

### APPENDIX 1

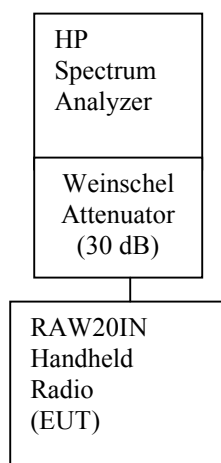
#### RF CONDUCTED EMISSIONS TEST DATA/PLOTS

## Conducted Emission Test Data

This appendix contains measurement data pertaining to the conducted spurious emissions, Masks 47 CFR 2.1051, 90.210(g), 90.691(a), Occupied Bandwidth 47 CFR 2.1049(h), 99% power bandwidth and -26 dBc bandwidth for both the 800 and 900 bands.

Test sample measured was model number RAW20IN, PIN 400B1FFB.

### Test Setup Diagram



The environmental test conditions were:

Temperature	26°C
Pressure	1015 mb
Relative Humidity	34%

## Test Equipment List

Test Instruments	Manufacturer	Model No.	Serial No.	Frequency Range
Spectrum Analyzer	HP	8563E	374A08112	30 Hz – 26.5 GHz
Attenuator	Weinschel	47-30-43	BJ0923	DC – 18 GHz

Conducted Emission Test Data cont'd

The TDM Transmission Slot Multiplex Factor was set to 2 /6 with the RF power output at maximum for all the recorded measurements of the -26dBc and 99% occupied bandwidths.

**Test Data for TDM selected Frequencies**

<i>TDM-MF</i> 2/6 Frequency (MHz)	QPSK_4 Occupied Bandwidth (kHz)	QAM_16 Occupied Bandwidth (kHz)	QAM_64 Occupied Bandwidth (kHz)	QPSK_4 - 26dBc Bandwidth (kHz)	QAM_16 - 26dBc Bandwidth (kHz)	QAM_64 - 26dBc Bandwidth (kHz)
806.0125	21.17	21.42	21.25	25.50	24.83	25.50
815.5000	21.08	21.33	21.17	25.17	25.58	25.42
824.9880	21.25	21.25	21.17	24.92	25.75	25.67

<i>TDM-MF</i> 2/6 Frequency (MHz)	QPSK_4 Occupied Bandwidth (kHz)	QAM_16 Occupied Bandwidth (kHz)	QAM_64 Occupied Bandwidth (kHz)	QPSK_4 - 26dBc Bandwidth (kHz)	QAM_16 - 26dBc Bandwidth (kHz)	QAM_64 - 26dBc Bandwidth (kHz)
896.01875	21.25	21.25	21.25	25.33	25.42	25.58
898.51875	21.25	21.25	21.25	25.75	25.42	25.67
900.98125	21.17	21.17	21.25	25.50	25.25	25.58

Conducted Emission Test Data cont'd

The conducted spurious emissions – Pursuant to 47 CFR 2.1051 were measured from 10 MHz to 10 GHz. No emissions could be seen above the noise floor of the spectrum analyzer.

Measurement Plots for TDMA, QPSK\_4, QAM-16, QAM\_64.

Refer to the following figures for the measurement plots.

See Figures 1 to 18 for the plots of the 99% Occupied Bandwidth results.

See Figures 19 to 36 for the plots of the –26 dBc Bandwidth results.  
Carrier Reference at 0.0 dB

See Figures 37 to 54 for plots of the EA Mask 47 CFR 90.691(a) measured data.

See Figures 55 to 72 for plots of the G Mask. 47 CFR 90.210(g) measured data.

See Figures 73 to 108 for plots of the Spurious Conducted Emission 47 CFR 2.1051 results.

### Conducted Emission Test Data cont'd

Figure 1: Occupied Bandwidth (99%)

