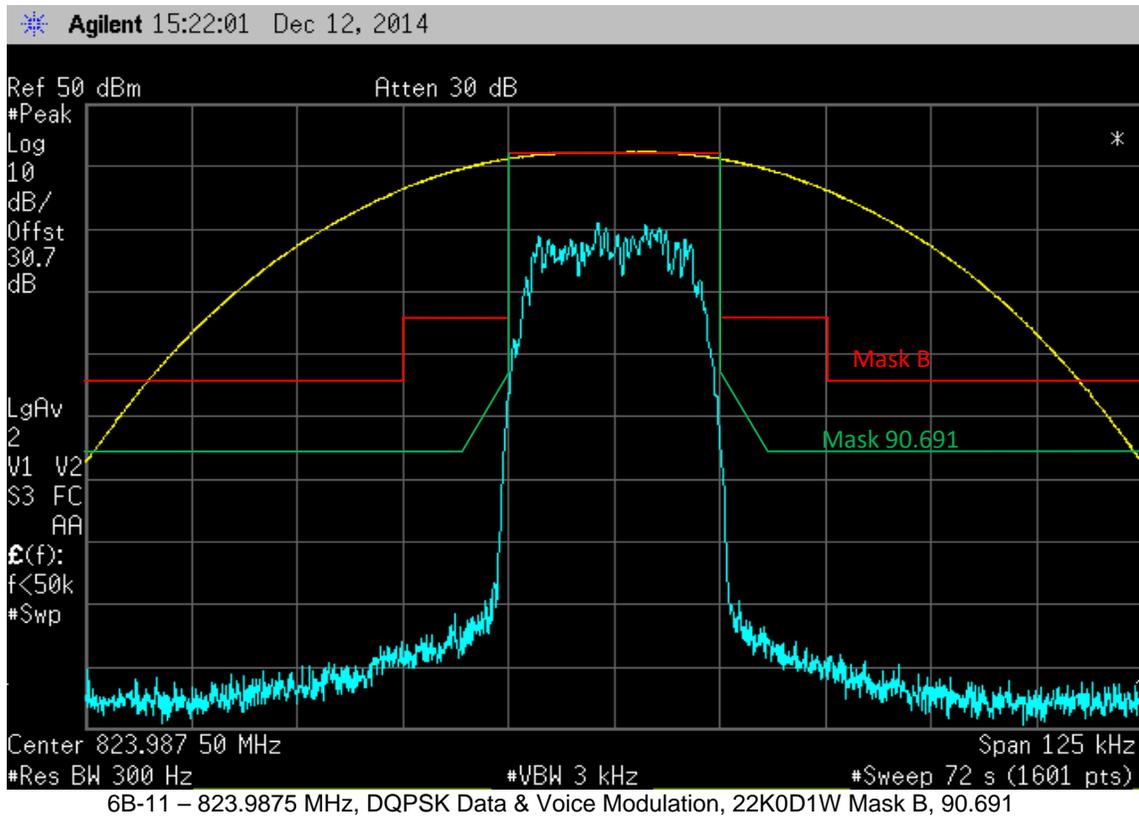


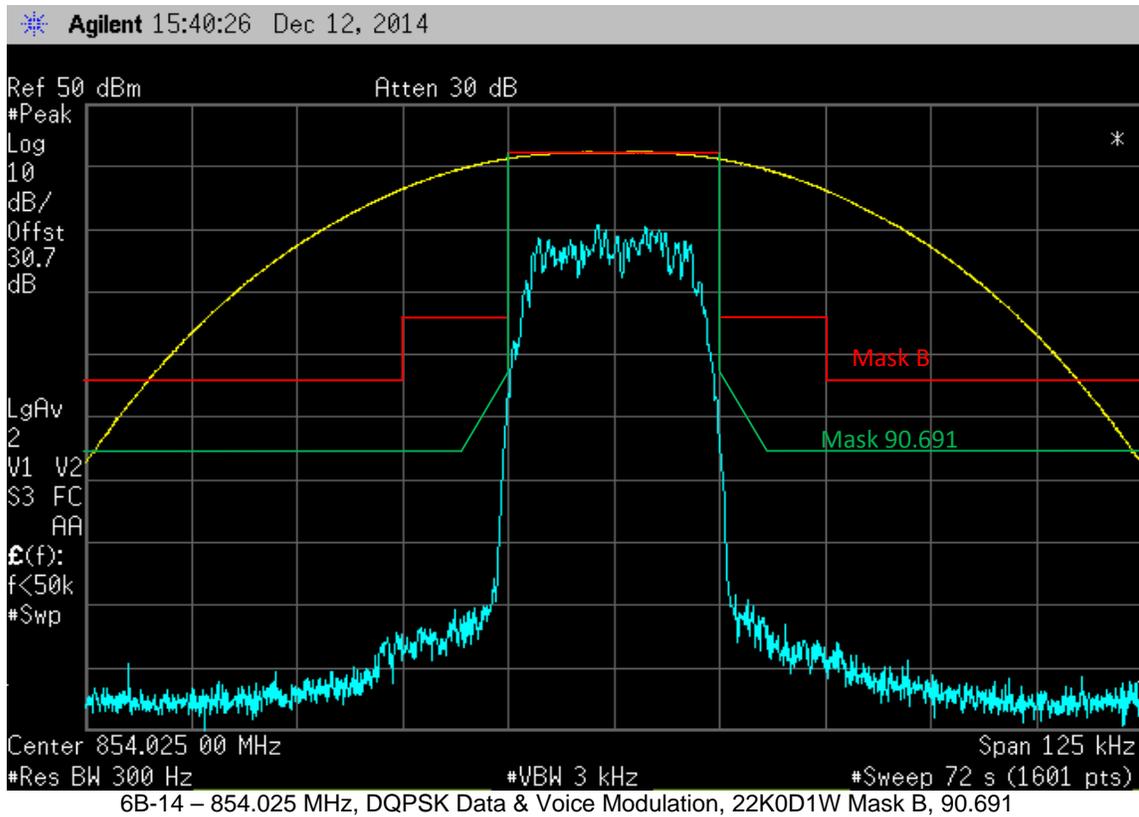
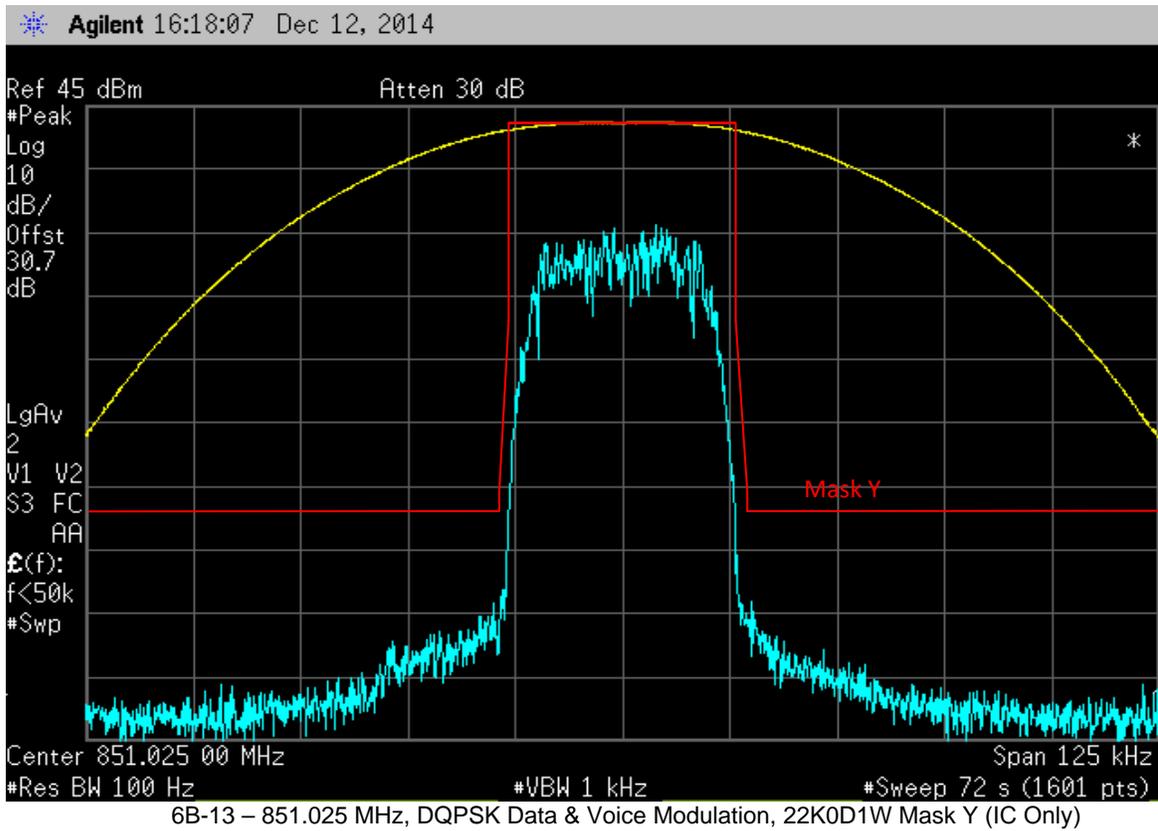


