

INDEX OF SUBMITTED MEASURED DATA

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

EXHIBIT 6A - RF Power Output (Table)**EXHIBIT 6B - Transmit Audio Response (3 Graphs)**

6B-1 – 12.5 kHz Channel Spacing

6B-2 – 25 kHz Channel Spacing

EXHIBIT 6C - Transmit Audio Post Limiter Lowpass Filter Response (3 Graphs)

6C-1 – 12.5 kHz Post Limiter Lowpass Filter Response

6C-2 – 25 kHz Post Limiter Lowpass Filter Response

EXHIBIT 6D - Modulation Limiting Characteristics (2 Graphs)

6D-1 – 12.5 kHz Carrier Squelch Mode

6D-2 – 25 kHz Carrier Squelch Mode

EXHIBIT 6E – Modulation Techniques and Occupied Bandwidth (72 Spectrum Analyzer Plots)

Figure 6E-1: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-2: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-3: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, Modulation, 16K0F3E Mask B
 Figure 6E-4: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-5: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-6: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, Modulation, 16K0F3E Mask B
 Figure 6E-7: 815.0125 MHz, 25 kHz Channel Spacing, DTMF and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-8: 815.0125 MHz, 25 kHz Channel Spacing, DTMF and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-9: 815.0125 MHz, 25 kHz Channel Spacing, DTMF Modulation only, 16K0F3E Mask B
 Figure 6E-10: 859.9875 MHz, 25 kHz Channel Spacing, DTMF and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-11: 859.9875 MHz, 25 kHz Channel Spacing, DTMF and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-12: 859.9875 MHz, 25 kHz Channel Spacing, DTMF Modulation only, 16K0F3E Mask B
 Figure 6E-13: 815.0125 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-14: 815.0125 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-15: 815.0125 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 16K0F3E Mask B
 Figure 6E-16: 859.9875 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-17: 859.9875 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 16K0F3E Mask B
 Figure 6E-18: 859.9875 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 16K0F3E Mask B
 Figure 6E-19: 815.0125 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask D
 Figure 6E-20: 815.0125 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-21: 815.0125 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-22: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask D
 Figure 6E-23: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-24: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-25: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask D
 Figure 6E-26: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-27: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-28: 859.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask D
 Figure 6E-29: 859.9875 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-30: 859.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-31: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask D
 Figure 6E-32: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-33: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-34: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask D
 Figure 6E-35: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-36: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask D
 Figure 6E-37: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask I
 Figure 6E-38: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask I
 Figure 6E-39: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask I
 Figure 6E-40: 939.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask I
 Figure 6E-41: 939.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask I
 Figure 6E-42: 939.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask I

Figure 6E-43: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask I
Figure 6E-44: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask I
Figure 6E-45: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask I
Figure 6E-46: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask I
Figure 6E-47: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask I
Figure 6E-48: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask I
Figure 6E-49: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask I
Figure 6E-50: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 11K0F3E Mask I
Figure 6E-51: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask I
Figure 6E-52: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask I
Figure 6E-53: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 11K0F3E Mask I
Figure 6E-54: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask I
Figure 6E-55: 815.0125 MHz, 4-Level FSK Data Modulation only, 7K60FXD Mask D
Figure 6E-56: 859.9875 MHz, 4-Level FSK Data Modulation only, 7K60FXD Mask D
Figure 6E-57: 900.9875 MHz, 4-Level FSK Data Modulation only, 7K60FXD Mask I
Figure 6E-58: 901.5 MHz, 9W, 4-Level FSK Data Modulation only, 7K60FXD Mask 24.133
Figure 6E-59: 939.9875 MHz, 4-Level FSK Data Modulation only, 7K60FXD Mask I
Figure 6E-60: 940.5 MHz, 9W, 4-Level FSK Data Modulation only, 7K60FXD Mask 24.133
Figure 6E-61: 815.0125 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask D
Figure 6E-62: 859.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask D
Figure 6E-63: 900.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask I
Figure 6E-64: 901.5 MHz, 9W, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask 24.133
Figure 6E-65: 939.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask I
Figure 6E-66: 940.5 MHz, 9W, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask 24.133
Figure 6E-67: 815.0125 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask D
Figure 6E-68: 859.9875 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask D
Figure 6E-69: 900.9875 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask I
Figure 6E-70: 901.5 MHz, 9W, 4-Level FSK Voice Modulation only, 7K60F1E Mask 24.133
Figure 6E-71: 939.9875 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask I
Figure 6E-72: 940.5 MHz, 9W, 4-Level FSK Voice Modulation only, 7K60F1E Mask 24.133

EXHIBIT 6F - Conducted Spurious Emissions (2 Graphs)

EXHIBIT 6G – Radiated Spurious Emissions (32 Tables with Graph)

EXHIBIT 6H – Frequency Stability (4 Graphs)

6H-1 – Frequency Stability vs. Temperature

6H-2 – Frequency Stability vs. Voltage

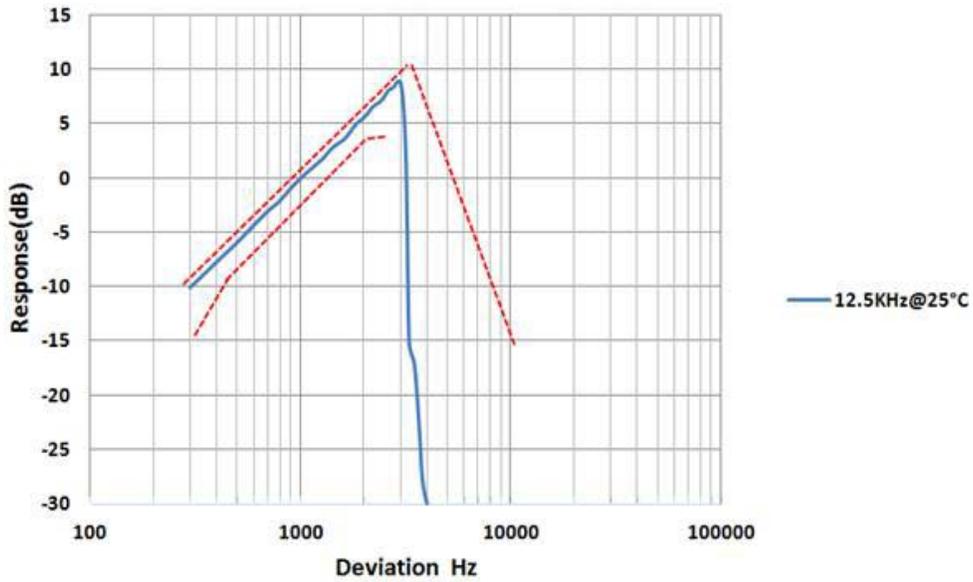
EXHIBIT 6M – Effective Radiated Power (Table)

RF Power Output

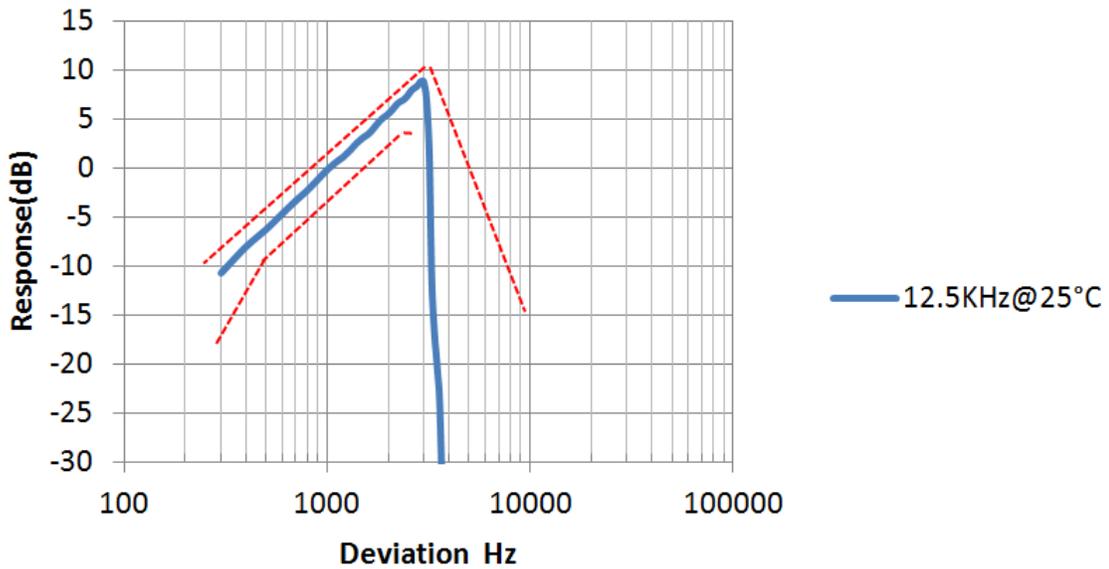
The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device, pursuant to 47 CFR 2.1033(c)(8) and 2.1046.

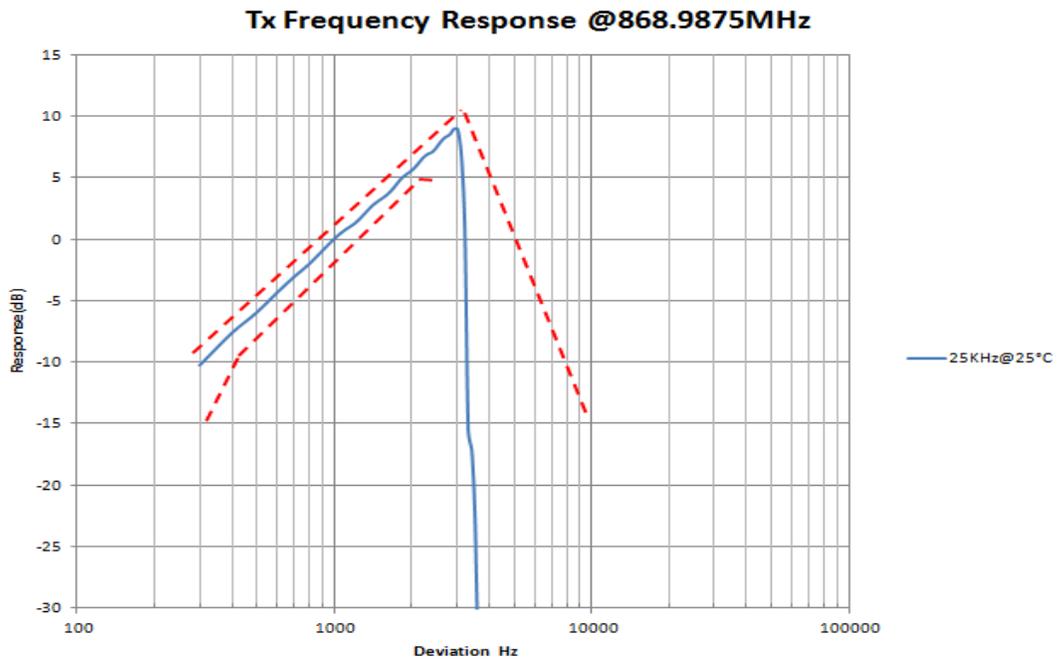
RF Frequency (MHz)	RF Output Power (W)	RF Output Power Rounded (W)	DC Radio Input Voltage (V)	DC Radio Input Current (A)	DC Radio Input Power (W)
806.0125	41.90	42	13.6	8.33	113.29
806.0125	9.98	10	13.6	4.05	55.08
815.0125	41.90	42	13.6	8.46	115.05
815.0125	9.94	10	13.6	3.98	54.13
823.9875	41.80	42	13.6	8.44	114.78
823.9875	9.98	10	13.6	4.06	55.22
851.0125	41.70	42	13.6	9.68	131.65
851.0125	10.00	10	13.6	4.28	58.21
860.0125	41.60	42	13.6	9.84	133.82
860.0125	9.95	10	13.6	4.42	60.11
869.0000	41.70	42	13.6	9.80	133.28
869.0000	9.94	10	13.6	4.41	59.98
896.0125	35.90	36	13.6	8.46	115.06
896.0125	9.88	10	13.6	4.42	60.11
898.0125	35.80	36	13.6	8.36	113.70
898.0125	9.87	10	13.6	4.41	59.98
900.9875	35.80	36	13.6	8.35	113.56
900.9875	9.85	10	13.6	4.38	59.57
901.5125	8.84	9	13.6	4.19	56.98
935.0125	35.80	36	13.6	7.28	98.98
935.0125	10.10	10	13.6	3.92	53.31
937.0125	35.80	36	13.6	7.28	99.01
937.0125	9.98	10	13.6	3.86	52.50
939.9875	35.80	36	13.6	7.22	98.19
939.9875	9.83	10	13.6	3.78	51.41
940.5125	8.81	9	13.6	3.61	49.10

TX Audio Frequency Response@868.9875MHz

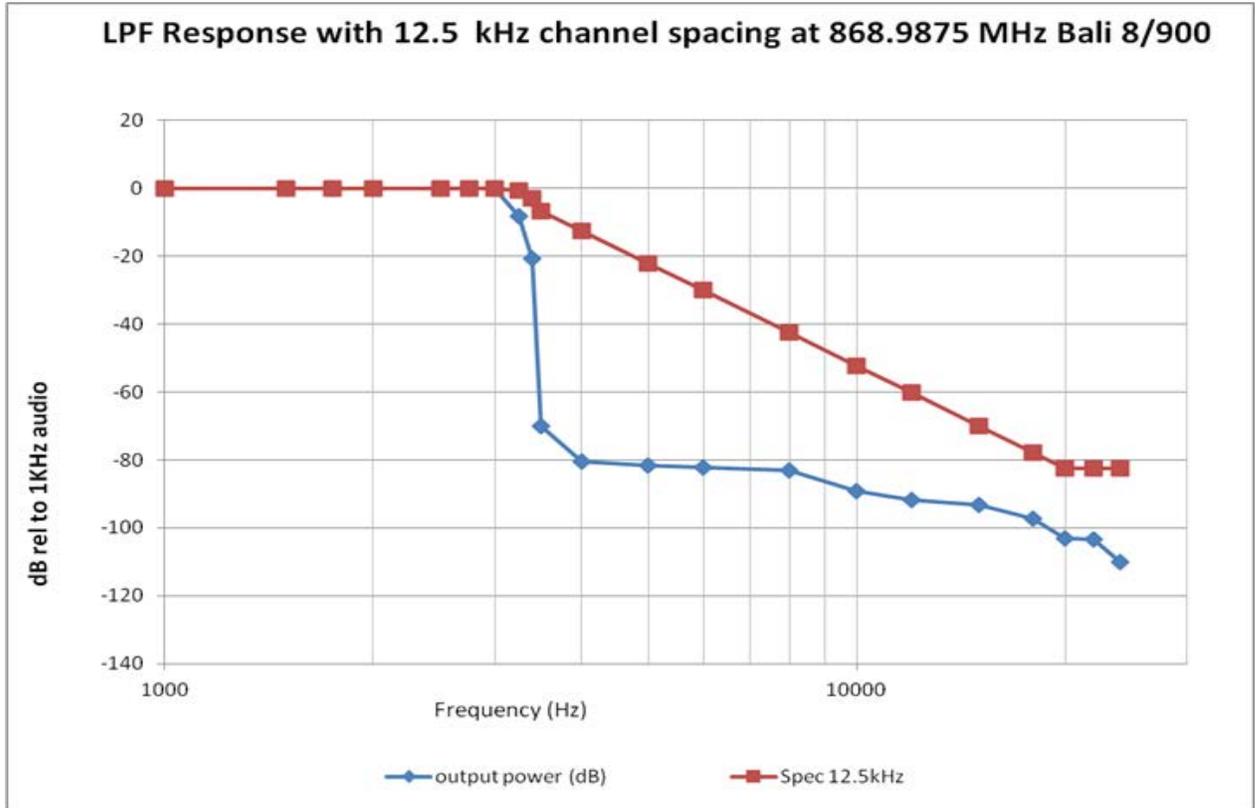


Tx Frequency Response@939.9875MHz

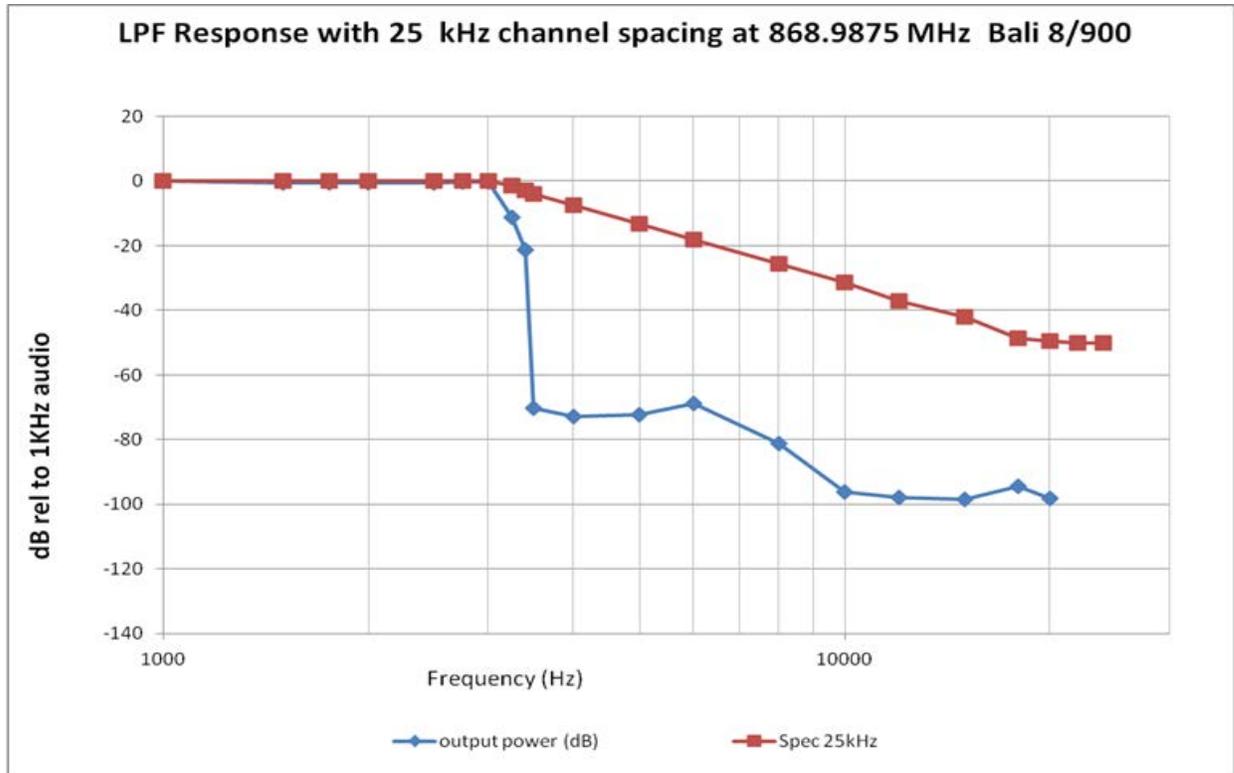




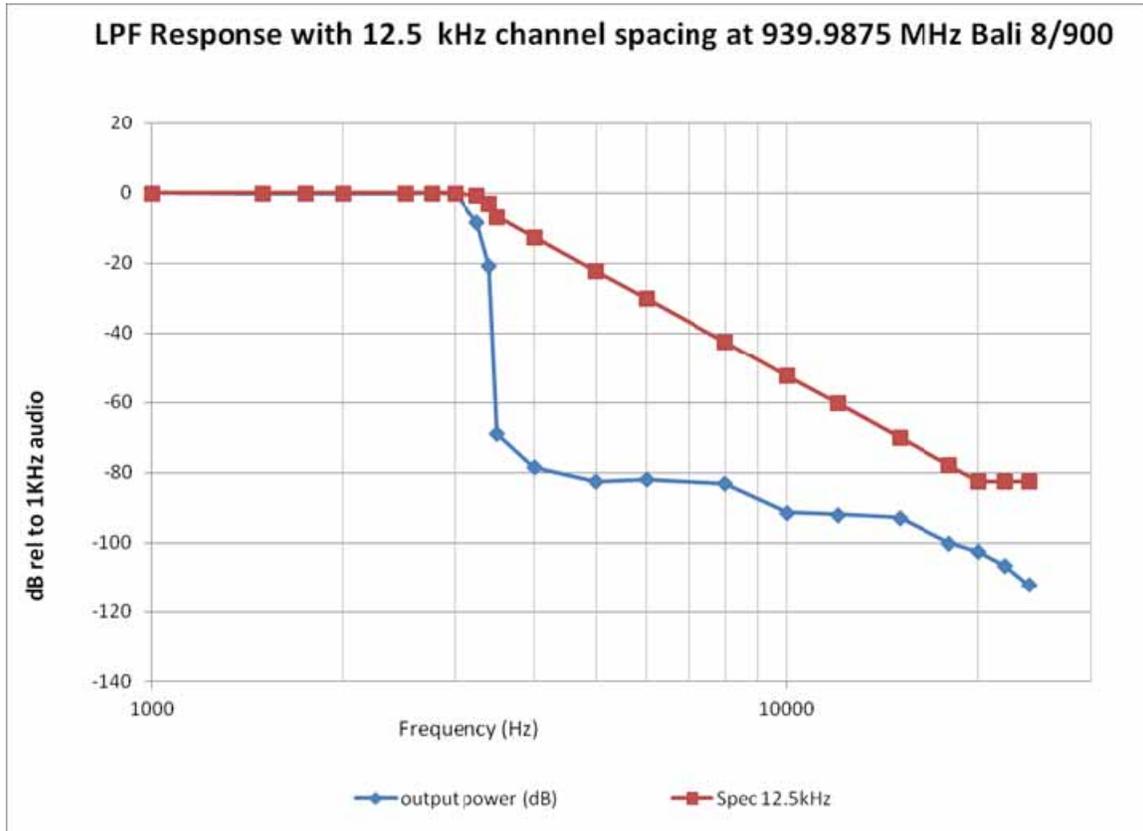
POST-LIMITER LOWPASS FILTER RESPONSE 868.9875 MHz, 12.5 kHz Channel Spacing



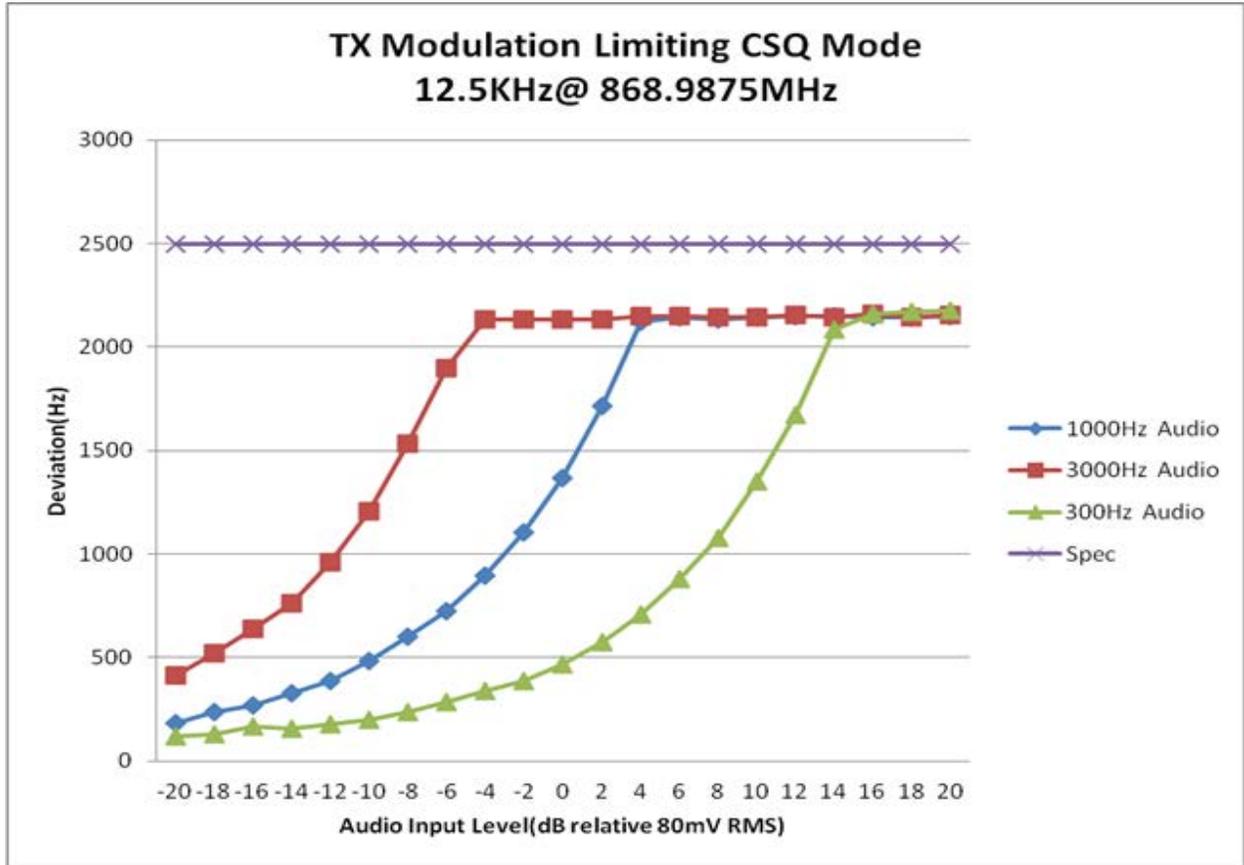
POST-LIMITER LOWPASS FILTER RESPONSE
868.9875 MHz, 25 kHz Channel Spacing



POST-LIMITER LOWPASS FILTER RESPONSE 939.9875 MHz, 12.5 kHz Channel Spacing



MODULATION LIMITING CHARACTERISTIC
868.9875MHz, Channel Spacing 12.5 kHz CARRIER SQUELCH MODE



MODULATION LIMITING CHARACTERISTIC 868.9875MHz, Channel Spacing 25 kHz, CARRIER SQUELCH MODE

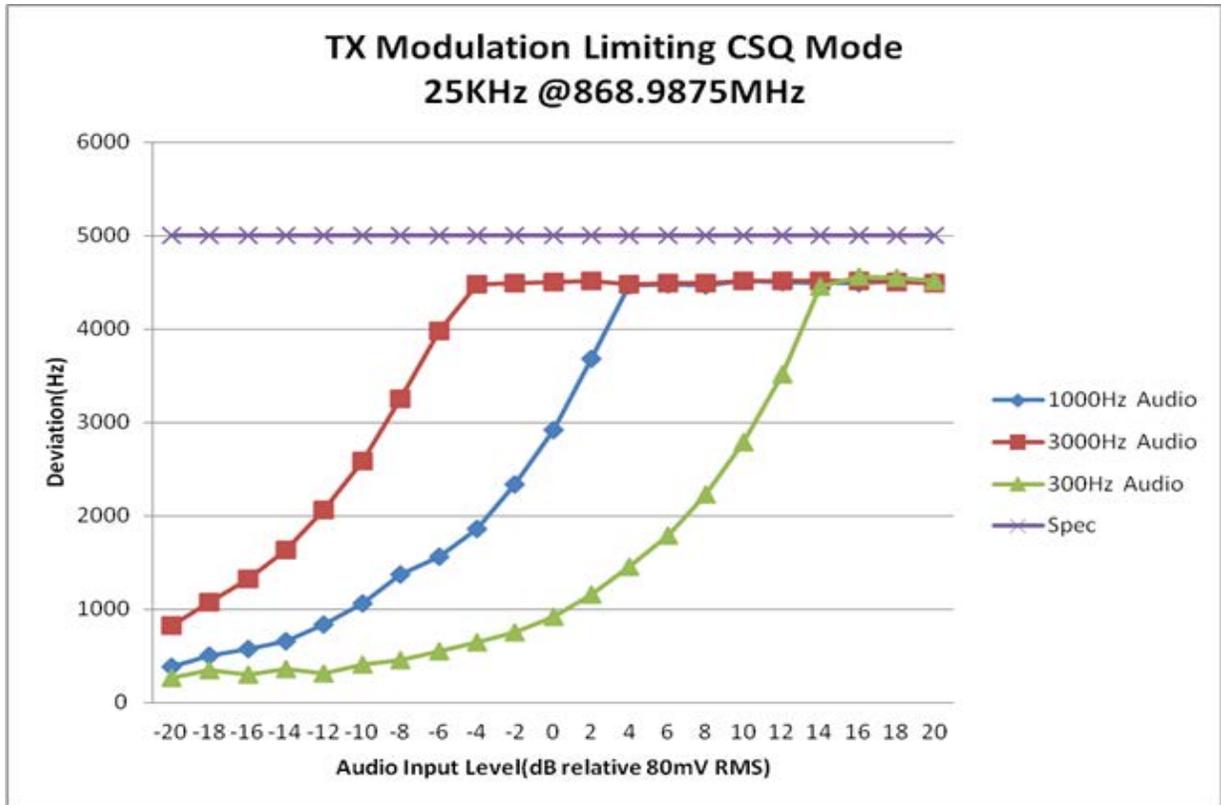


EXHIBIT 6E – Occupied Bandwidth and Modulation Techniques

The transmitter is capable of the following types of modulation:

- i) Modulation of PL (Private Line) – Direct FM tone modulation of 67 Hz to 250.3 Hz at 15% of full system deviation. Also referred to as TPL (Tone Private Line).
- ii) Modulation of DPL (Digital Private Line) – Direct FM modulation at 134 bps at 15% of full system deviation.
- iii) Modulation of 2000/3000 Hz FSK Data – FM modulation at nominally 60% of full system deviation.
- iv) Modulation of DTMF (Dual Tone Multi Frequency) – FM modulation at nominally 60% of full system deviation
- v) Modulation of 9600 bps 4 level FSK Data

Note: the measurement for 90.210 footnote 3 (809–824, 854-869 MHz) is not included for this report due to the specification limit of mask D is more stringent than the requirement of 90.210 footnote 3.

Standard Audio Modulation (25 kHz Channelization, Analog Voice)

Per CFR Title 47, Part 2, Section 2.201, the Carson’s Rule calculation for necessary bandwidth, $BW = 2M + 2DK$, where M = maximum modulating frequency in Hz, D = peak deviation in Hz, and K=1, is as follows:

In this case the maximum modulating frequency is 3.0 kHz with a 5.0 kHz deviation.

$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 5.0 \text{ kHz}) = 16 \text{ kHz}$ (**16K0** designator)

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation.....	F
A single channel containing analogue information	3
Telephony (including sound broadcasting).....	E

The complete emissions designator for this transmitter is **16K0F3E**.

Standard Audio Modulation (12.5 kHz Channelization, Analog Voice)

Per CFR Title 47, Part 2, Section 2.201, the Carson’s Rule calculation for necessary bandwidth, $BW = 2M + 2DK$, where M = maximum modulating frequency in Hz, D = peak deviation in Hz, and K=1, is as follows:

In this case the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz}$ (**11K0** designator)

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation.....	F
A single channel containing analogue information	3
Telephony (including sound broadcasting).....	E

The complete emissions designator for this transmitter is **11K0F3E**.

4 Level FSK Digital Modulation Techniques

The modulation sends 4800 symbols/sec with each symbol conveying 2 bits of information for a data rate of 9600 bps in a 12.5 kHz channel, which is equivalent to 4800 bps per 6.25kHz. The maximum deviation D , of the symbol is defined as:

$$D = 3h / 2T$$

where:

- h is the deviation index defined for the modulation
- T is the symbol time (1/4800) in seconds

The deviation index, h , is 0.27. This yields a symbol deviation of 1.944 kHz at the symbol center. The mapping between symbols and bits is shown below:

Information Bits		Symbol	4FSK Deviation
Bit 1	Bit 0		
0	1	+3	+1.944 kHz
0	0	+1	+0.648 kHz
1	0	-1	-0.648 kHz
1	1	-3	-1.944 kHz

A Square Root Raised Cosine Filter is implemented for the modulation low pass filter. The input to the modulation low pass filter consists of a series of impulses separated in time by 208.33 microseconds (1/4800 sec). The group delay of the filter is flat over the passband for $|f| < 2880 \text{ Hz}$. The magnitude response of the filter is given by the following formula.

$|F(f)|$ = magnitude response of the Square Root Raised Cosine Filter

$$|F(f)| = 1 \text{ for } |f| \leq 1920 \text{ Hz}$$

$$|F(f)| = |\cos(\pi f / 1920)| \text{ for } 1920 \text{ Hz} < |f| \leq 2880 \text{ Hz}$$

$$|F(f)| = 0 \text{ for } |f| > 2880 \text{ Hz}$$

where f = frequency in hertz.

The 4FSK modulator consists of a Square Root Raised Cosine Filter, cascaded with a frequency modulator.



4 Level FSK Digital Modulation (12.5 kHz Channelization, Digital Data)

Measurement's per Rule Part 2.202(c)(4) where employed because Part 2.202(g) Table III A formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (Title 47 CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It states that 99% of the modulation energy falls within X kHz, which in this case is 7.6 kHz (**7K60** designator).

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation	F
.....	
A single channel containing quantized or digital information without the use of a modulating sub-carrier, excluding time-division multiplex	1
.....	
Data Transmission, telemetry, telecommand	D
.....	

Note: This product utilizes a Time Division Multiple Access (TDMA) protocol.

The complete emissions designator for this transmitter is **7K60F1D**.

4 Level FSK Digital Modulation (12.5 kHz Channelization, Digital Voice)

Measurement's per Rule Part 2.202(c)(4) where employed because Part 2.202(g) Table III A formulation produces an excessive result using the value of K recommended in the Table. Therefore the 99% energy rule (title 47CFR2.989) was used for digital mode and is more accurate than Carson's rule. It states that 99% of the modulation energy falls within X kHz, which in this case is 7.6 kHz (**7K60** designator).

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation	F
.....	
A single channel containing quantized or digital information without the use of a modulating sub-carrier, excluding time-division multiplex	1
.....	
Telephony (including sound broadcasting)	E
.....	

Note: This product utilizes a Time Division Multiple Access (TDMA) protocol.

The complete emissions designator for this transmitter is **7K60F1E**.

Digital (12.5 kHz Channelization, Digital TDMA)

Measurement's per Rule Part 2.202(c)(4) where employed because Part 2.202(g) Table III A formulation produces an excessive result using the value of K recommended in the Table. Therefore the 99% energy rule (title 47CFR2.989) was used for digital mode and is more accurate than Carson's rule. It states that 99% of the modulation energy falls within X kHz, which in this case is 7.6 kHz (**7K60** designator).

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation	F
.....	
A single channel containing quantized or digital information without the use of a modulating sub-carrier, excluding time-division multiplex	1
.....	
Combination of Data Transmission, telemetry, telecommand (D), and Telephony (E)	...W

Note: This product utilizes a Time Division Multiple Access (TDMA) protocol.

The complete emissions designator for this transmitter is **7K60F1W**.

4 Level FSK Digital Modulation (12.5 kHz Channelization, Digital Data)

Measurement's per Rule Part 2.202(c)(4) where employed because Part 2.202(g) Table III A formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (Title 47 CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It states that 99% of the modulation energy falls within X kHz, which in this case is 7.6 kHz (**7K60** designator).

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation.....	F
Case not otherwise covered.....	X
Data Transmission, telemetry, telecommand.....	D

Note: This product utilizes a Time Division Multiple Access (TDMA) protocol.

The complete emissions designator for this transmitter is **7K60FXD**.

4 Level FSK Digital Modulation (12.5 kHz Channelization, Digital Voice and Data)

Measurement's per Rule Part 2.202(c)(4) where employed because Part 2.202(g) Table III A formulation produces an excessive result using the value of K recommended in the Table. Therefore the 99% energy rule (title 47CFR2.989) was used for digital mode and is more accurate than Carson's rule. It states that 99% of the modulation energy falls within X kHz, which in this case is 7.6 kHz (**7K60** designator).

Per CFR Title 47, Part 2, Section 2.201:

Frequency Modulation.....	F
Case not otherwise covered.....	X
Telephony (including sound broadcasting).....	E

Note: This product utilizes a Time Division Multiple Access (TDMA) protocol.

The complete emissions designator for this transmitter is **7K60FXE**.

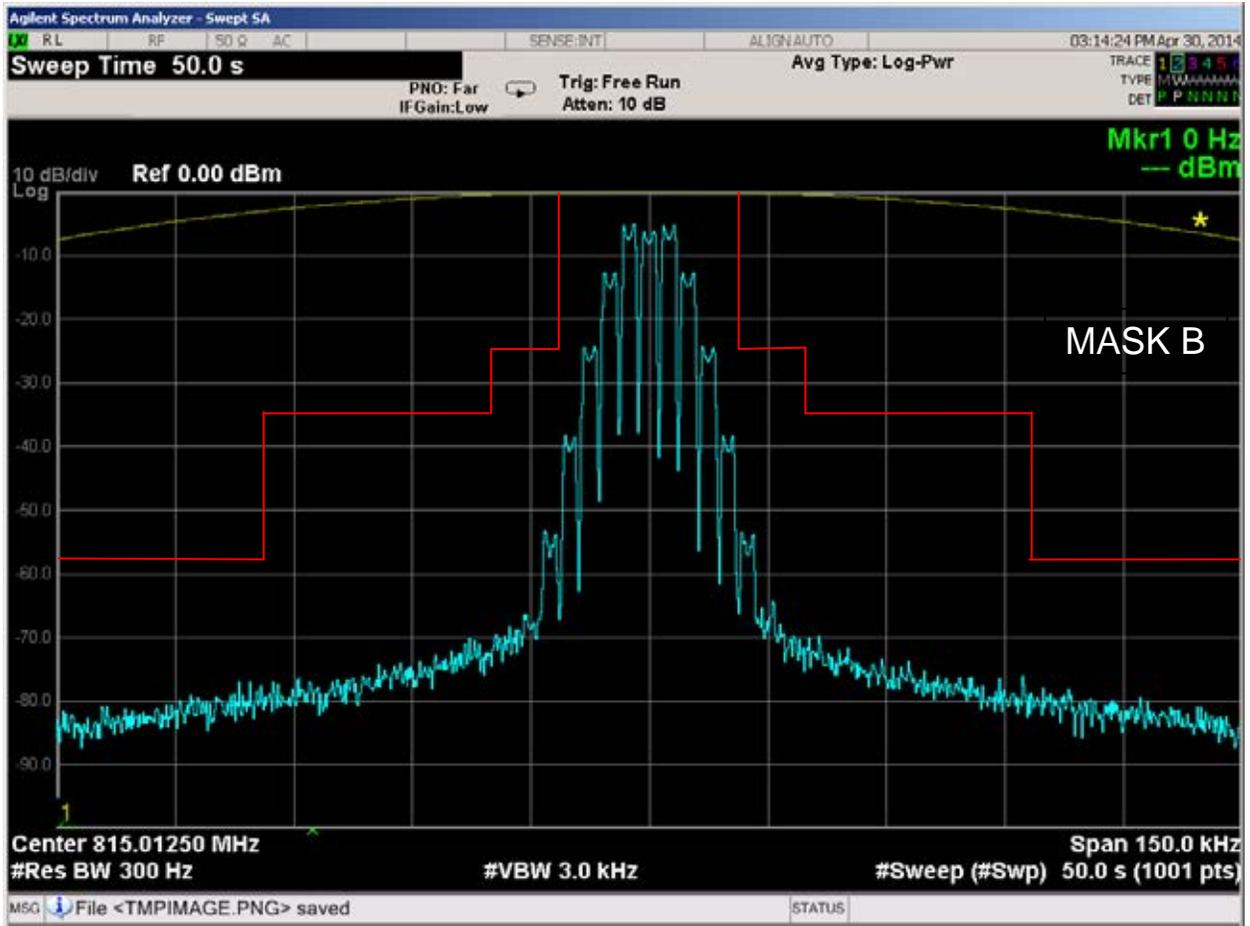


Figure 6E-1: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 16K0F3E Mask B

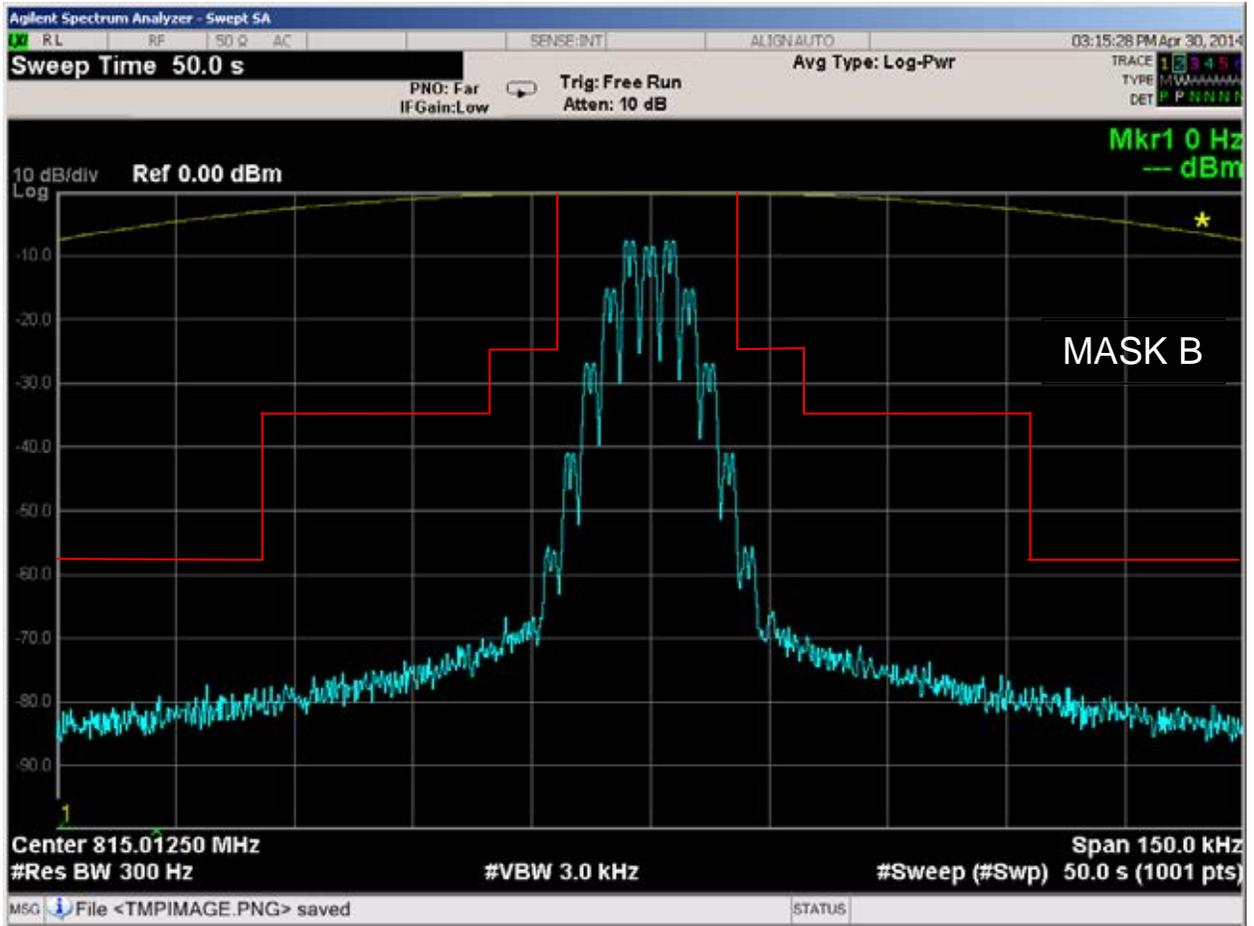


Figure 6E-2: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 16K0F3E Mask B

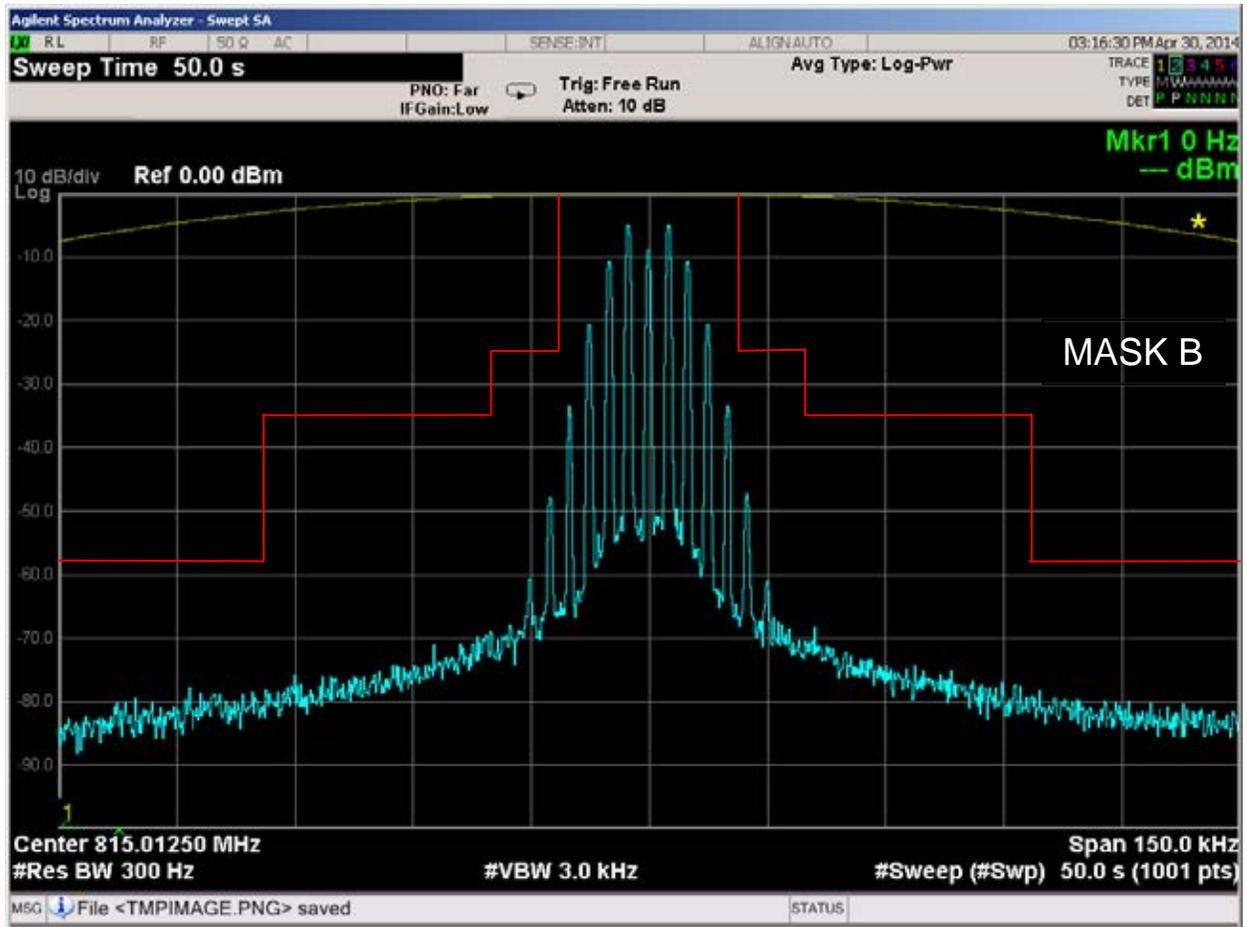


Figure 6E-3: 815.0125 MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, Modulation, 16K0F3E Mask B