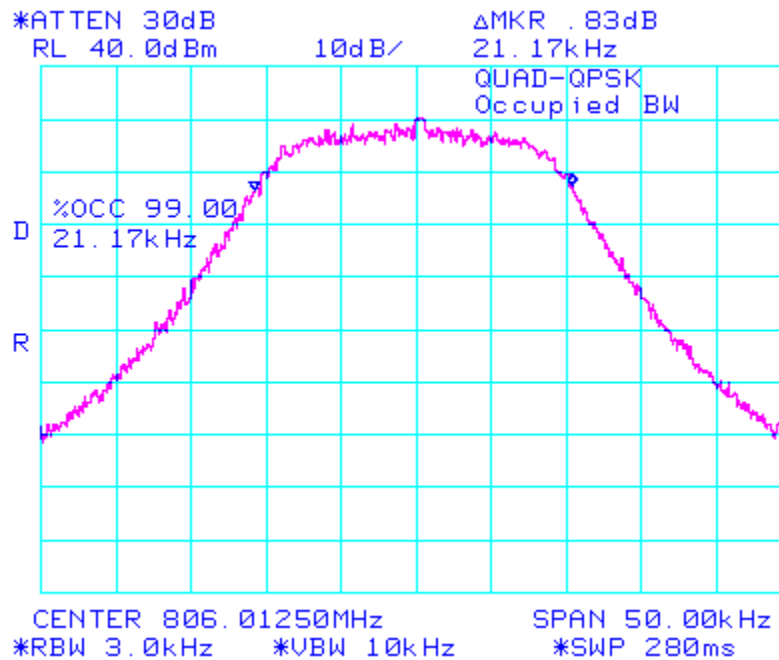
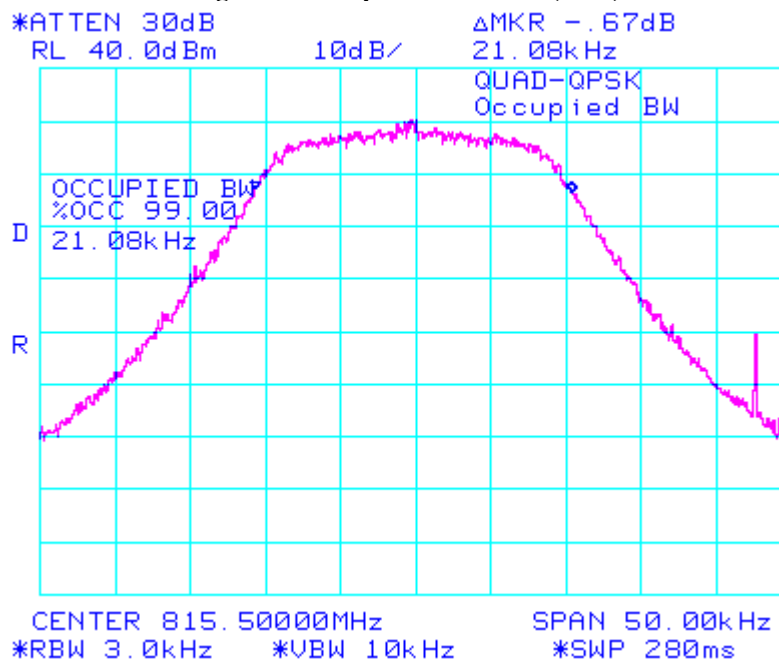


Figure 2: Occupied Bandwidth (99%)



### Conducted Emission Test Data cont'd

Figure 3: Occupied Bandwidth (99%)