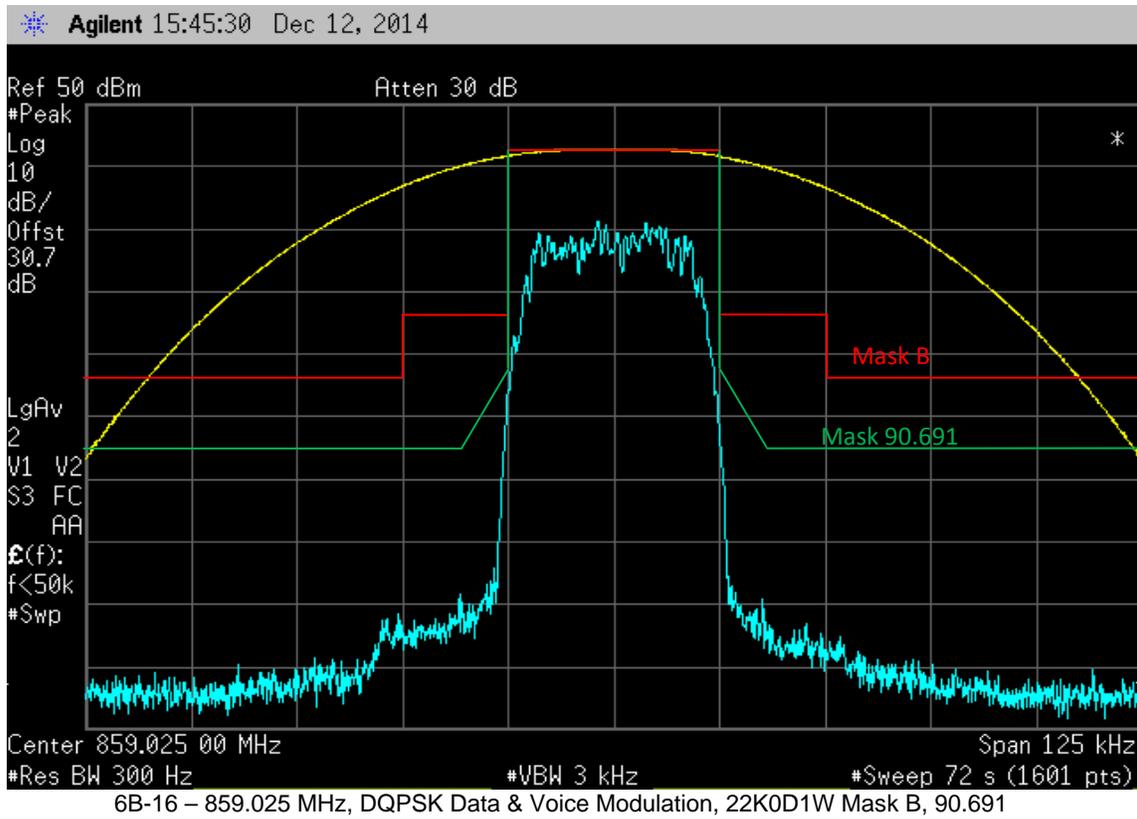
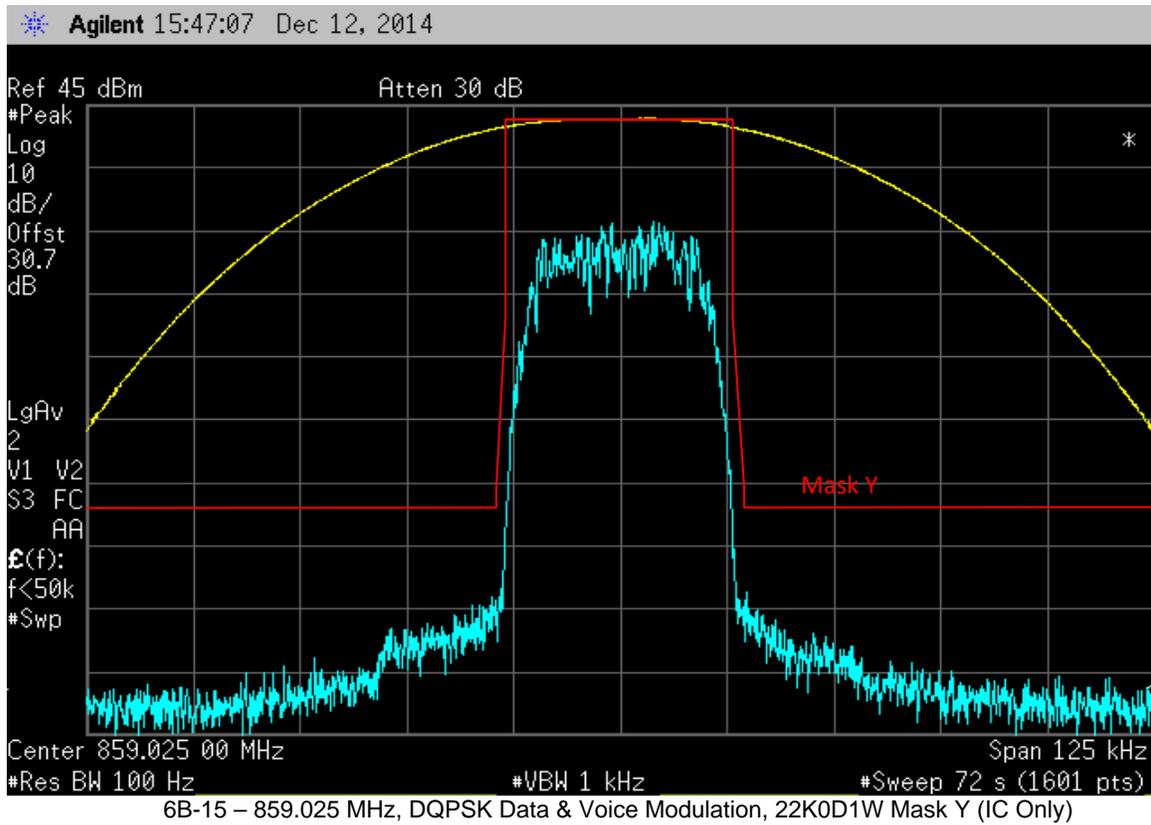


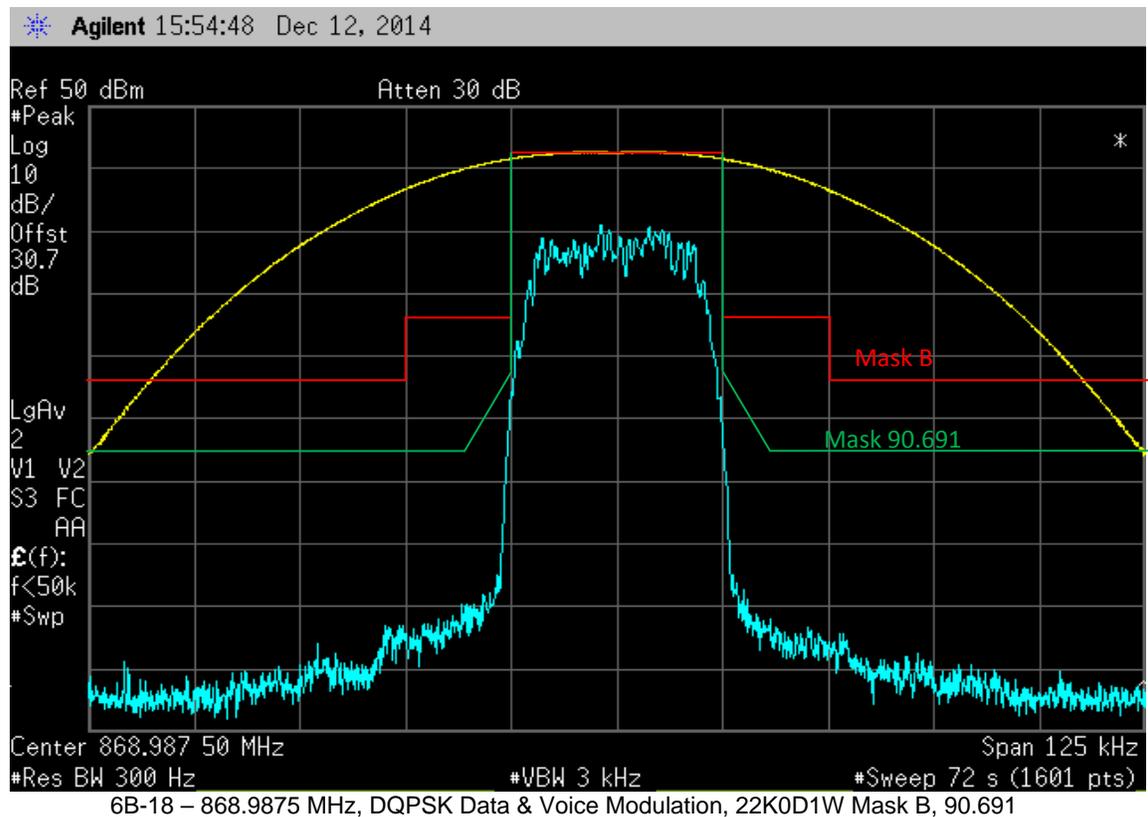
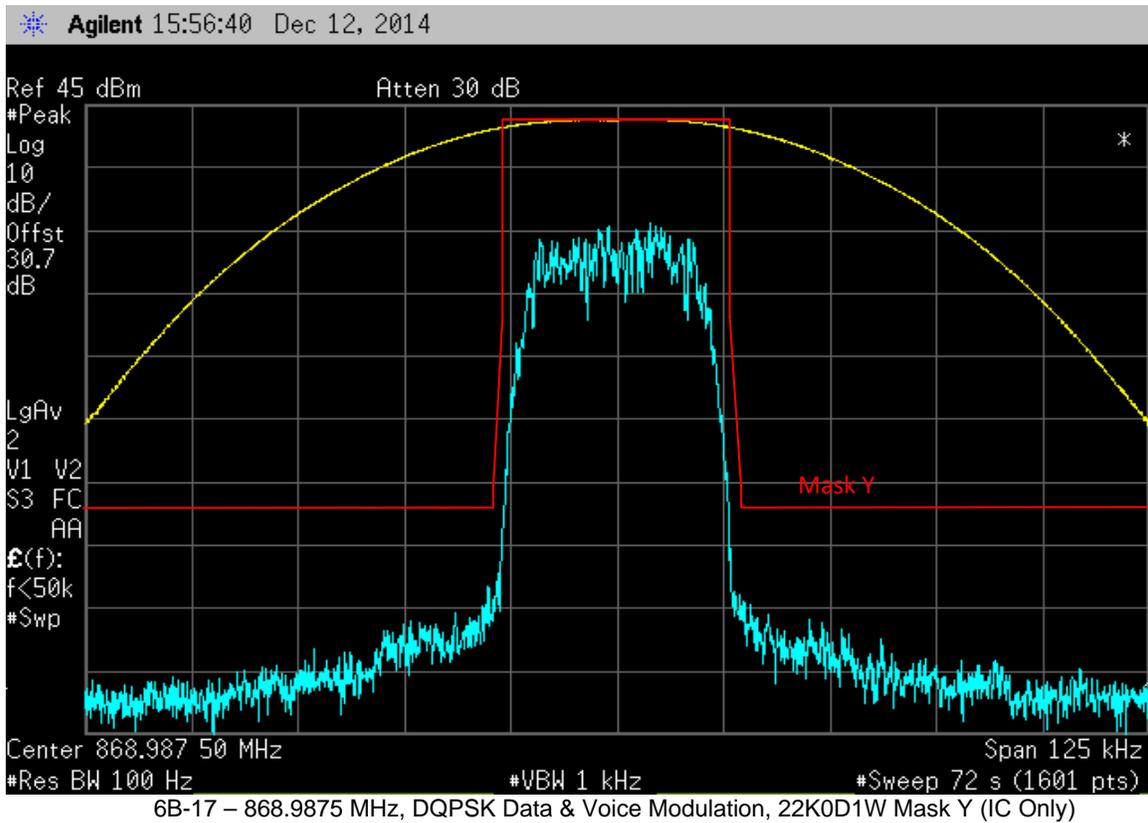