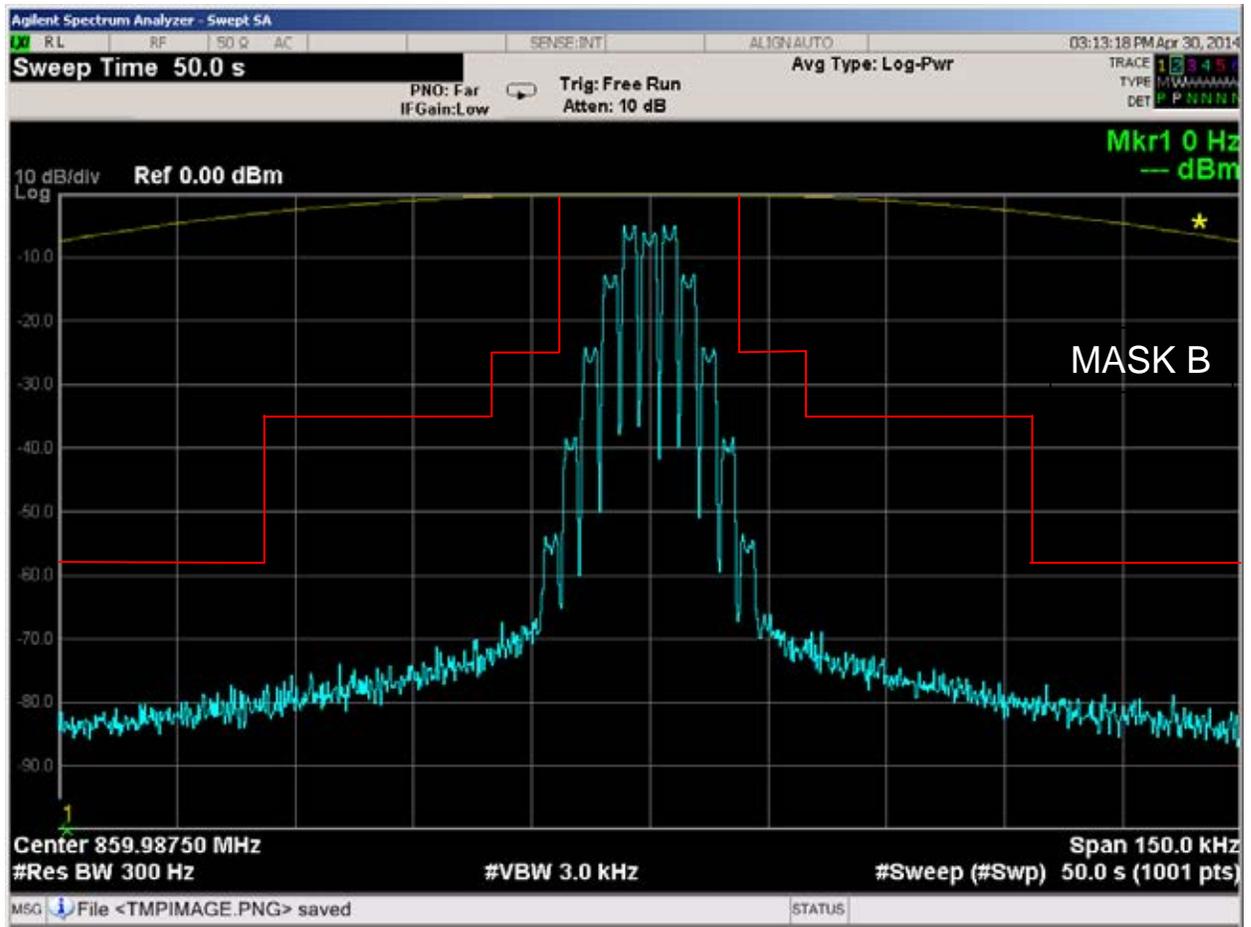


Figure 6E-4: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 16K0F3E Mask B

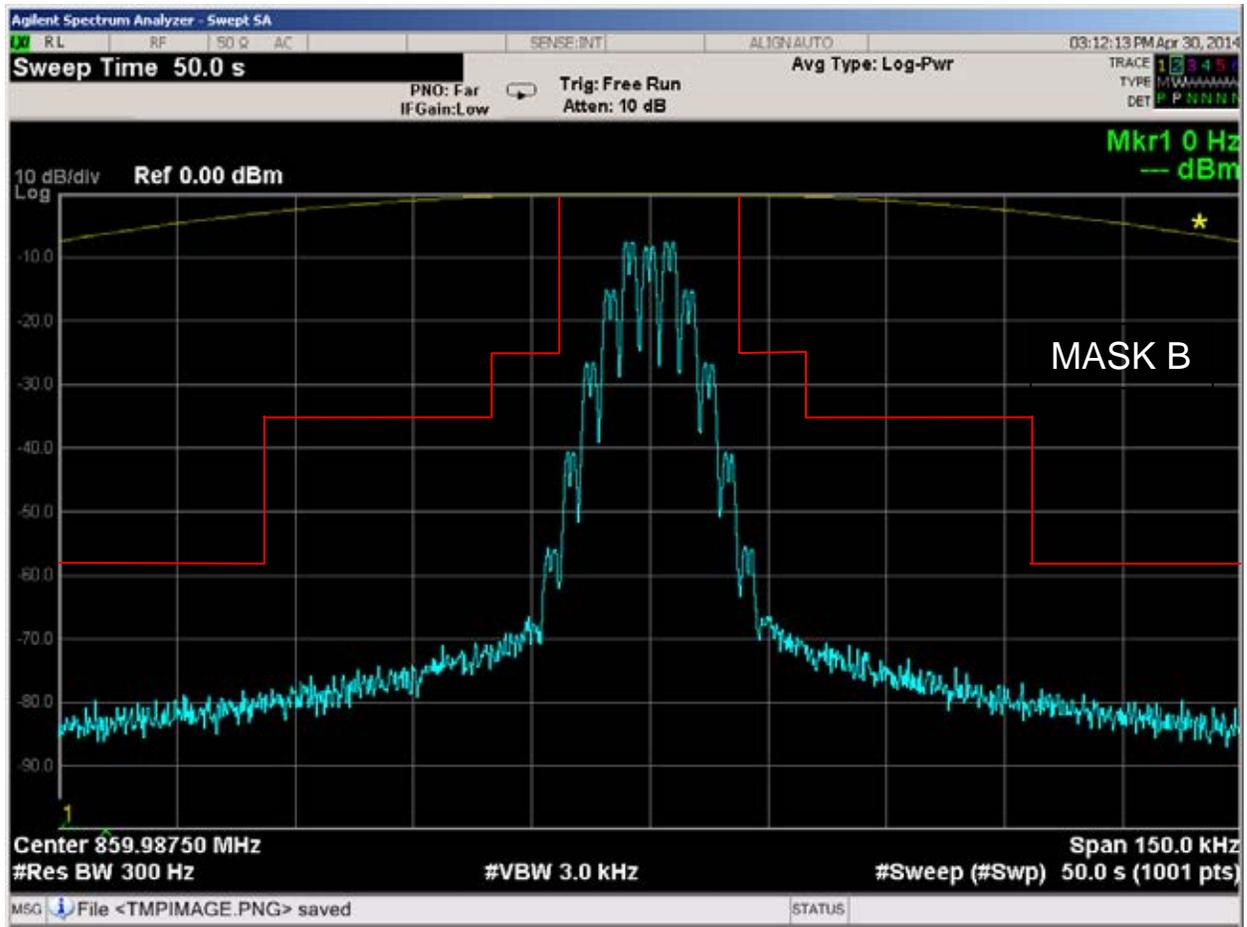


Figure 6E-5: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 16K0F3E Mask B

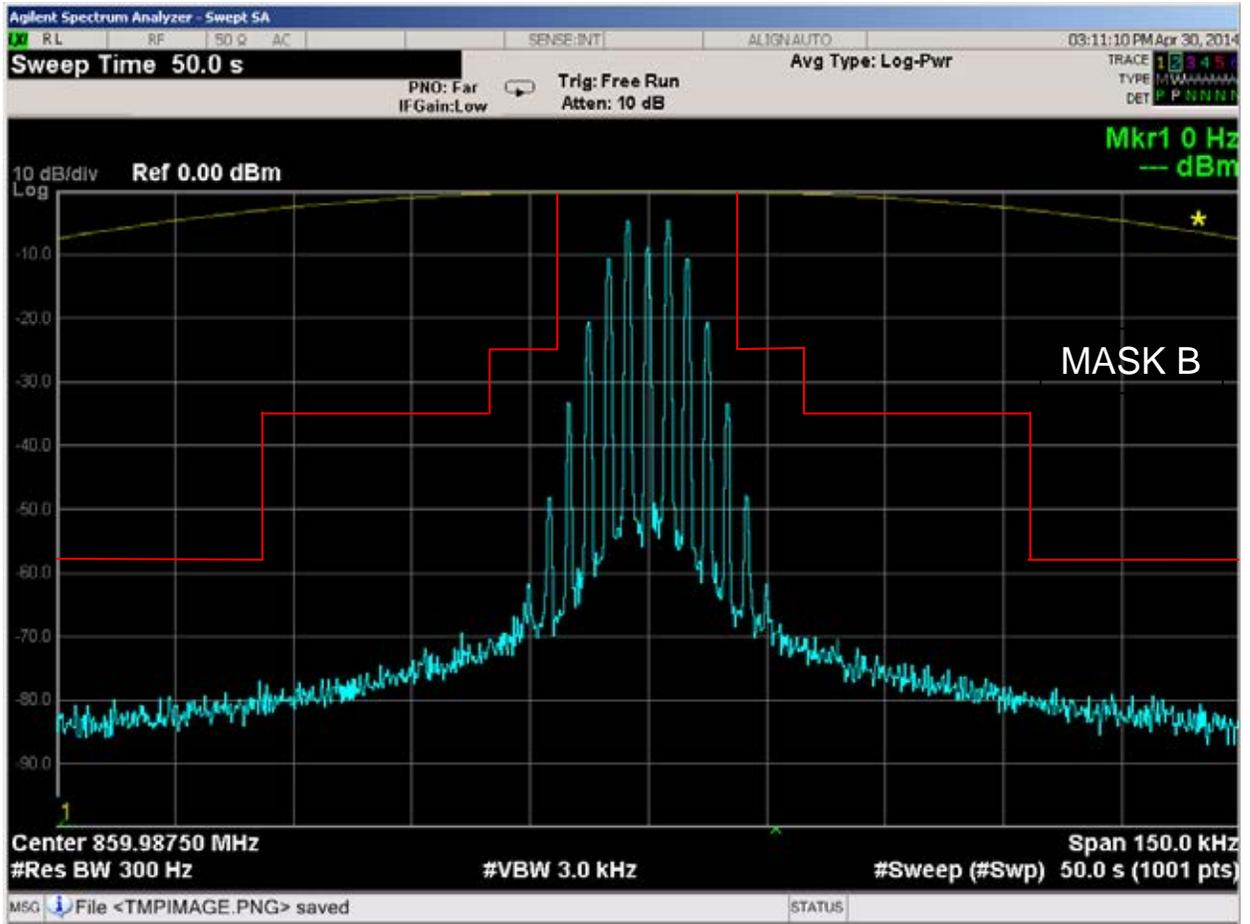


Figure 6E-6: 859.9875MHz, 25 kHz Channel Spacing, 2500Hz Audio Modulation only, Modulation, 16K0F3E Mask B

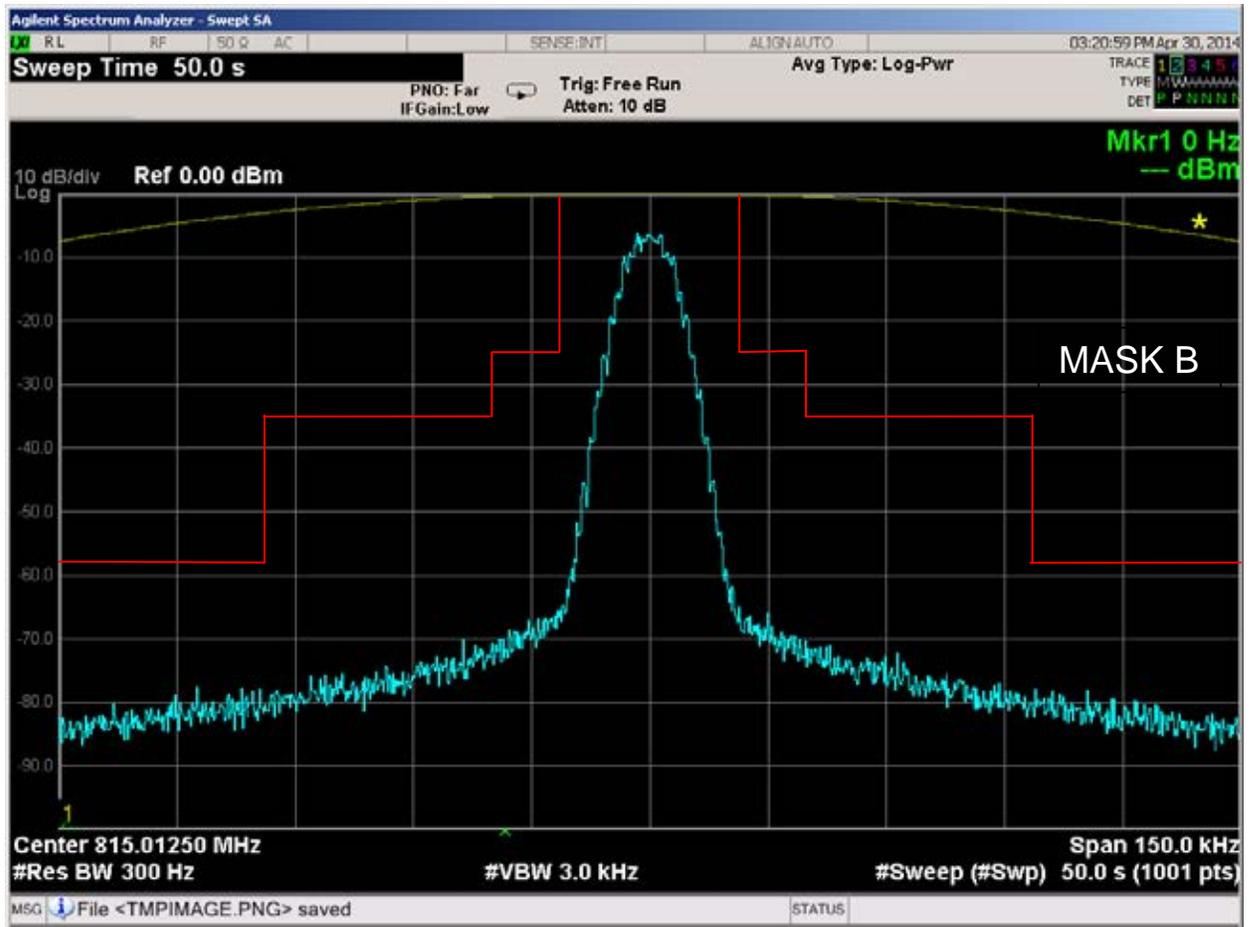


Figure 6E-7: 815.0125 MHz, 25 kHz Channel Spacing, DTMF and DPL Tone Modulation, **16K0F3E Mask B**

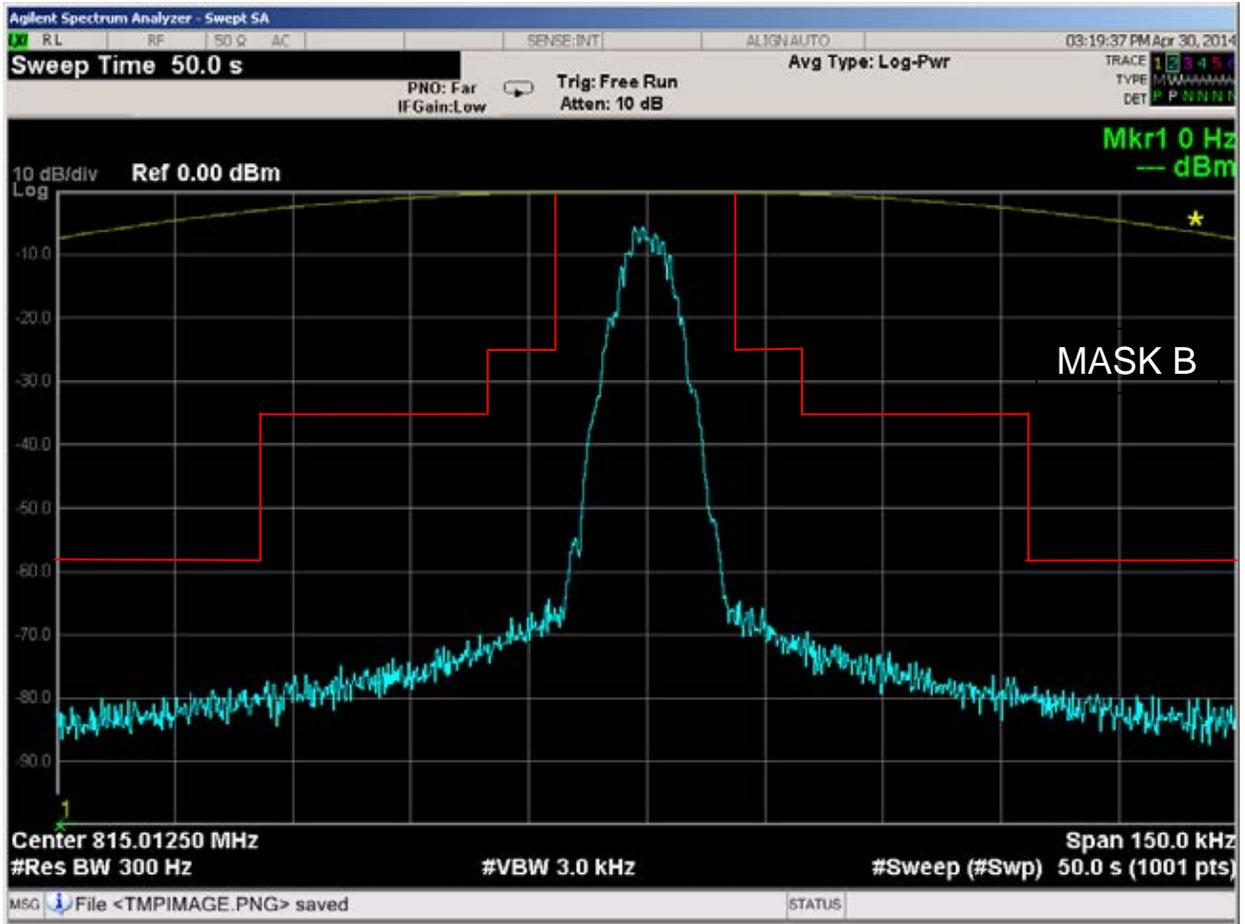


Figure 6E-8: 815.0125 MHz, 25 kHz Channel Spacing, DTMF and TPL Tone Modulation, **16K0F3E Mask B**

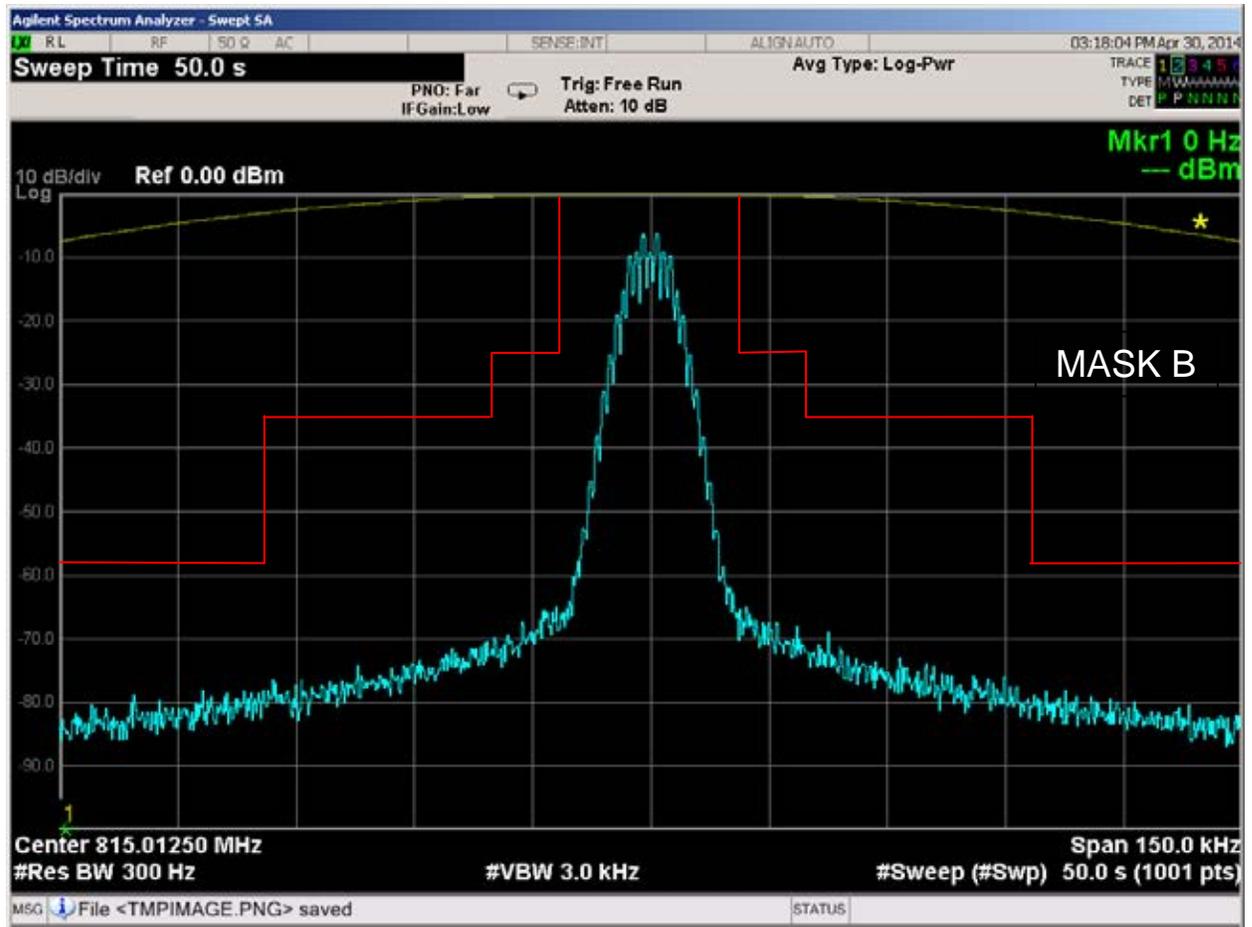


Figure 6E-9: 815.0125 MHz, 25 kHz Channel Spacing, DTMF Modulation only, 16K0F3E Mask B

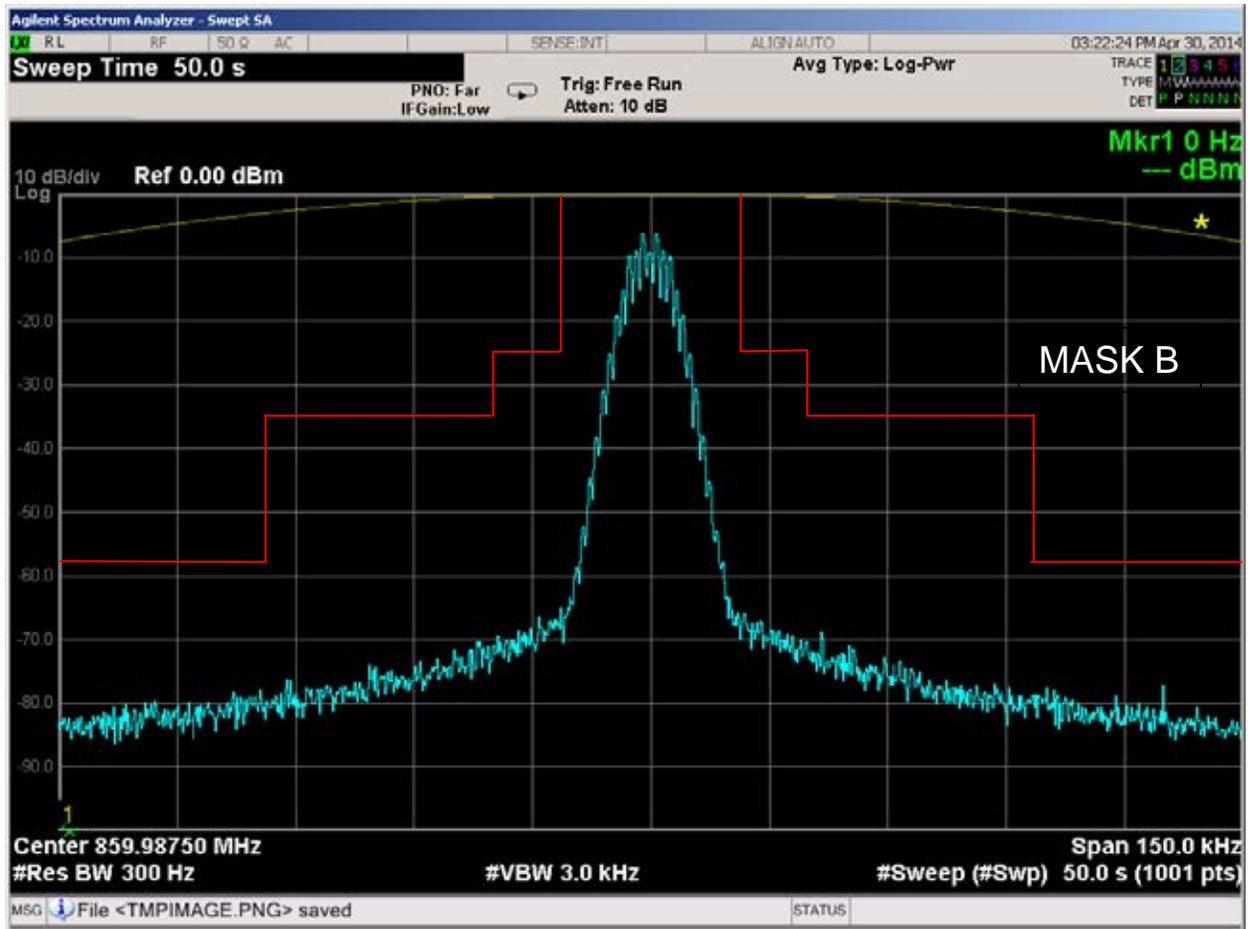


Figure 6E-10: 859.9875 MHz, 25 kHz Channel Spacing, DTMF and DPL Tone Modulation, **16K0F3E Mask B**

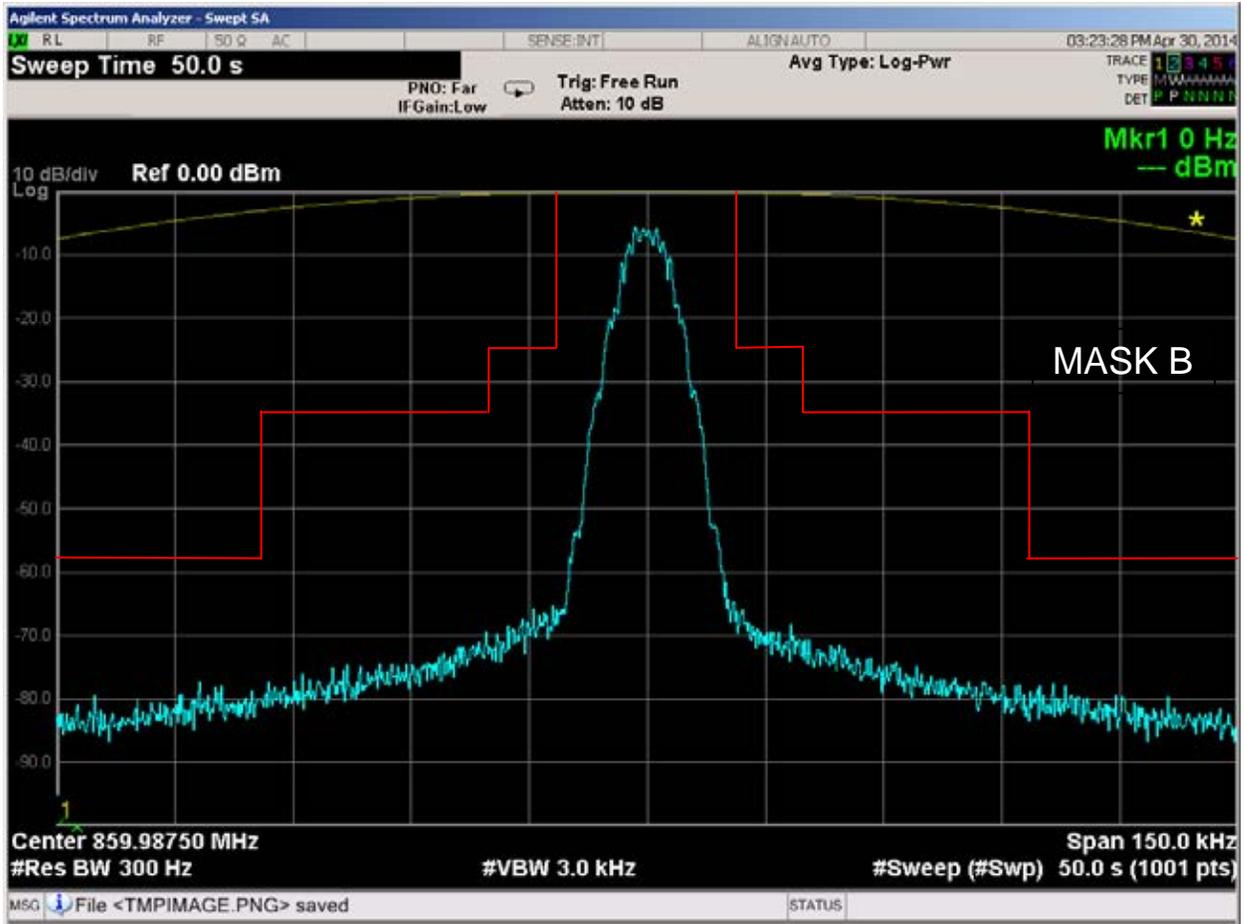


Figure 6E-11: 859.9875 MHz, 25 kHz Channel Spacing, DTMF and TPL Tone Modulation, 16K0F3E Mask B

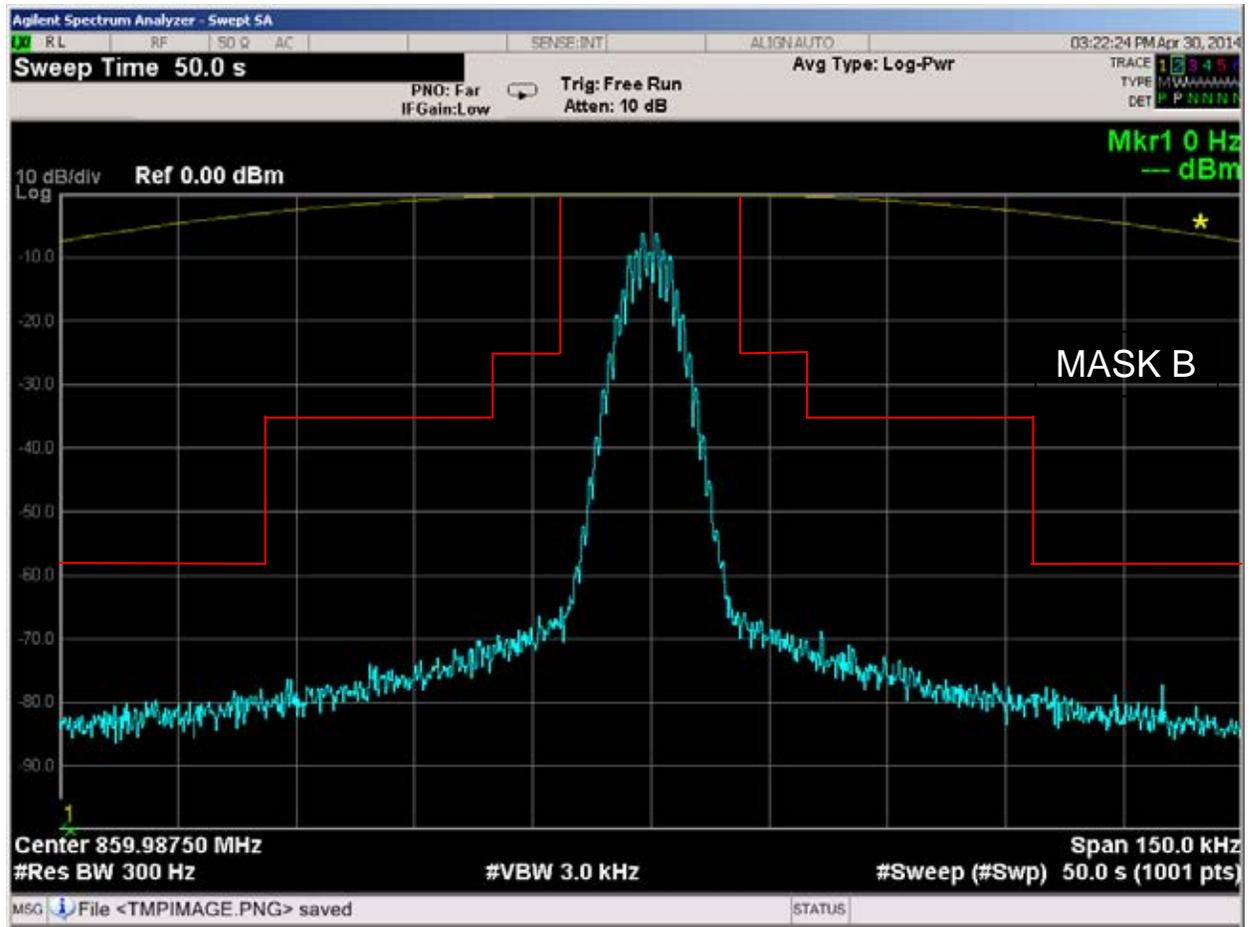


Figure 6E-12: 859.9875 MHz, 25 kHz Channel Spacing, DTMF Modulation only, 16K0F3E Mask B

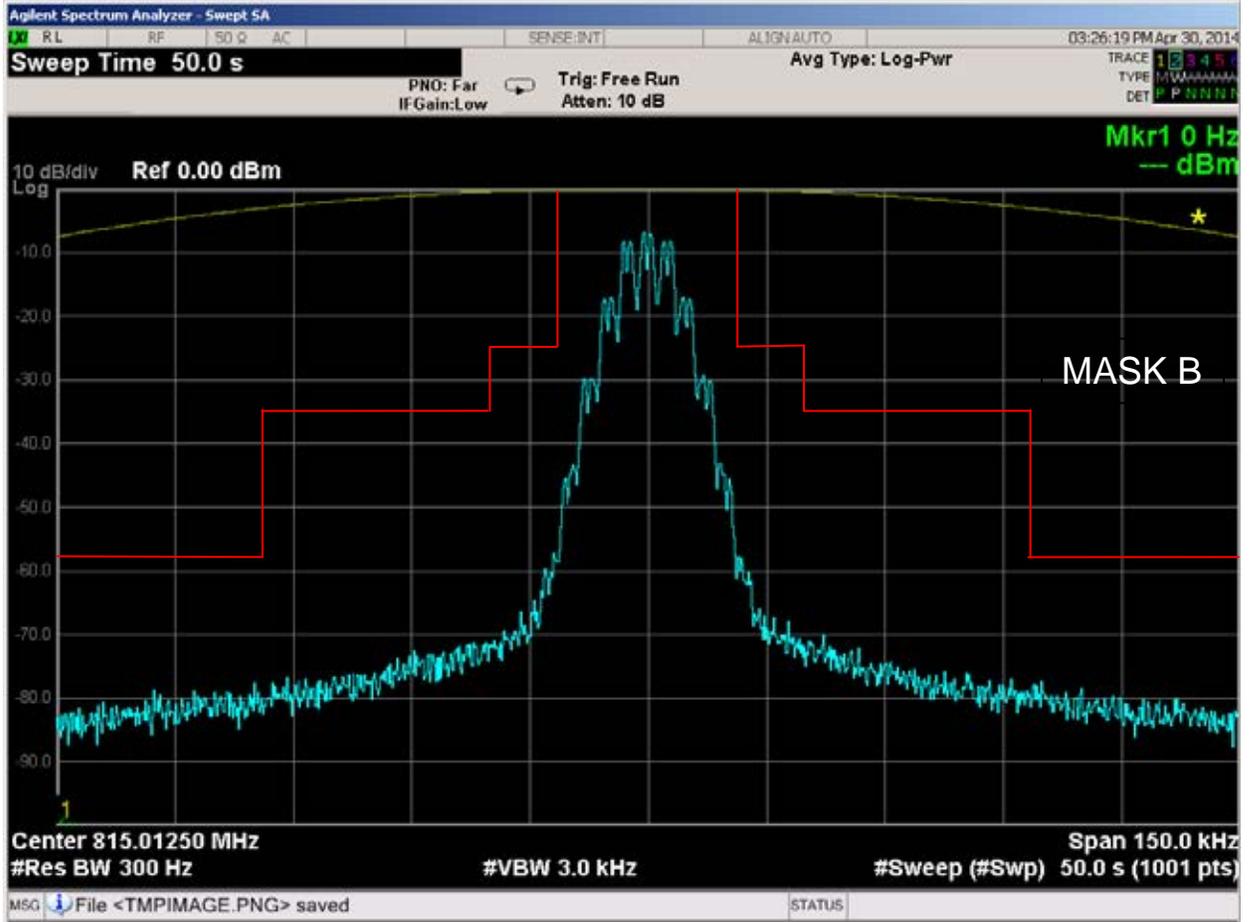


Figure 6E-14: 815.0125 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 16K0F3E Mask B

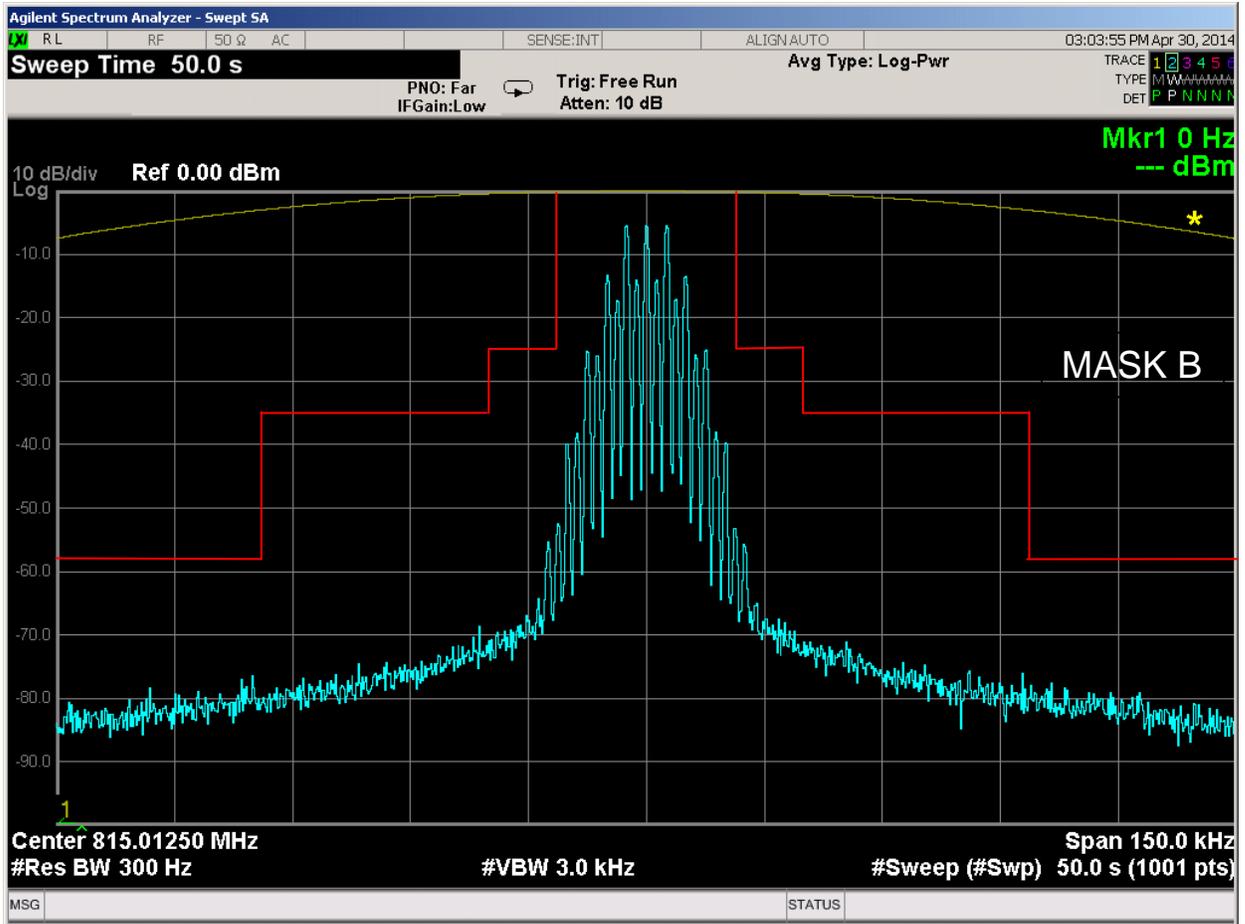


Figure 6E-15: 815.0125 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 16K0F3E Mask B