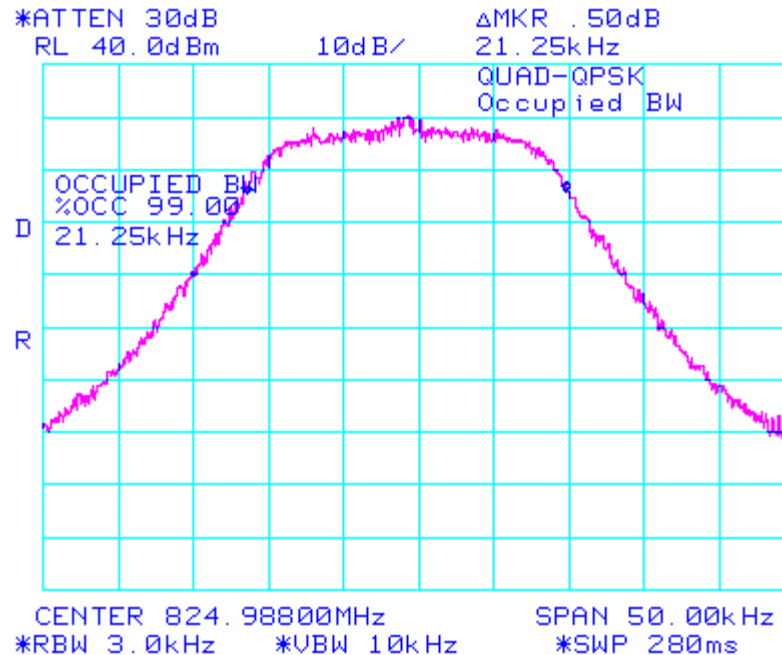
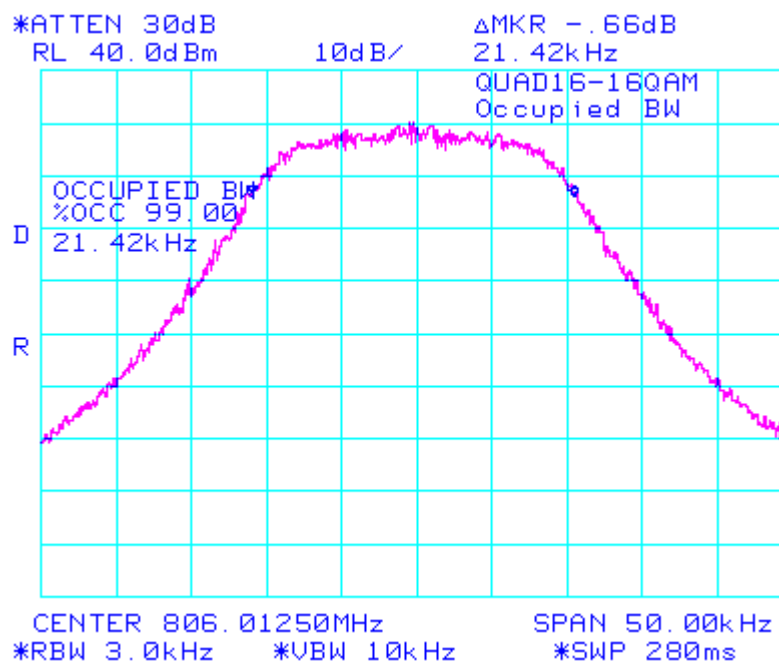


Figure 4: Occupied Bandwidth (99%)



### Conducted Emission Test Data cont'd

Figure 5: Occupied Bandwidth (99%)

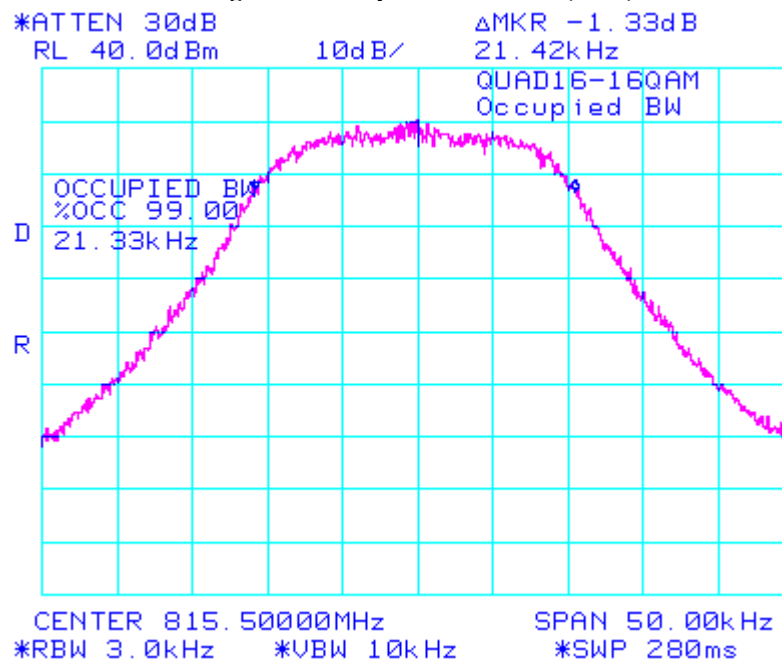
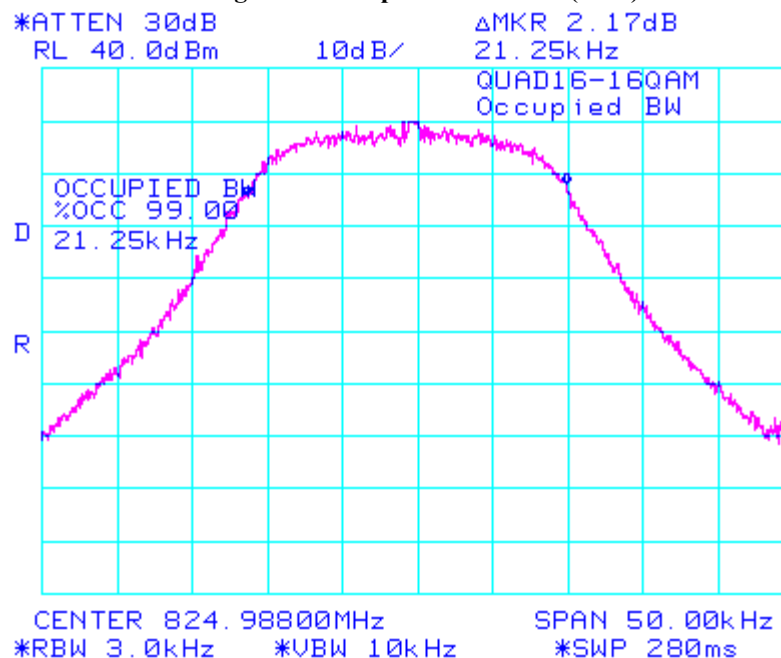