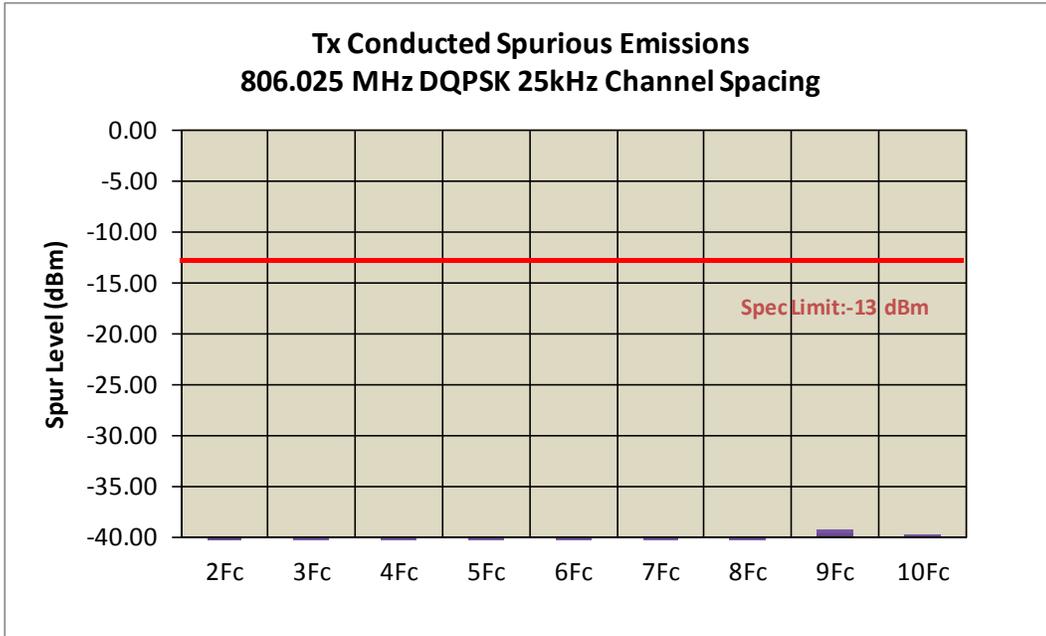




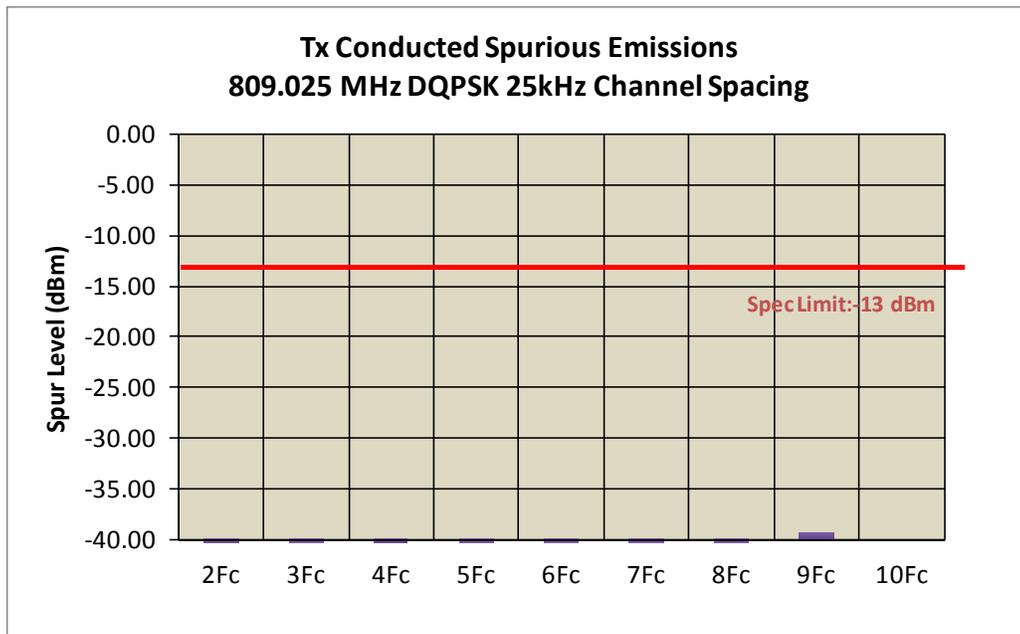
\*Note: Only emission masks for 22K0D1W will be shown as the 22K0D1E and 22K0D1D exhibit the same modulation type and nature of modulating signals, and are thus spectrally identical

**EXHIBIT 6C – Transmitter Conducted Spurious Emissions**

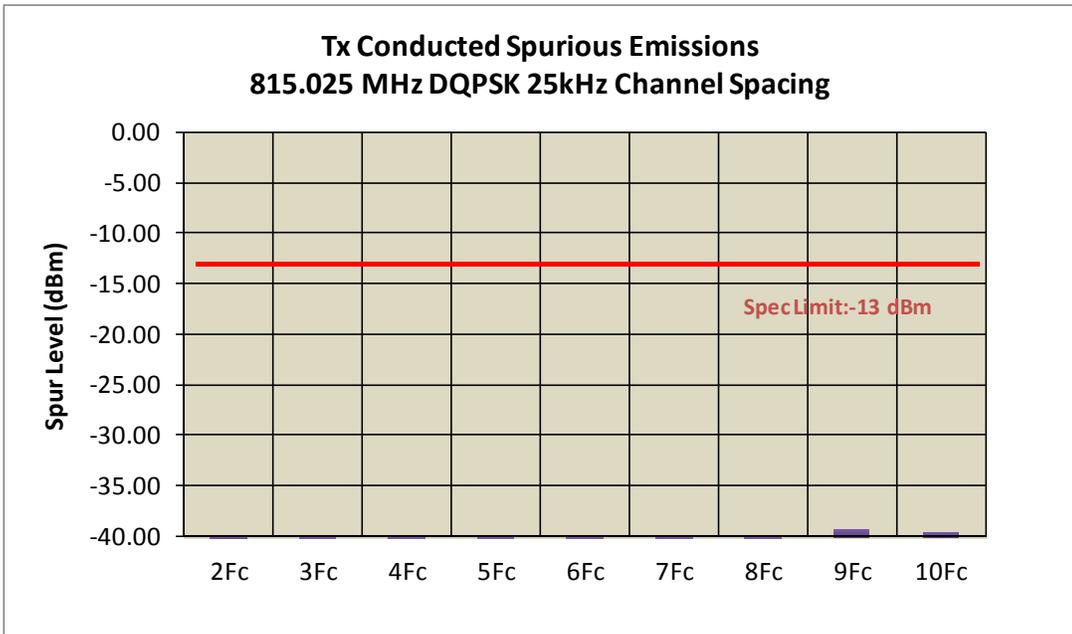
Note: Display lines on graphs correspond to the FCC limit of -13dBm (25 kHz channel spacing).



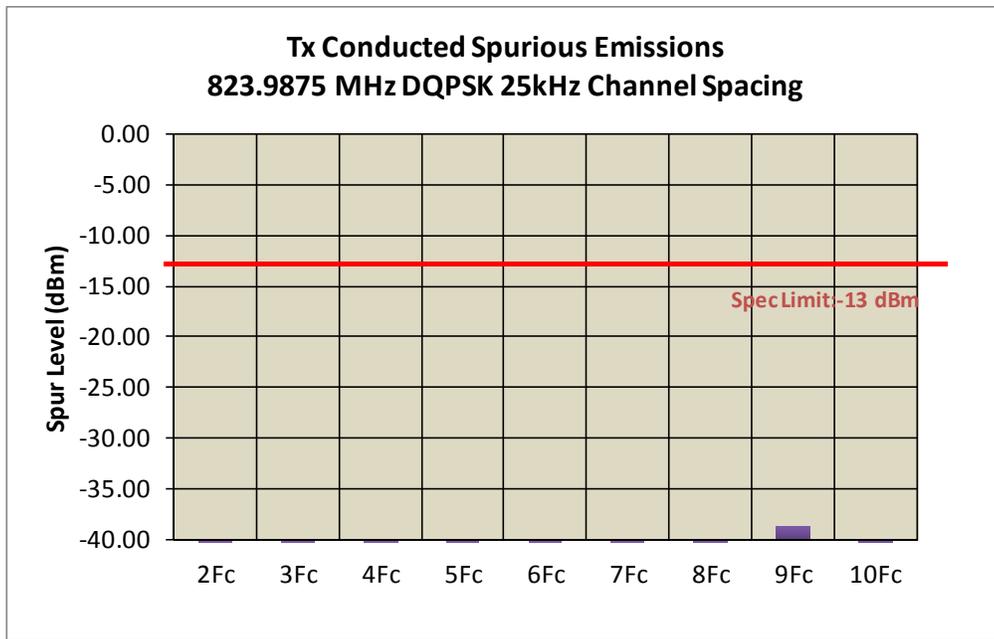
6C-1 – 11.2 Watts, 806.025 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)



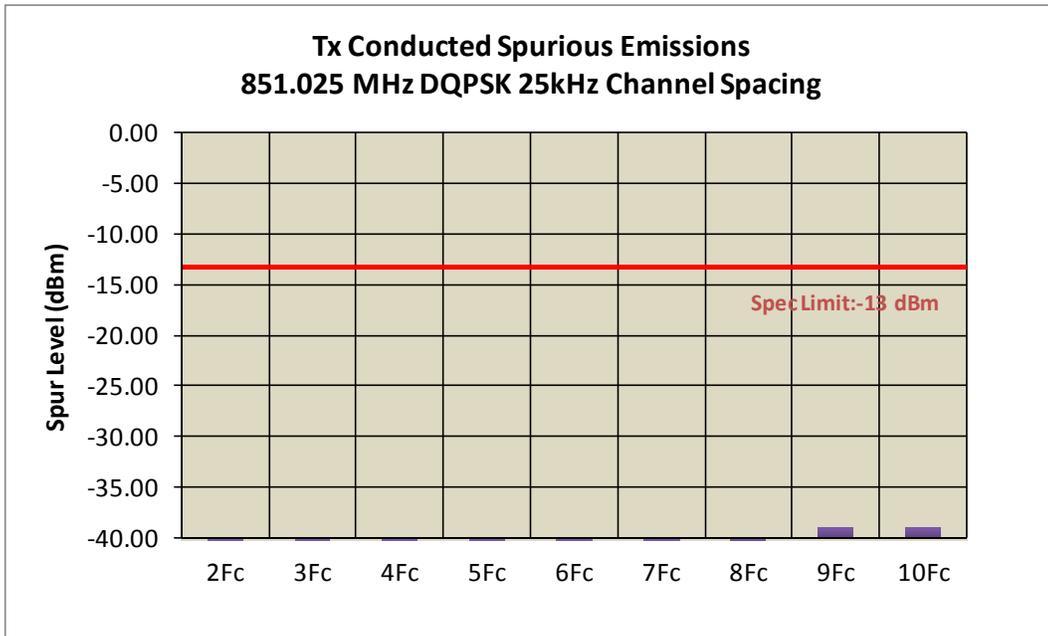
6C-2 – 11.2 Watts, 809.025 MHz, 25 kHz Channel Spacing, DQPSK