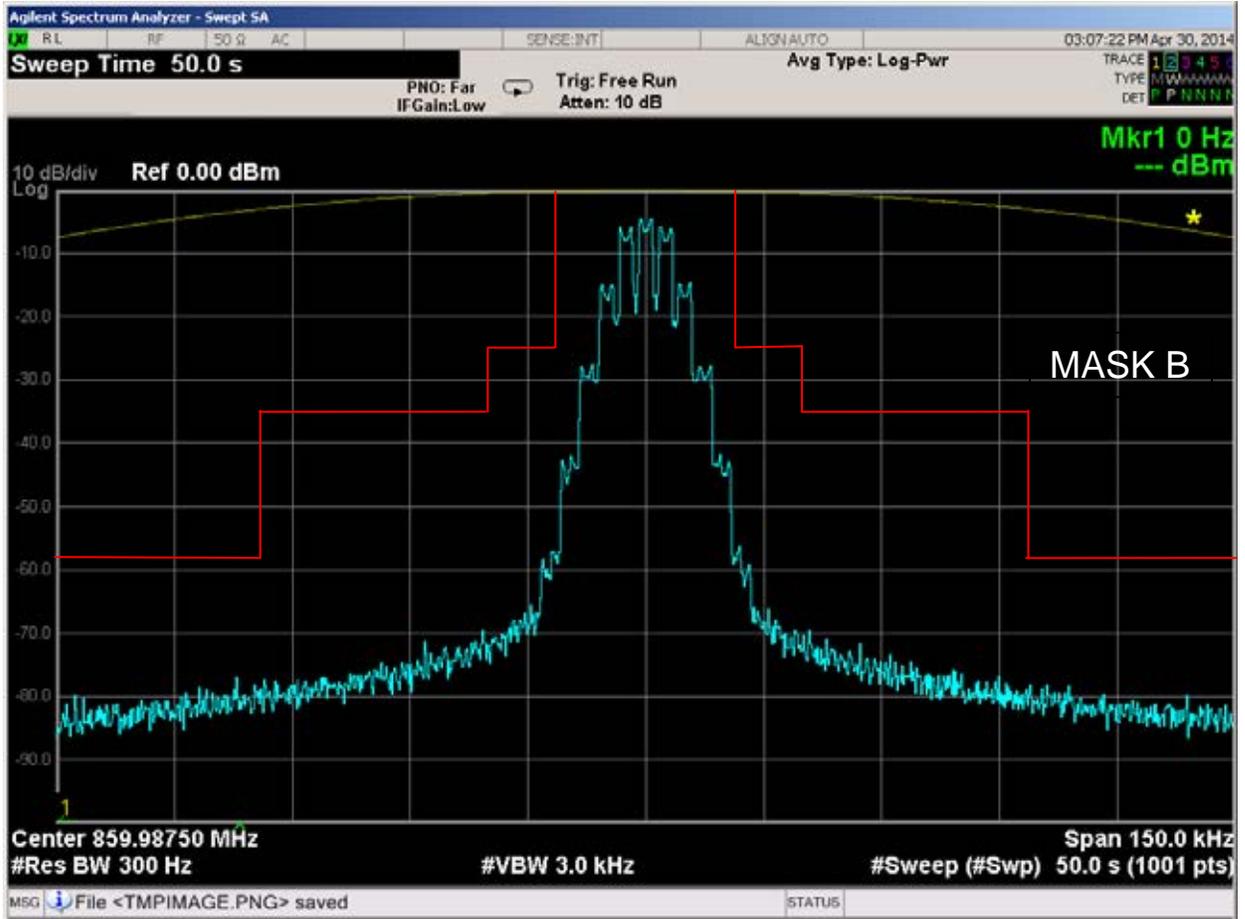


Figure 6E-16: 859.9875 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, **16K0F3E Mask B**

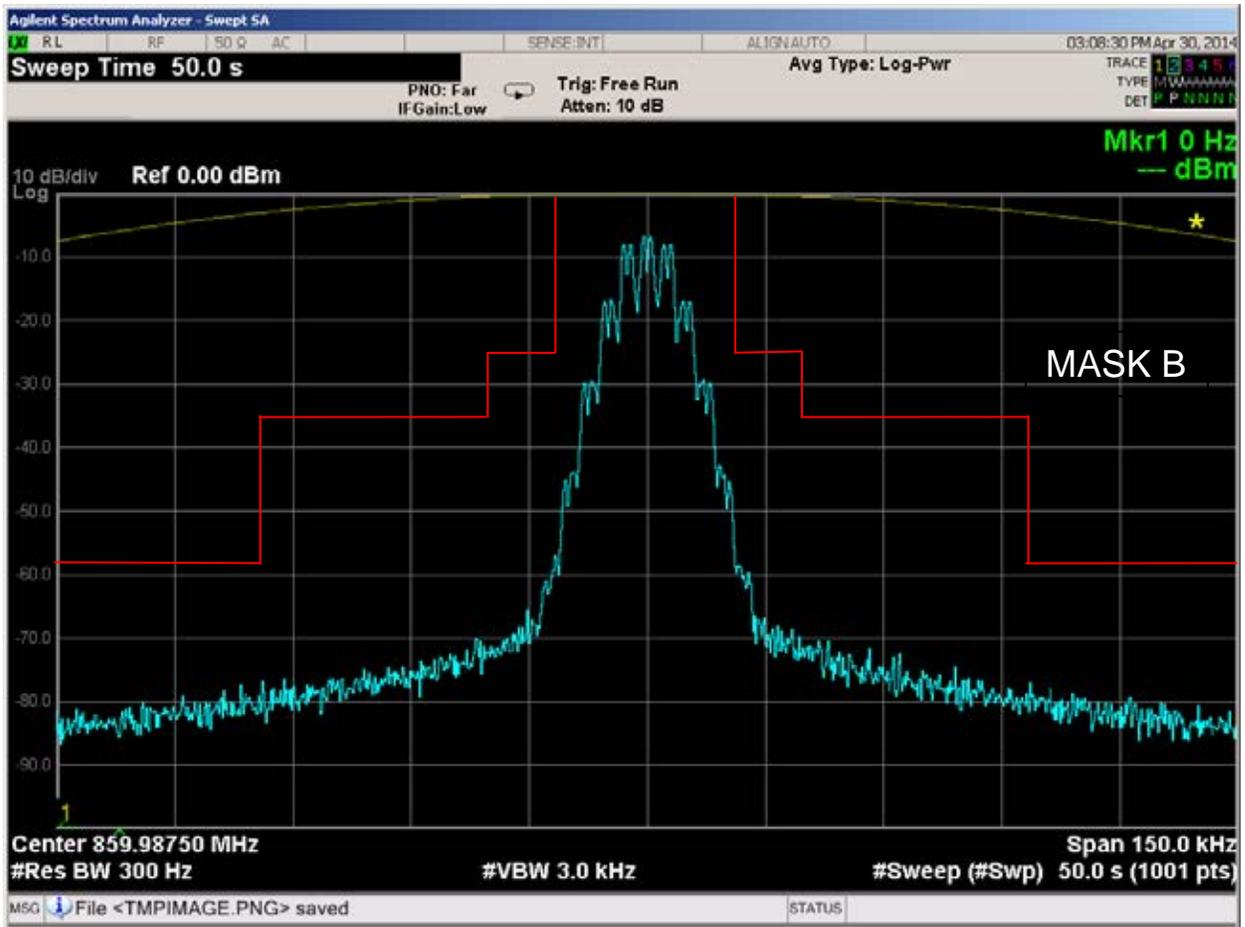


Figure 6E-17: 859.9875 MHz, 25 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, **16K0F3E Mask B**

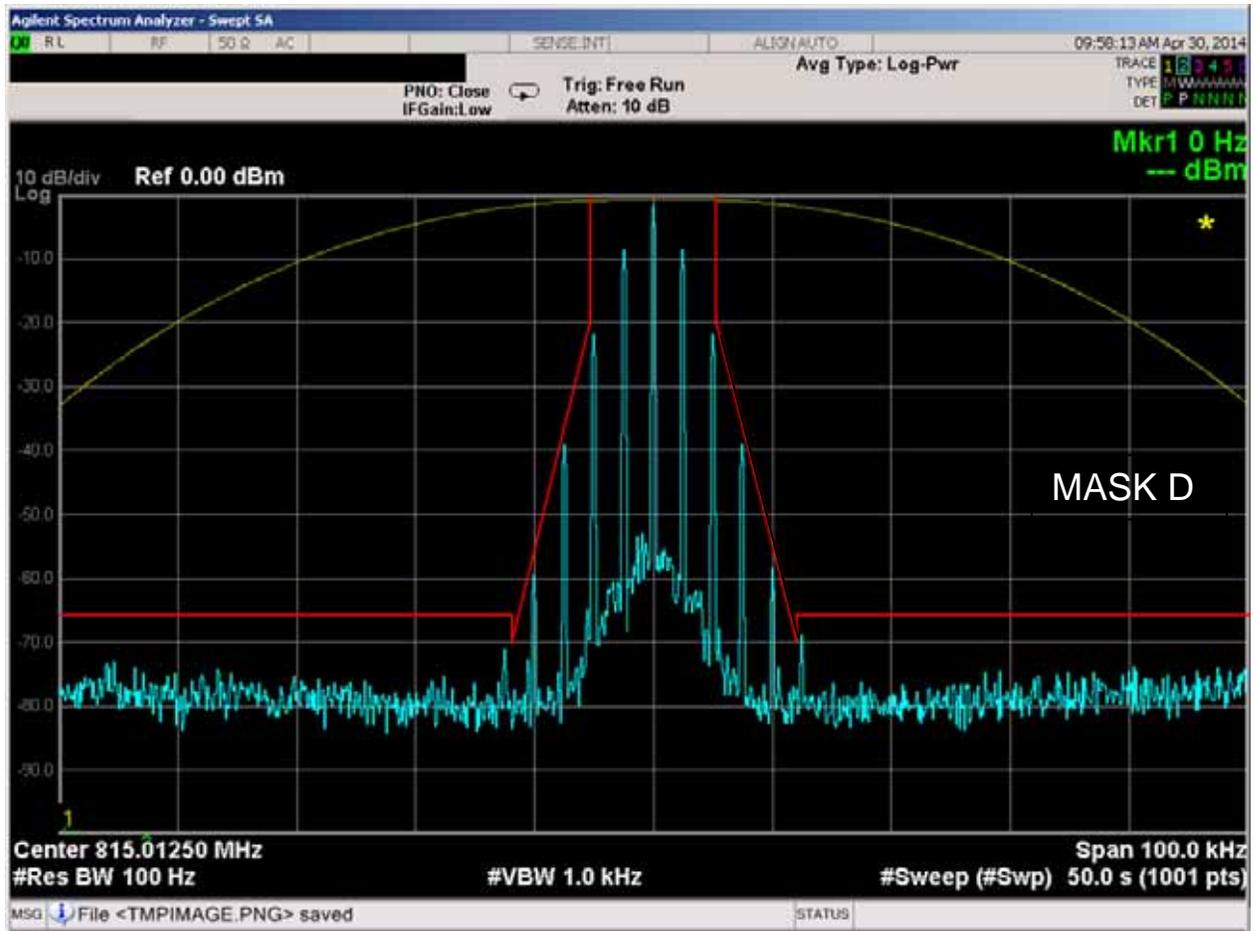


Figure 6E-19: 815.0125 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, **11K0F3E Mask D**

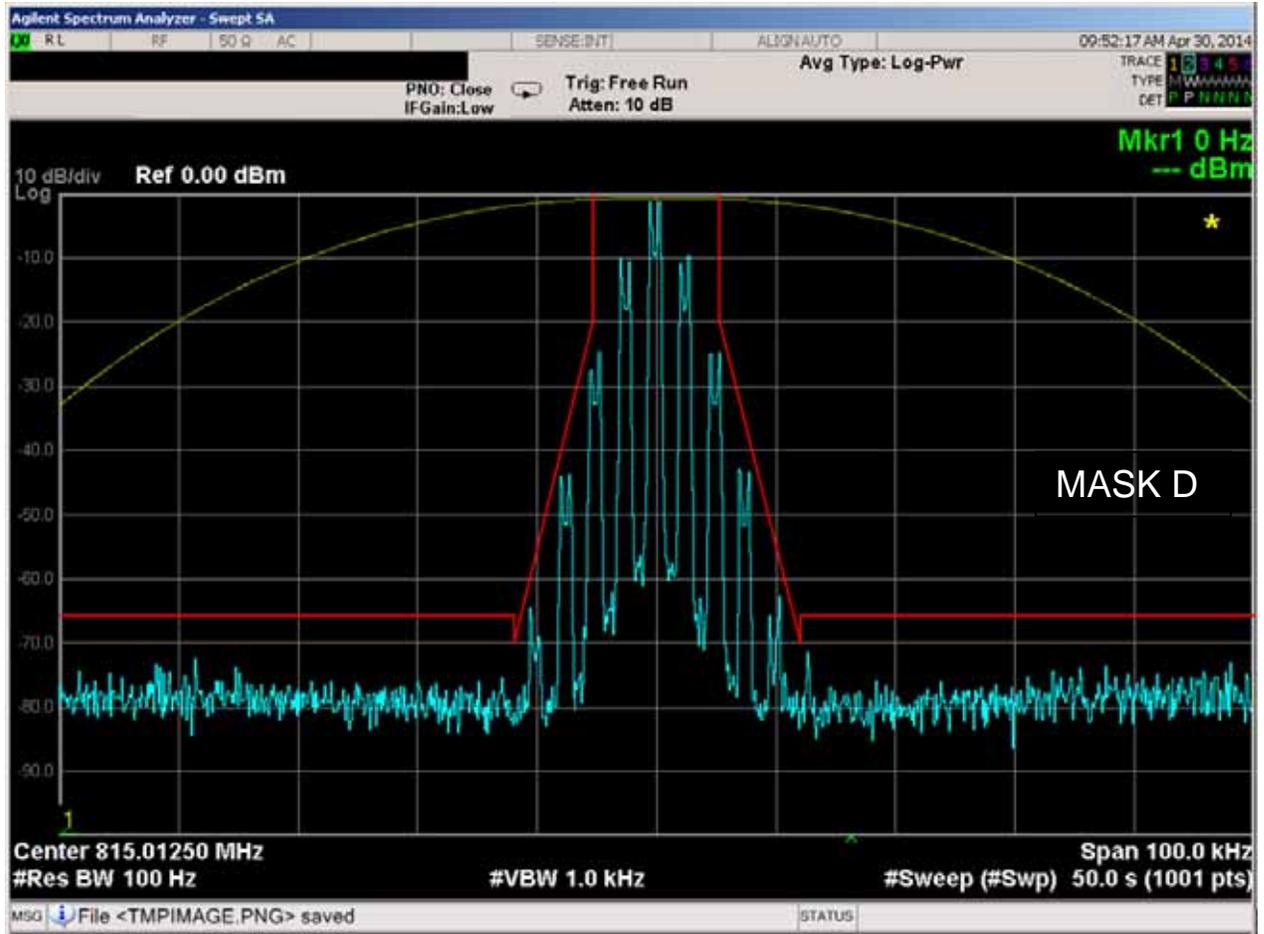


Figure 6E-20: 815.0125 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask D

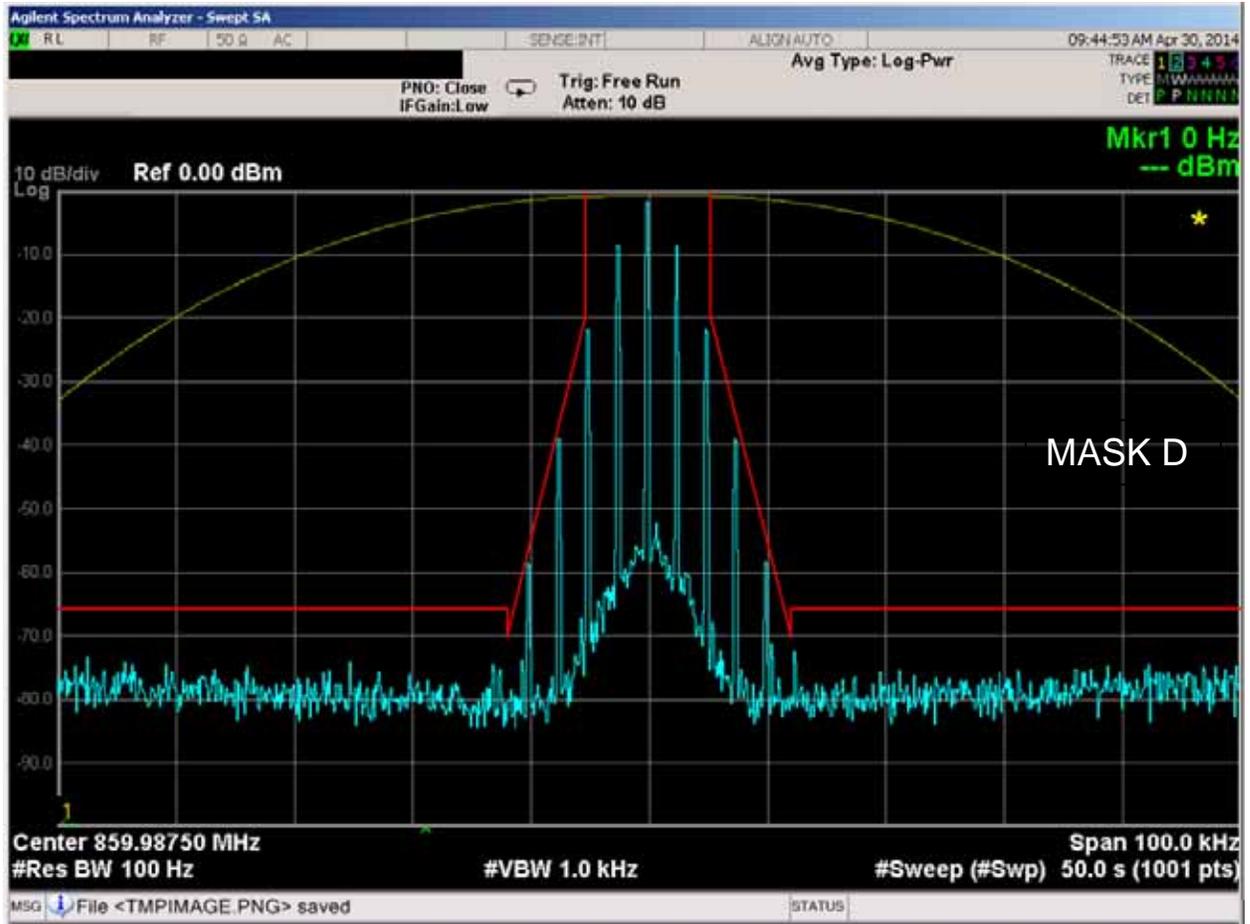


Figure 6E-22: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask D

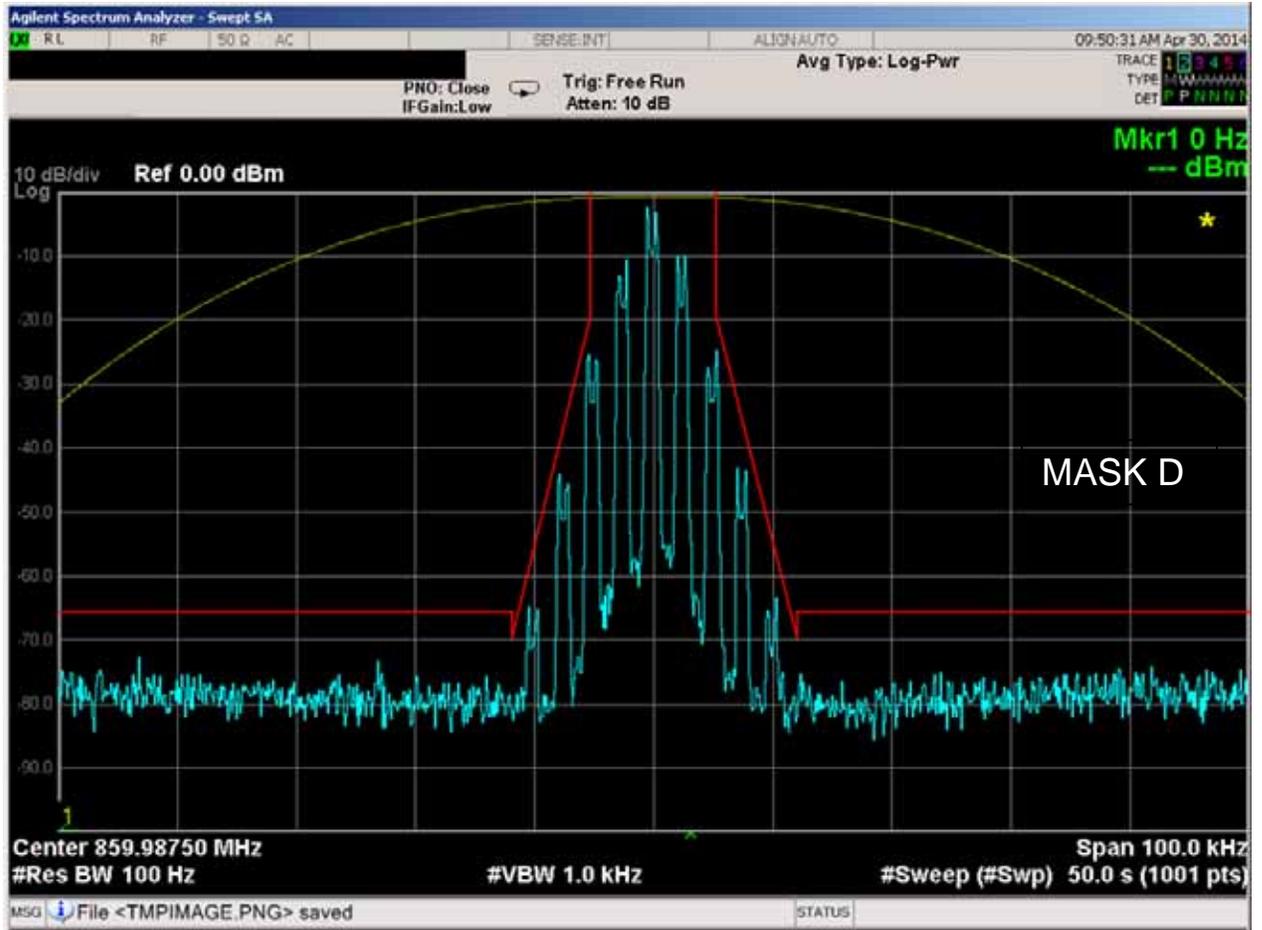


Figure 6E-23: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask D

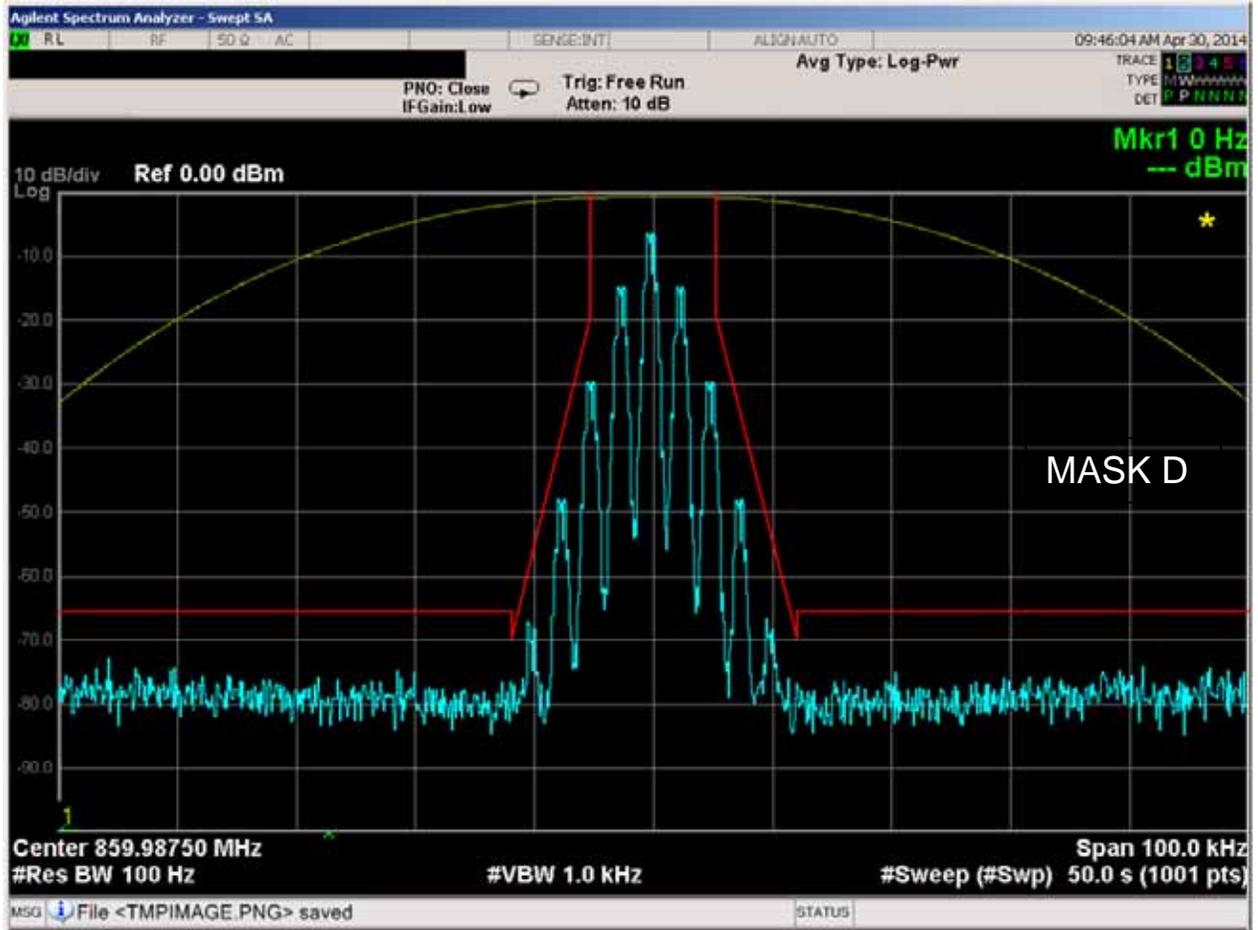


Figure 6E-24: 859.9875MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask D

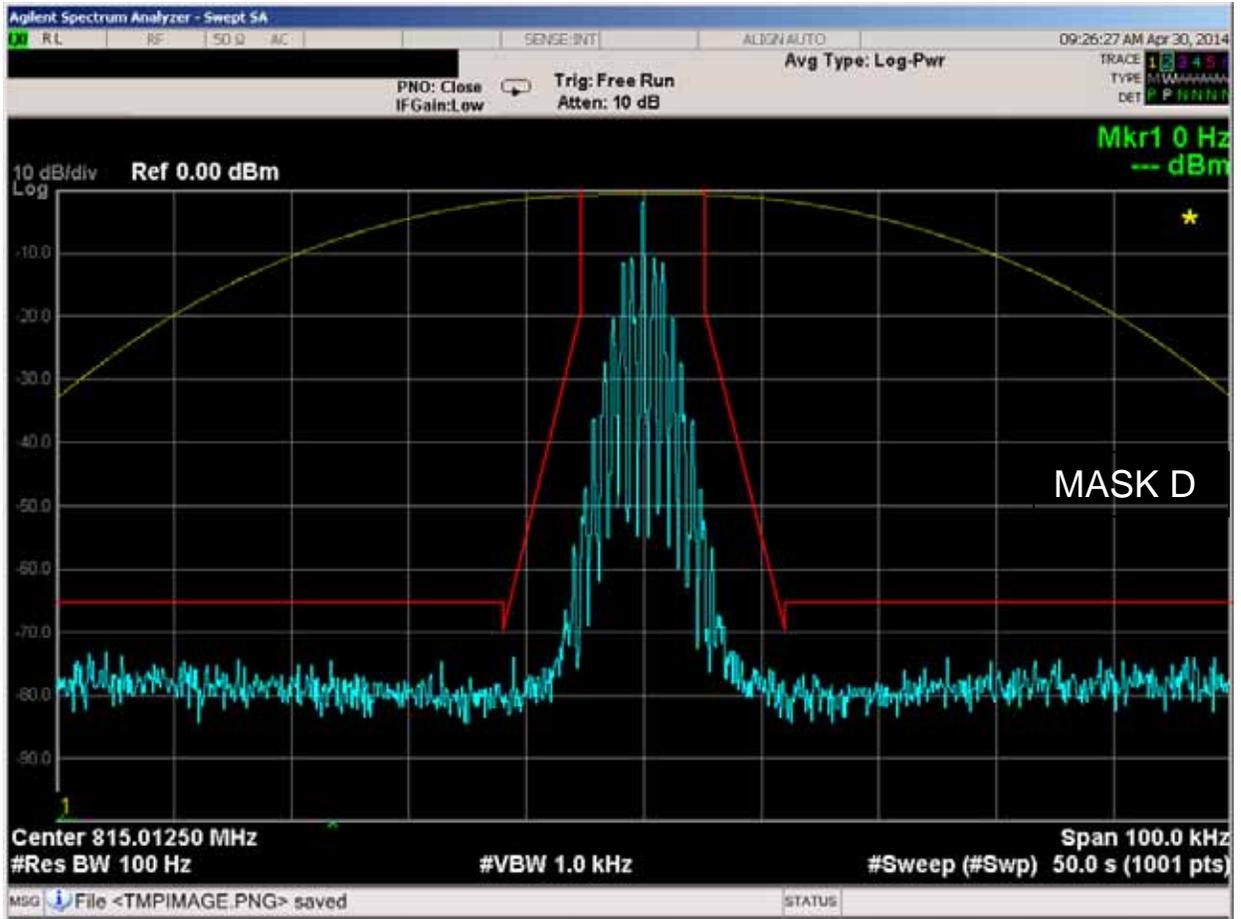


Figure 6E-25: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask D

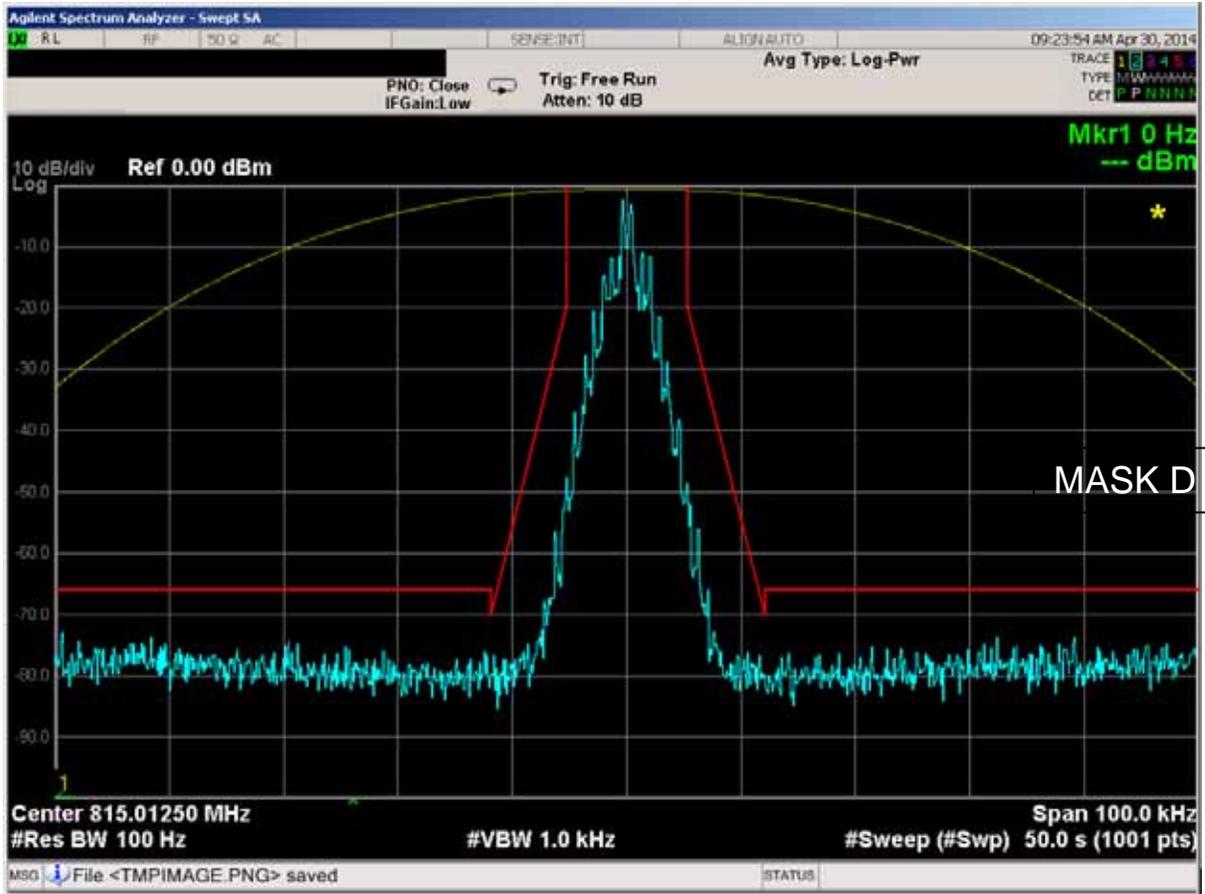


Figure 6E-26: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, 11K0F3E Mask D

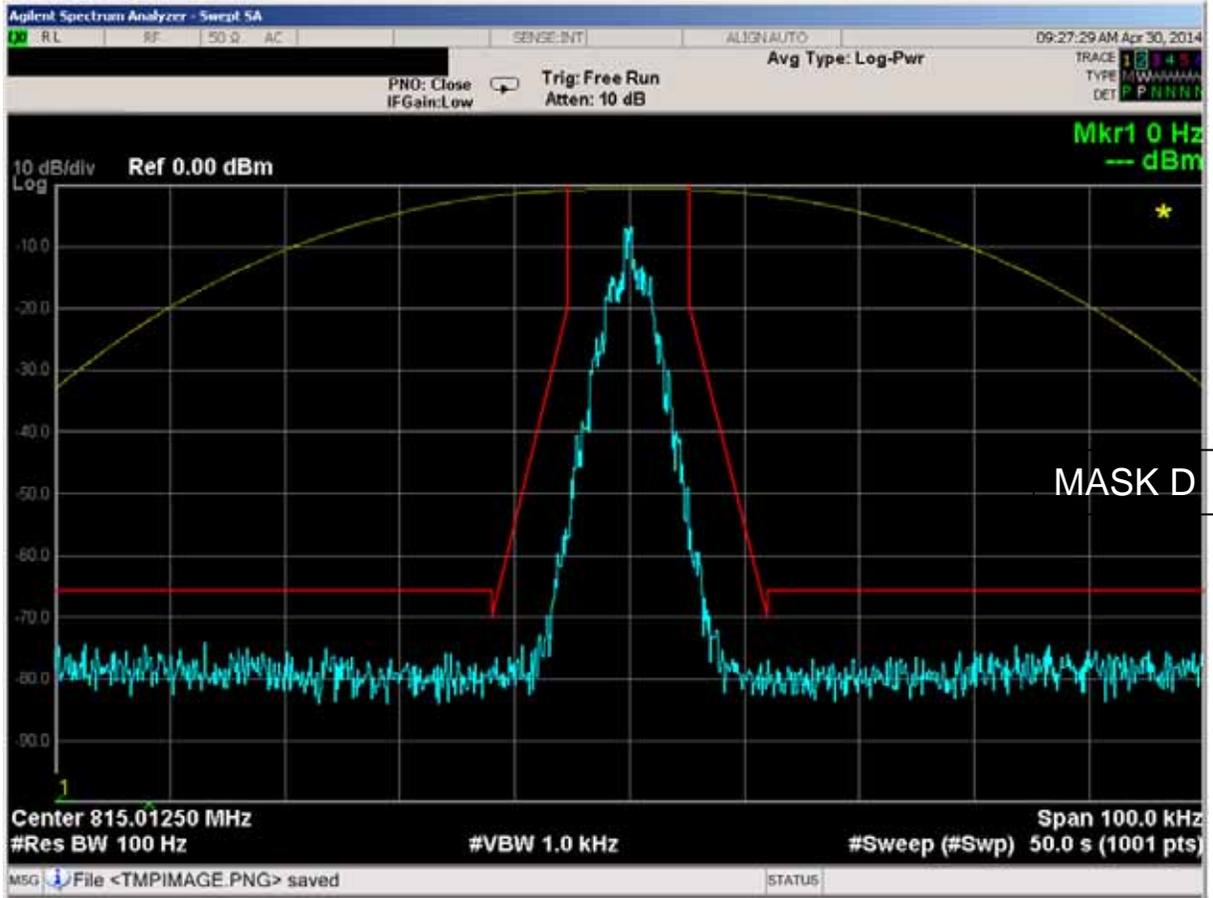


Figure 6E-27: 815.0125 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask D