Figure 6: Occupied Bandwidth (99%)



### Conducted Emission Test Data cont'd

Figure 7: Occupied Bandwidth (99%)

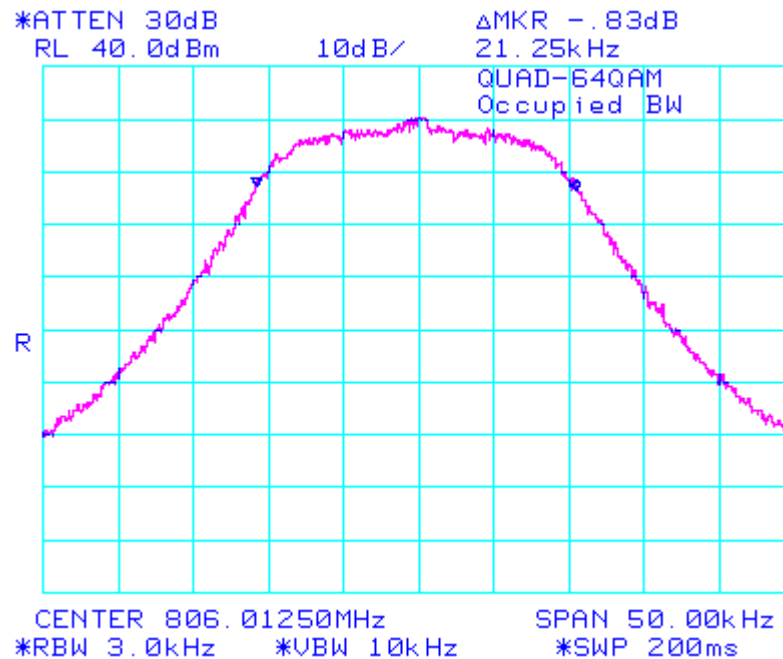
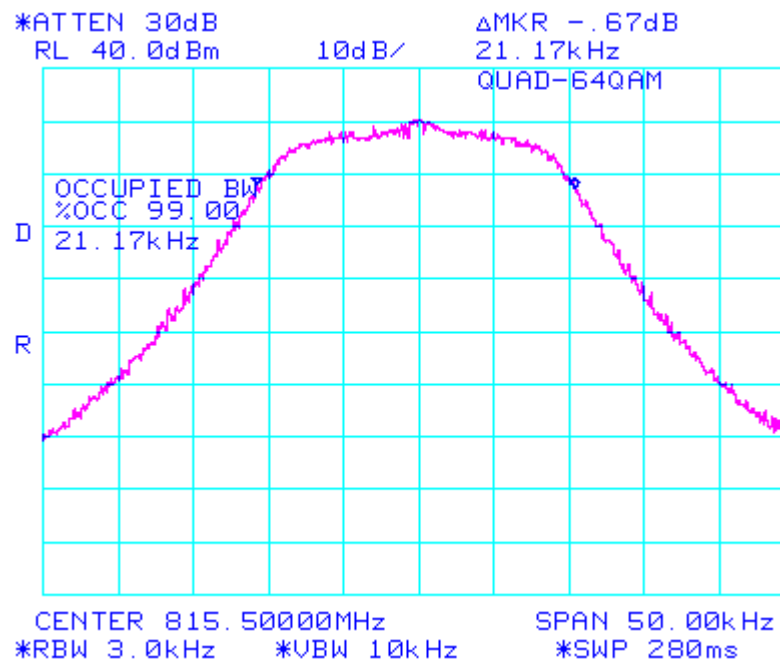