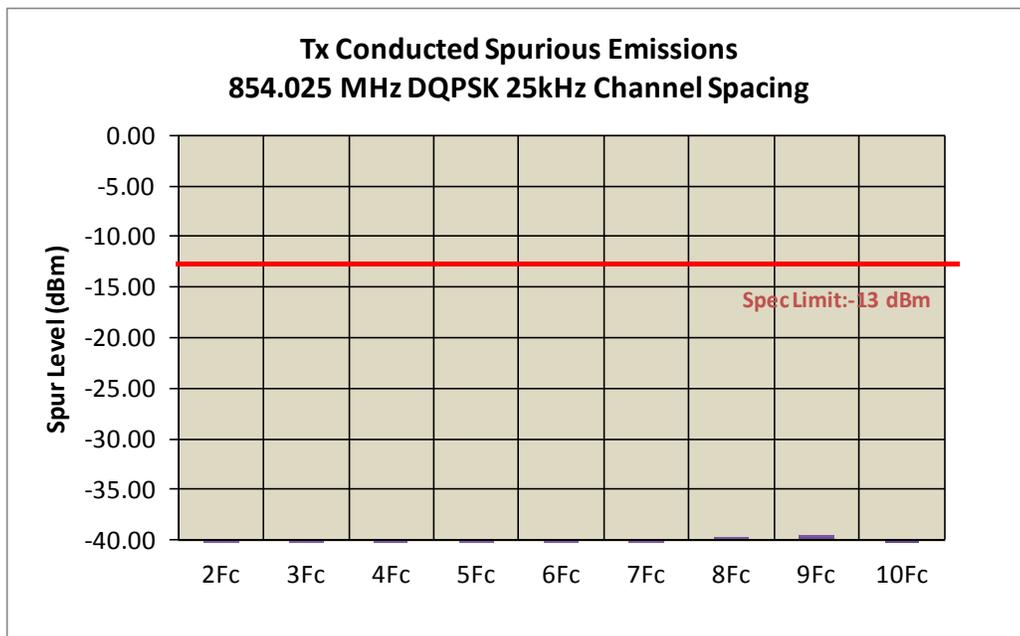
6C-3 – 11.2 Watts, 815.025 MHz, 25 kHz Channel Spacing, DQPSK



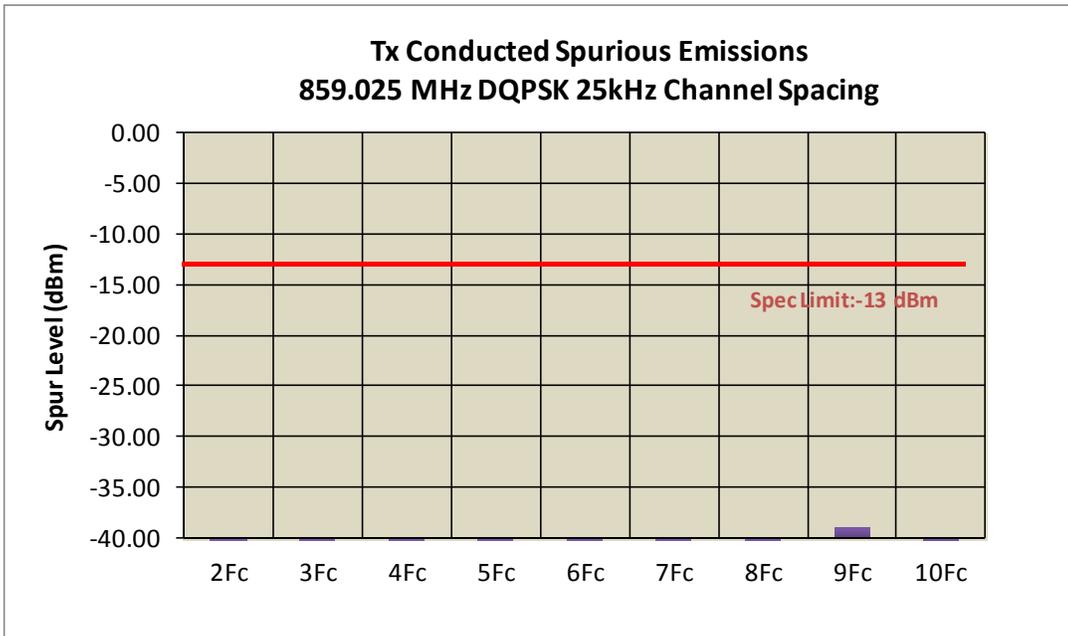
6C-4 – 11.2 Watts, 823.9875 MHz, 25 kHz Channel Spacing, DQPSK



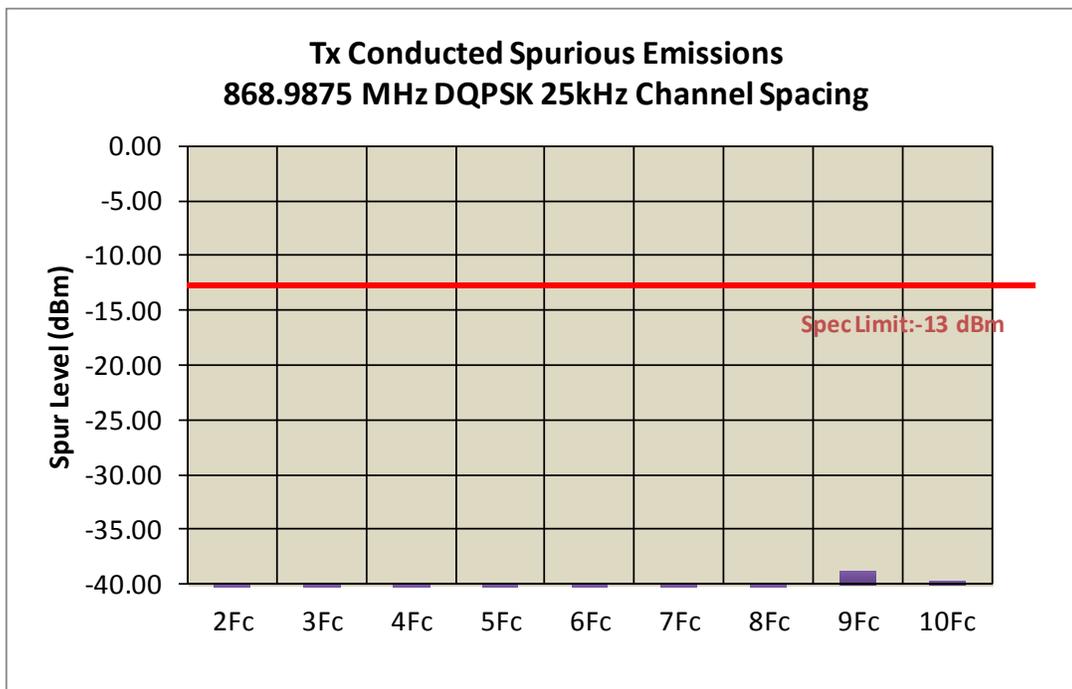
6C-5 – 11.2 Watts, 851.025 MHz, 25 kHz Channel Spacing, DQPSK (IC Only)