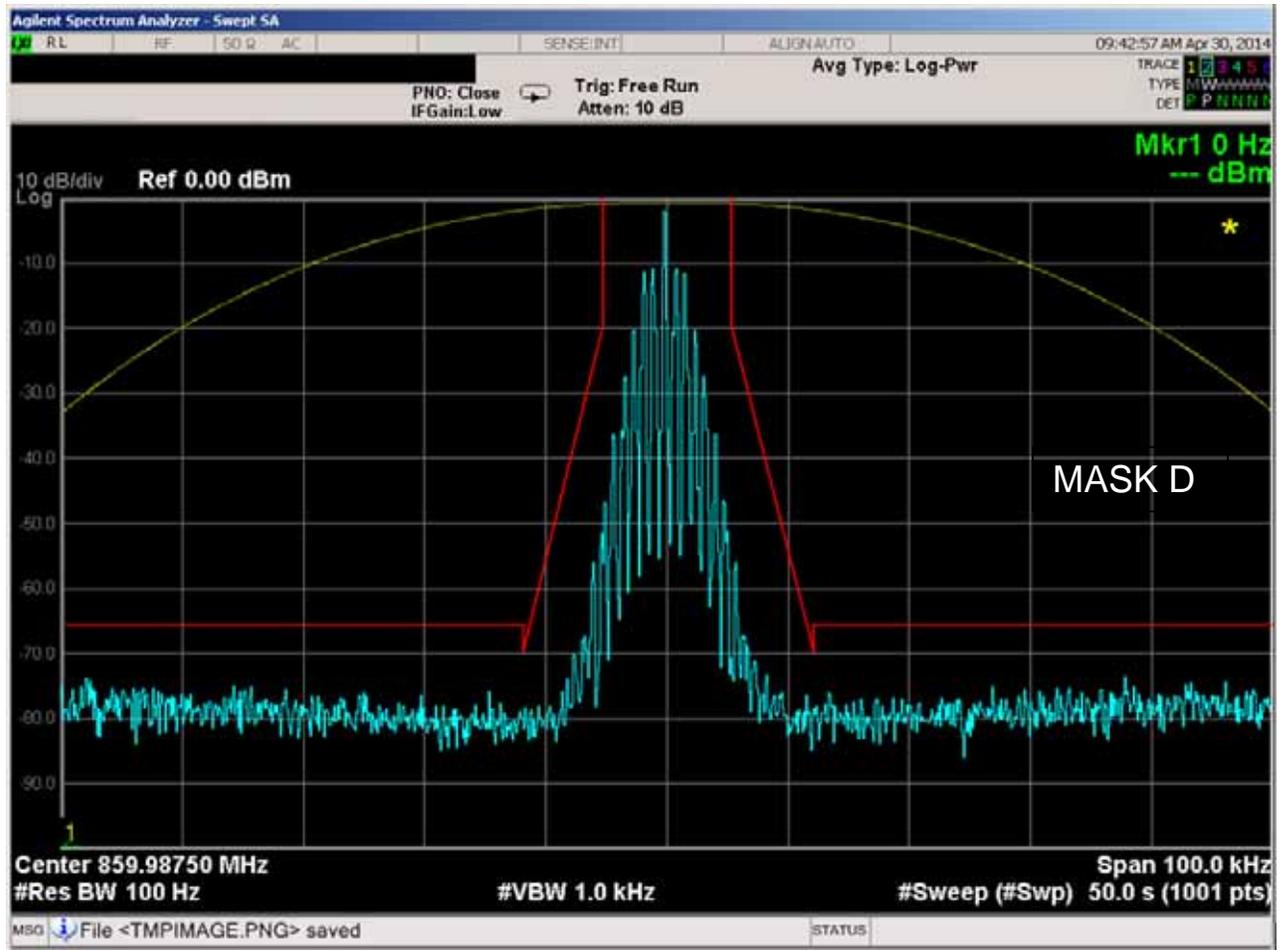


Figure 6E-28: 859.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask D

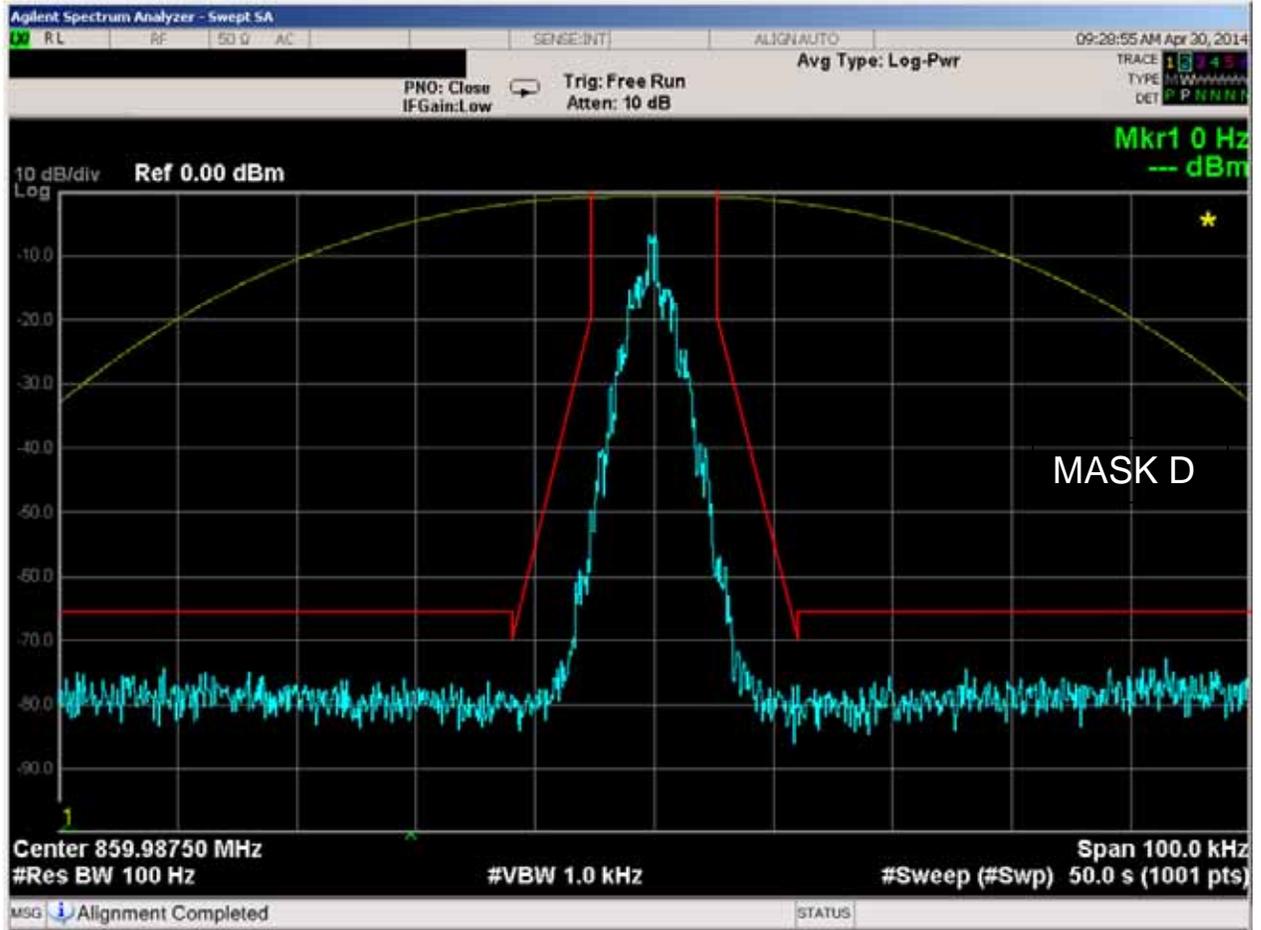


Figure 6E-30: 859.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask D

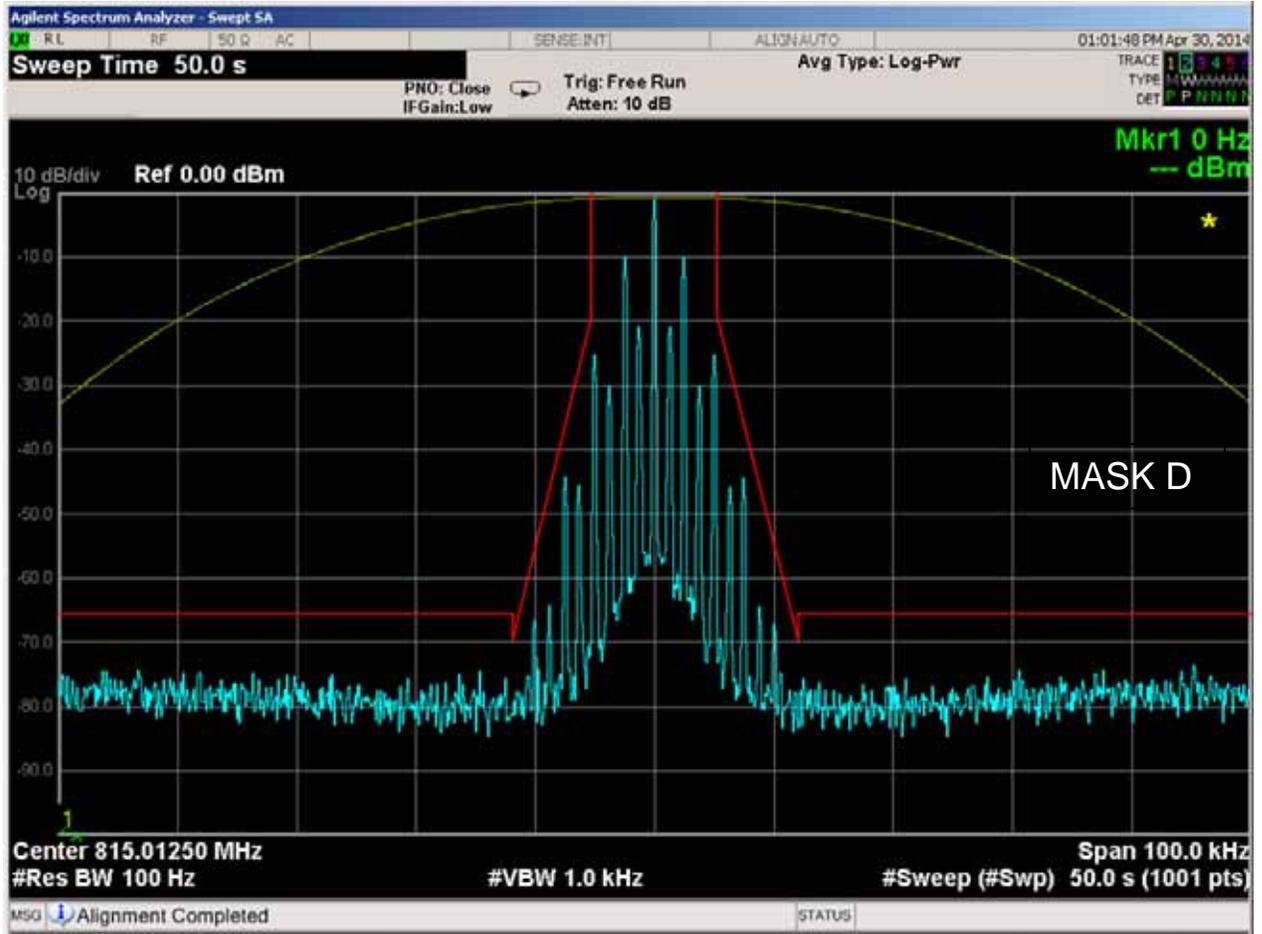


Figure 6E-31: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask D

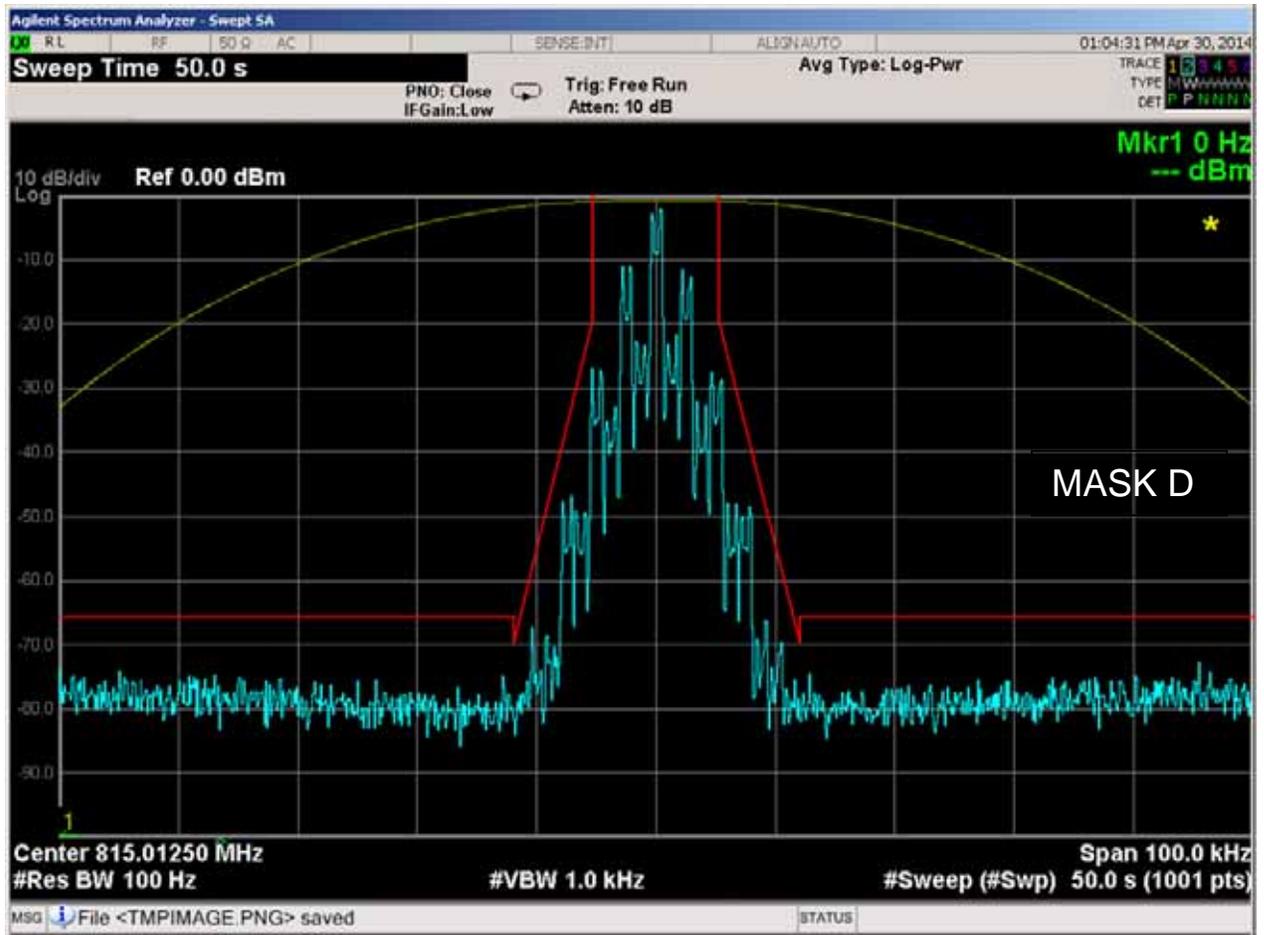


Figure 6E-32: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, **11K0F3E Mask D**

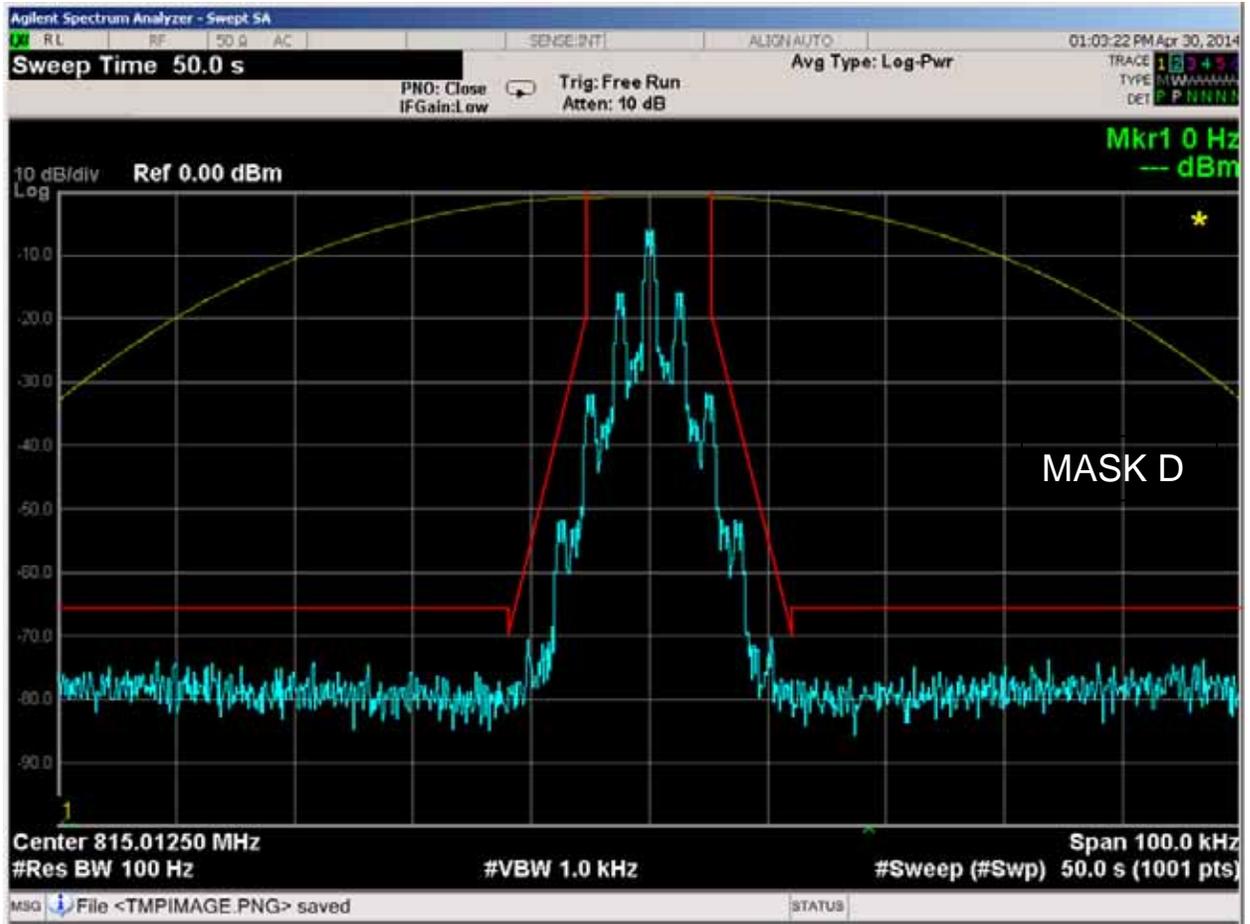


Figure 6E-33: 815.0125 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask D

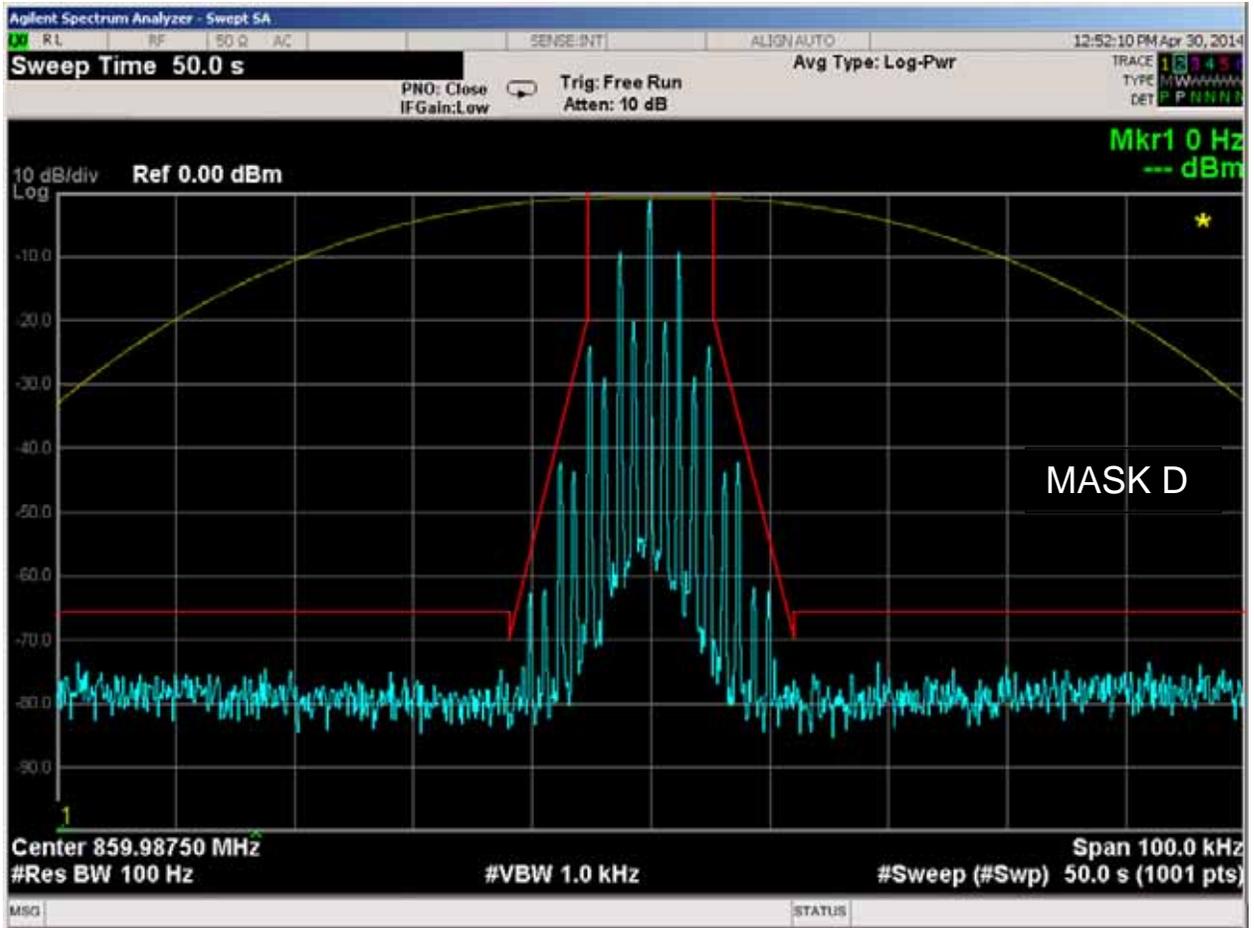


Figure 6E-34: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask D

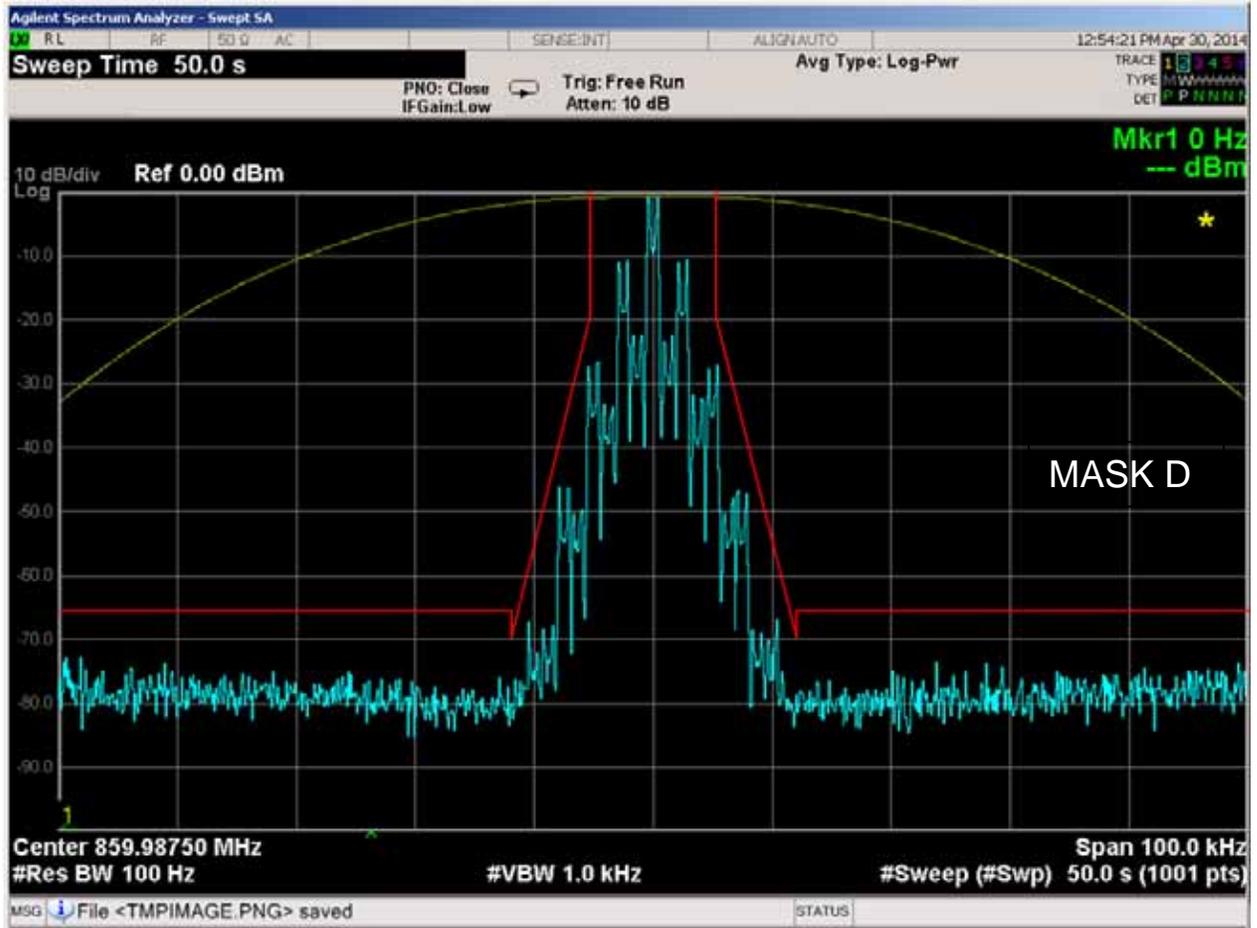


Figure 6E-35: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, 11K0F3E Mask D

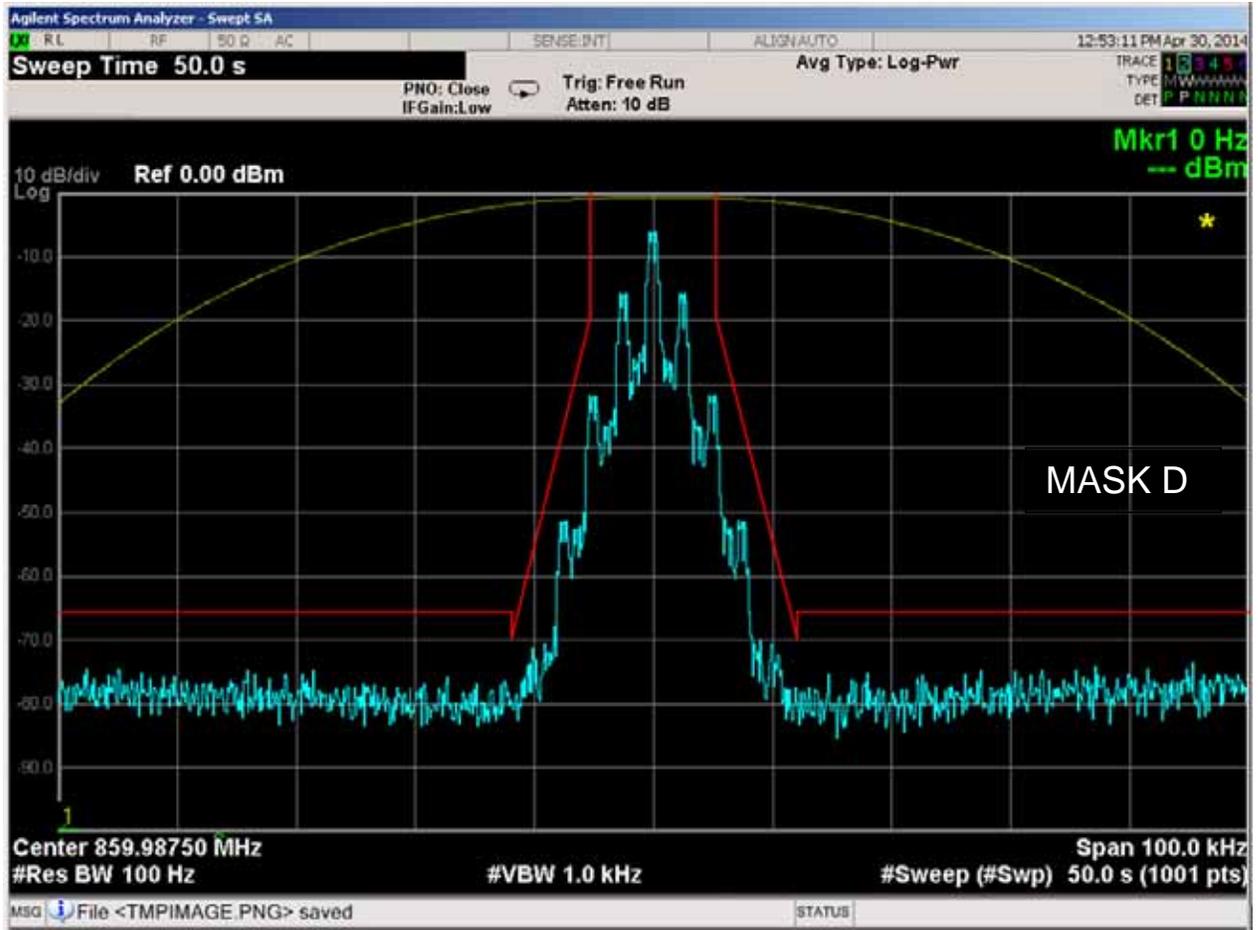


Figure 6E-36: 859.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, **11K0F3E Mask D**

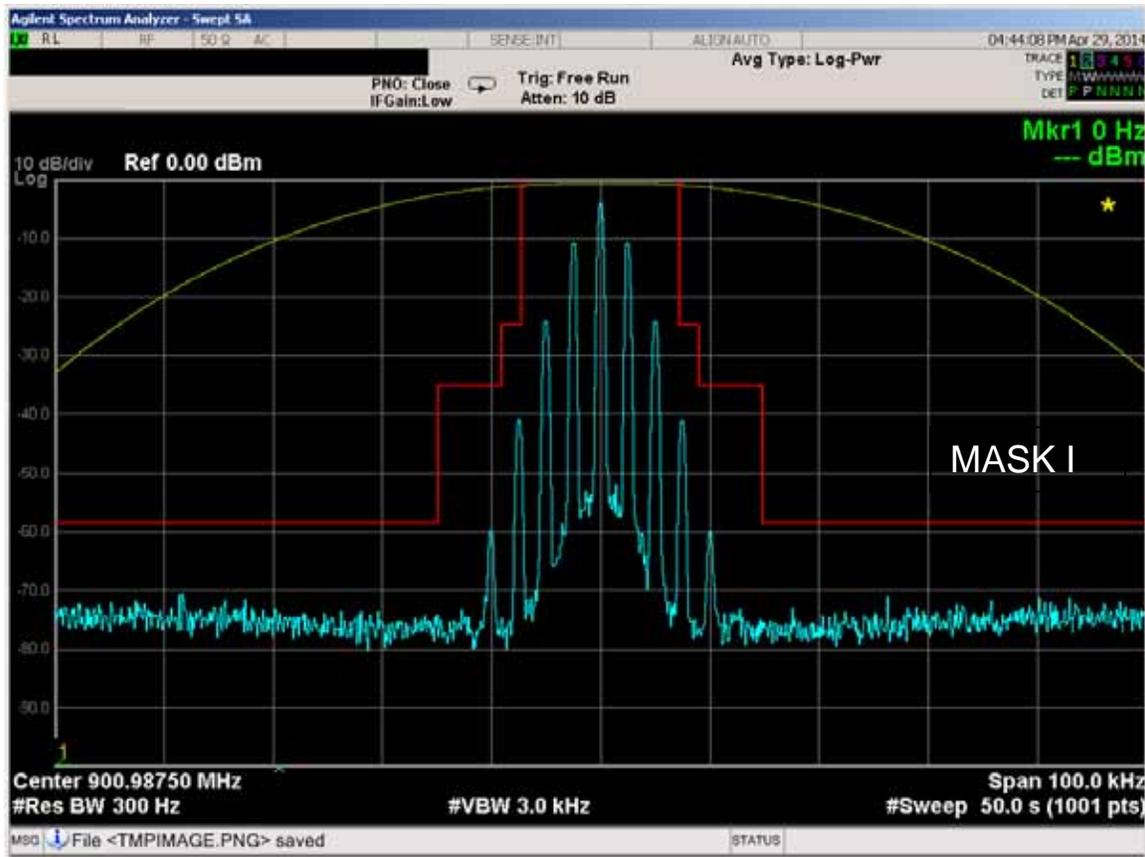


Figure 6E-37: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask I

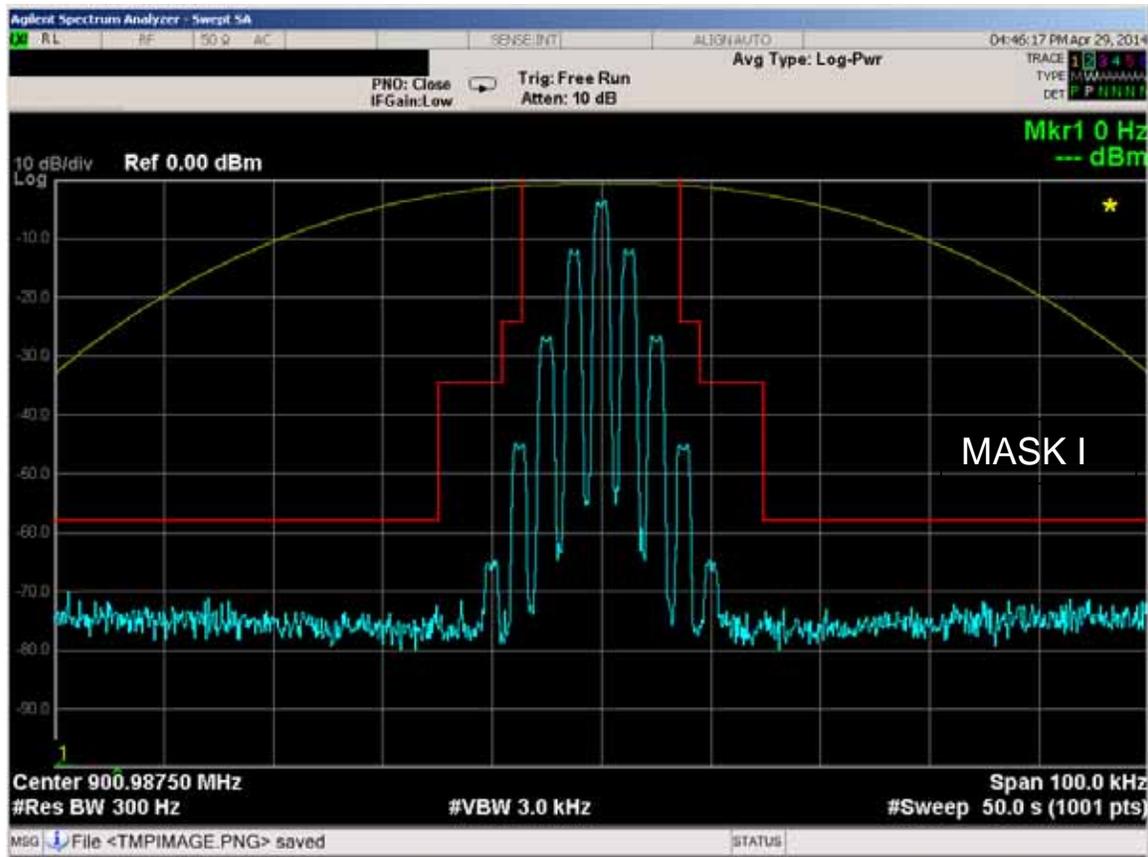


Figure 6E-38: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask I

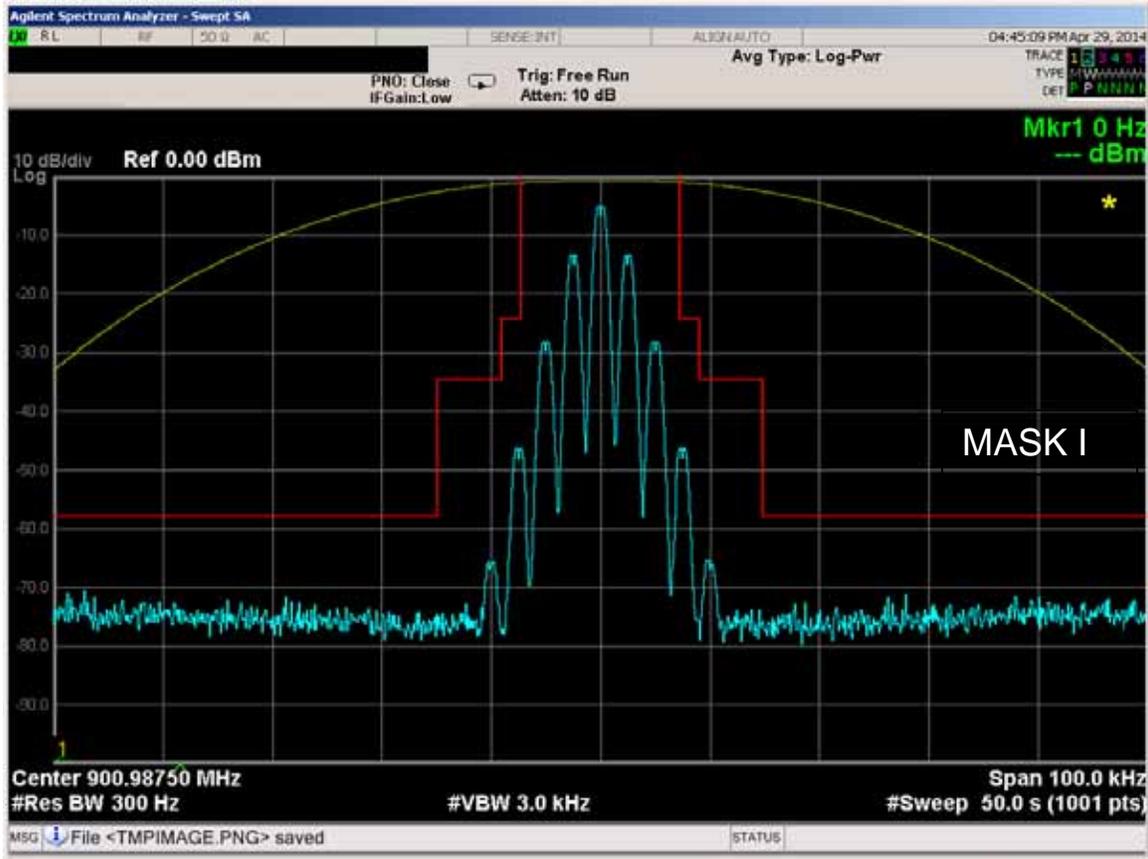


Figure 6E-39: 900.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and TPL Tone Modulation, 11K0F3E Mask I

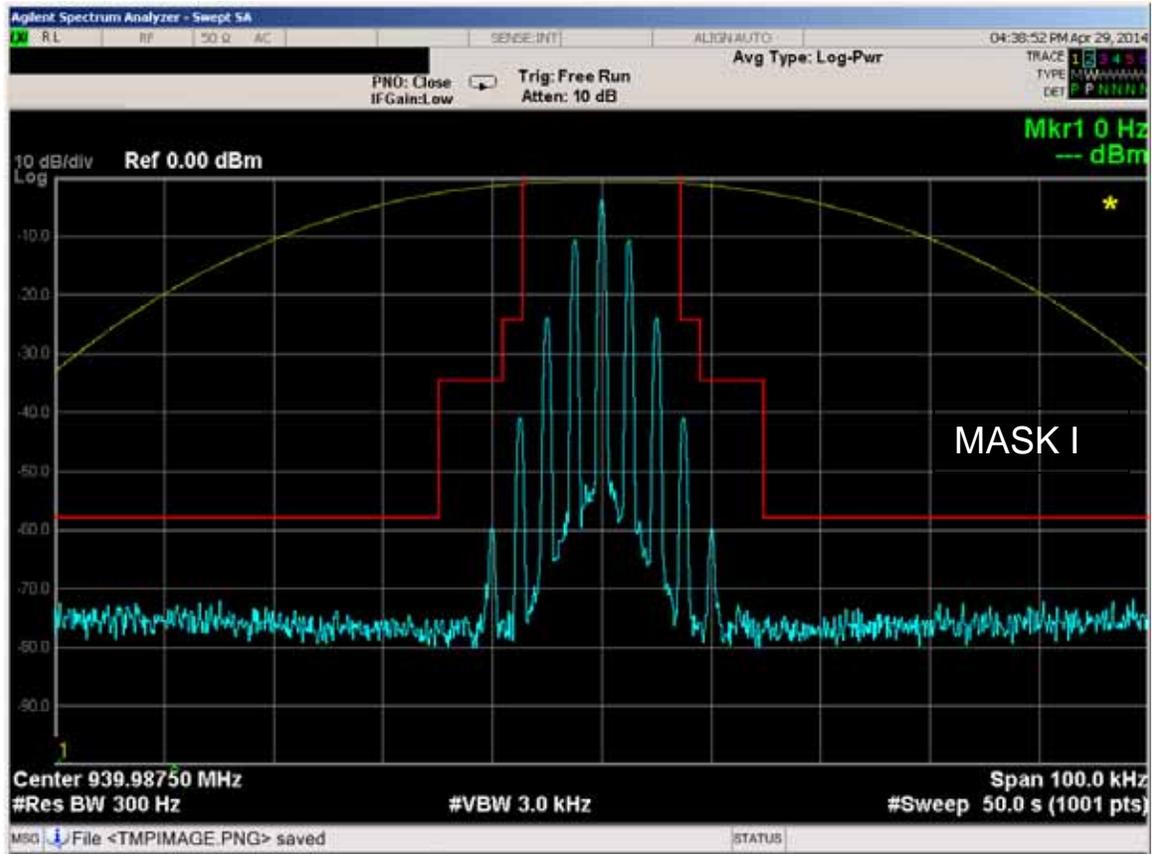


Figure 6E-40: 939.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio Modulation only, 11K0F3E Mask I

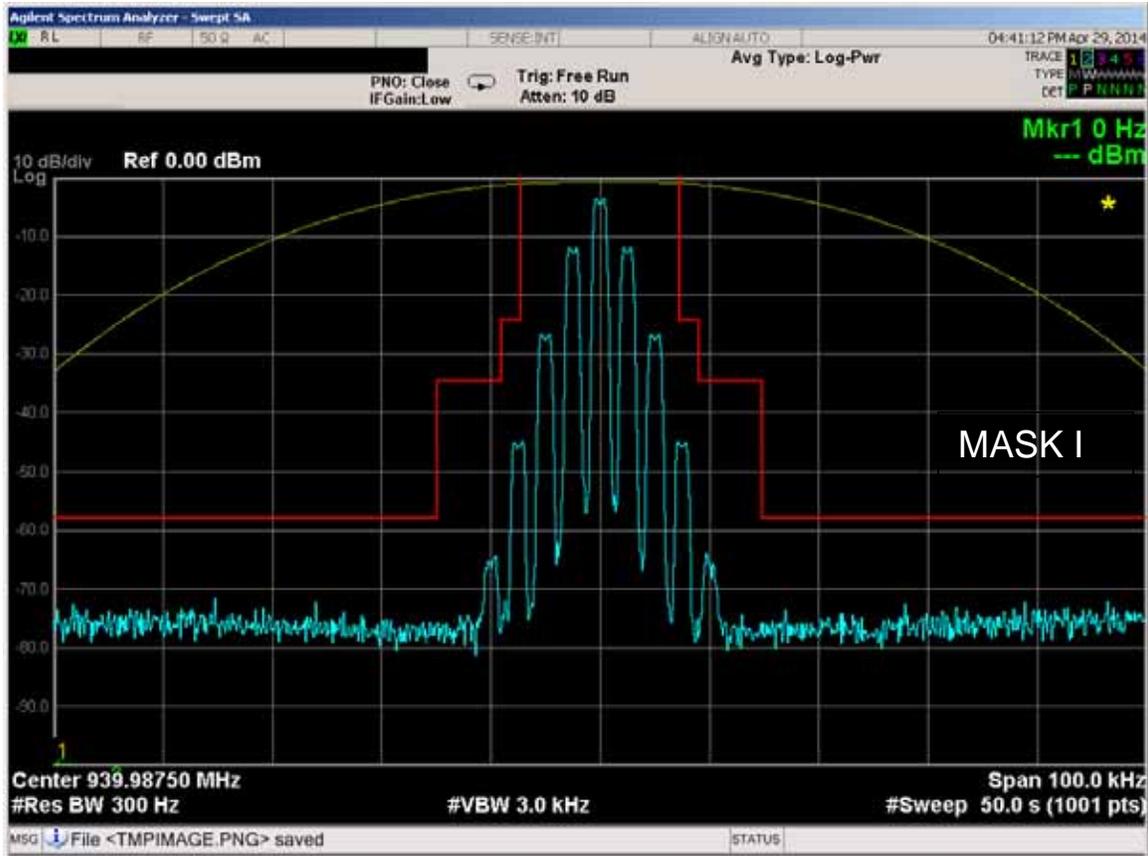


Figure 6E-41: 939.9875 MHz, 12.5 kHz Channel Spacing, 2500Hz Audio and DPL Tone Modulation, 11K0F3E Mask I

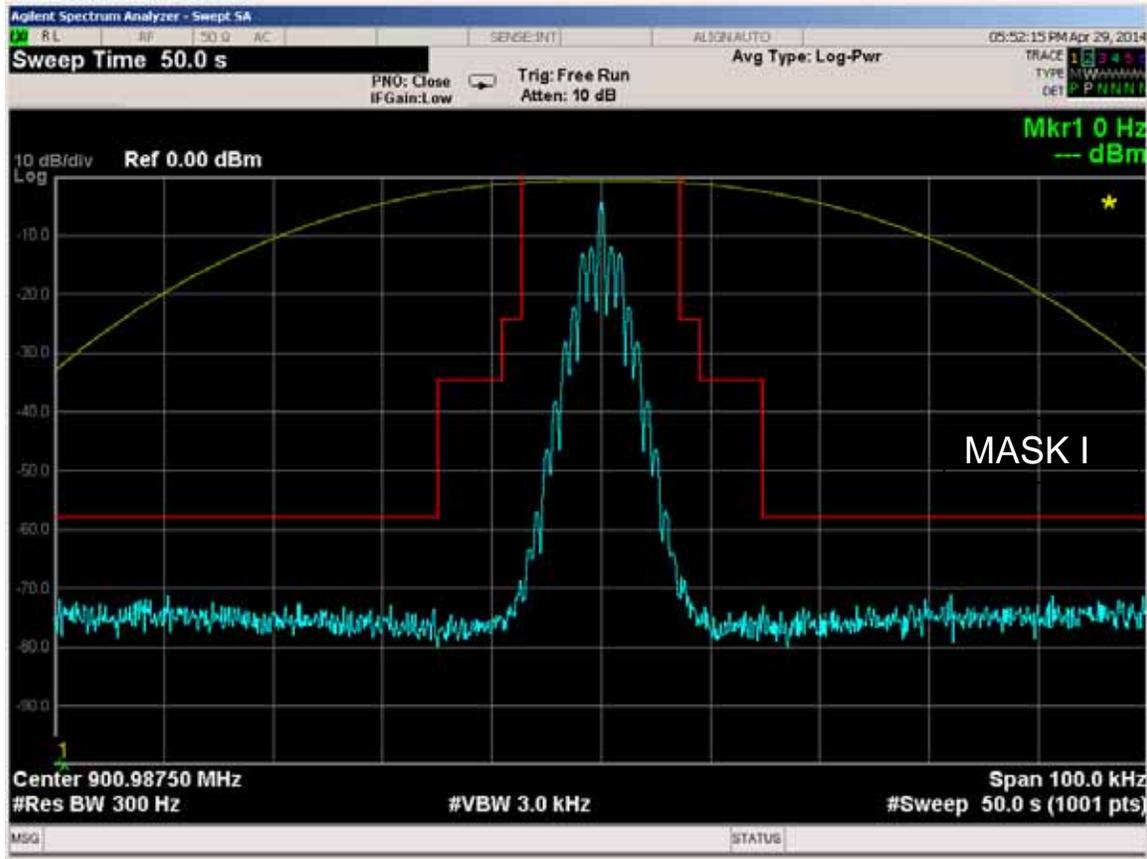


Figure 6E-43: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask I

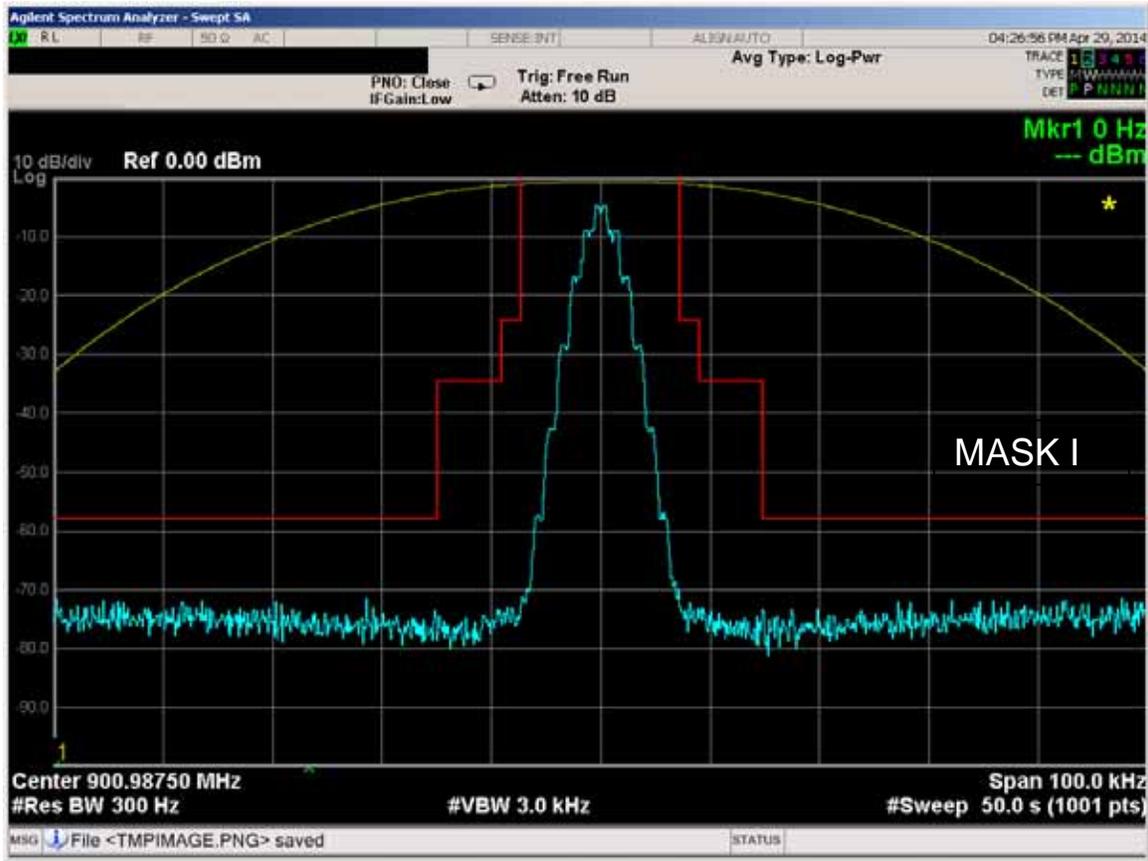


Figure 6E-44: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, **11K0F3E Mask I**