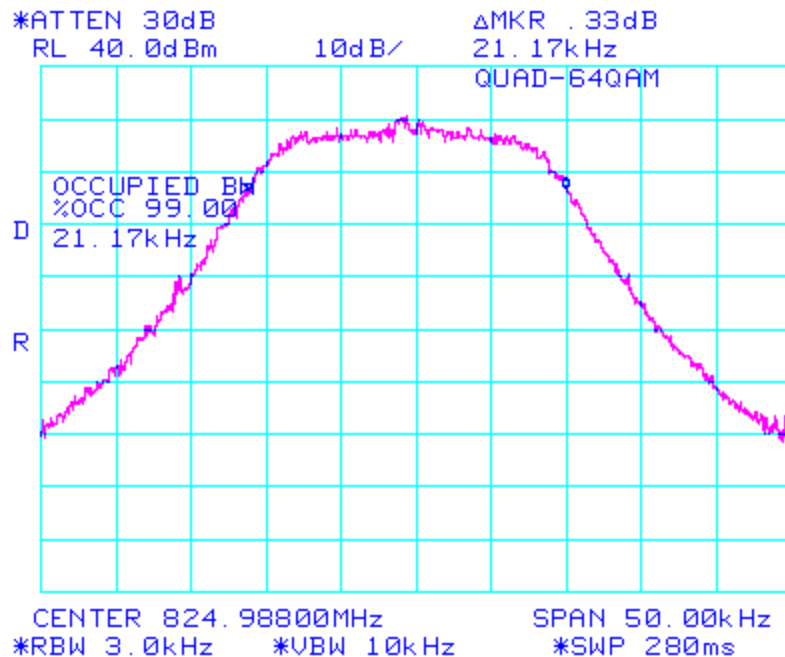
Figure 8: Occupied Bandwidth (99%)