6C-6 – 11.2 Watts, 854.025 MHz, 25 kHz Channel Spacing, DQPSK



6C-7 – 11.2 Watts, 859.025 MHz, 25 kHz Channel Spacing, DQPSK



6C-8 – 11.2 Watts, 868.9875 MHz, 25 kHz Channel Spacing, DQPSK

**\*\*Note: Data with more than 20dB margin from spec limit will not be displayed.**









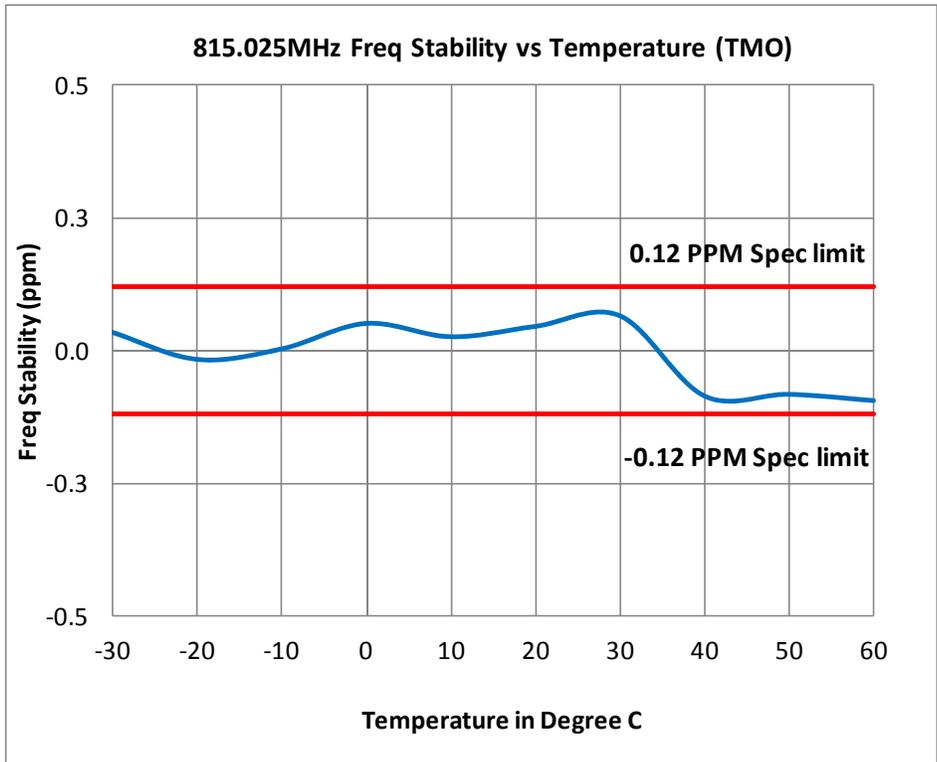




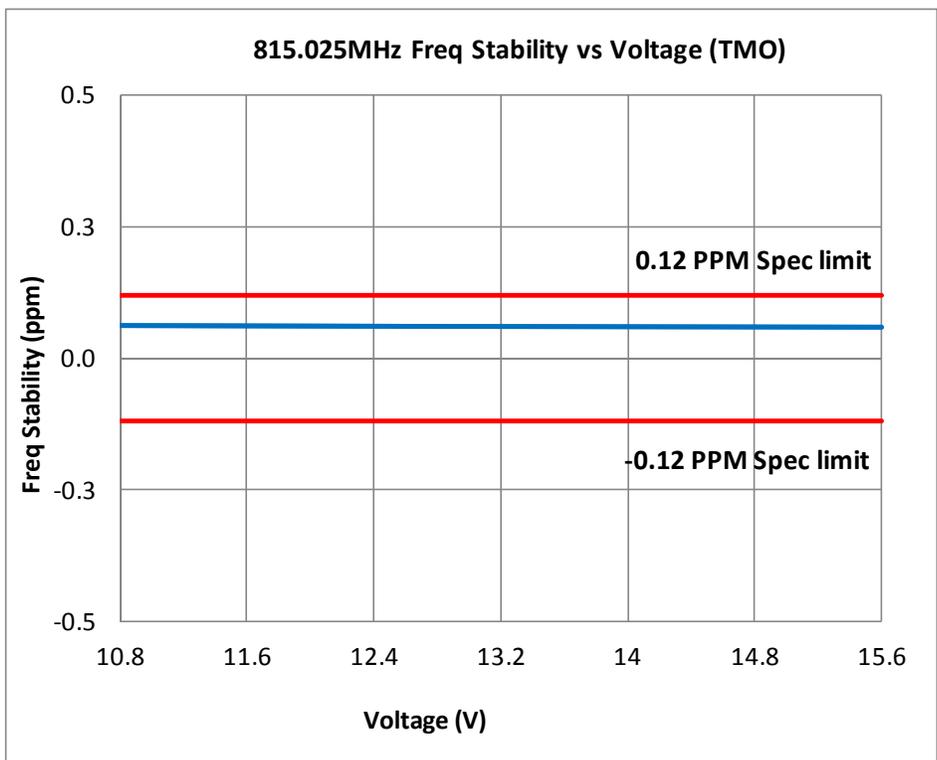




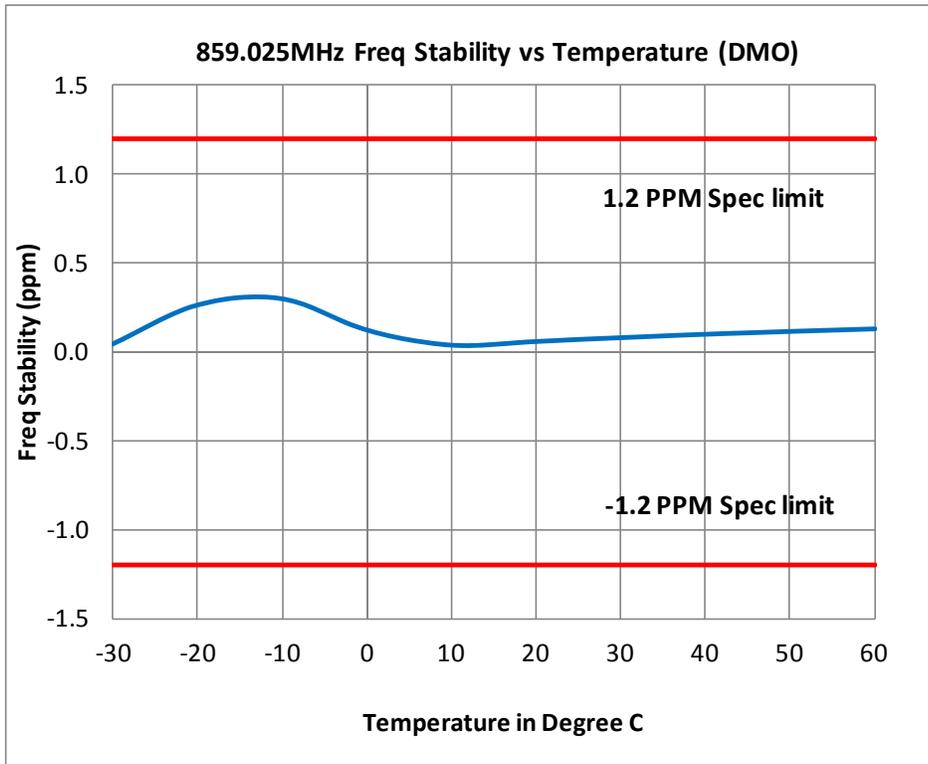
**EXHIBIT 6E – Frequency Stability**



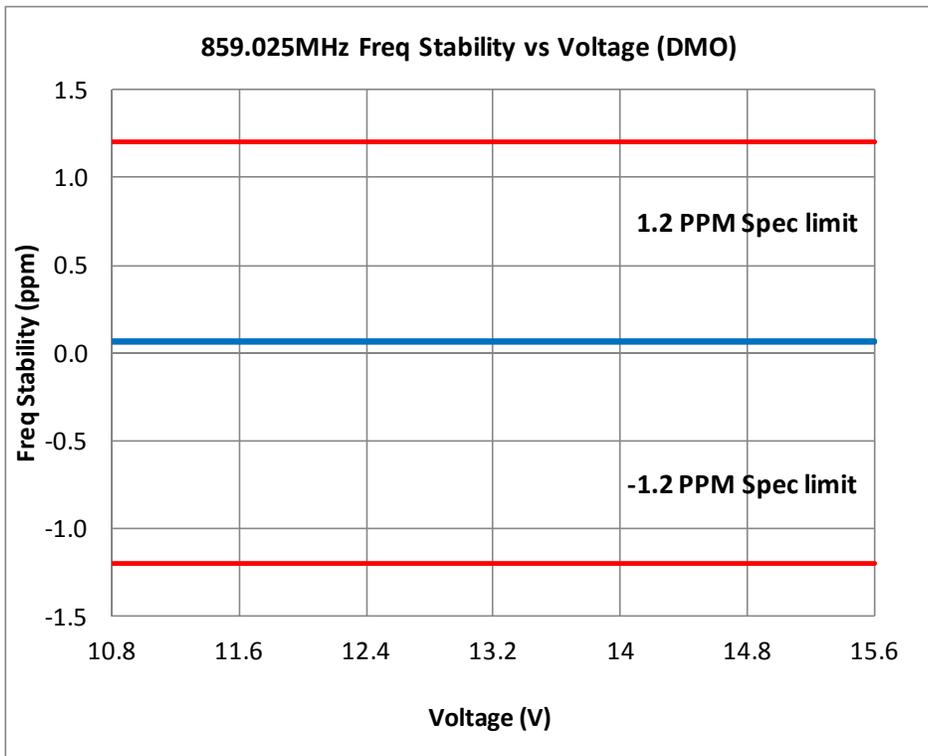
**6E-1 – 815.025 MHz Frequency Stability vs. Temperature (TMO)**



**6E-2 – 815.025 MHz Frequency Stability vs. Supply Voltage (TMO)**

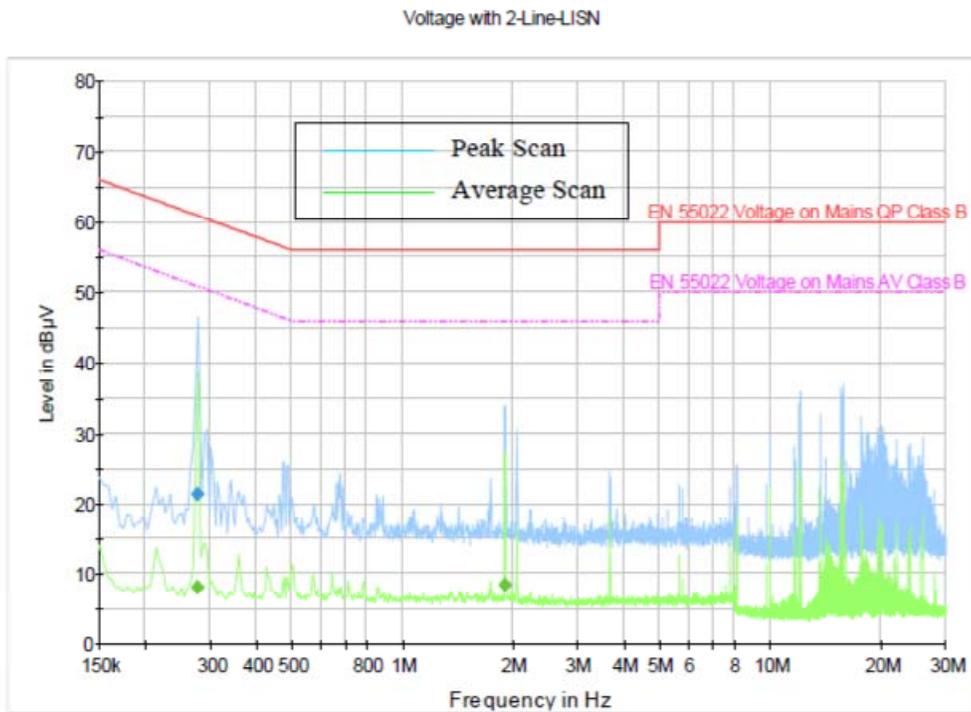
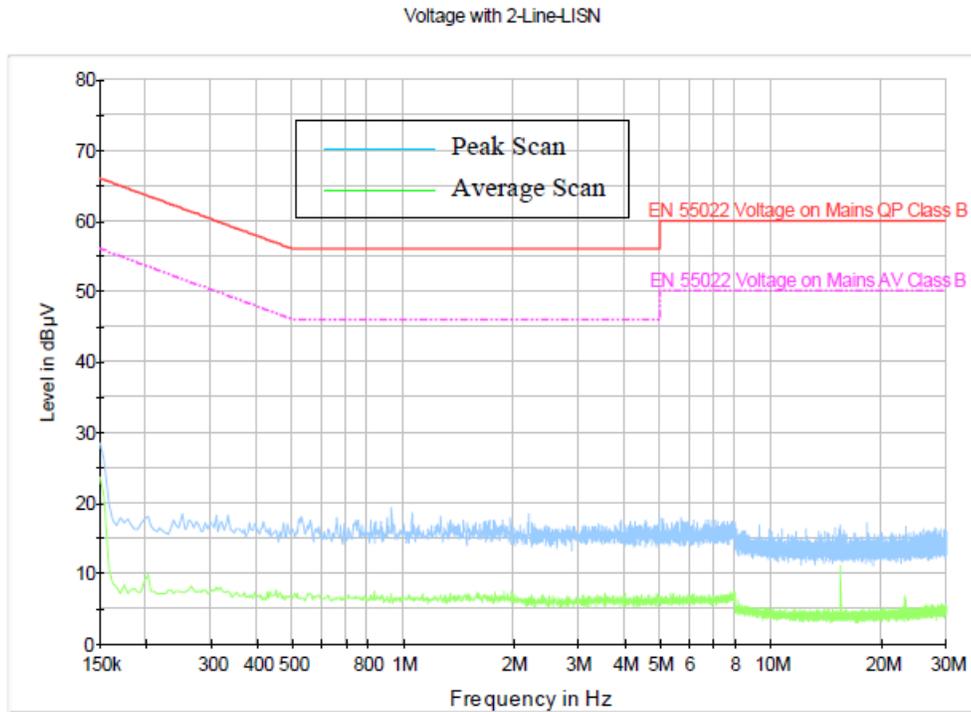