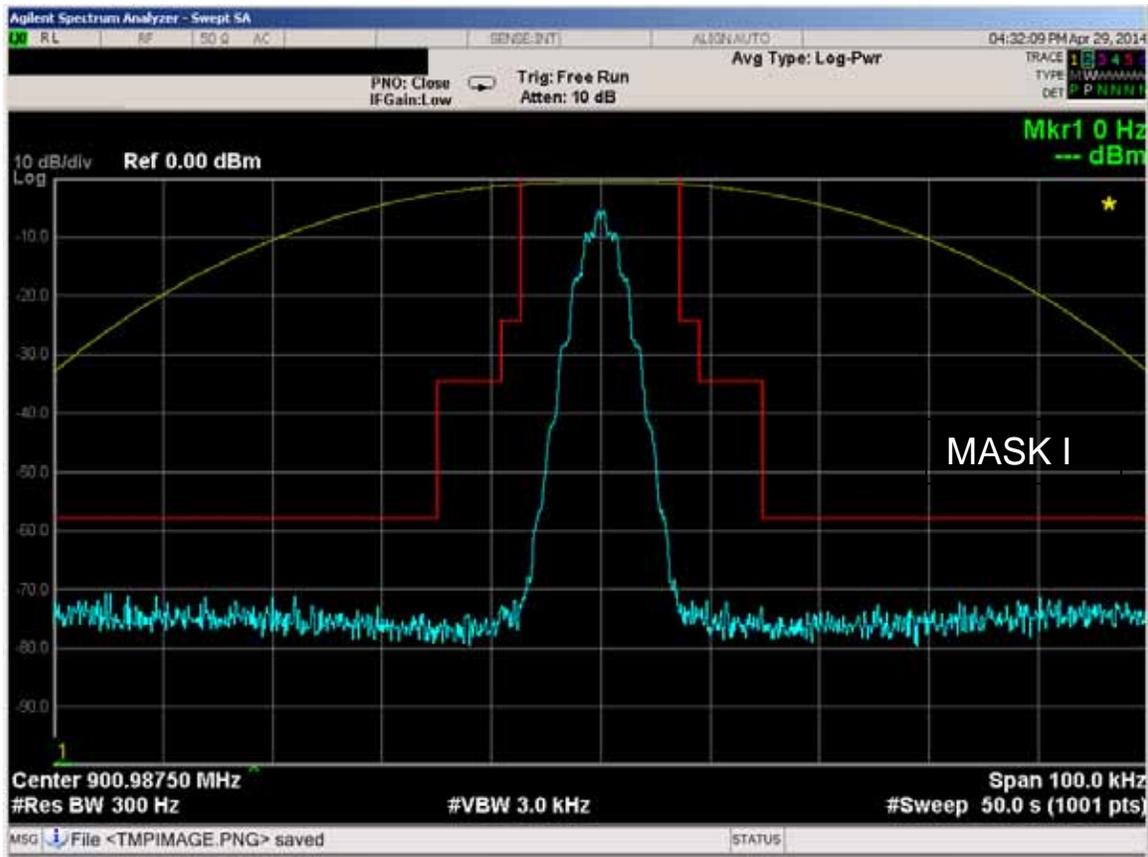


Figure 6E-45: 900.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, 11K0F3E Mask I

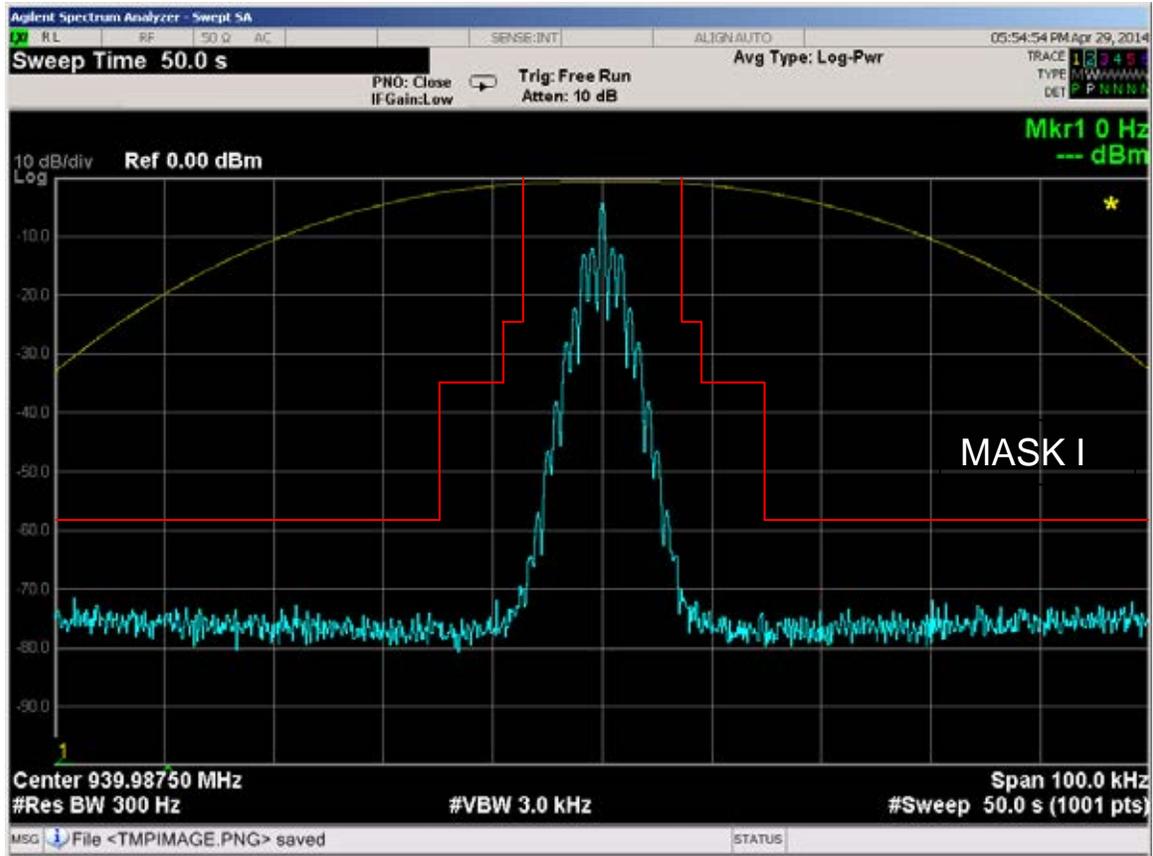


Figure 6E-46: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF Modulation only, 11K0F3E Mask I

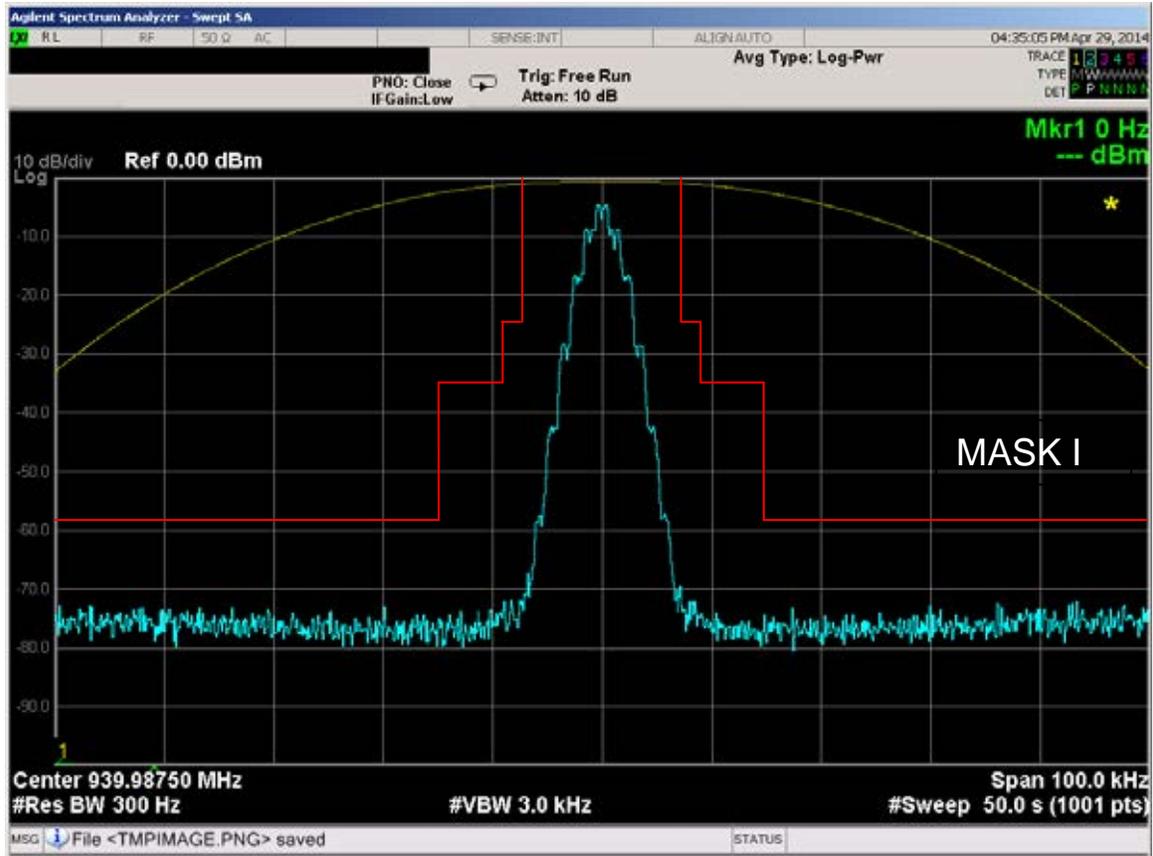


Figure 6E-47: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF and DPL Tone Modulation, **11K0F3E Mask I**

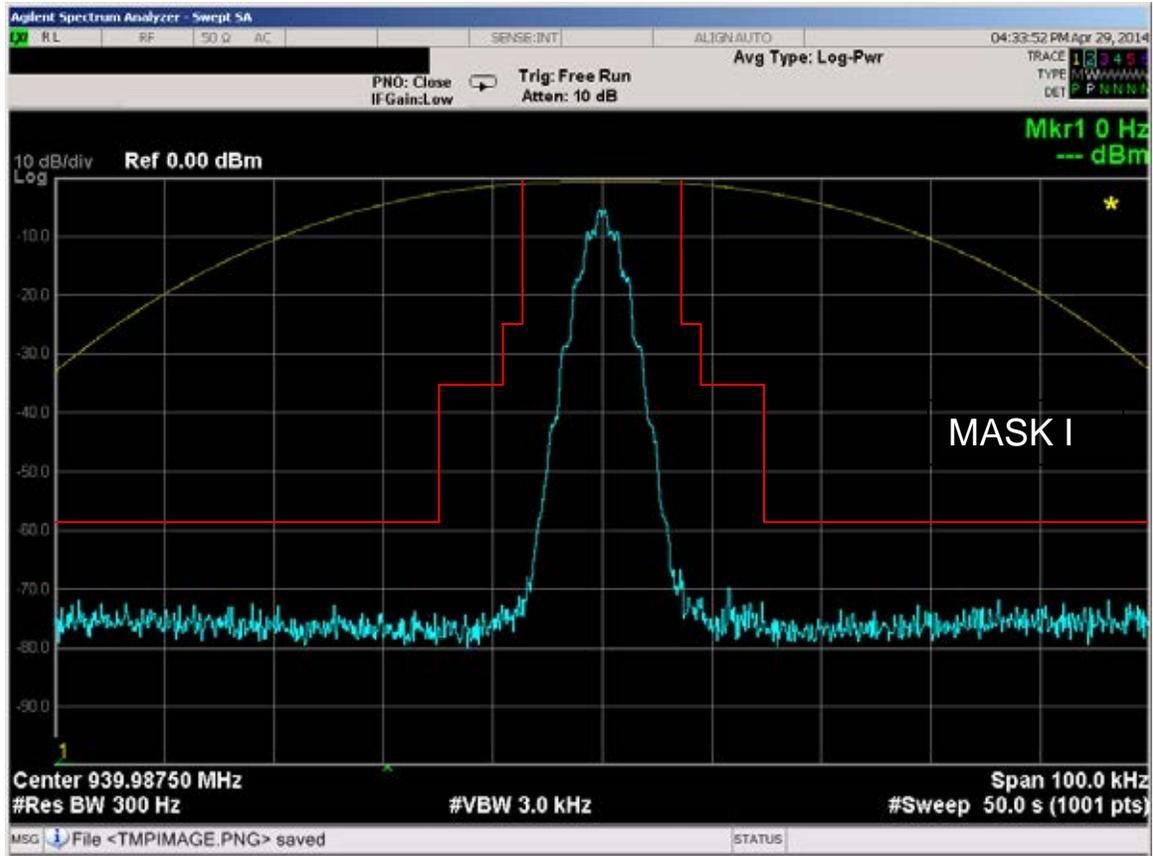


Figure 6E-48: 939.9875 MHz, 12.5 kHz Channel Spacing, DTMF and TPL Tone Modulation, **11K0F3E Mask I**

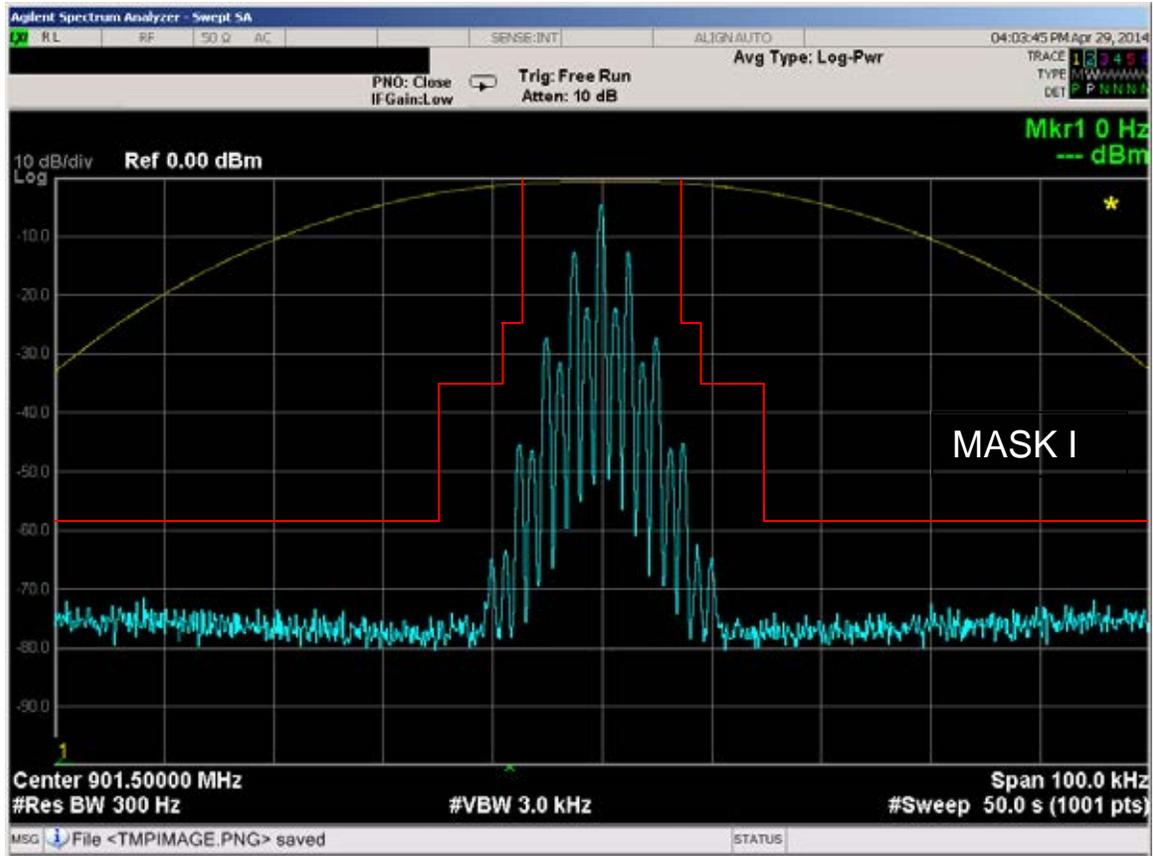


Figure 6E-49: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask I

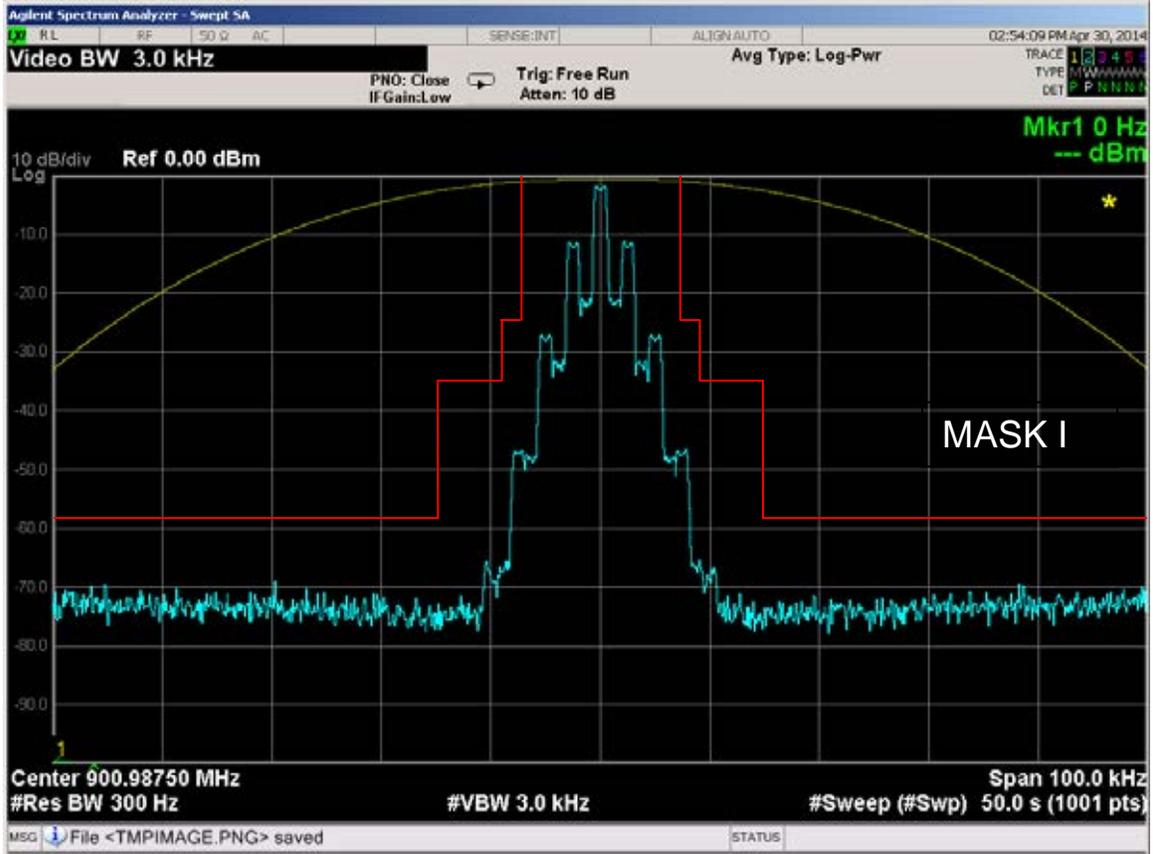


Figure 6E-50: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, **11K0F3E Mask I**

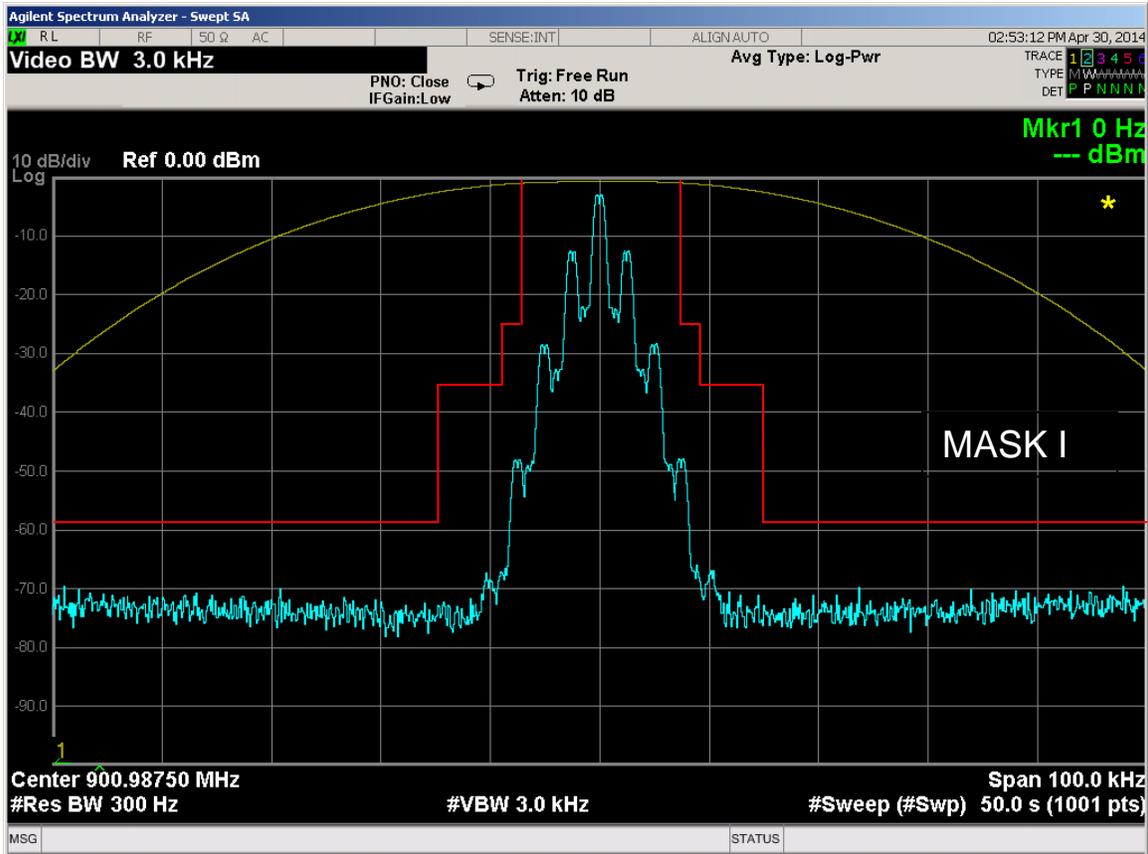


Figure 6E-51: 900.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, 11K0F3E Mask I

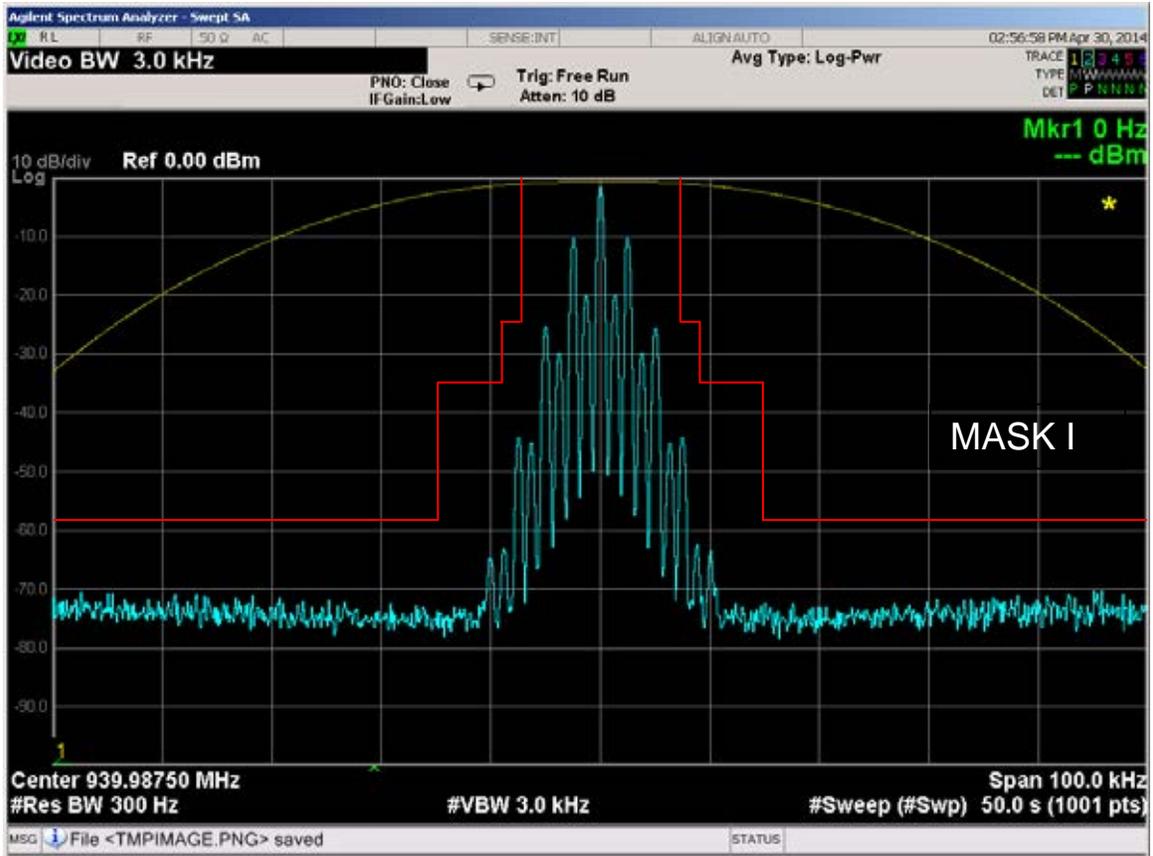


Figure 6E-52: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data Modulation Only, 11K0F3E Mask I

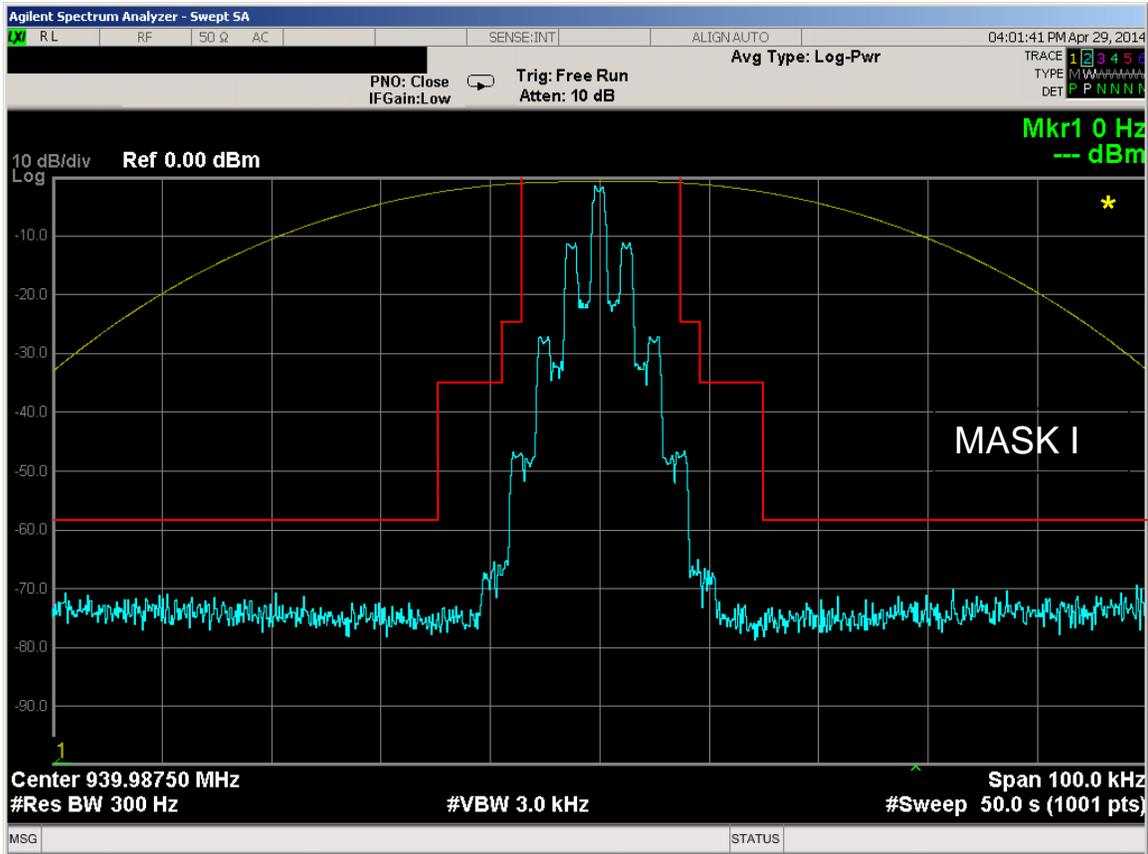


Figure 6E-53: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and DPL Tone Modulation, **11K0F3E Mask I**

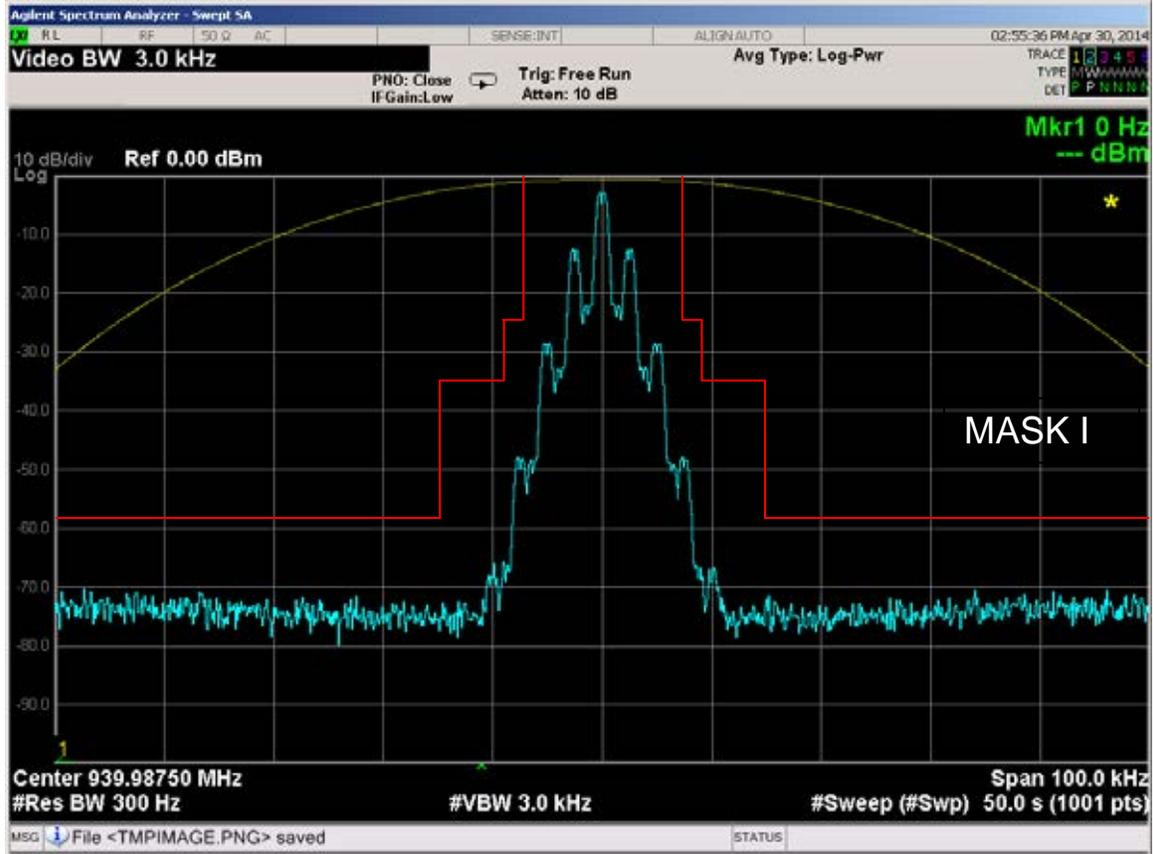
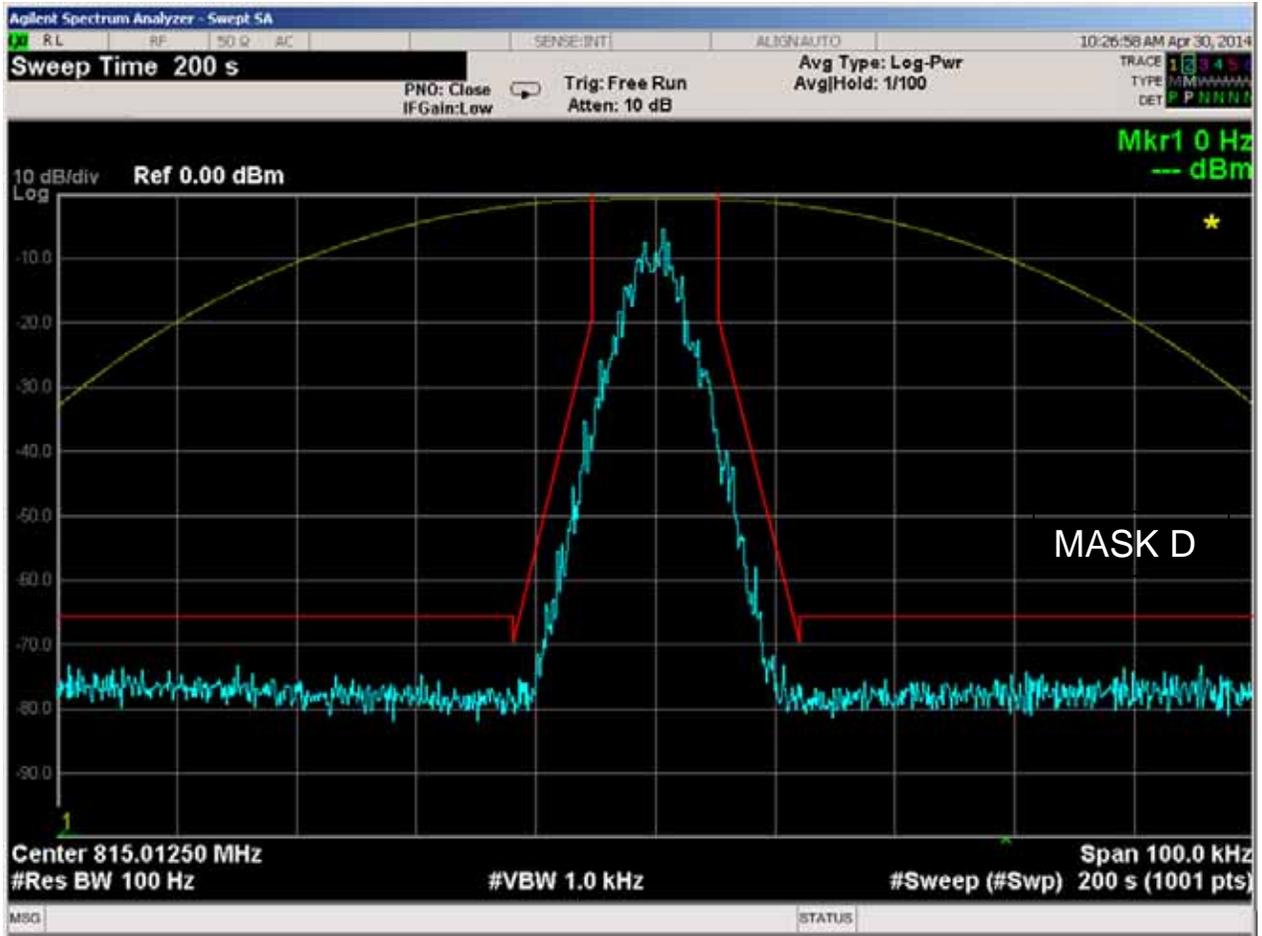
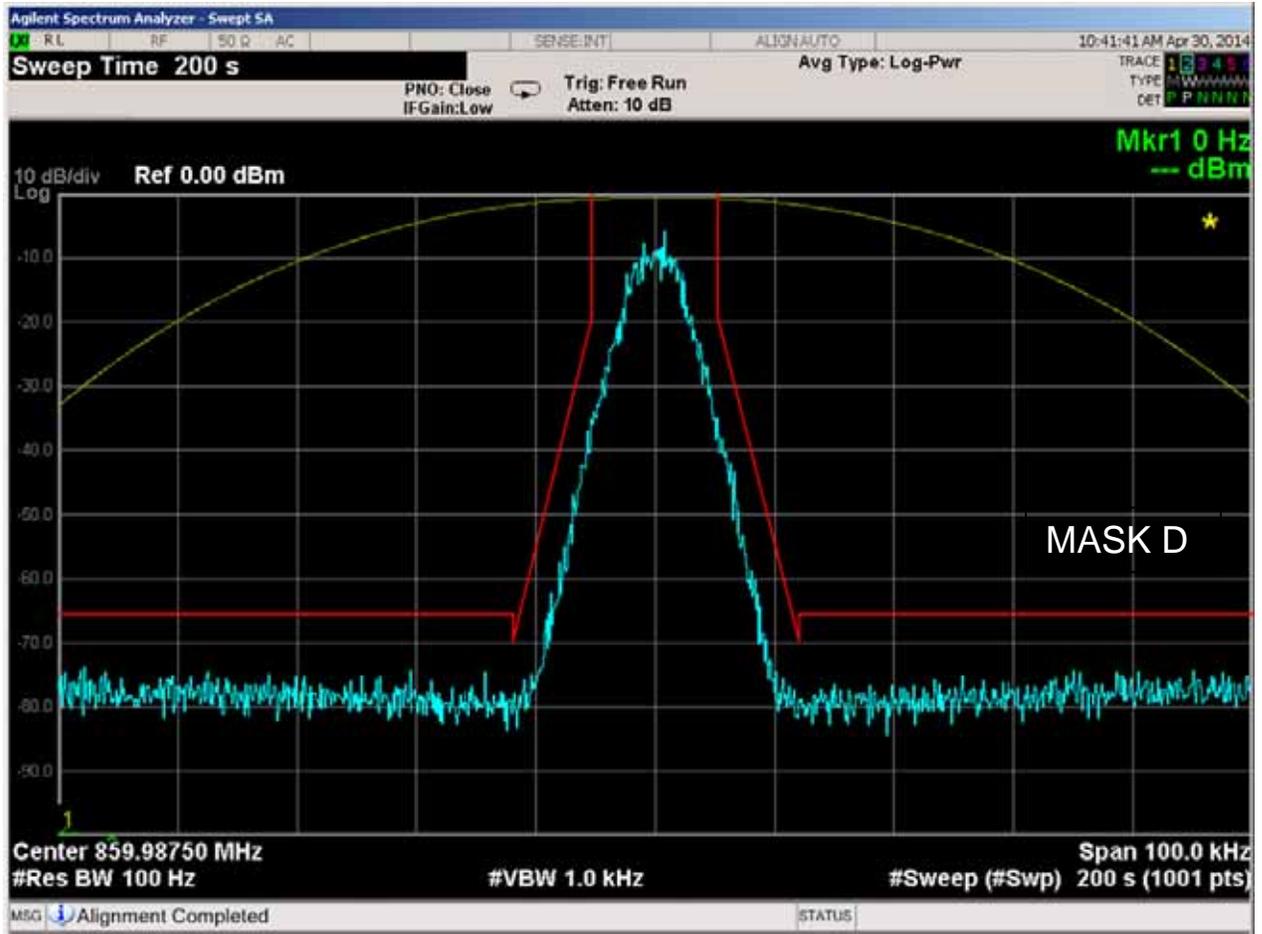


Figure 6E-54: 939.9875 MHz, 12.5 kHz Channel Spacing, 2000/3000 Hz FSK Data and TPL Tone Modulation, **11K0F3E Mask I**