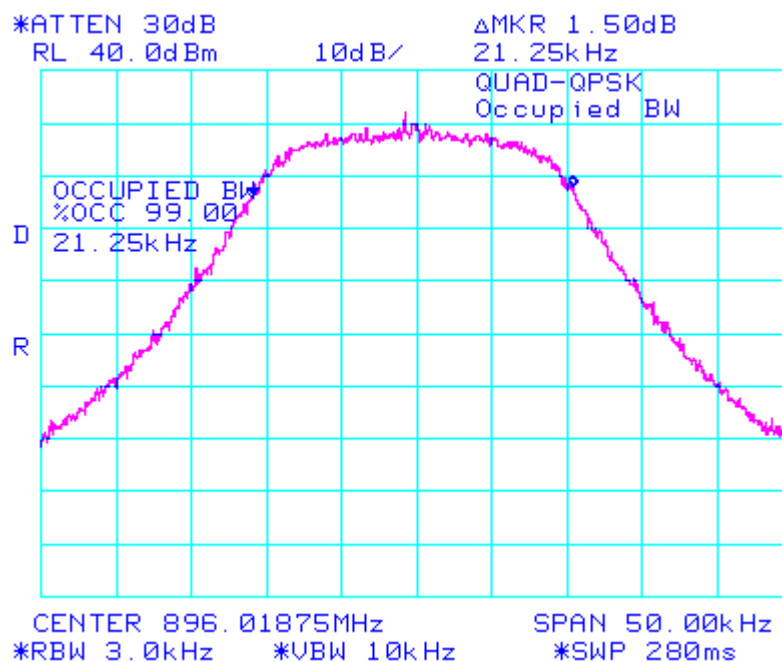


### Conducted Emission Test Data cont'd

**Figure 9: Occupied Bandwidth (99%)**

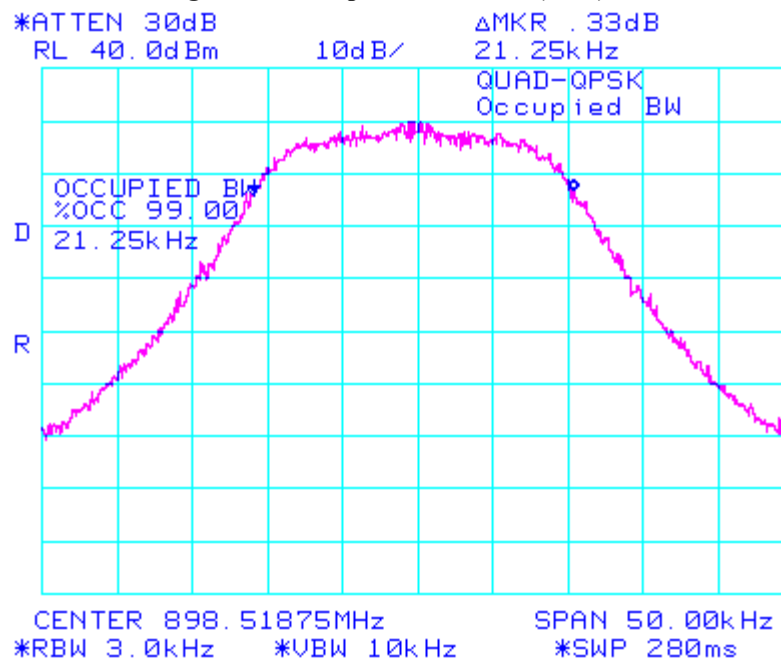


**Figure 10: Occupied Bandwidth (99%)**

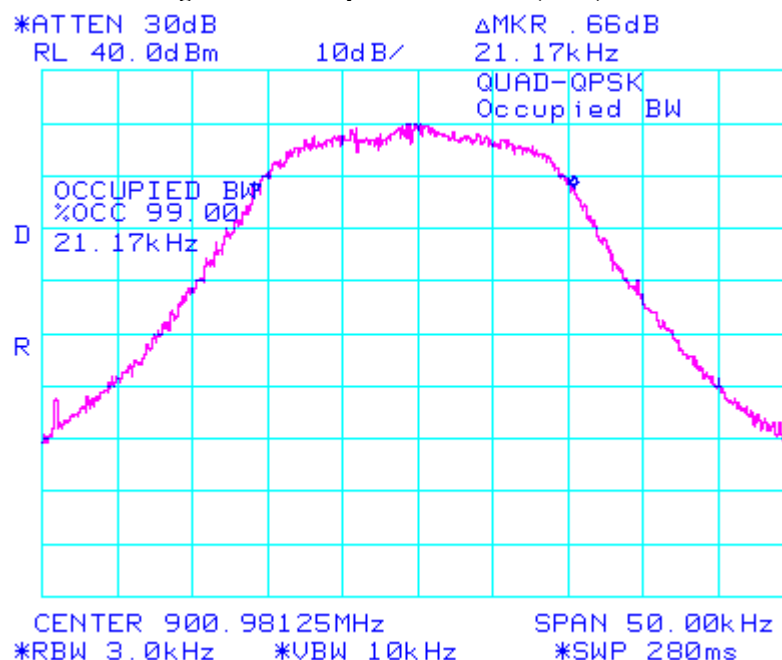


### Conducted Emission Test Data cont'd

**Figure 11: Occupied Bandwidth (99%)**

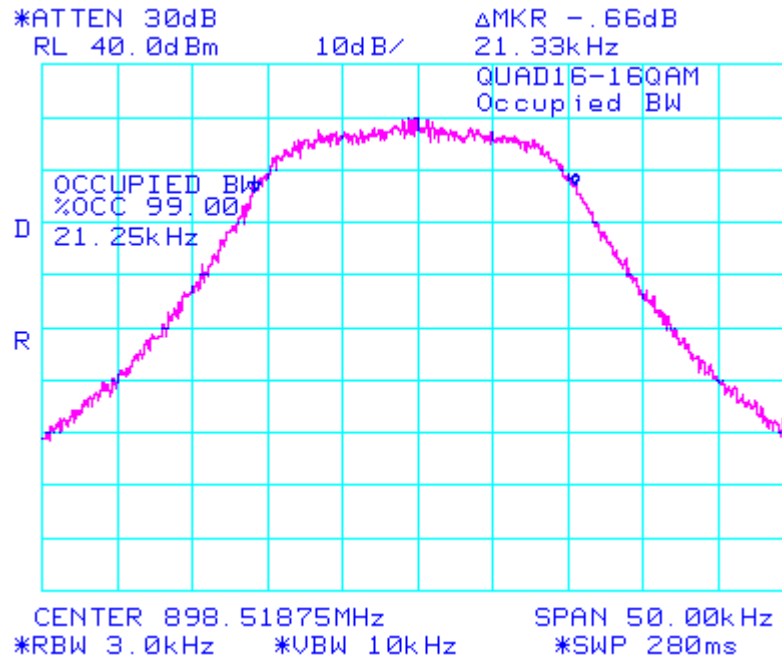