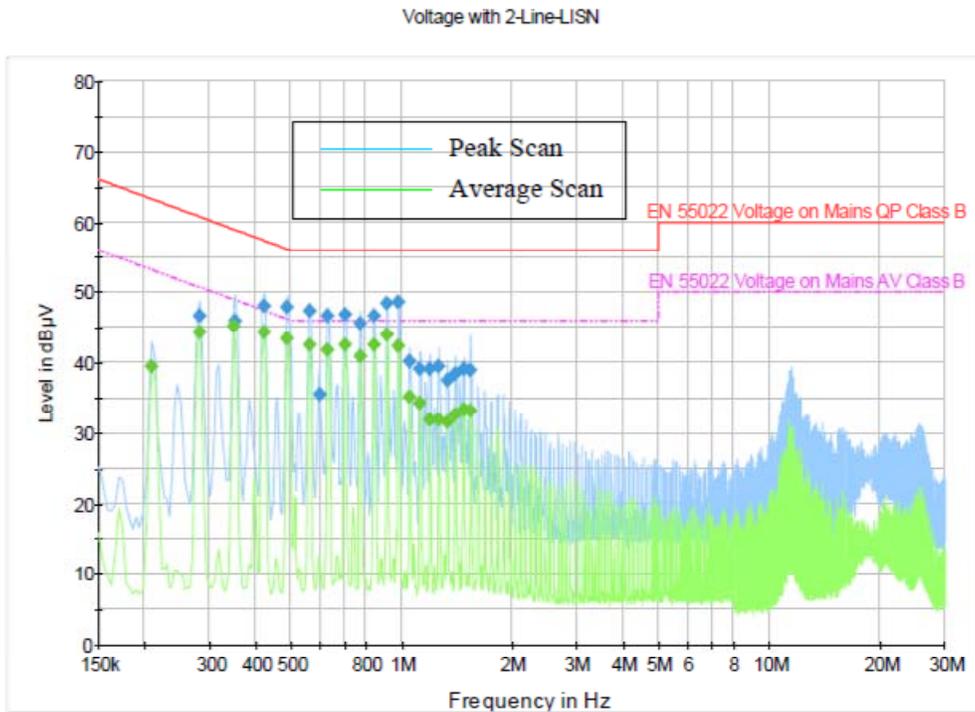
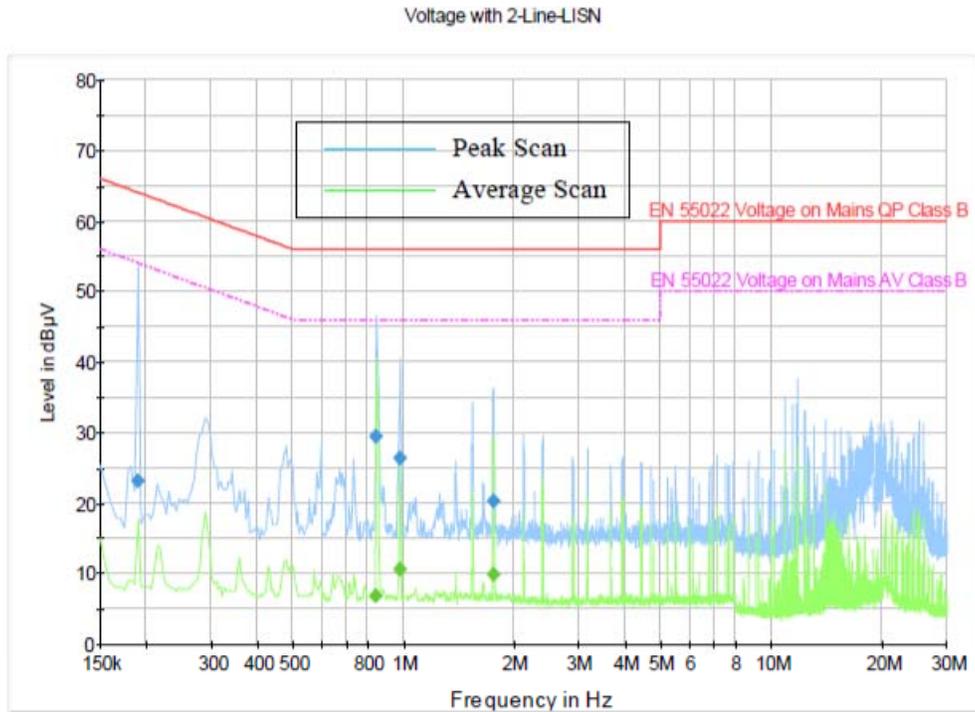
**6E-3** – 859.025 MHz Frequency Stability vs. Temperature (DMO)

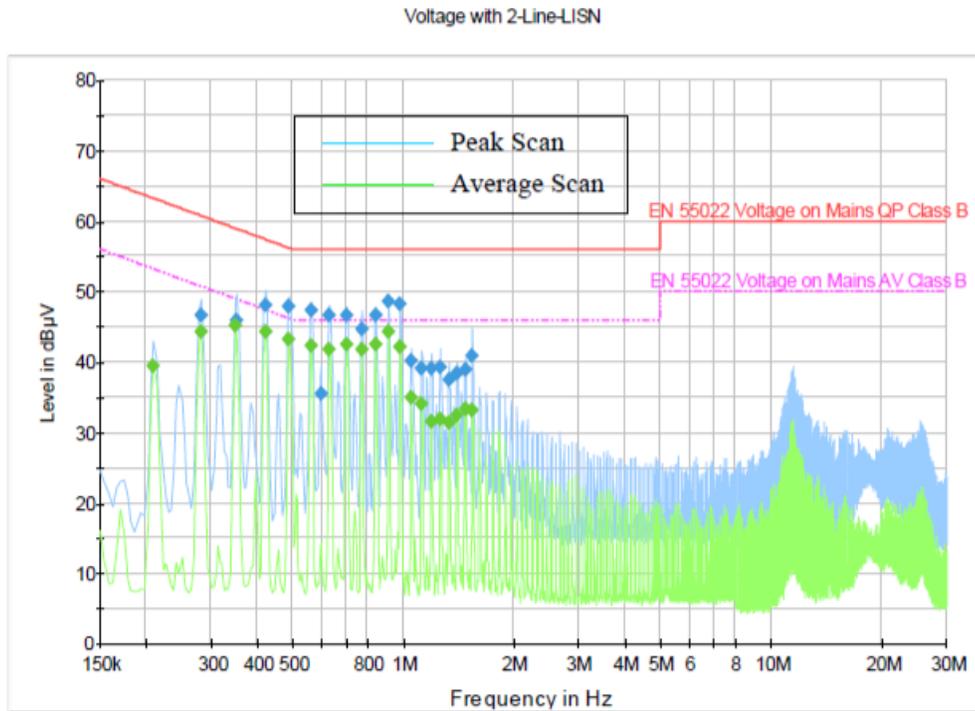


**6E-4** – 859.025 MHz Frequency Stability vs. Supply Voltage (DMO)

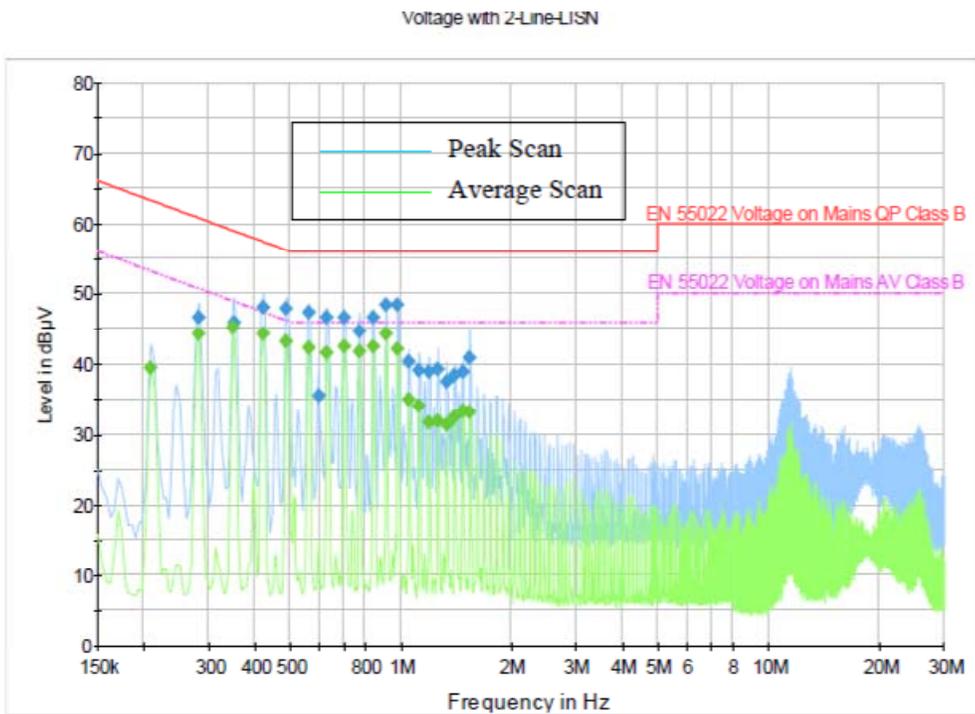
**EXHIBIT 6F – Powerline Conducted Spurious Emission**