**Figure 6E-55: 815.0125 MHz, 4-Level FSK Data Modulation only,
7K60FXD Mask D**



**Figure 6E-56: 859.9875 MHz, 4-Level FSK Data Modulation only,
7K60FXD Mask D**

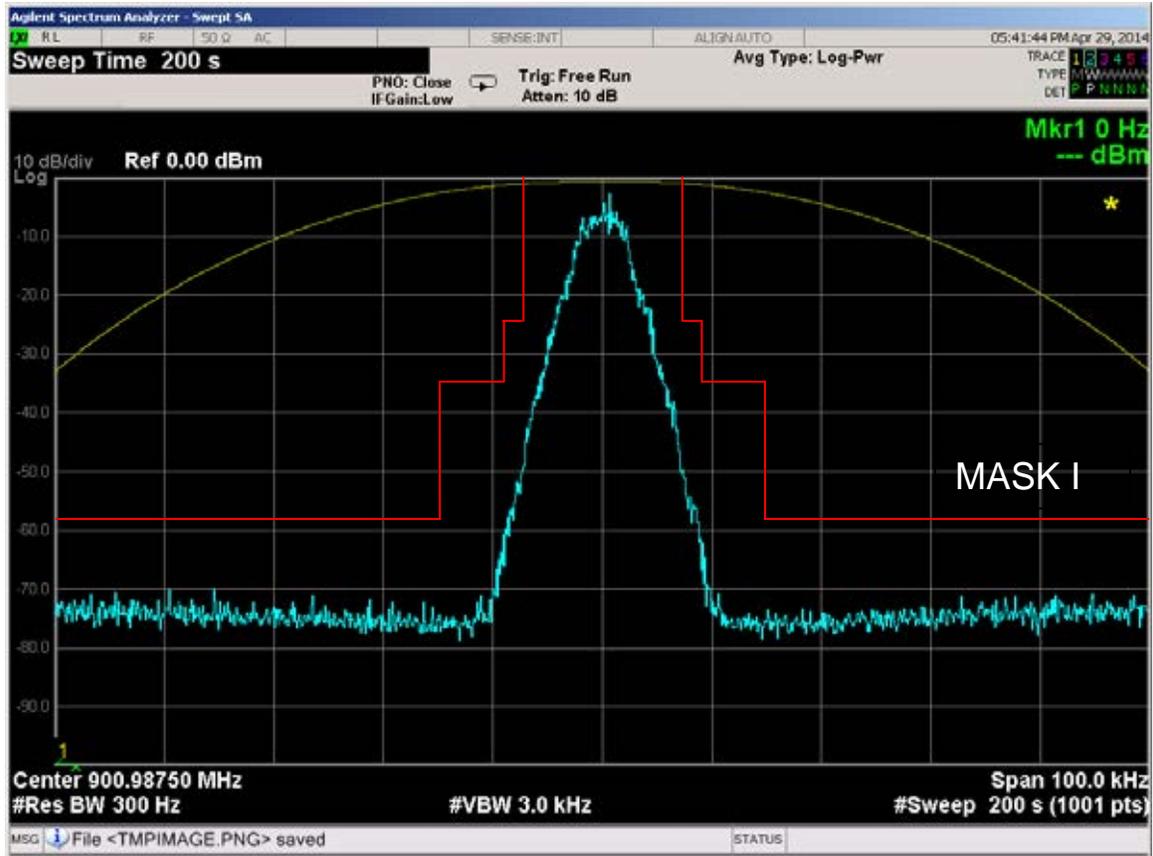


Figure 6E-57: 900.9875 MHz, 4-Level FSK Data Modulation only, 7K60FXD Mask I

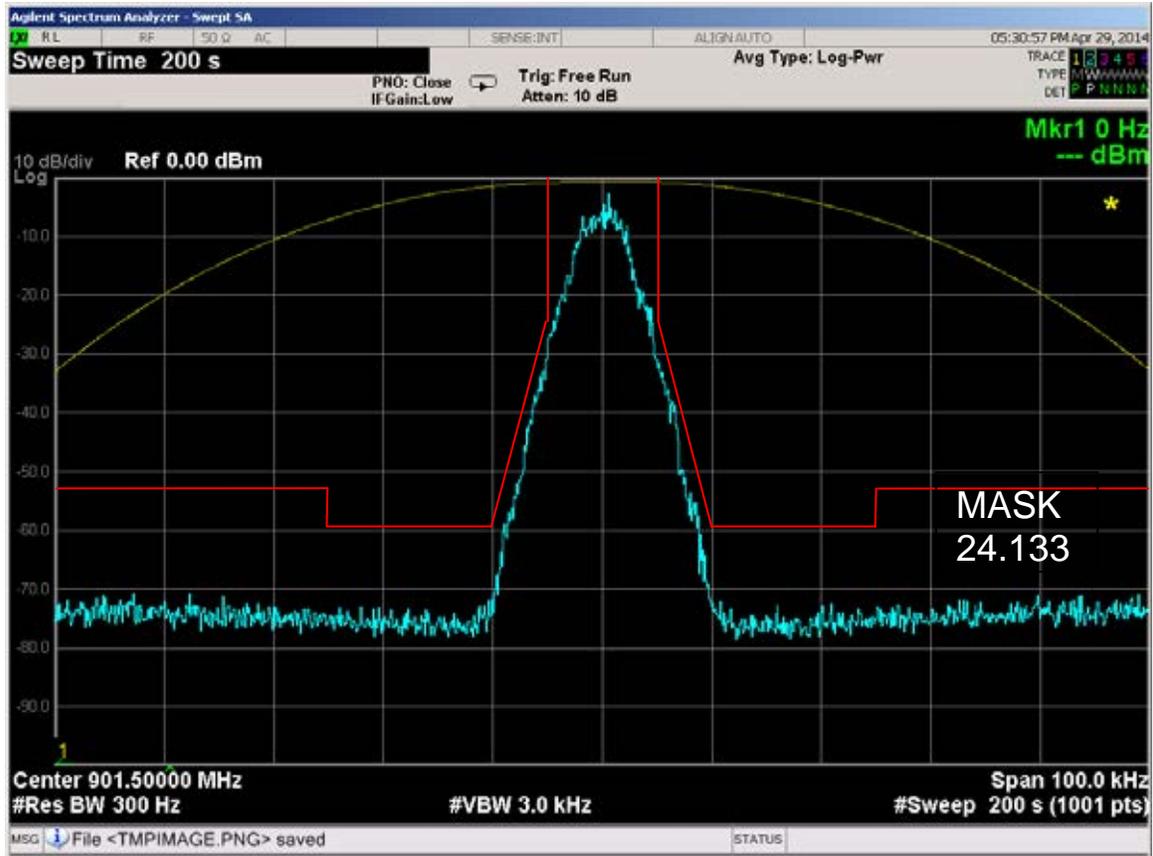
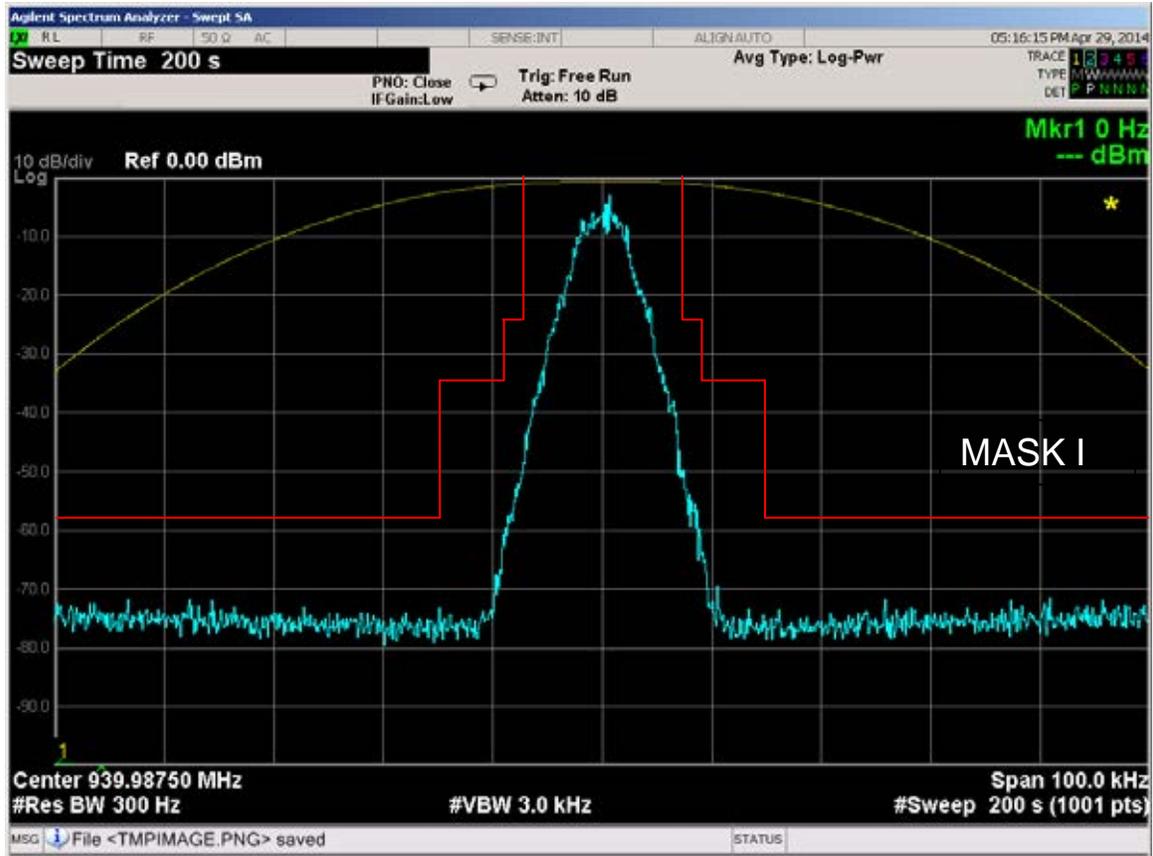


Figure 6E-58: 901.5 MHz, 9W, 4-Level FSK Data Modulation only, 7K60FXD Mask 24.133



**Figure 6E-59: 939.9875 MHz, 4-Level FSK Data Modulation only,
7K60FXD Mask I**

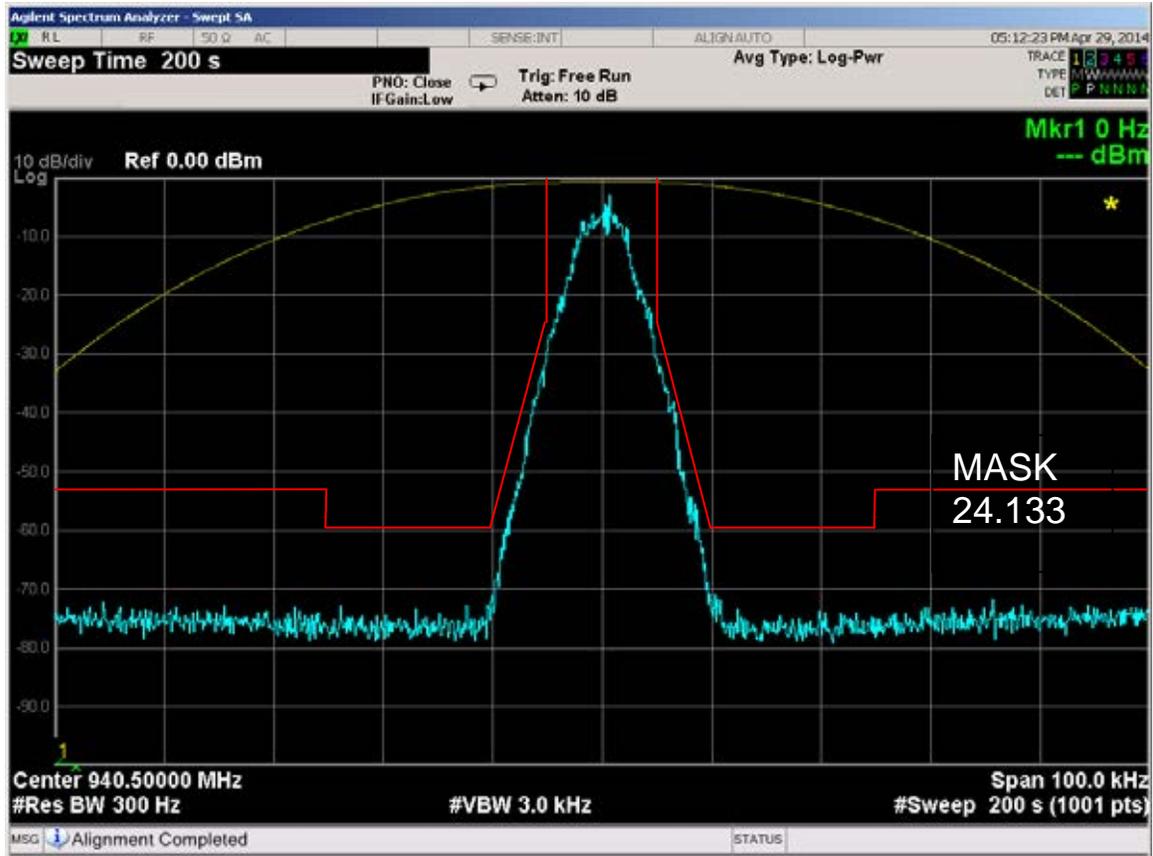


Figure 6E-60: 940.5 MHz, 9W, 4-Level FSK Data Modulation only, 7K60FXD Mask 24.133

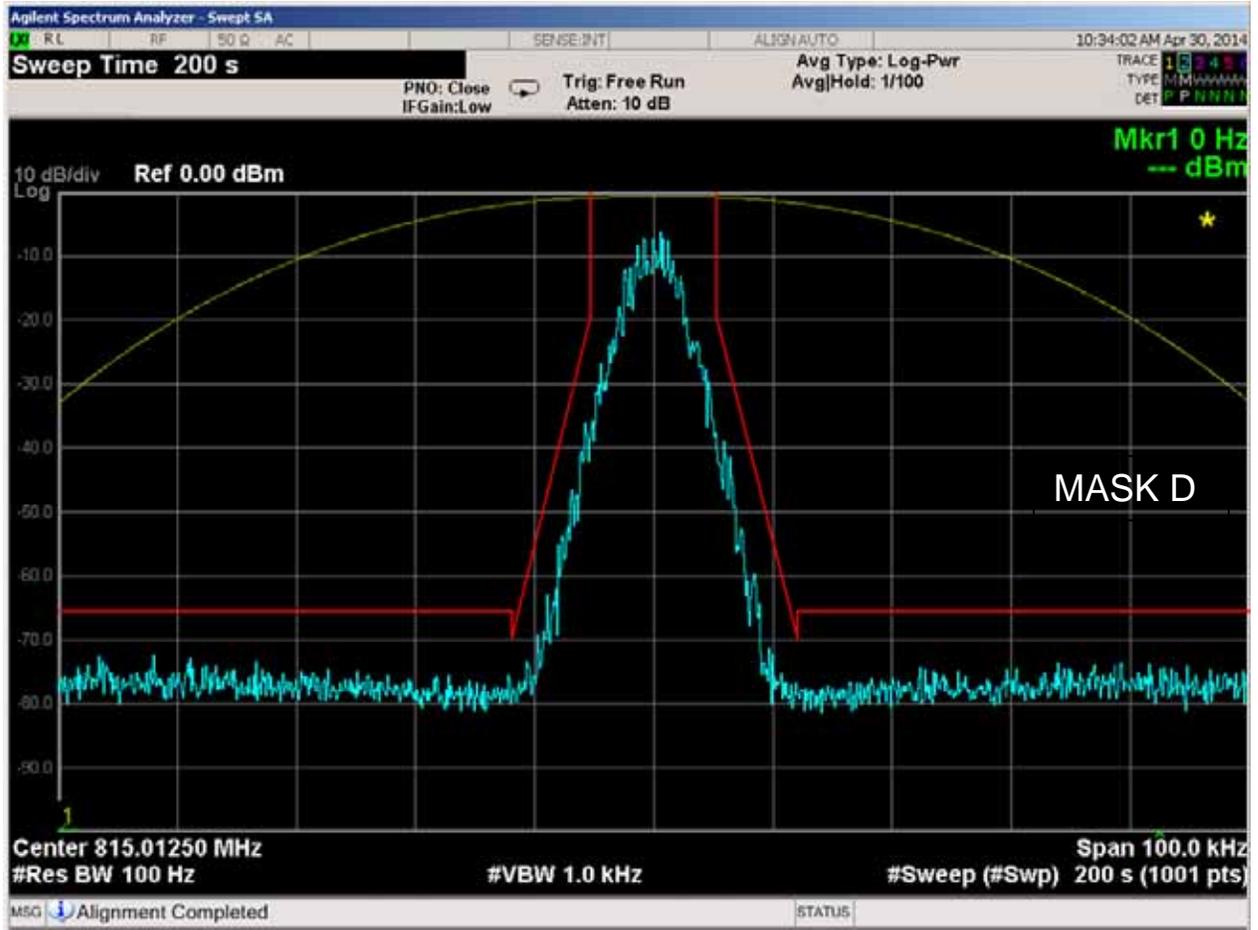


Figure 6E-61: 815.0125 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask D

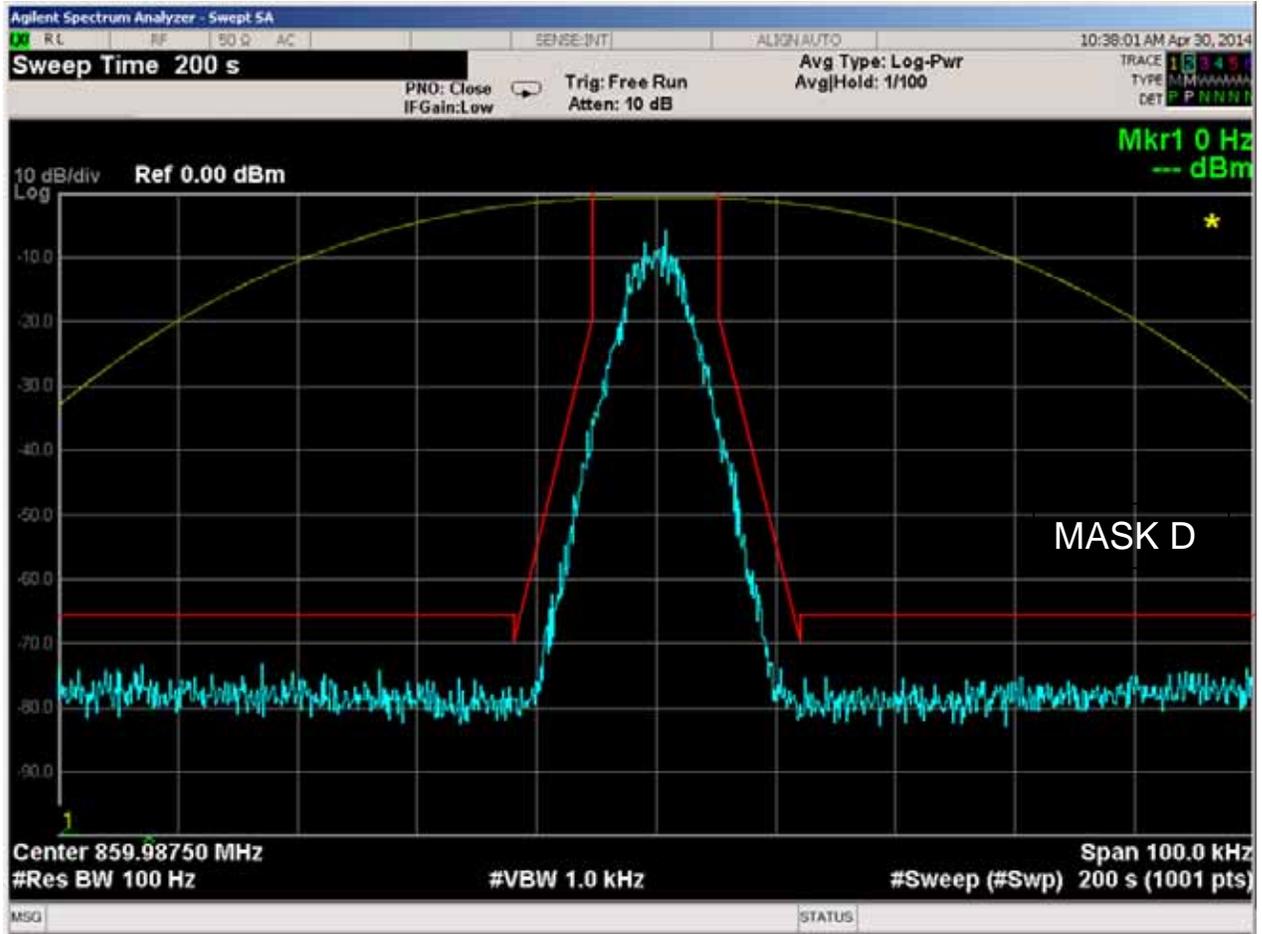


Figure 6E-62: 859.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask D

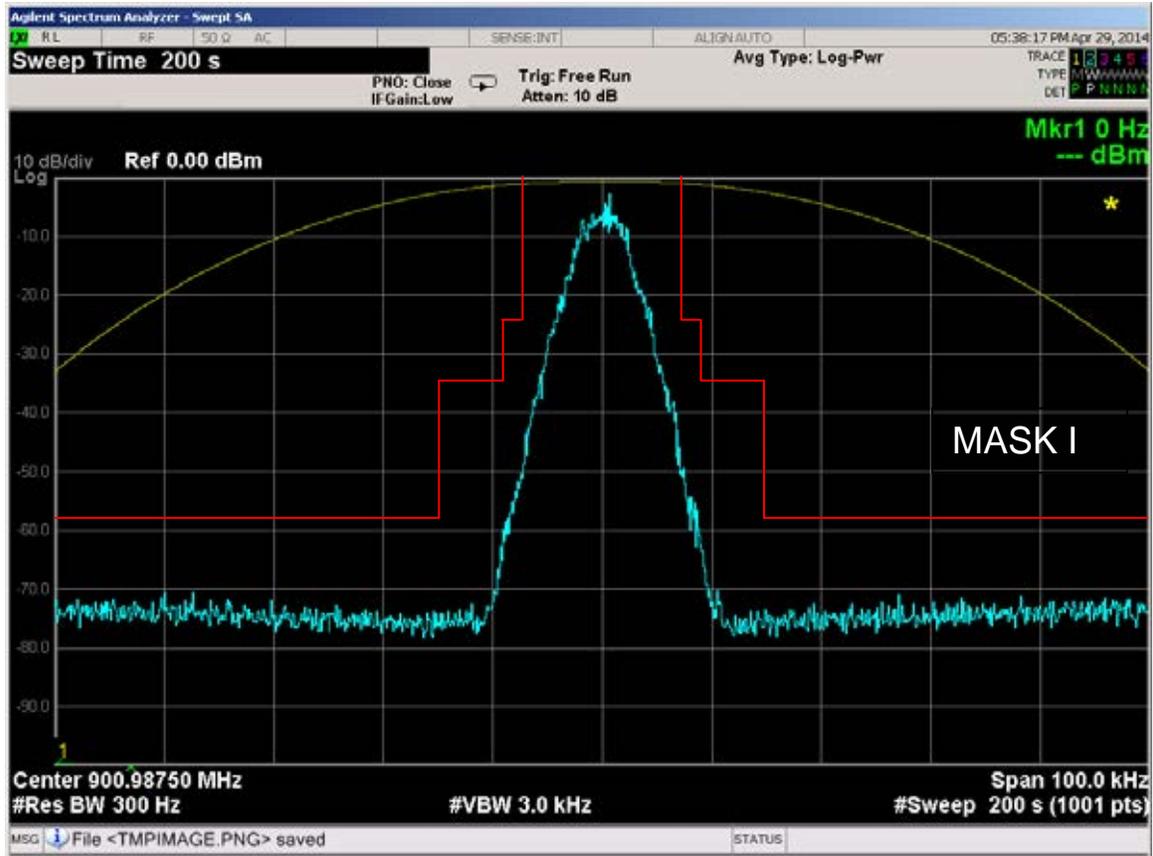


Figure 6E-63: 900.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask I

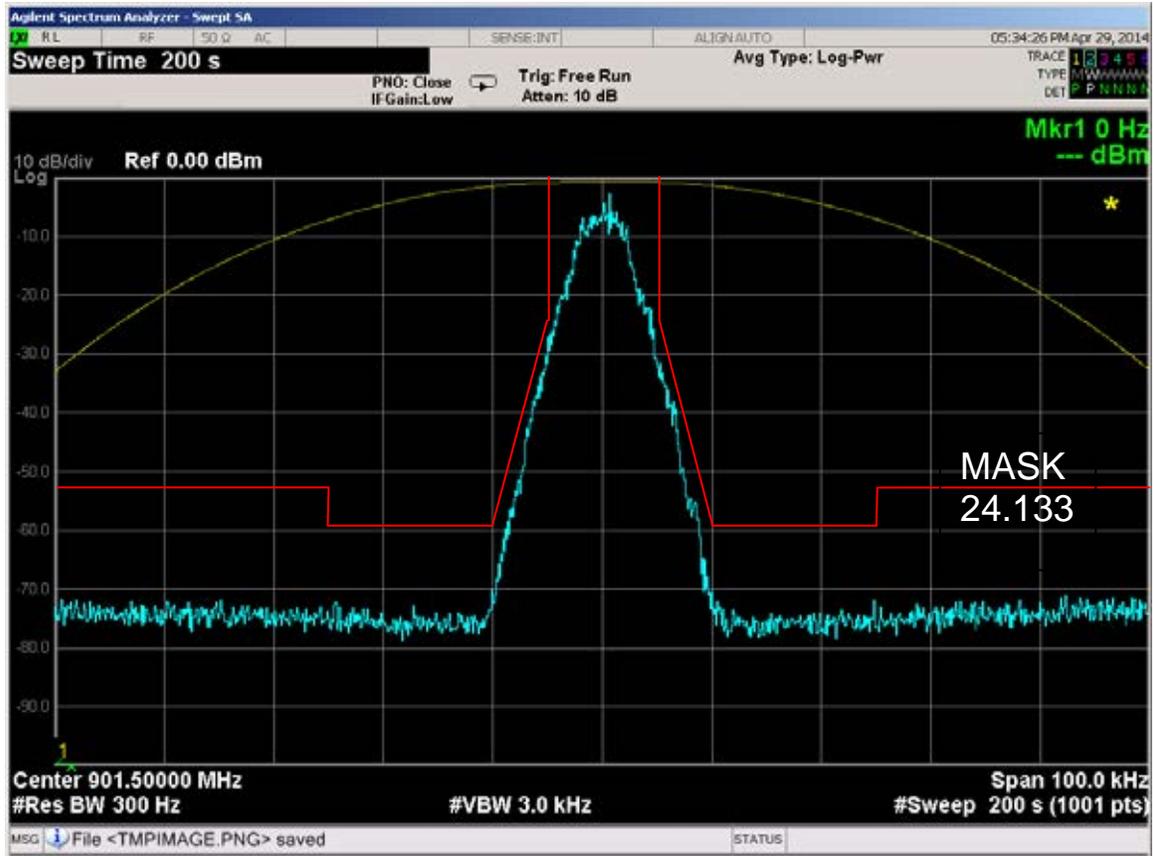


Figure 6E-64: 901.5 MHz, 9W, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask 24.133

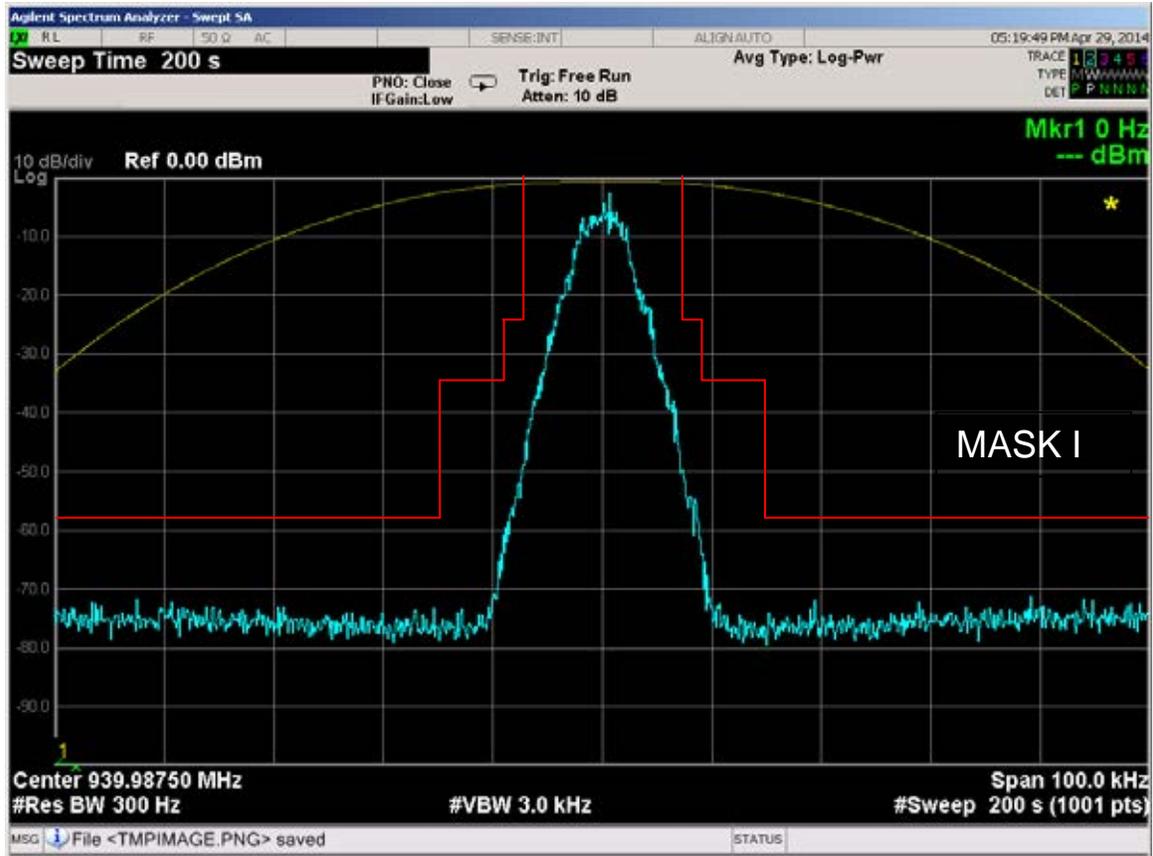


Figure 6E-65: 939.9875 MHz, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask I

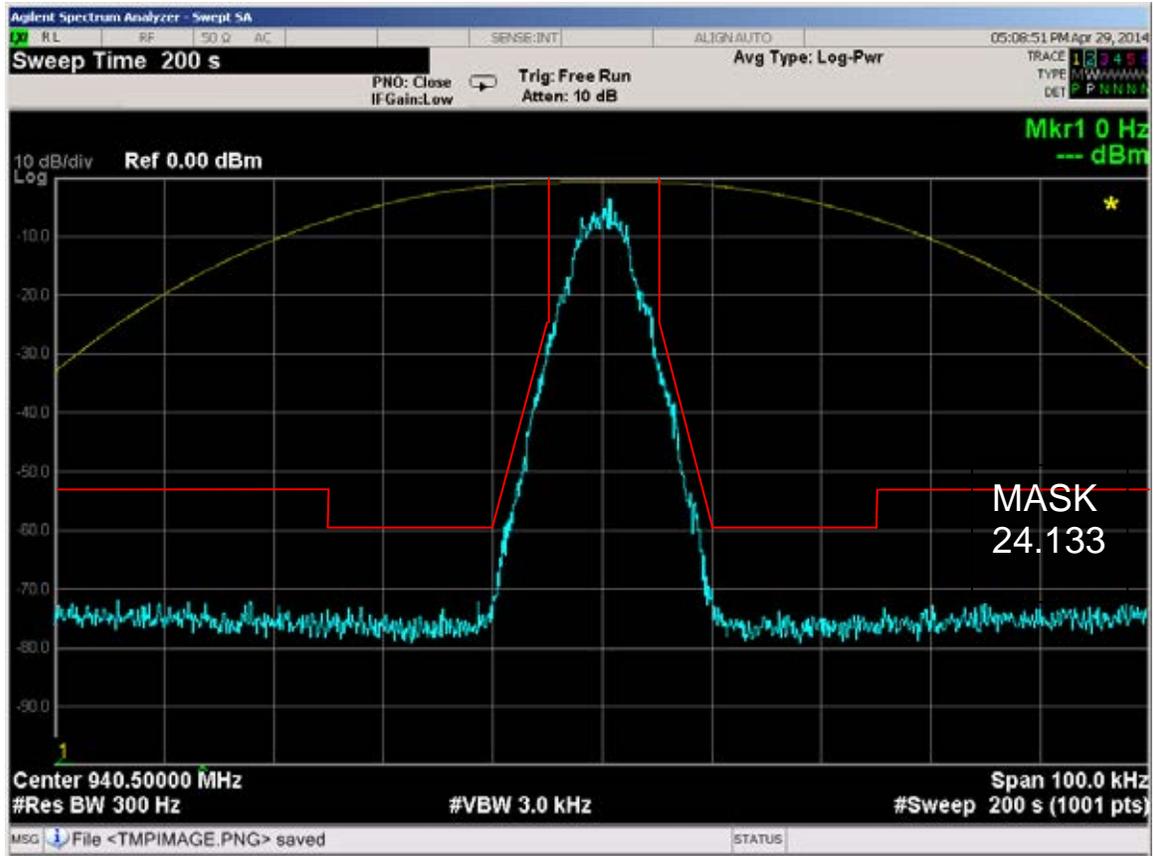
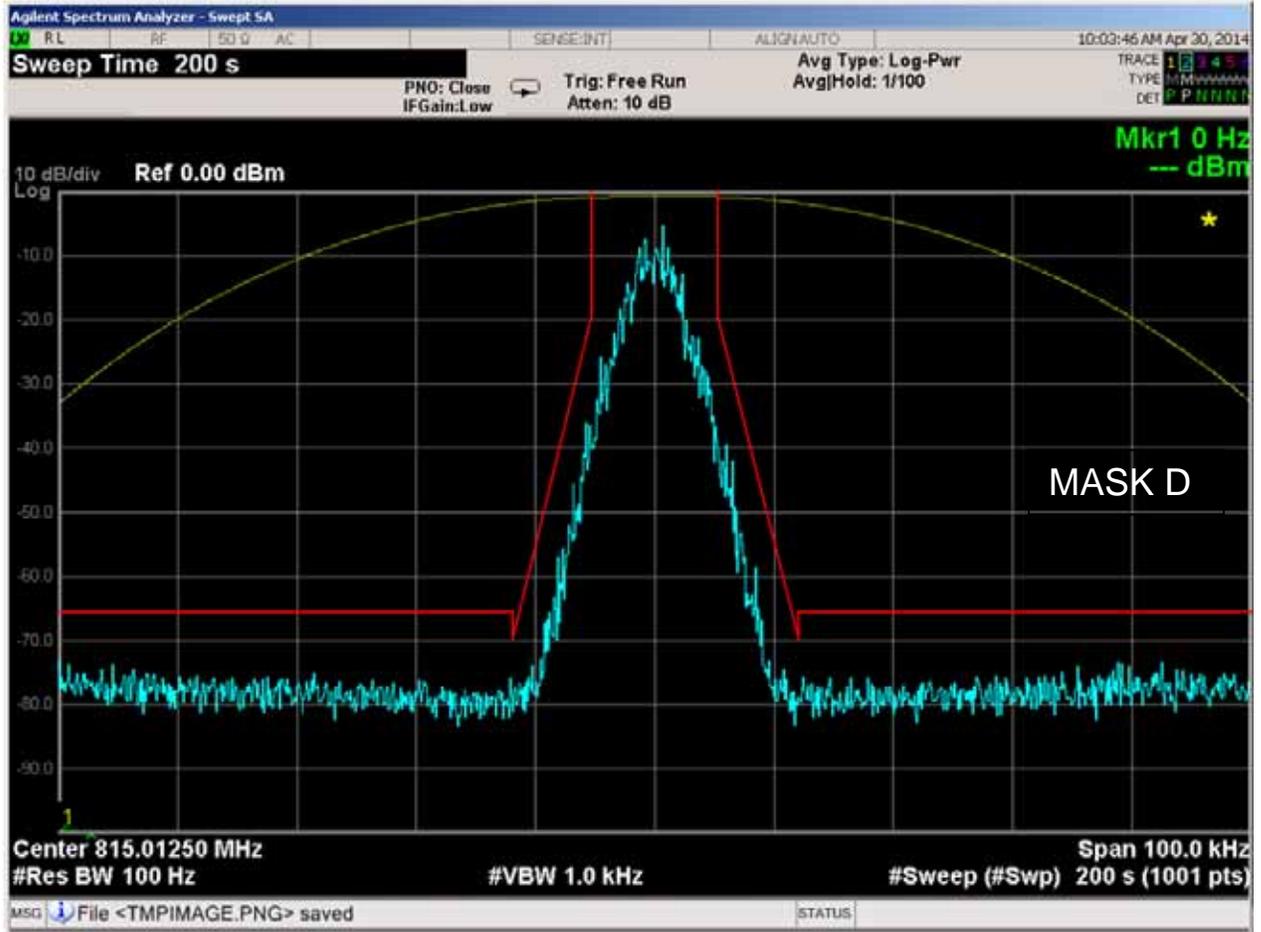
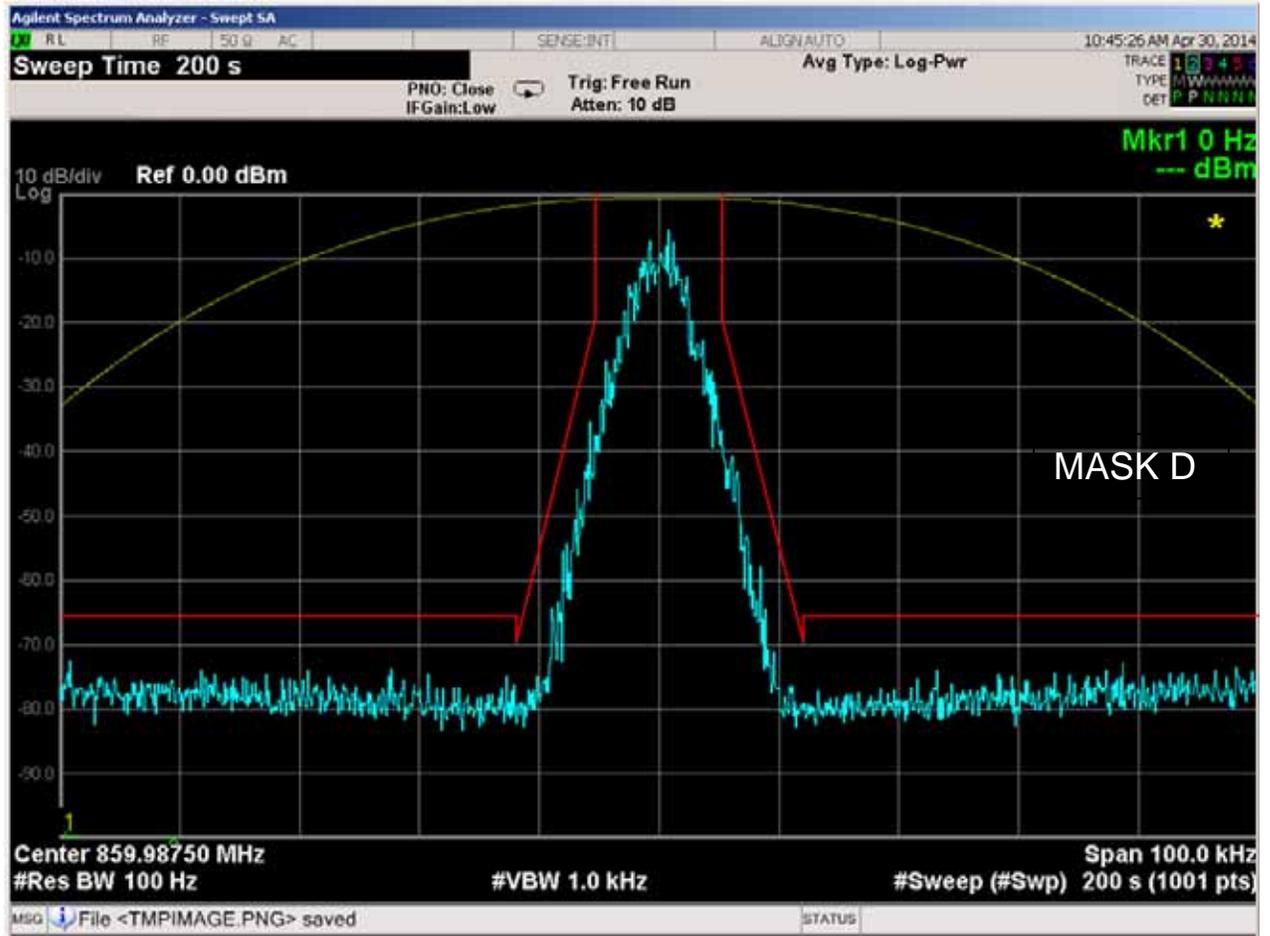


Figure 6E-66: 940.5 MHz, 9W, 4-Level FSK Voice and Data Modulation, 7K60F1W Mask 24.133



**Figure 6E-67: 815.0125 MHz, 4-Level FSK Voice Modulation only,
7K60F1E Mask D**



**Figure 6E-68: 859.9875 MHz, 4-Level FSK Voice Modulation only,
7K60F1E Mask D**

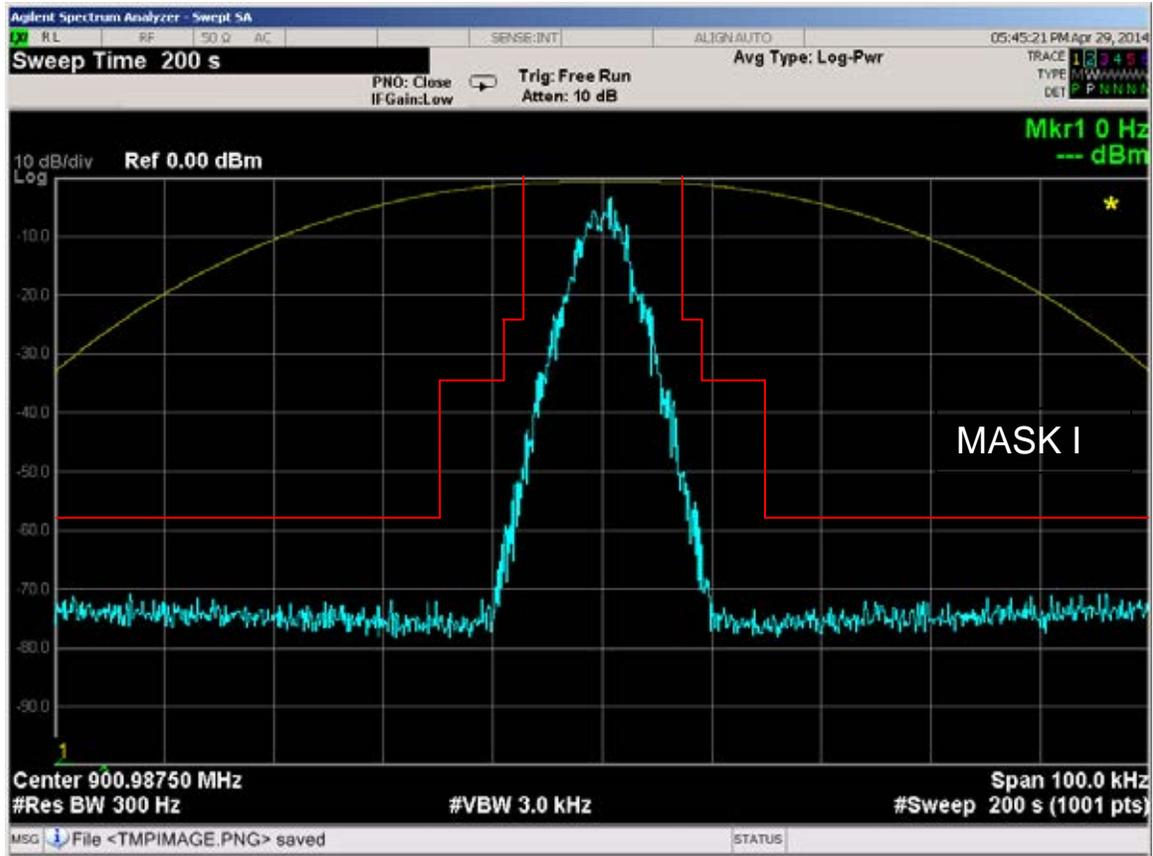
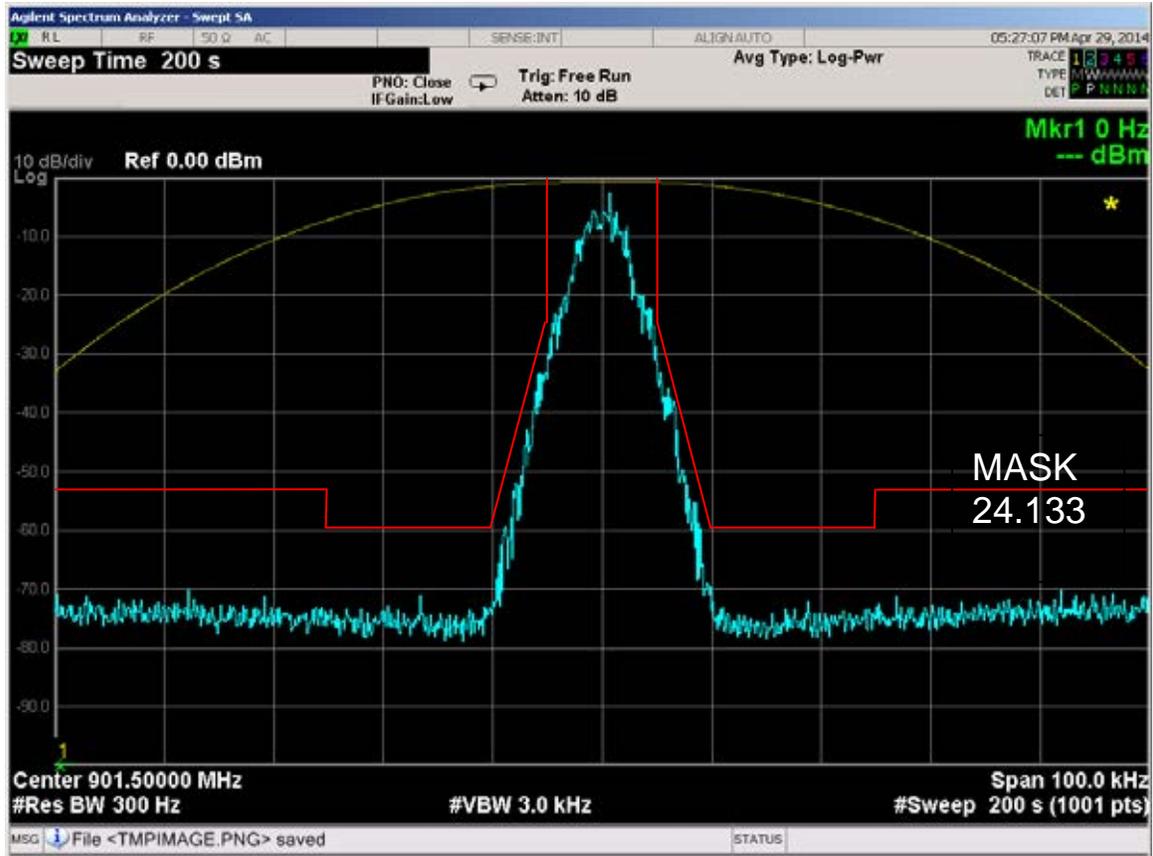