**Figure 12: Occupied Bandwidth (99%)**

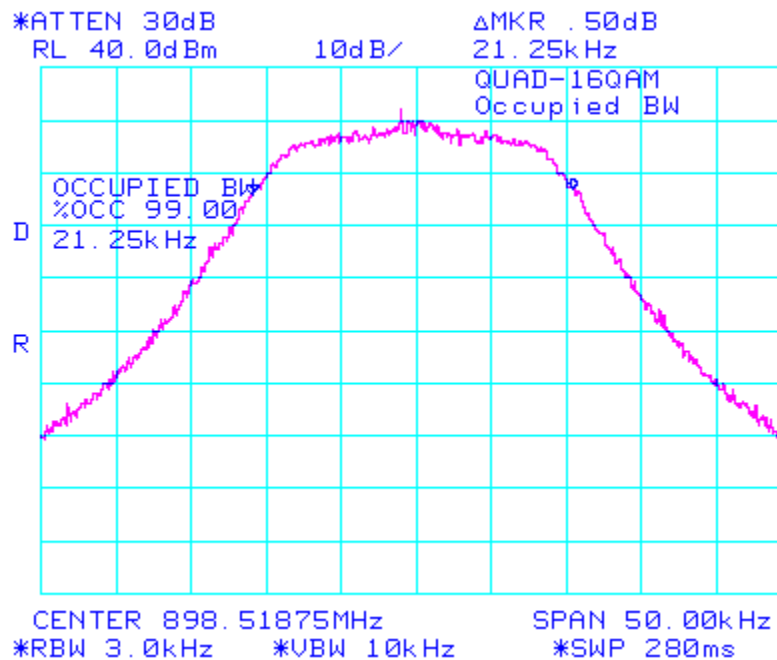


### Conducted Emission Test Data cont'd

**Figure 13: Occupied Bandwidth (99%)**



**Figure 14: Occupied Bandwidth (99%)**



### Conducted Emission Test Data cont'd

Figure 15: Occupied Bandwidth (99%)

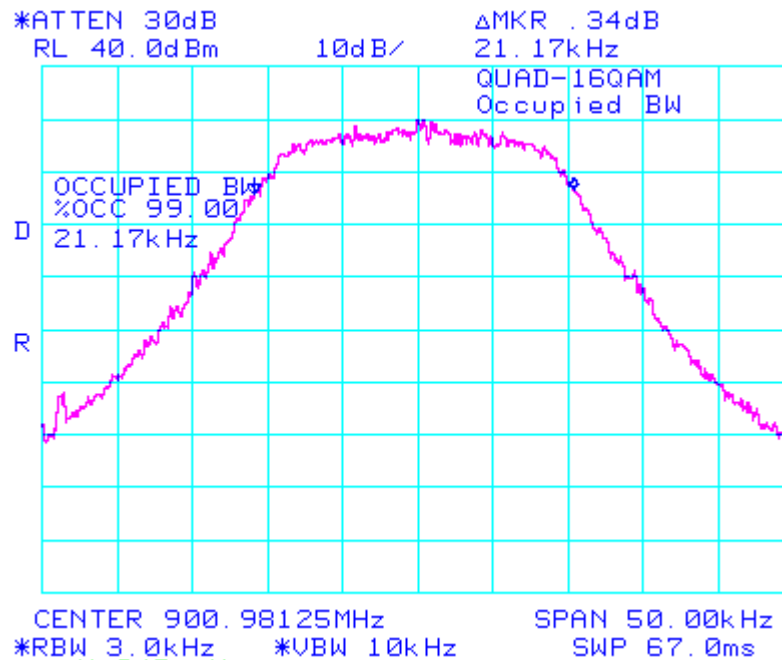
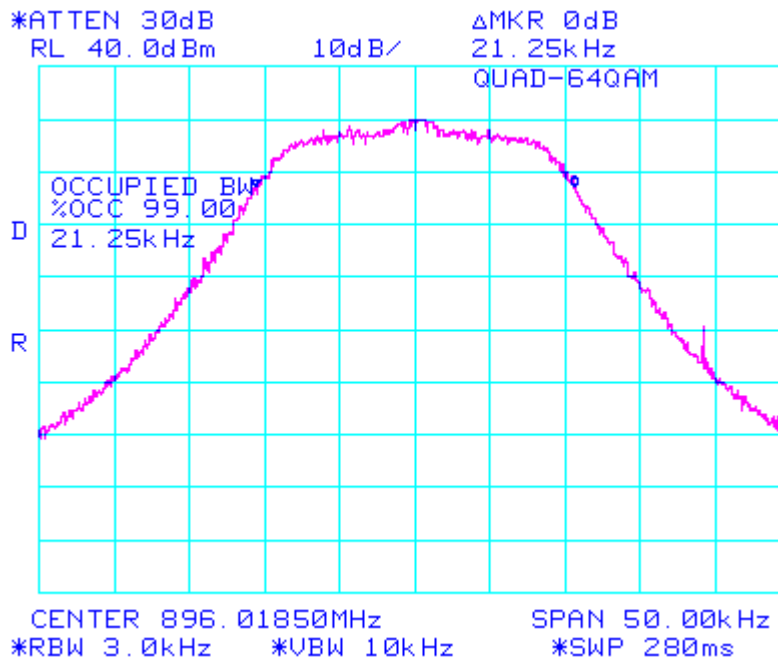