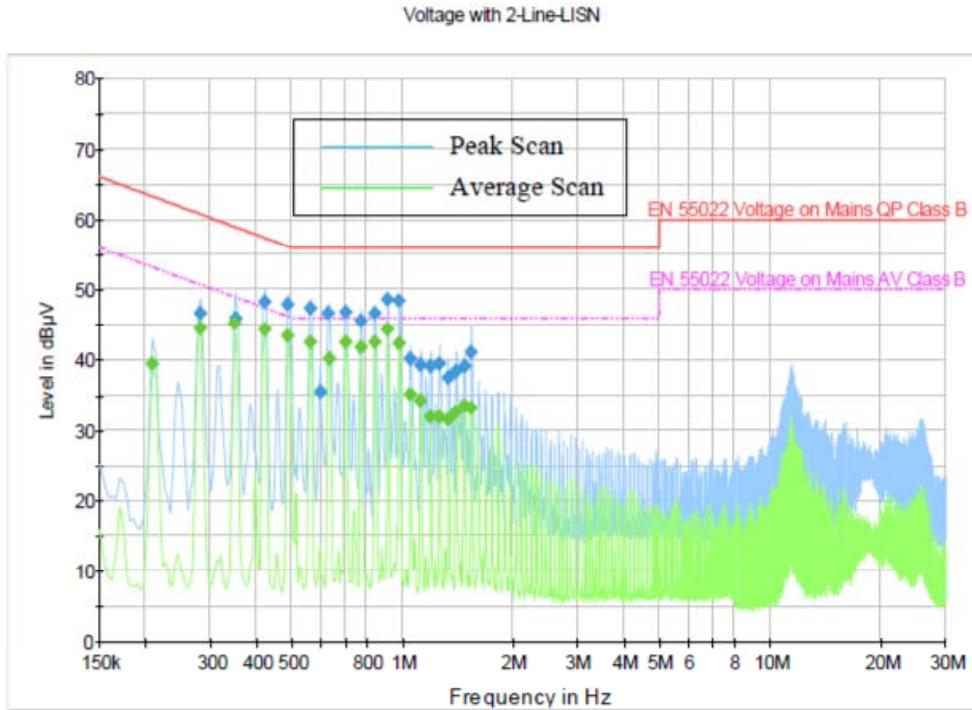




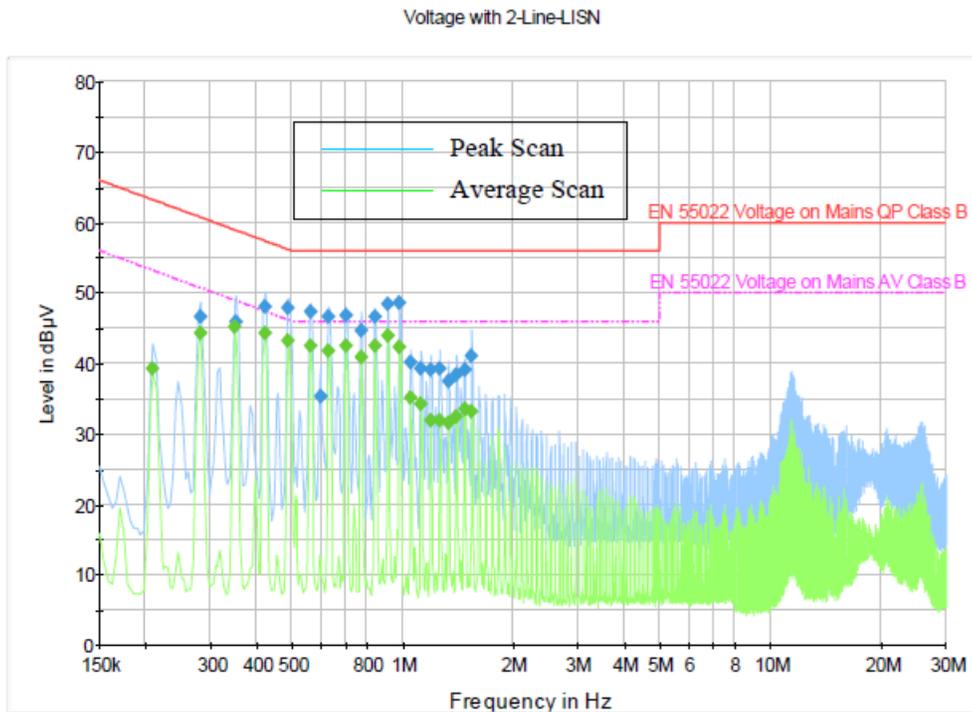
6F-5 – Radio on Standby Line/Neutral 854.025 MHz (DMO)



6F-6 – Radio on Standby Line/Neutral 859.025 MHz (DMO)

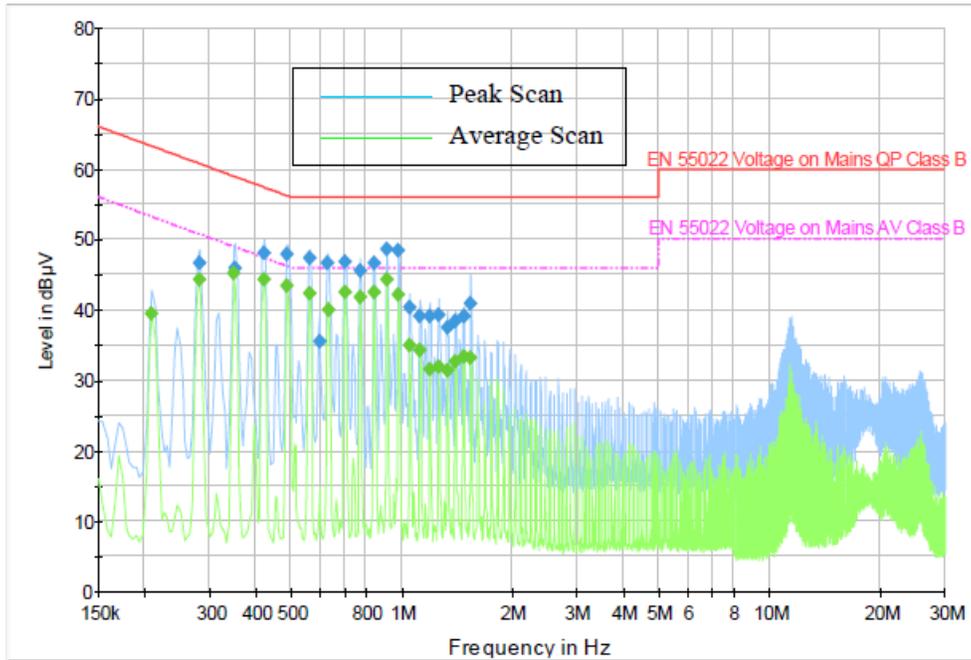


6F-7 – Radio on Standby Line/Neutral 868.9875 MHz (DMO)



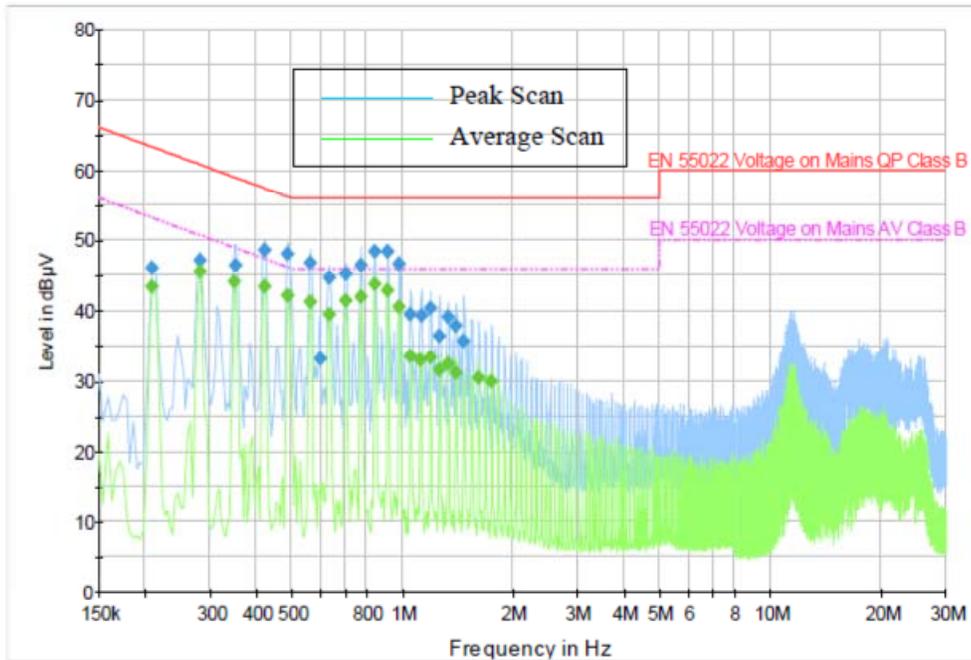
6F-8 – Radio on Transmit Line/Neutral 851.025 MHz (DMO) (IC Only)

Voltage with 2-Line-LISN

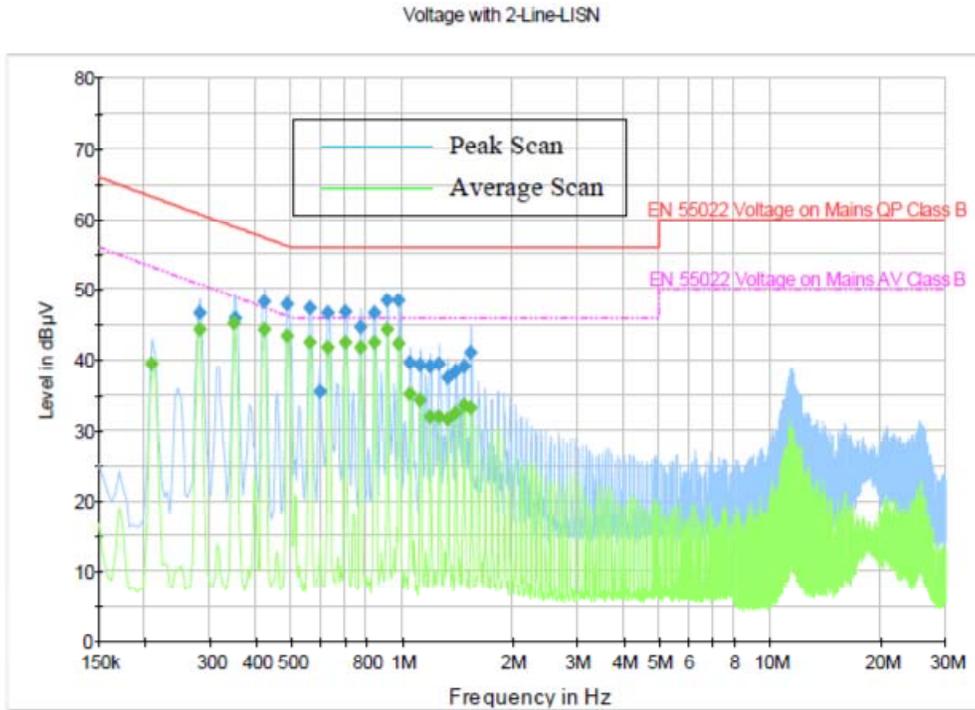


6F-9 – Radio on Transmit Line/Neutral 854.025 MHz (DMO)