Figure 6E-69: 900.9875 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask I



**Figure 6E-70: 901.5 MHz, 9W, 4-Level FSK Voice Modulation only,
7K60F1E Mask 24.133**

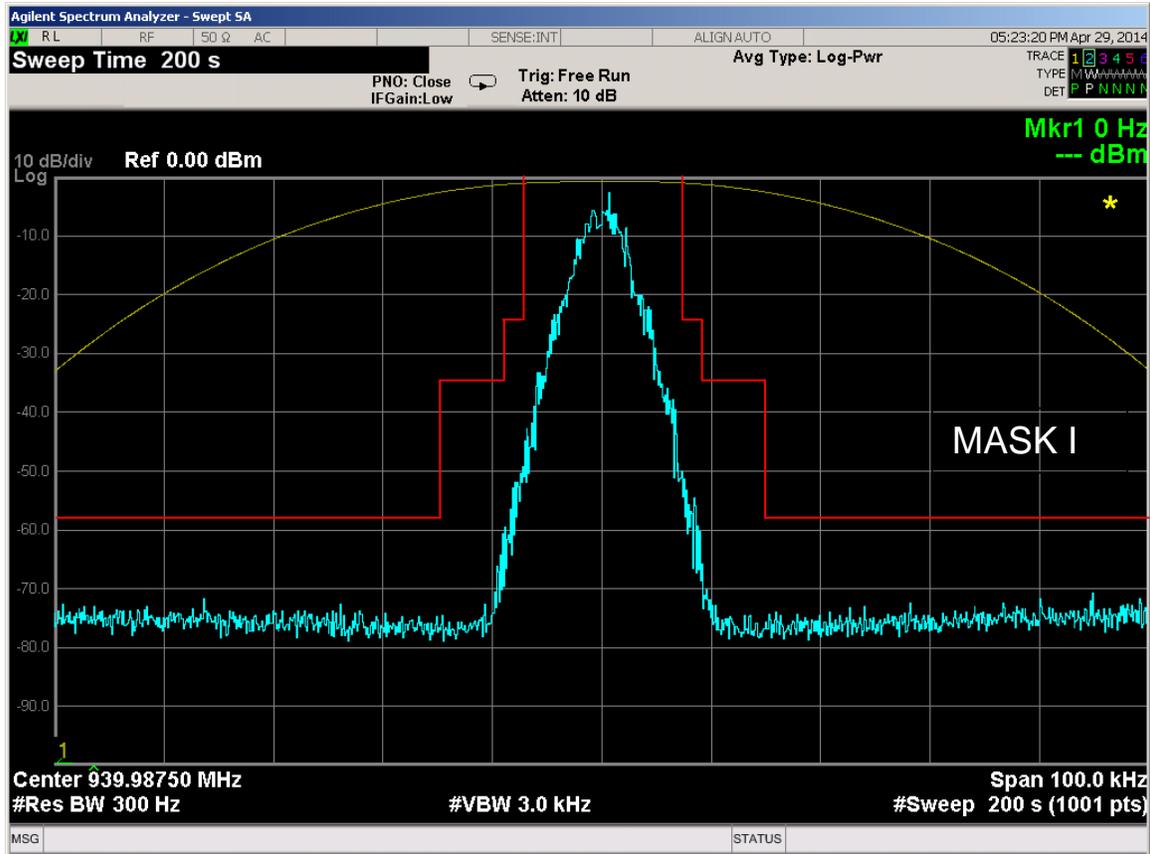
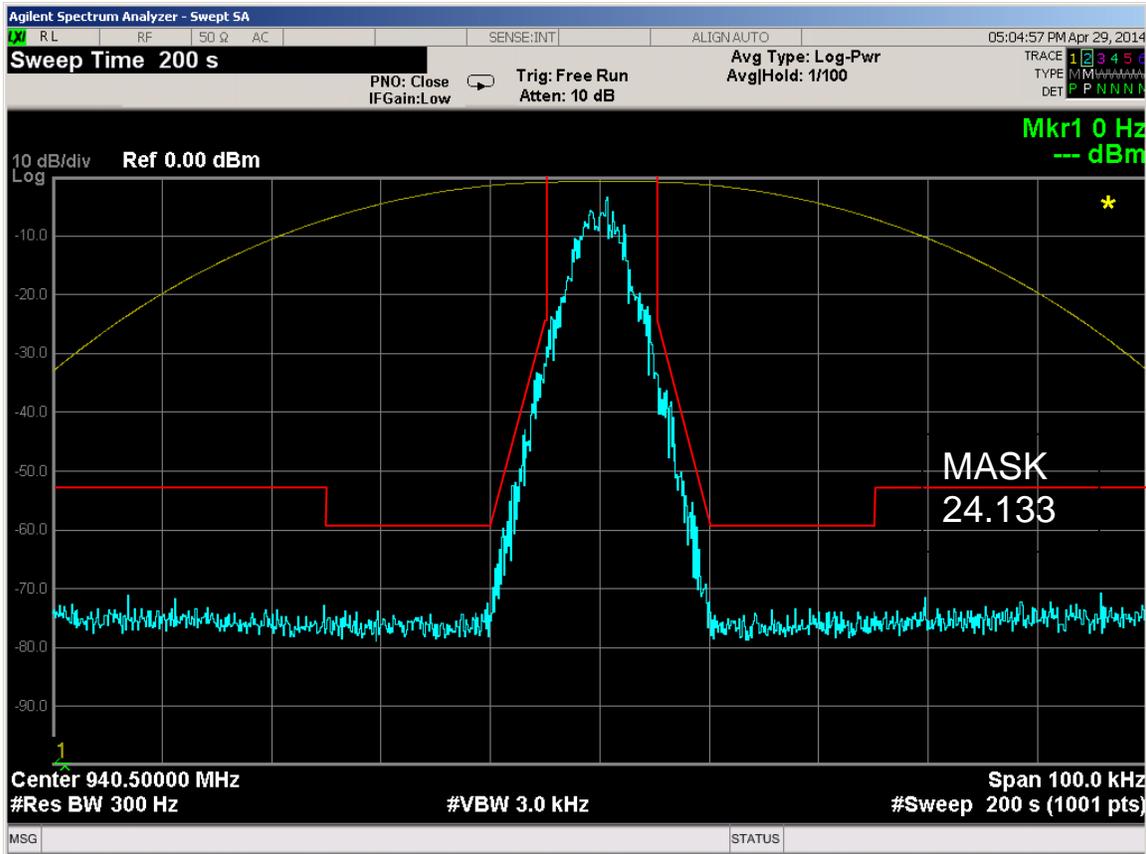


Figure 6E-71: 939.9875 MHz, 4-Level FSK Voice Modulation only, 7K60F1E Mask I



**Figure 6E-72: 940.5 MHz, 9W, 4-Level FSK Voice Modulation only,
7K60F1E Mask 24.133**

- For 4FSK Digital Modulation, 12.5 kHz Data 7K60F1D & 7K60FXD would be the same. Therefore only measurements with 7K60FXD will be shown.
- For 4FSK Digital Modulation, 12.5 kHz Voice 7K60F1E & 7K60FXE would be the same. Therefore only measurements with 7K60F1E will be shown.

Exhibit 6F Conducted Spurious Emissions

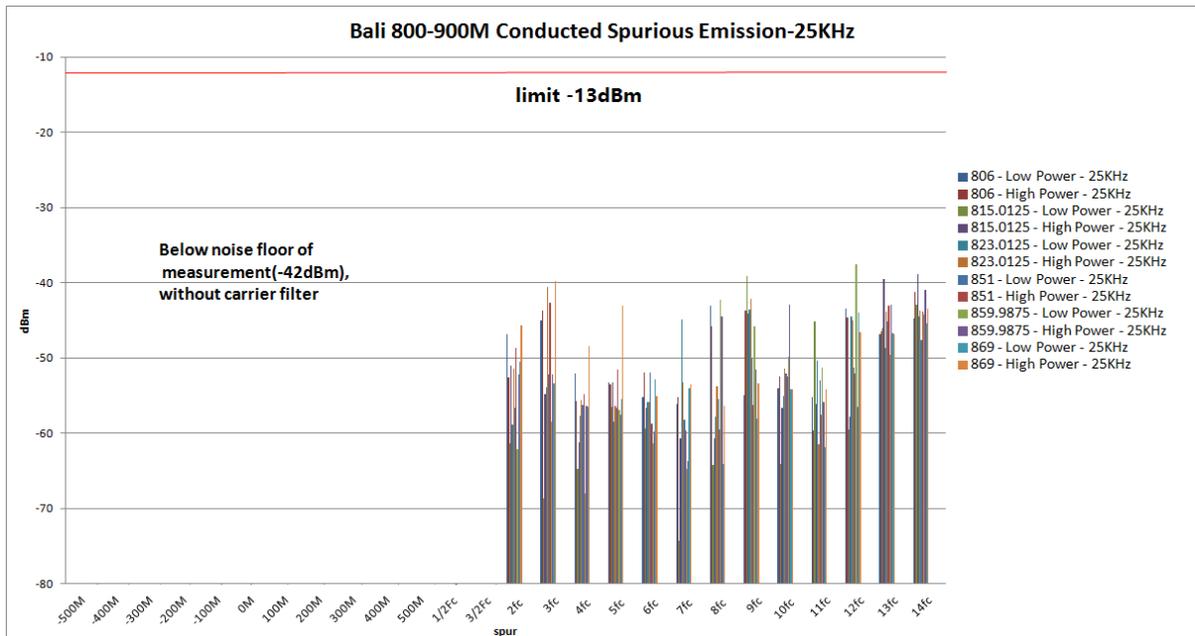
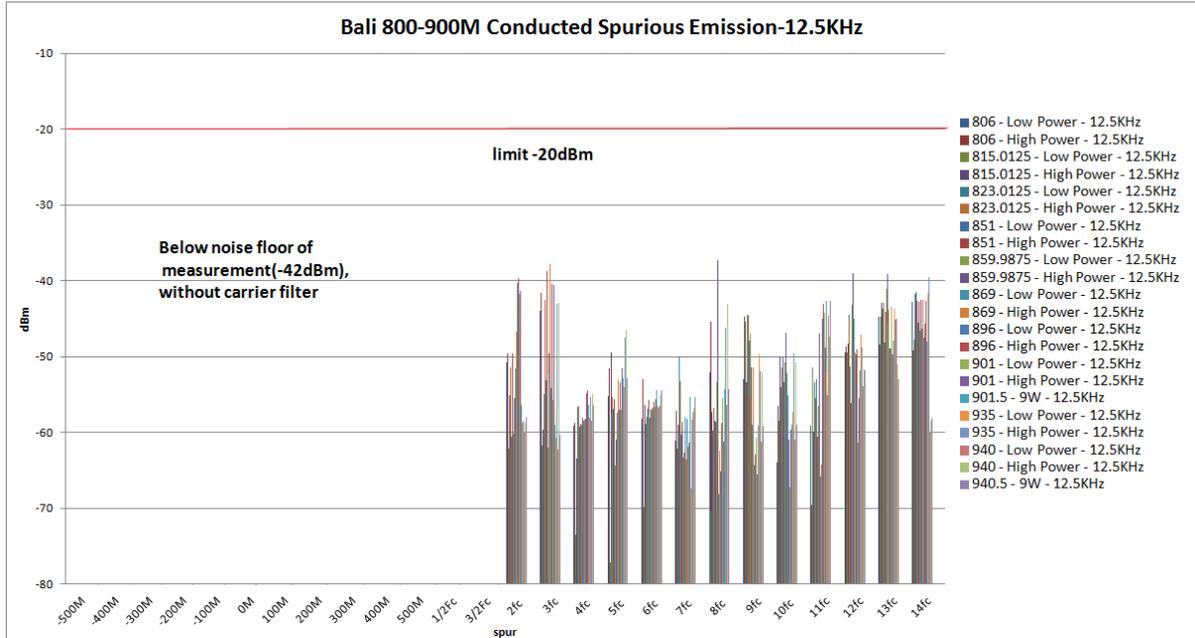


Exhibit 6G Radiated Spurious Emissions

Spectrum Analyzer Settings on RBW and VBW:

- RX: RBW 10 KHz, VBW 30 KHz
- TX : RBW 100 KHz, VBW 300 KHz

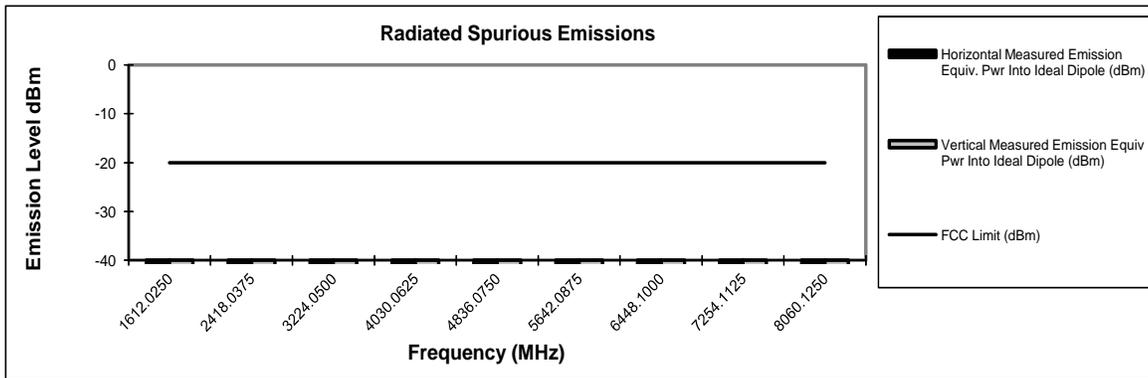
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

806.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.0250	-20	*	*
2418.0375	-20	*	*
3224.0500	-20	*	*
4030.0625	-20	*	*
4836.0750	-20	*	*
5642.0875	-20	*	*
6448.1000	-20	*	*
7254.1125	-20	*	*
8060.1250	-20	*	*



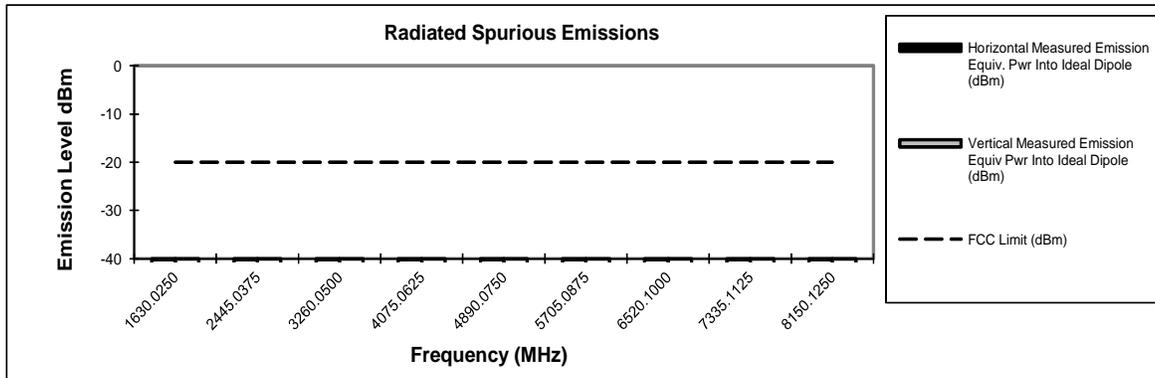
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

815.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1630.0250	-20	*	*
2445.0375	-20	*	*
3260.0500	-20	*	*
4075.0625	-20	*	*
4890.0750	-20	*	*
5705.0875	-20	*	*
6520.1000	-20	*	*
7335.1125	-20	*	*
8150.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

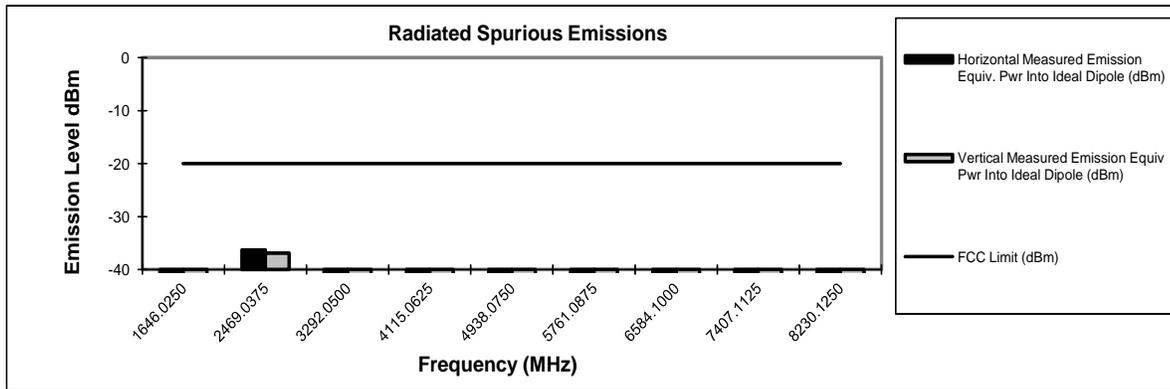
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

823.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1646.0250	-20	*	*
2469.0375	-20	-36.25	-36.86
3292.0500	-20	*	*
4115.0625	-20	*	*
4938.0750	-20	*	*
5761.0875	-20	*	*
6584.1000	-20	*	*
7407.1125	-20	*	*
8230.1250	-20	*	*



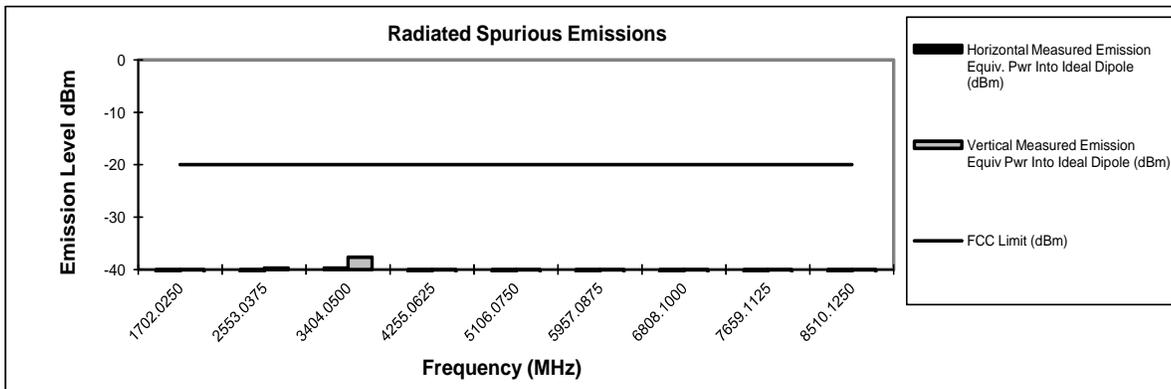
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

851.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-20	*	*
2553.0375	-20	*	-39.74
3404.0500	-20	-39.73	-37.68
4255.0625	-20	*	*
5106.0750	-20	*	*
5957.0875	-20	*	*
6808.1000	-20	*	*
7659.1125	-20	*	*
8510.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

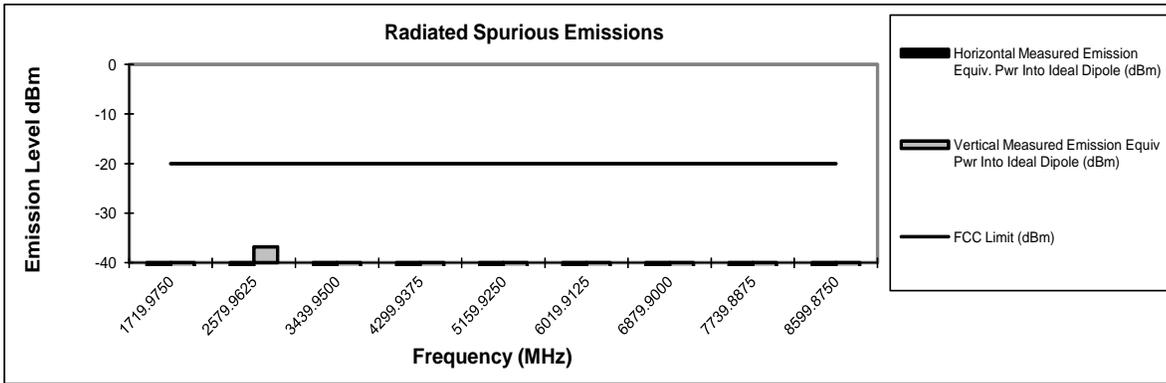
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

859.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1719.9750	-20	*	*
2579.9625	-20	*	-36.76
3439.9500	-20	*	*
4299.9375	-20	*	*
5159.9250	-20	*	*
6019.9125	-20	*	*
6879.9000	-20	*	*
7739.8875	-20	*	*
8599.8750	-20	*	*



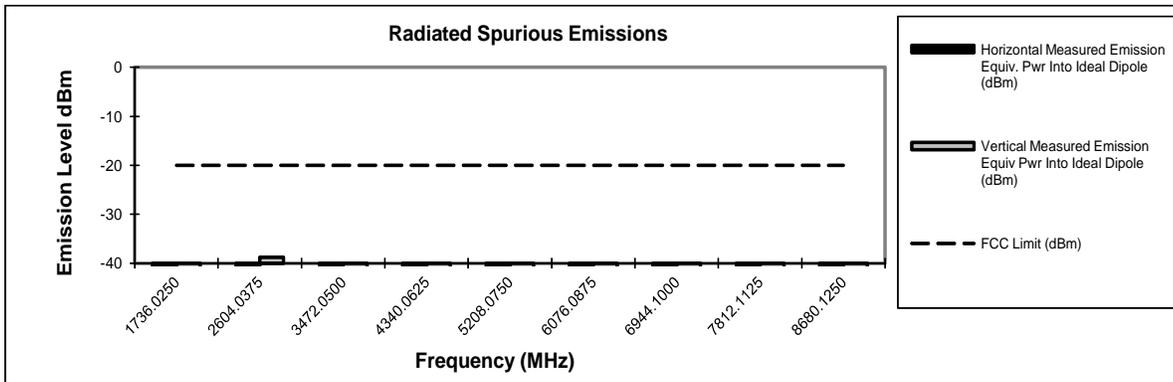
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

868.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1736.0250	-20	*	*
2604.0375	-20	*	-38.81
3472.0500	-20	*	*
4340.0625	-20	*	*
5208.0750	-20	*	*
6076.0875	-20	*	*
6944.1000	-20	*	*
7812.1125	-20	*	*
8680.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

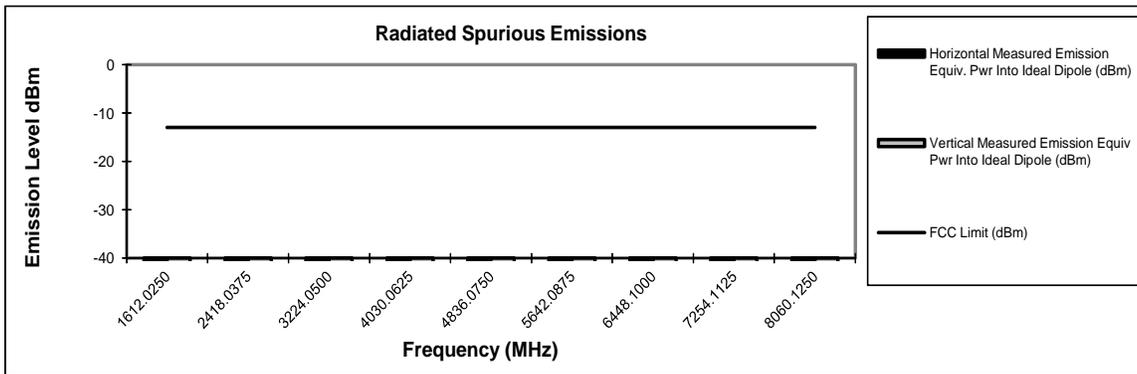
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

806.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.0250	-13	*	*
2418.0375	-13	*	*
3224.0500	-13	*	*
4030.0625	-13	*	*
4836.0750	-13	*	*
5642.0875	-13	*	*
6448.1000	-13	*	*
7254.1125	-13	*	*
8060.1250	-13	*	*



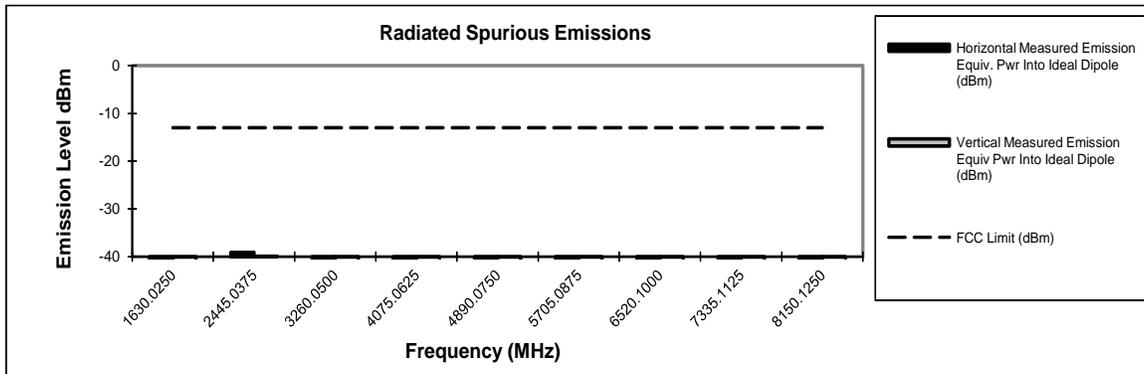
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

815.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1630.0250	-13	*	*
2445.0375	-13	-39.14	-39.90
3260.0500	-13	*	*
4075.0625	-13	*	*
4890.0750	-13	*	*
5705.0875	-13	*	*
6520.1000	-13	*	*
7335.1125	-13	*	*
8150.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

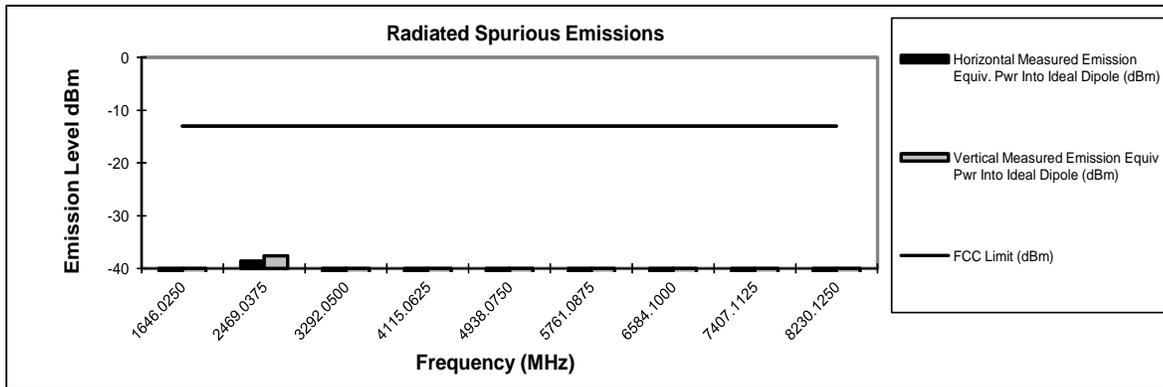
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

823.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1646.0250	-13	*	*
2469.0375	-13	-38.61	-37.56
3292.0500	-13	*	*
4115.0625	-13	*	*
4938.0750	-13	*	*
5761.0875	-13	*	*
6584.1000	-13	*	*
7407.1125	-13	*	*
8230.1250	-13	*	*



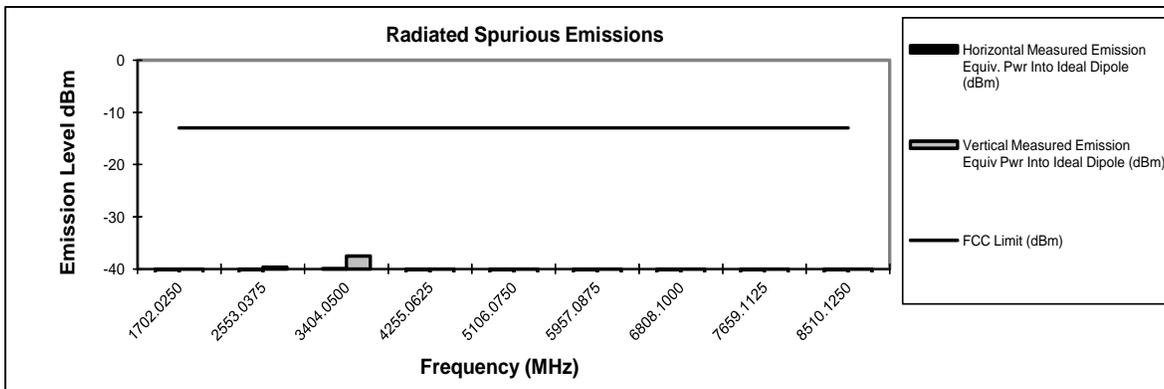
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

851.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-13	*	*
2553.0375	-13	*	-39.66
3404.0500	-13	-39.98	-37.56
4255.0625	-13	*	*
5106.0750	-13	*	*
5957.0875	-13	*	*
6808.1000	-13	*	*
7659.1125	-13	*	*
8510.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 31, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

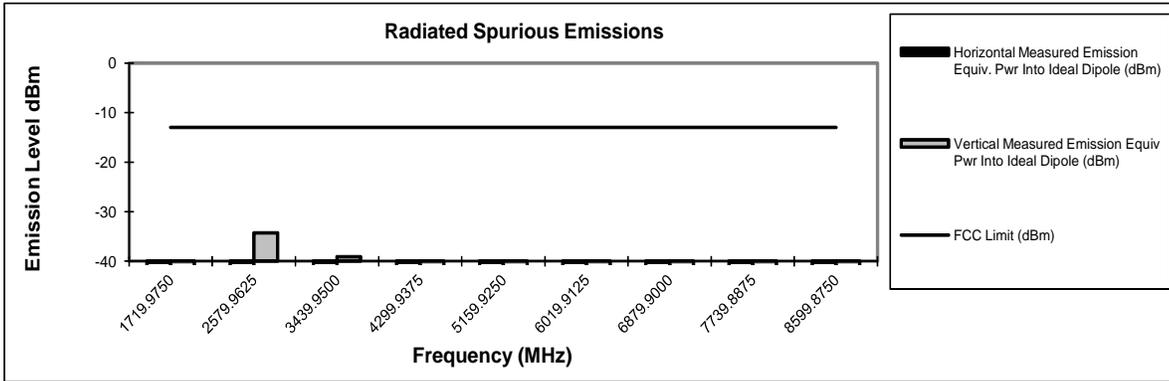
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

859.9875 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1719.9750	-13	*	*
2579.9625	-13	*	-34.27
3439.9500	-13	*	-39.09
4299.9375	-13	*	*
5159.9250	-13	*	*
6019.9125	-13	*	*
6879.9000	-13	*	*
7739.8875	-13	*	*
8599.8750	-13	*	*



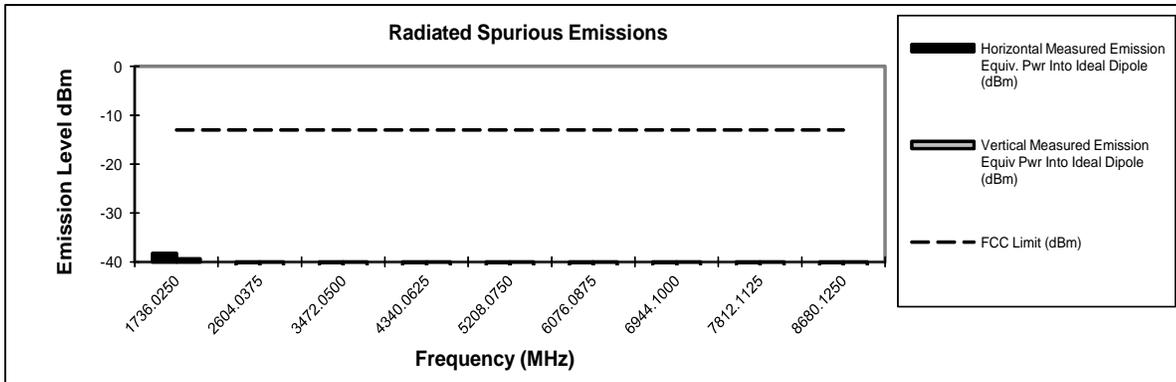
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 42 Watts

868.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1736.0250	-13	-38.25	-39.37
2604.0375	-13	*	*
3472.0500	-13	*	*
4340.0625	-13	*	*
5208.0750	-13	*	*
6076.0875	-13	*	*
6944.1000	-13	*	*
7812.1125	-13	*	*
8680.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 31, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

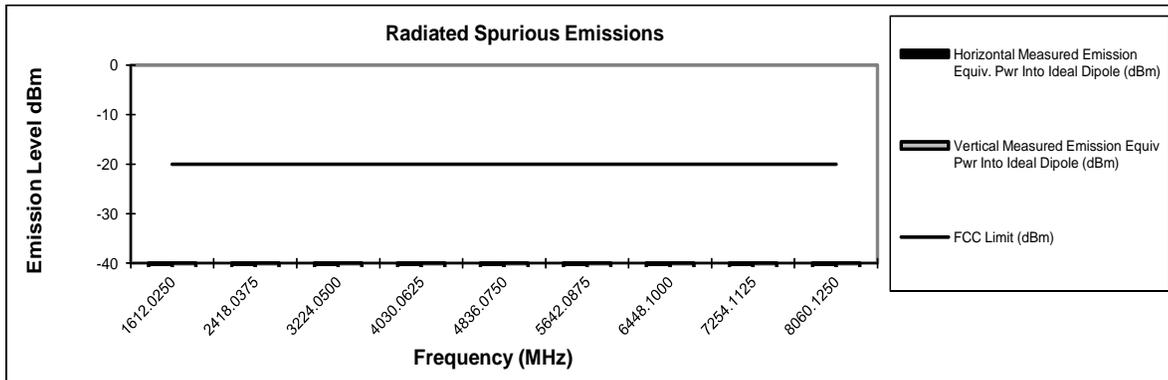
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

806.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.0250	-20	*	*
2418.0375	-20	*	*
3224.0500	-20	*	*
4030.0625	-20	*	*
4836.0750	-20	*	*
5642.0875	-20	*	*
6448.1000	-20	*	*
7254.1125	-20	*	*
8060.1250	-20	*	*



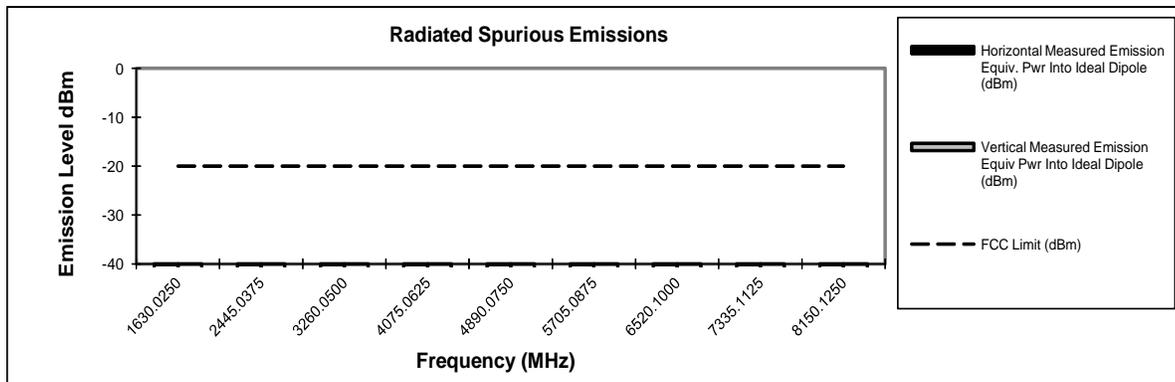
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

815.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1630.0250	-20	*	*
2445.0375	-20	*	*
3260.0500	-20	*	*
4075.0625	-20	*	*
4890.0750	-20	*	*
5705.0875	-20	*	*
6520.1000	-20	*	*
7335.1125	-20	*	*
8150.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

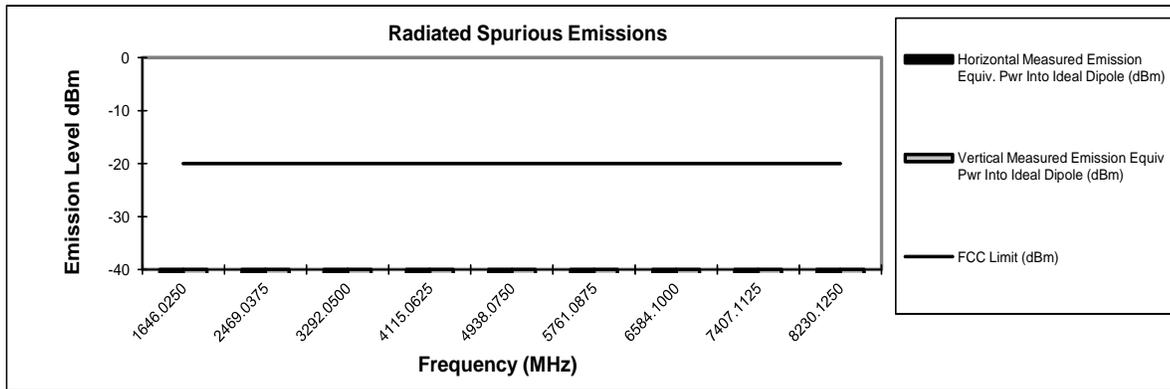
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

823.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1646.0250	-20	*	*
2469.0375	-20	*	*
3292.0500	-20	*	*
4115.0625	-20	*	*
4938.0750	-20	*	*
5761.0875	-20	*	*
6584.1000	-20	*	*
7407.1125	-20	*	*
8230.1250	-20	*	*



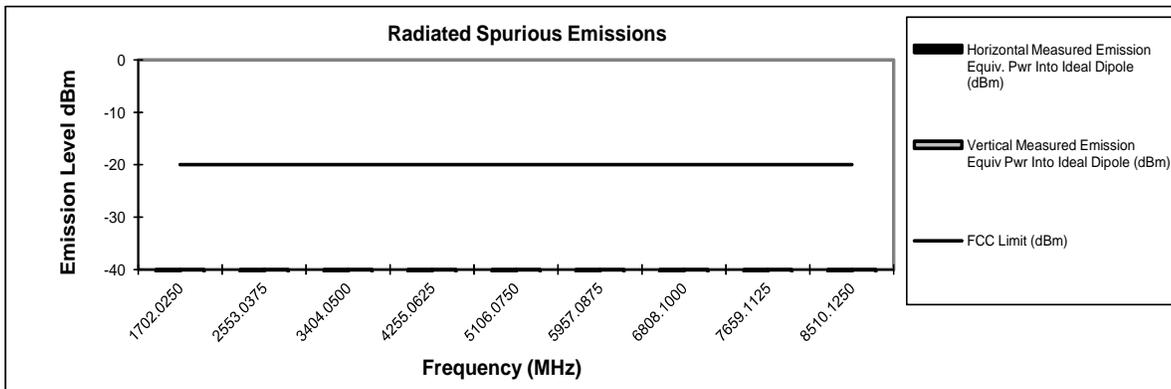
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

851.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-20	*	*
2553.0375	-20	*	*
3404.0500	-20	*	*
4255.0625	-20	*	*
5106.0750	-20	*	*
5957.0875	-20	*	*
6808.1000	-20	*	*
7659.1125	-20	*	*
8510.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

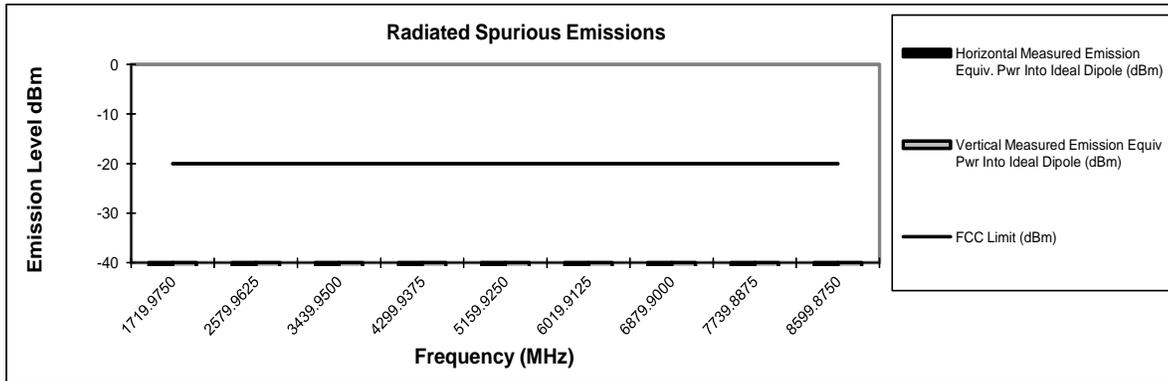
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

859.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1719.9750	-20	*	*
2579.9625	-20	*	*
3439.9500	-20	*	*
4299.9375	-20	*	*
5159.9250	-20	*	*
6019.9125	-20	*	*
6879.9000	-20	*	*
7739.8875	-20	*	*
8599.8750	-20	*	*



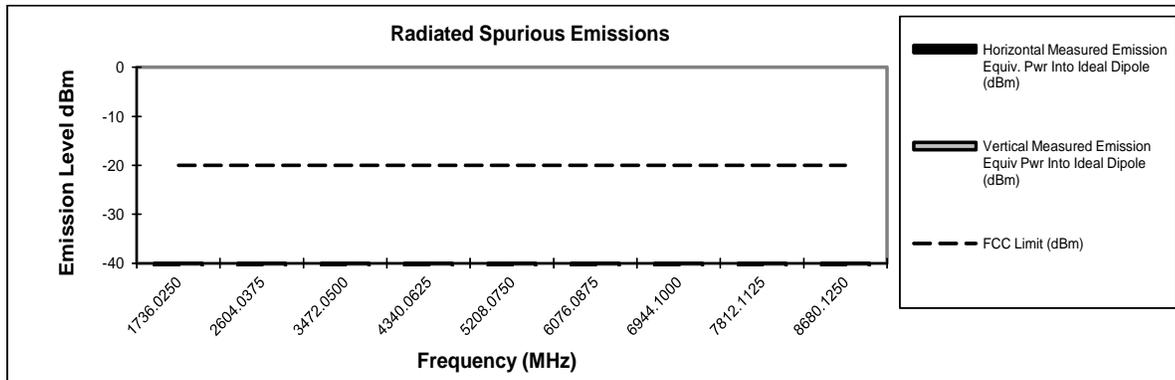
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