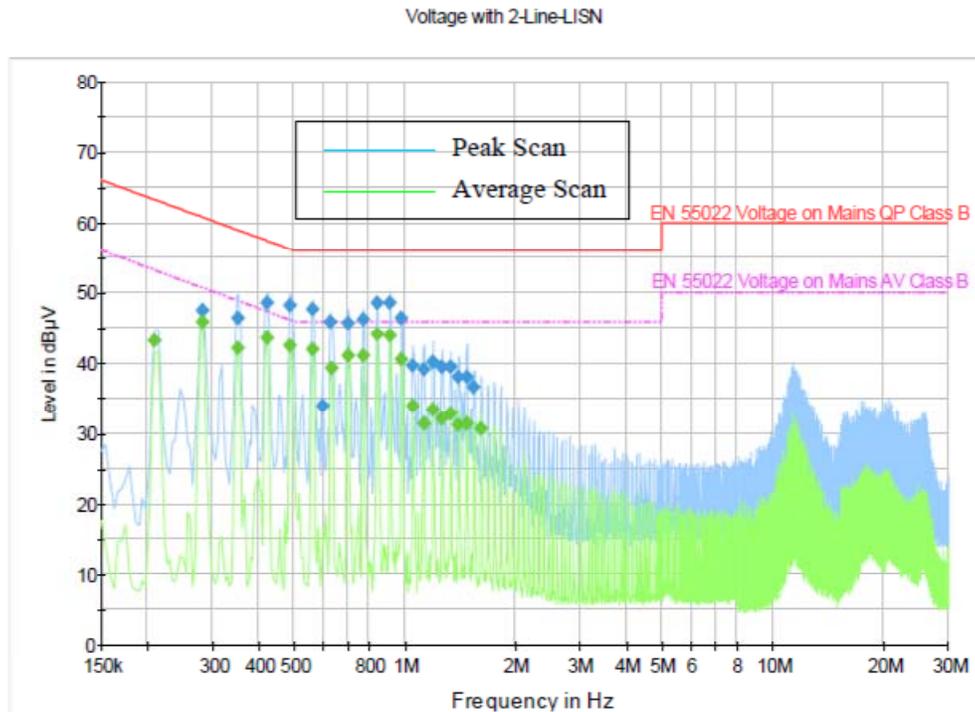
Voltage with 2-Line-LISN



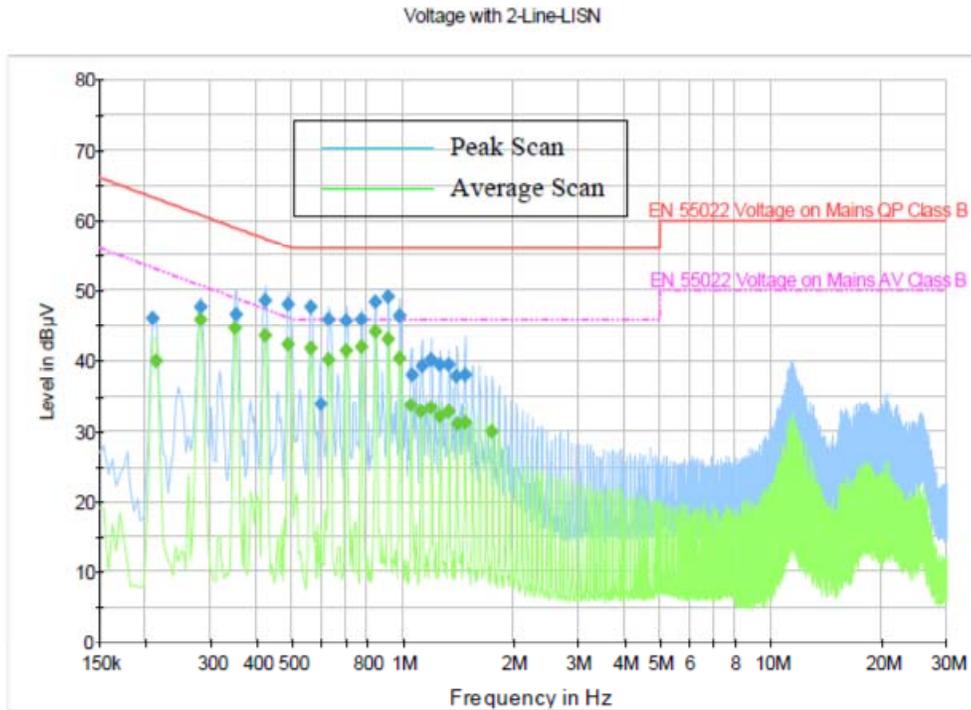
6F-10 – Radio on Transmit Line/Neutral 859.025 MHz (DMO)



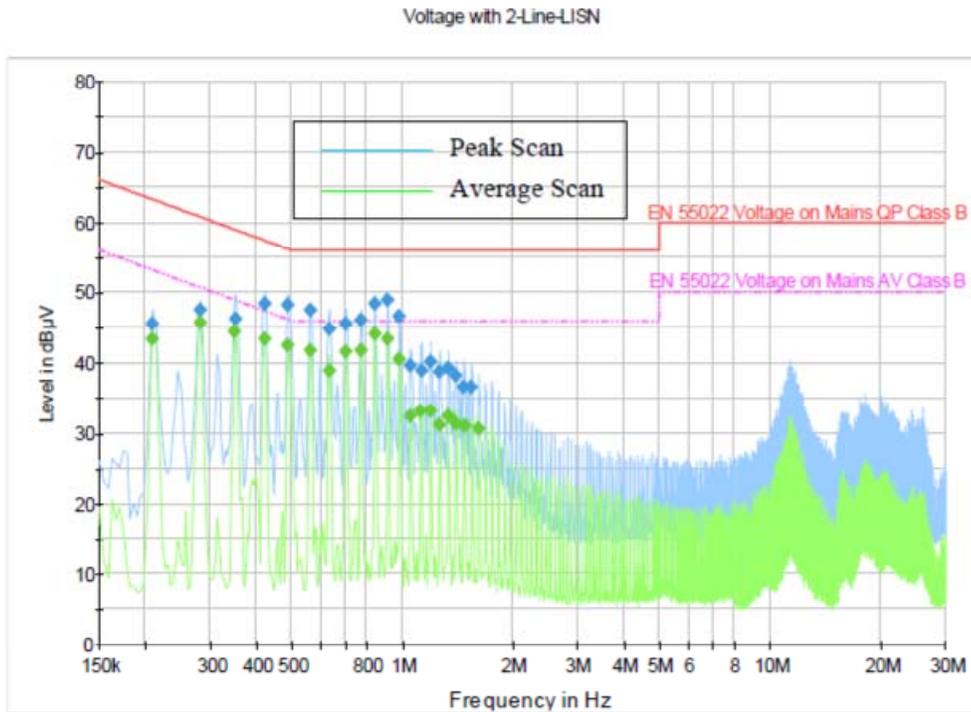
6F-11 – Radio on Transmit Line/Neutral 868.9875 MHz (DMO)



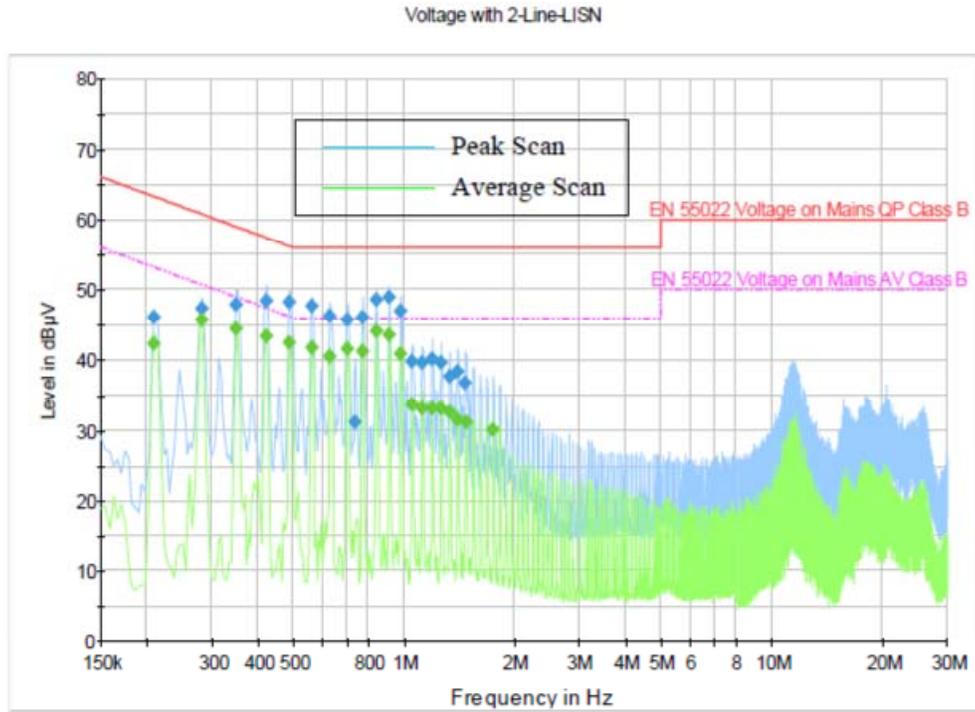
6F-12 – Radio on Transmit Line/Neutral 806.0125 MHz (TMO) (IC Only)



6F-13 – Radio on Transmit Line/Neutral 809.0125 MHz (TMO)



6F-14 – Radio on Transmit Line/Neutral 815.0125 MHz (TMO)



6F-15 – Radio on Transmit Line/Neutral 823.9875 MHz (TMO)

**EXHIBIT 6G – Adjacent Channel Power**

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 65.47	- 55
+ 25 kHz	- 68.39	- 55
- 50 kHz	- 76.63	- 65
+ 50 kHz	- 76.29	- 65
- 75 kHz	- 80.74	- 65
+ 75 kHz	- 80.17	- 65

Table 6G-1 – 815.025 MHz, 11.2W, 25 kHz channel spacing (DQPSK modulation)

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 67.49	- 55
+ 25 kHz	- 67.64	- 55
- 50 kHz	- 79.13	- 65
+ 50 kHz	- 78.29	- 65
- 75 kHz	- 81.59	- 65
+ 75 kHz	- 81.34	- 65

Table 6G-2 – 815.025 MHz, 3W, 25 kHz channel spacing (DQPSK modulation)

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 66.46	- 55
+ 25 kHz	- 66.79	- 55
- 50 kHz	- 78.48	- 65
+ 50 kHz	- 78.71	- 65
- 75 kHz	- 80.59	- 65
+ 75 kHz	- 80.62	- 65

Table 6G-3 – 815.025 MHz, 3W, 25 kHz channel spacing (QAM64 modulation)

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 68.04	- 55
+ 25 kHz	- 69.20	- 55
- 50 kHz	- 77.52	- 65
+ 50 kHz	- 76.68	- 65
- 75 kHz	- 81.32	- 65
+ 75 kHz	- 81.60	- 65

Table 6G-4 – 859.025 MHz, 10W, 25 kHz channel spacing (DQPSK modulation)

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 68.19	- 55
+ 25 kHz	- 68.54	- 55
- 50 kHz	- 80.14	- 65
+ 50 kHz	- 79.93	- 65
- 75 kHz	- 82.21	- 65
+ 75 kHz	- 82.09	- 65

Table 6G-5 – 859.025 MHz, 3W, 25 kHz channel spacing (DQPSK modulation)

Frequency Offset	ACP level (dB)	Maximum ACP (dBc) for device < 15W
- 25 kHz	- 65.10	- 55
+ 25 kHz	- 66.76	- 55
- 50 kHz	- 77.92	- 65
+ 50 kHz	- 77.78	- 65
- 75 kHz	- 80.35	- 65
+ 75 kHz	- 80.35	- 65

Table 6G-6 – 859.025 MHz, 3W, 25 kHz channel spacing (QAM64 modulation)