868.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1736.0250	-20	*	*
2604.0375	-20	*	*
3472.0500	-20	*	*
4340.0625	-20	*	*
5208.0750	-20	*	*
6076.0875	-20	*	*
6944.1000	-20	*	*
7812.1125	-20	*	*
8680.1250	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 27, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

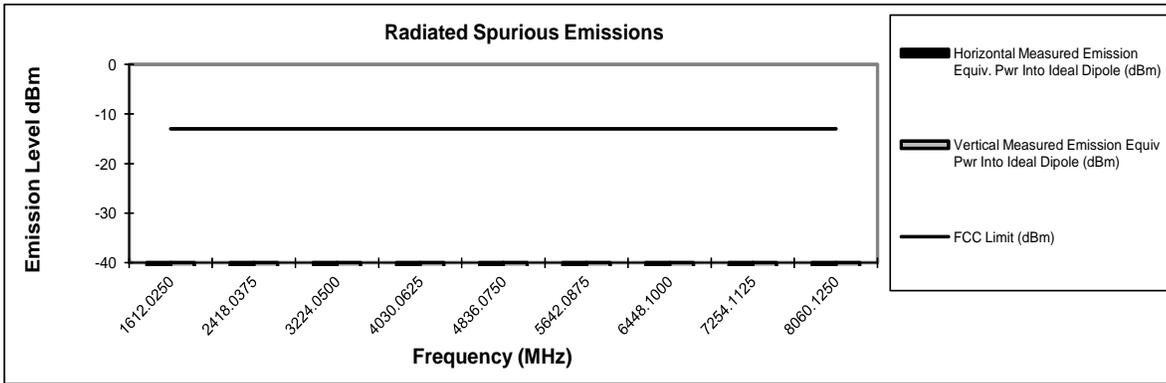
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

806.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.0250	-13	*	*
2418.0375	-13	*	*
3224.0500	-13	*	*
4030.0625	-13	*	*
4836.0750	-13	*	*
5642.0875	-13	*	*
6448.1000	-13	*	*
7254.1125	-13	*	*
8060.1250	-13	*	*



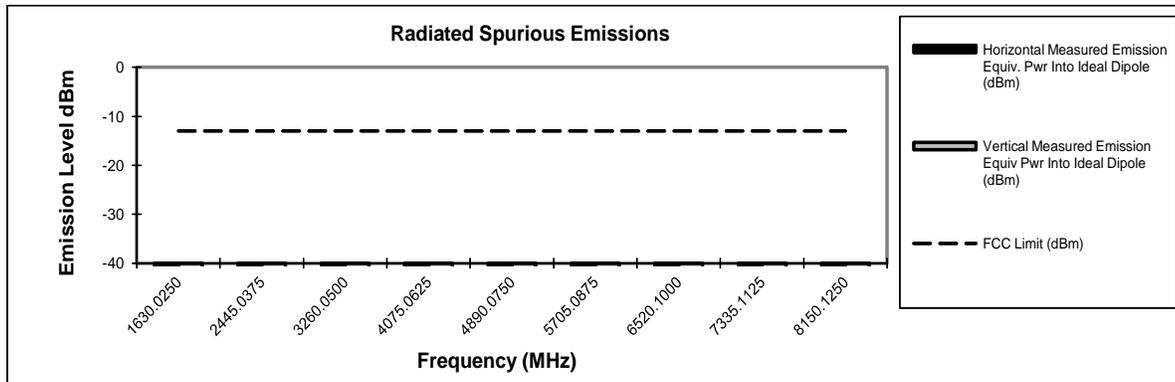
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

815.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1630.0250	-13	*	*
2445.0375	-13	*	*
3260.0500	-13	*	*
4075.0625	-13	*	*
4890.0750	-13	*	*
5705.0875	-13	*	*
6520.1000	-13	*	*
7335.1125	-13	*	*
8150.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 31, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

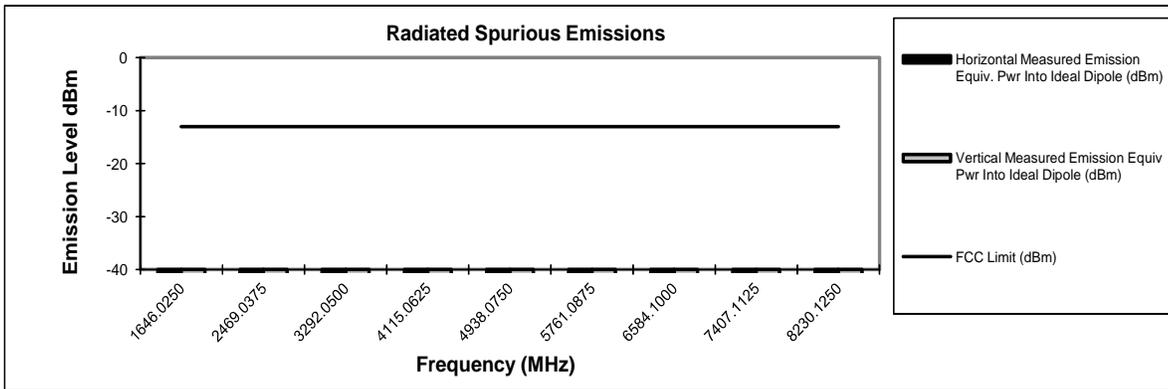
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

823.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1646.0250	-13	*	*
2469.0375	-13	*	*
3292.0500	-13	*	*
4115.0625	-13	*	*
4938.0750	-13	*	*
5761.0875	-13	*	*
6584.1000	-13	*	*
7407.1125	-13	*	*
8230.1250	-13	*	*



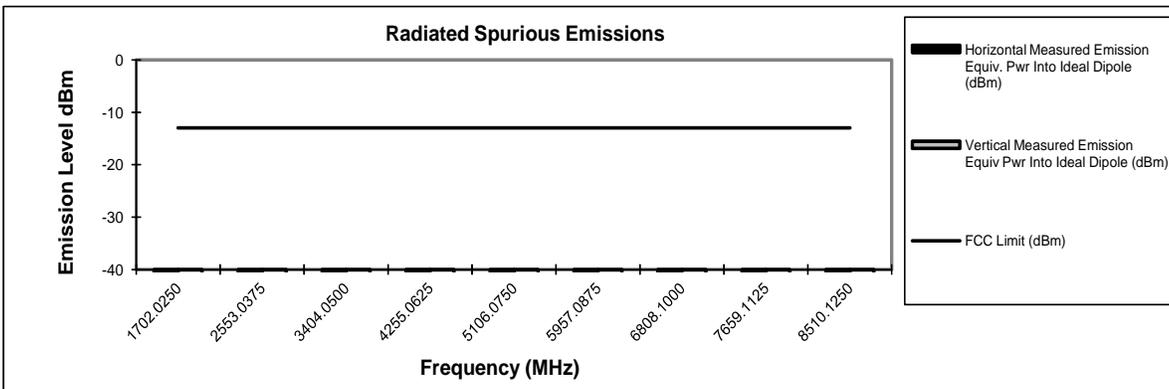
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

851.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-13	*	*
2553.0375	-13	*	*
3404.0500	-13	*	*
4255.0625	-13	*	*
5106.0750	-13	*	*
5957.0875	-13	*	*
6808.1000	-13	*	*
7659.1125	-13	*	*
8510.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 31, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

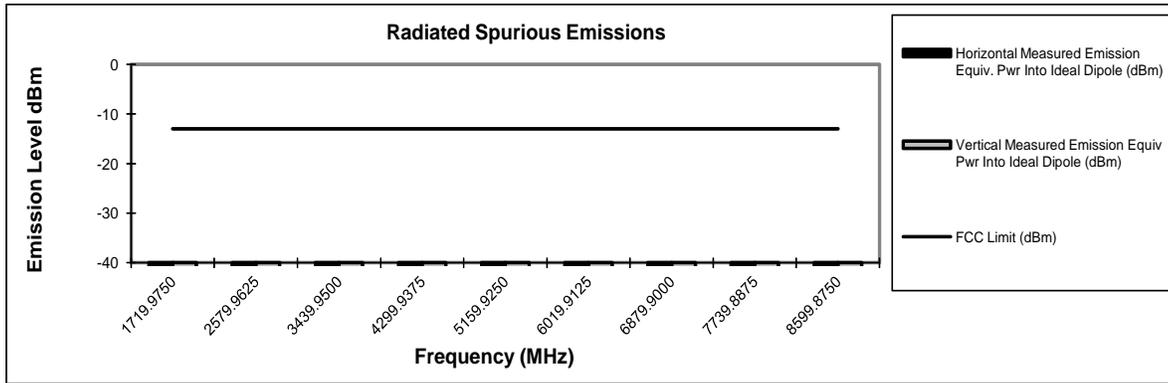
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

859.9875 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1719.9750	-13	*	*
2579.9625	-13	*	*
3439.9500	-13	*	*
4299.9375	-13	*	*
5159.9250	-13	*	*
6019.9125	-13	*	*
6879.9000	-13	*	*
7739.8875	-13	*	*
8599.8750	-13	*	*



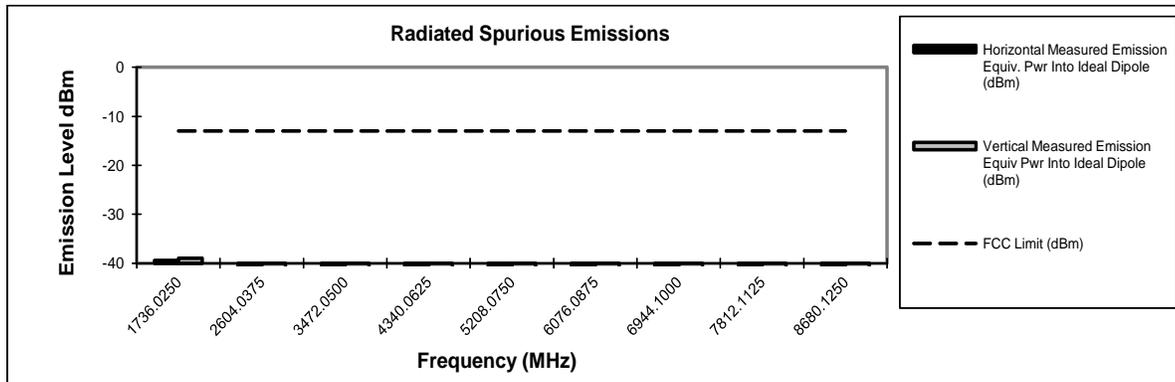
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

868.0125 MHz

Channel Spacing 25kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1736.0250	-13	-39.42	-39.00
2604.0375	-13	*	*
3472.0500	-13	*	*
4340.0625	-13	*	*
5208.0750	-13	*	*
6076.0875	-13	*	*
6944.1000	-13	*	*
7812.1125	-13	*	*
8680.1250	-13	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

March 31, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

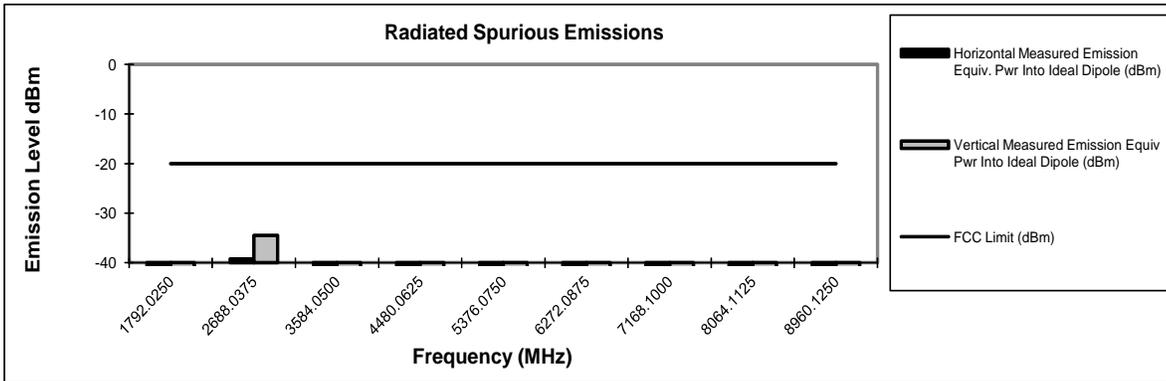
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 36 Watts

896.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1792.0250	-20	*	*
2688.0375	-20	-39.24	-34.45
3584.0500	-20	*	*
4480.0625	-20	*	*
5376.0750	-20	*	*
6272.0875	-20	*	*
7168.1000	-20	*	*
8064.1125	-20	*	*
8960.1250	-20	*	*



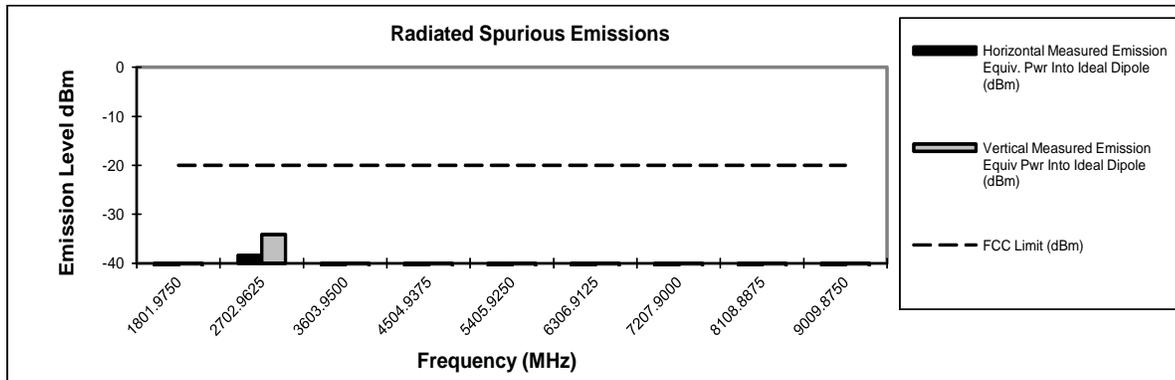
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 36 Watts

900.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1801.9750	-20	*	*
2702.9625	-20	-38.40	-34.15
3603.9500	-20	*	*
4504.9375	-20	*	*
5405.9250	-20	*	*
6306.9125	-20	*	*
7207.9000	-20	*	*
8108.8875	-20	*	*
9009.8750	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

April 2, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

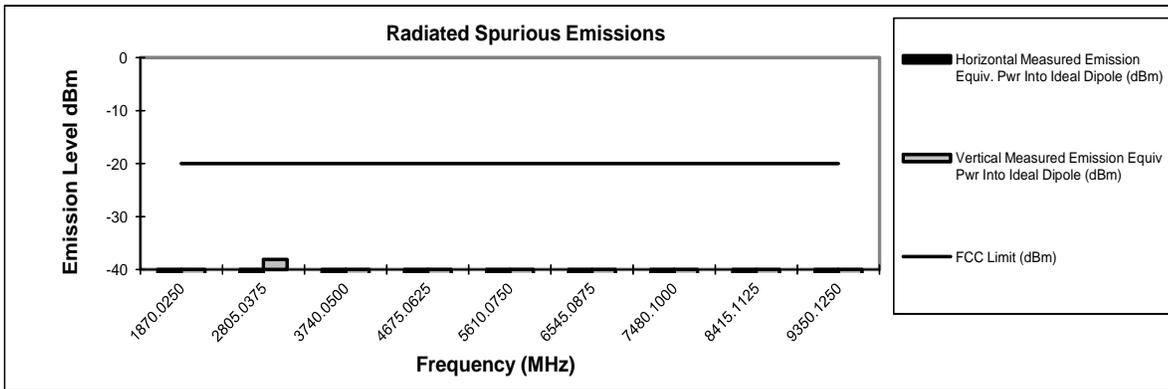
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 36 Watts

935.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1870.0250	-20	*	*
2805.0375	-20	*	-38.04
3740.0500	-20	*	*
4675.0625	-20	*	*
5610.0750	-20	*	*
6545.0875	-20	*	*
7480.1000	-20	*	*
8415.1125	-20	*	*
9350.1250	-20	*	*



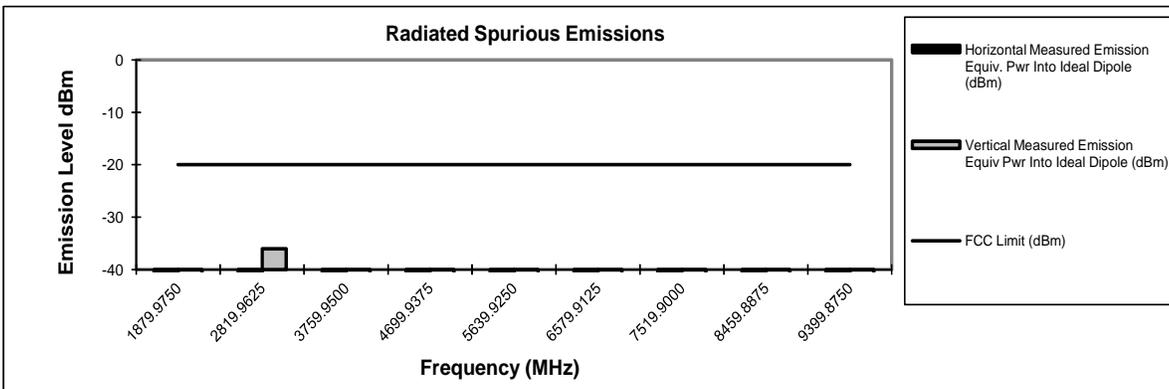
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 36 Watts

939.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1879.9750	-20	*	*
2819.9625	-20	*	-36.03
3759.9500	-20	*	*
4699.9375	-20	*	*
5639.9250	-20	*	*
6579.9125	-20	*	*
7519.9000	-20	*	*
8459.8875	-20	*	*
9399.8750	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

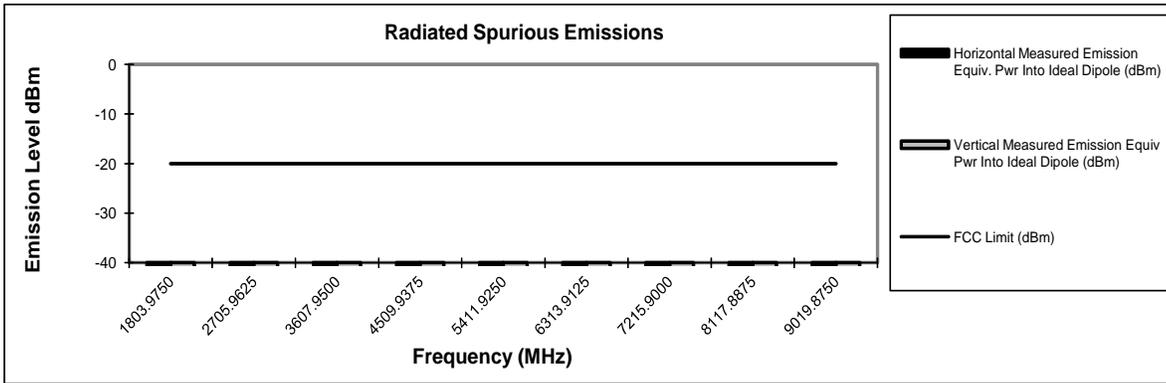
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 9 Watts

901.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1803.9750	-20	*	*
2705.9625	-20	*	*
3607.9500	-20	*	*
4509.9375	-20	*	*
5411.9250	-20	*	*
6313.9125	-20	*	*
7215.9000	-20	*	*
8117.8875	-20	*	*
9019.8750	-20	*	*



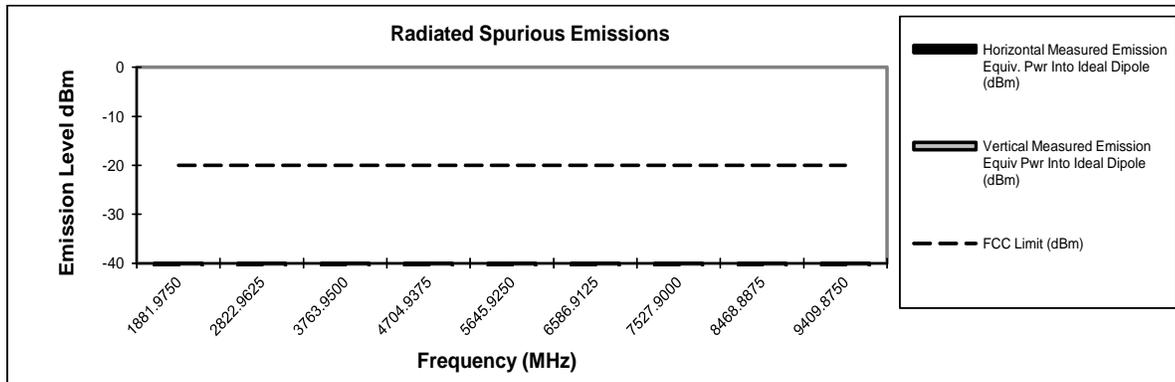
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 9 Watts

940.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1881.9750	-20	*	*
2822.9625	-20	*	*
3763.9500	-20	*	*
4704.9375	-20	*	*
5645.9250	-20	*	*
6586.9125	-20	*	*
7527.9000	-20	*	*
8468.8875	-20	*	*
9409.8750	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

April 3, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

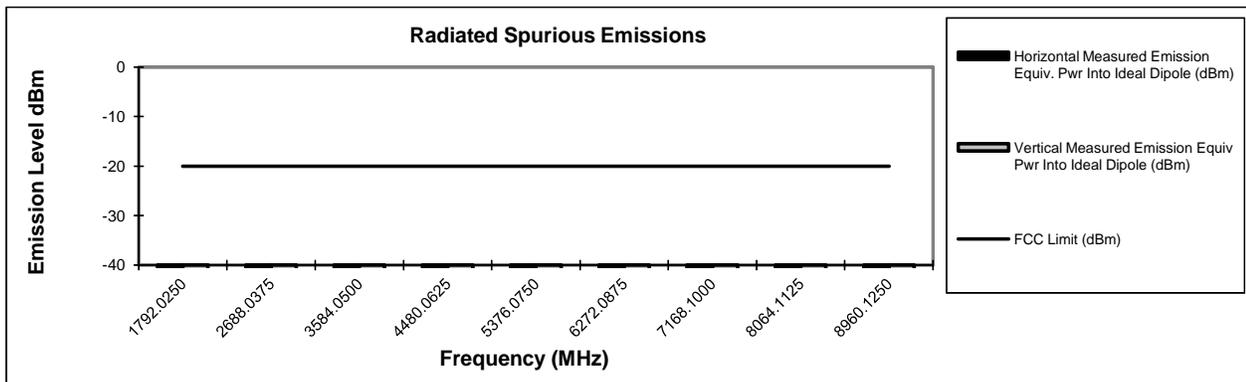
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

896.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1792.0250	-20	*	*
2688.0375	-20	*	*
3584.0500	-20	*	*
4480.0625	-20	*	*
5376.0750	-20	*	*
6272.0875	-20	*	*
7168.1000	-20	*	*
8064.1125	-20	*	*
8960.1250	-20	*	*



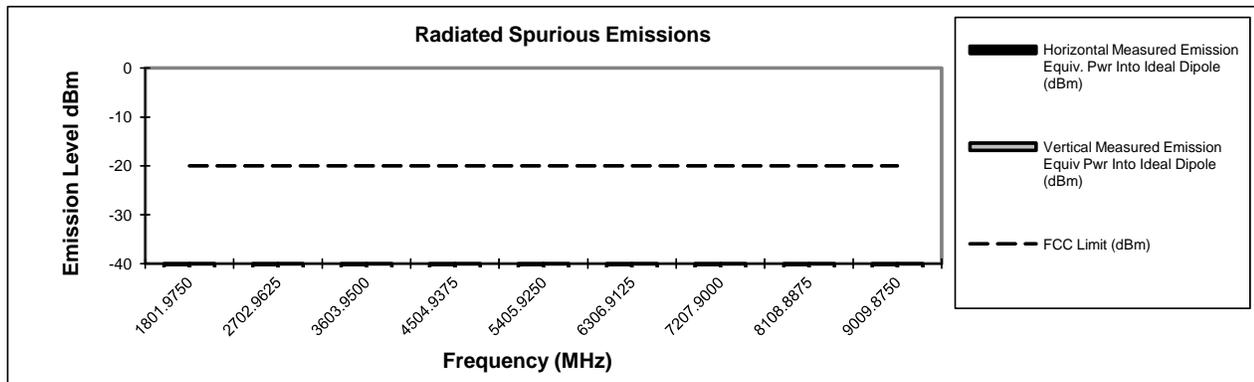
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

900.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1801.9750	-20	*	*
2702.9625	-20	*	*
3603.9500	-20	*	*
4504.9375	-20	*	*
5405.9250	-20	*	*
6306.9125	-20	*	*
7207.9000	-20	*	*
8108.8875	-20	*	*
9009.8750	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

April 2, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

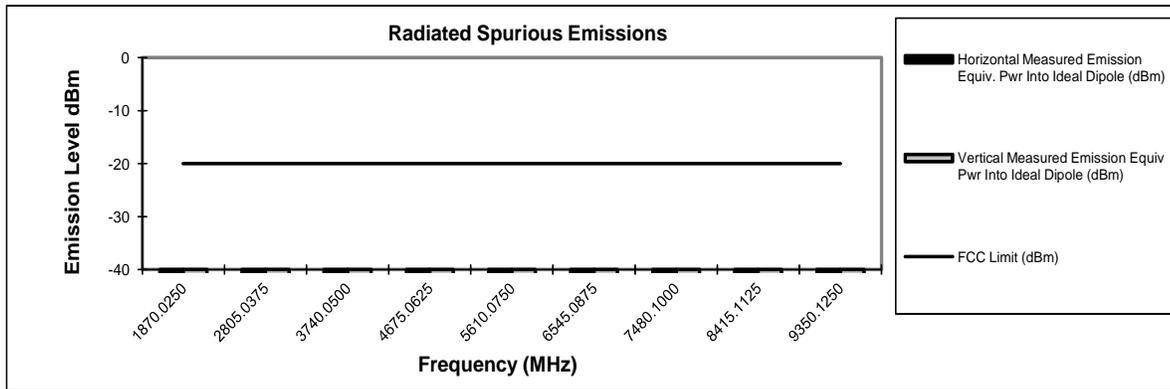
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

935.0125 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1870.0250	-20	*	*
2805.0375	-20	*	*
3740.0500	-20	*	*
4675.0625	-20	*	*
5610.0750	-20	*	*
6545.0875	-20	*	*
7480.1000	-20	*	*
8415.1125	-20	*	*
9350.1250	-20	*	*



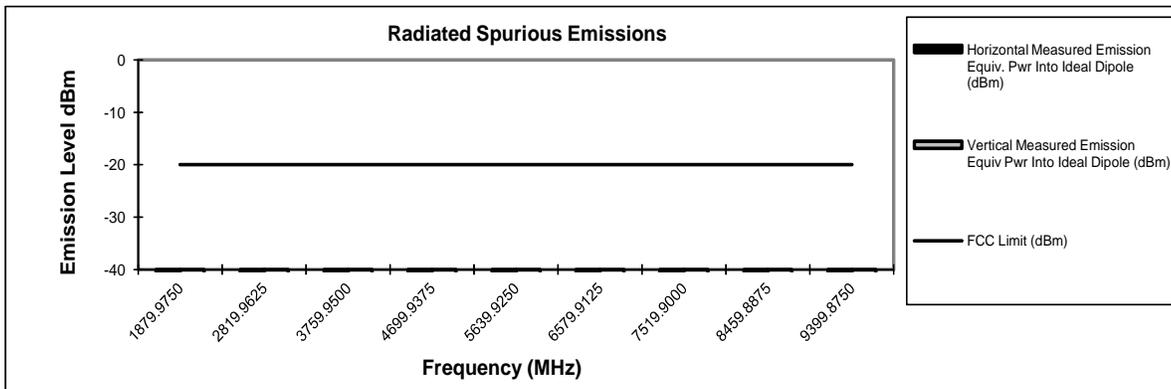
Transmit Radiated Spurious Emissions: XPR 5580

Tx Power: 10 Watts

939.9875 MHz

Channel Spacing 12.5kHz | S/N 203TQF0038

Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1879.9750	-20	*	*
2819.9625	-20	*	*
3759.9500	-20	*	*
4699.9375	-20	*	*
5639.9250	-20	*	*
6579.9125	-20	*	*
7519.9000	-20	*	*
8459.8875	-20	*	*
9399.8750	-20	*	*



* Indicates the spurious emission could not be detected due to noise limitations or ambients.

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

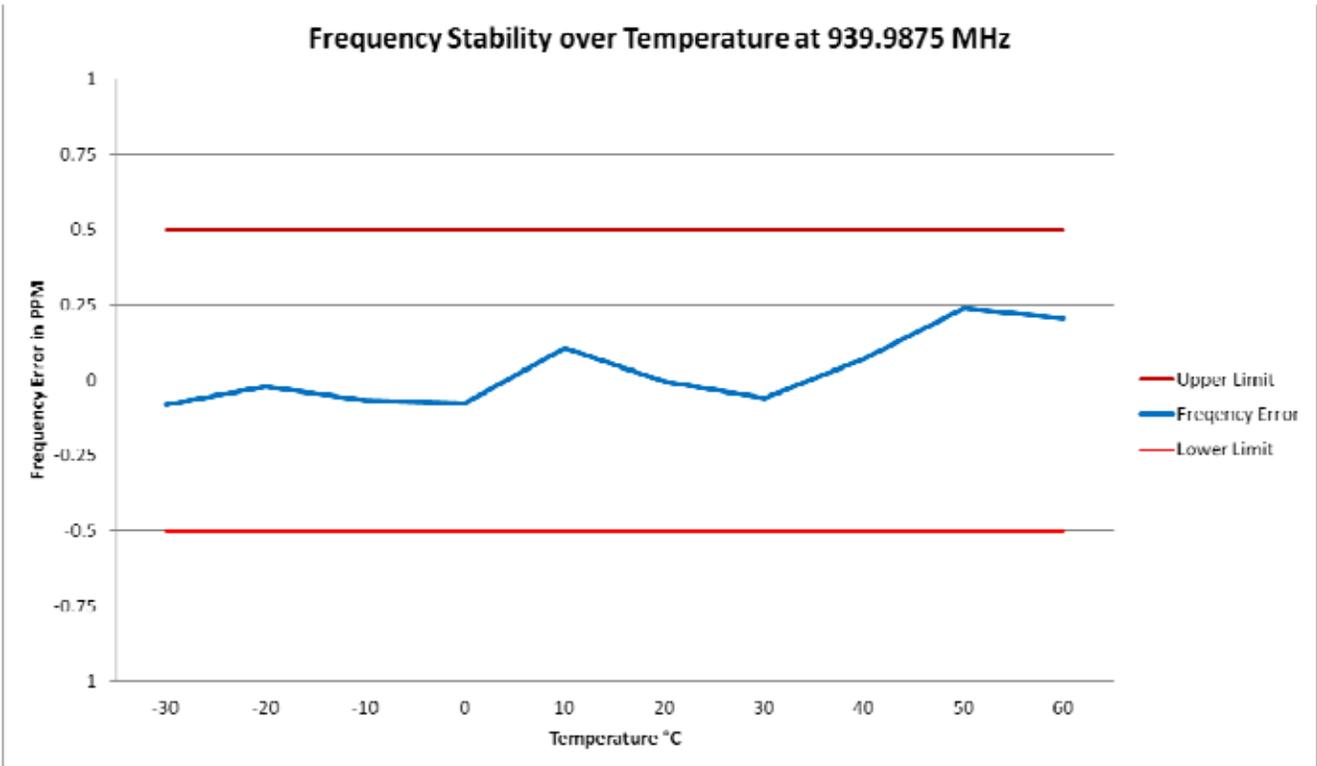
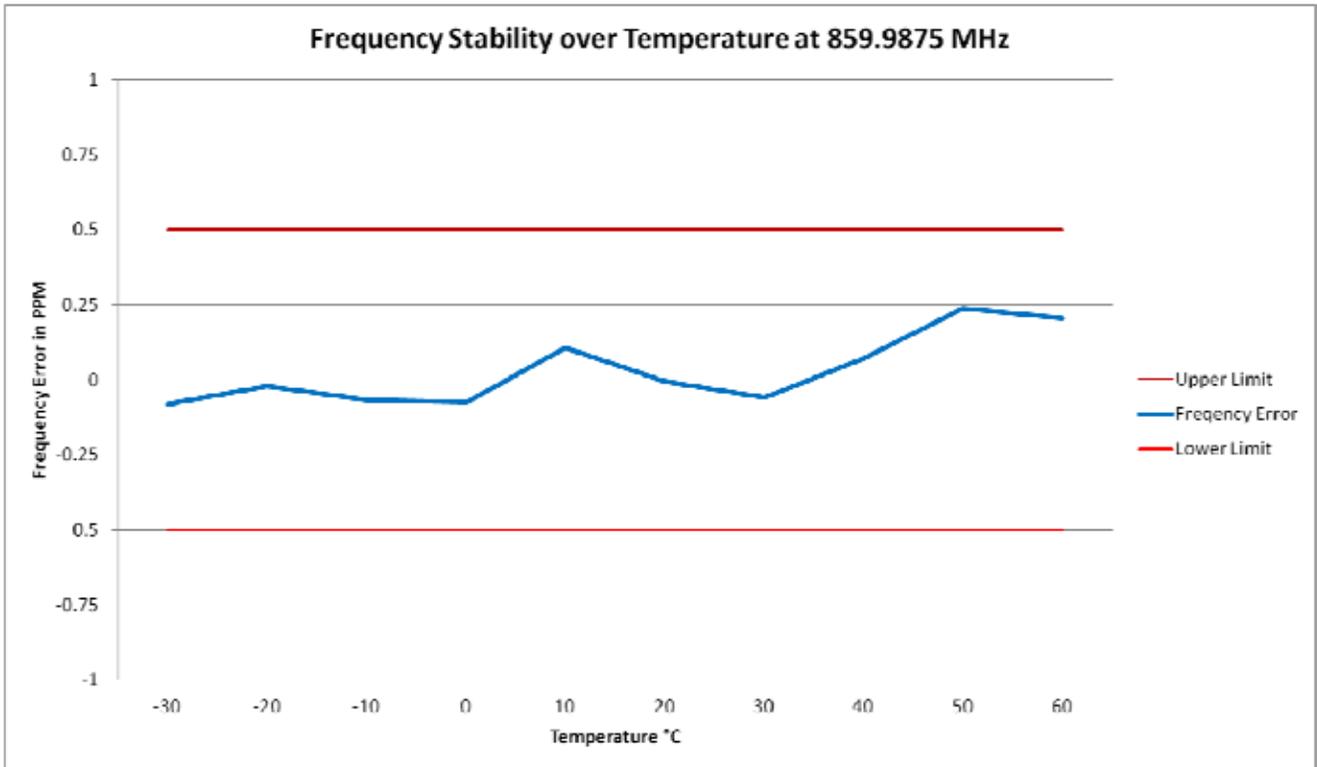
The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan

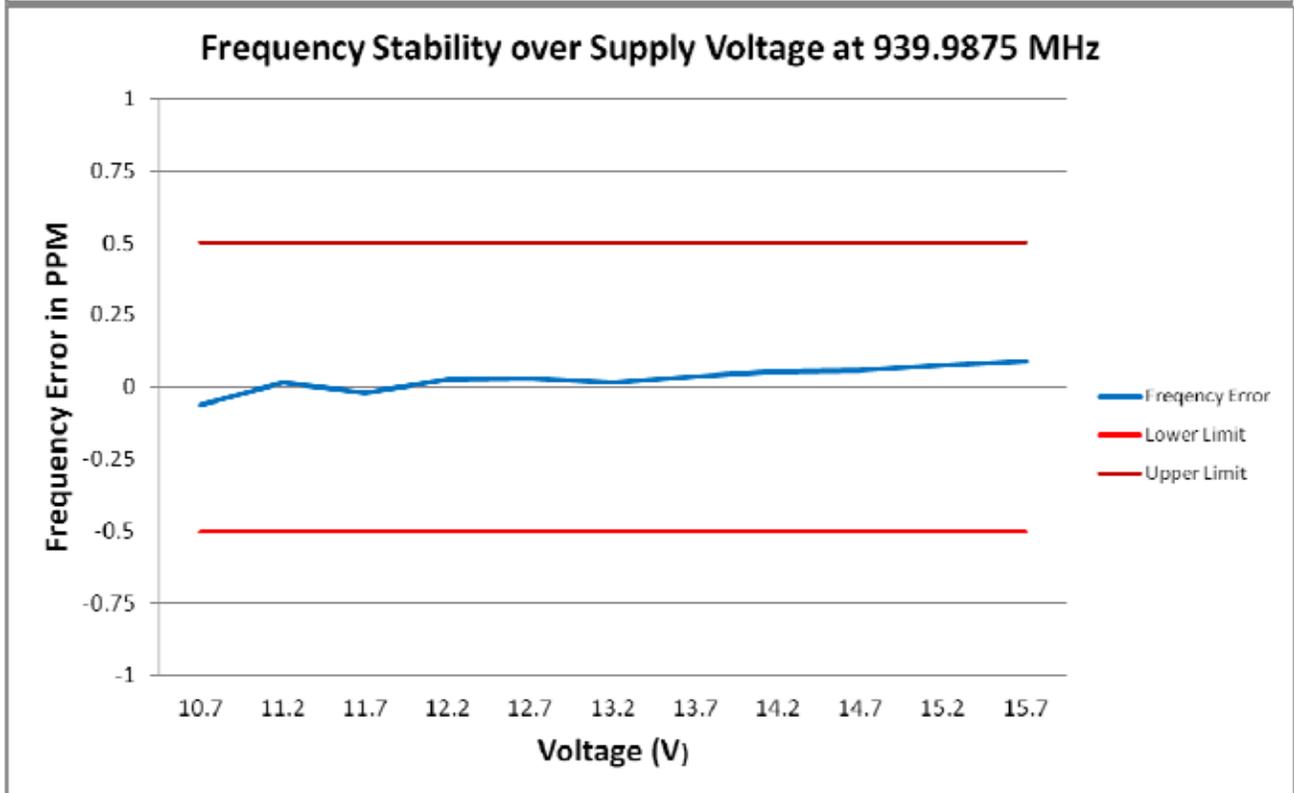
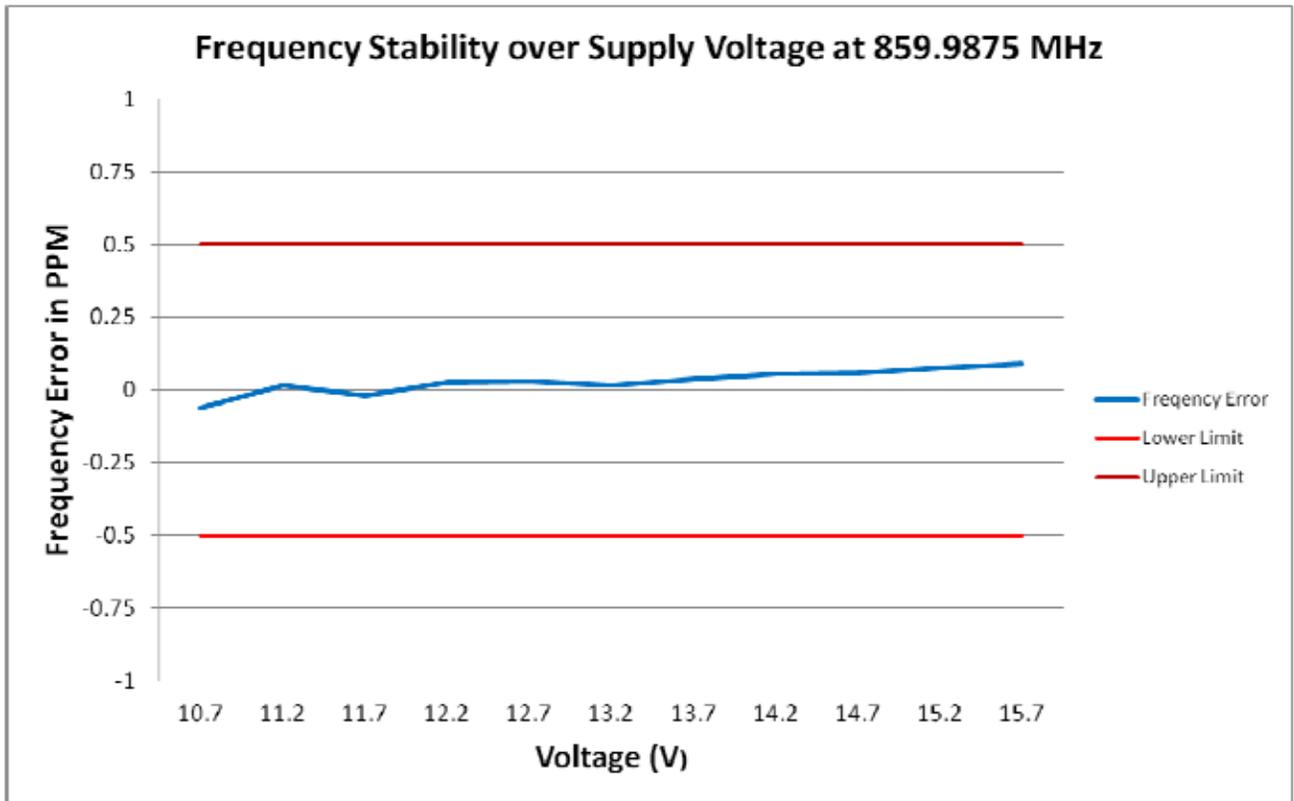
April 2, 2014

FCC Registration: 91932 / Industry Canada: IC109U-1

FREQUENCY STABILITY VS. TEMPERATURE SPECIFIED LIMITS: ± 0.5 PPM (-30 TO +60 °C)



FREQUENCY STABILITY VS. SUPPLY VOLTAGE



ERP XPR 5580 12.5kHz Channel Spacing**Tx Power: 9 Watts**

	Frequency	Turn Table Deg.	Radiated Spur Emiss. (dBm)
Horiz.	901.9875	0	25.85
Horiz.	901.9875	45	22.29
Horiz.	901.9875	90	16.75
Horiz.	901.9875	135	22.07
Horiz.	901.9875	180	26.51
Horiz.	901.9875	225	25.54
Horiz.	901.9875	270	16.95
Horiz.	901.9875	315	20.38
Vert.	901.9875	0	32.47
Vert.	901.9875	45	33.21
Vert.	901.9875	90	32.99
Vert.	901.9875	135	32.54
Vert.	901.9875	180	32.15
Vert.	901.9875	225	32.65
Vert.	901.9875	270	32.69
Vert.	901.9875	315	33.81

	Frequency	Turn Table Deg.	Radiated Spur Emiss. (dBm)
Horiz.	940.9875	0	26.52
Horiz.	940.9875	45	23.44
Horiz.	940.9875	90	19.52
Horiz.	940.9875	135	21.88
Horiz.	940.9875	180	27.92
Horiz.	940.9875	225	21.66
Horiz.	940.9875	270	18.89
Horiz.	940.9875	315	25.34
Vert.	940.9875	0	32.88
Vert.	940.9875	45	33.65
Vert.	940.9875	90	32.72
Vert.	940.9875	135	32.31
Vert.	940.9875	180	31.78
Vert.	940.9875	225	33.03
Vert.	940.9875	270	32.89
Vert.	940.9875	315	33.27