Figure 16: Occupied Bandwidth (99%)



### Conducted Emission Test Data cont'd

Figure 17: Occupied Bandwidth (99%)

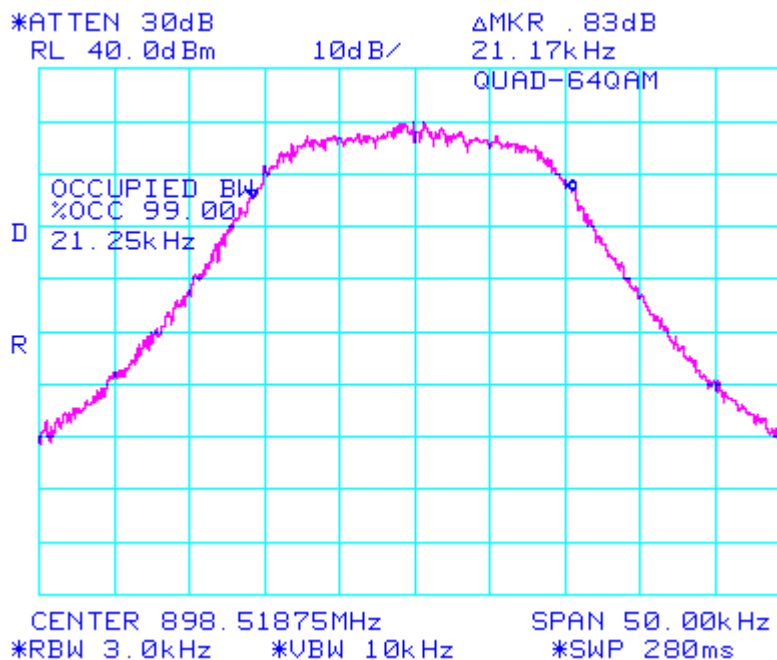
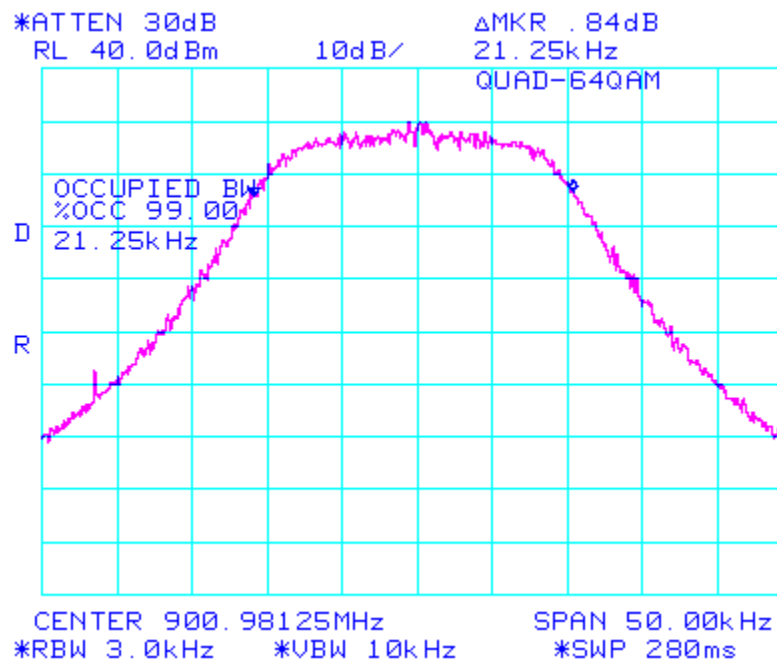


Figure 18: Occupied Bandwidth (99%)



### Conducted Emission Test Data cont'd

Figure 19: -26 dBc Bandwidth

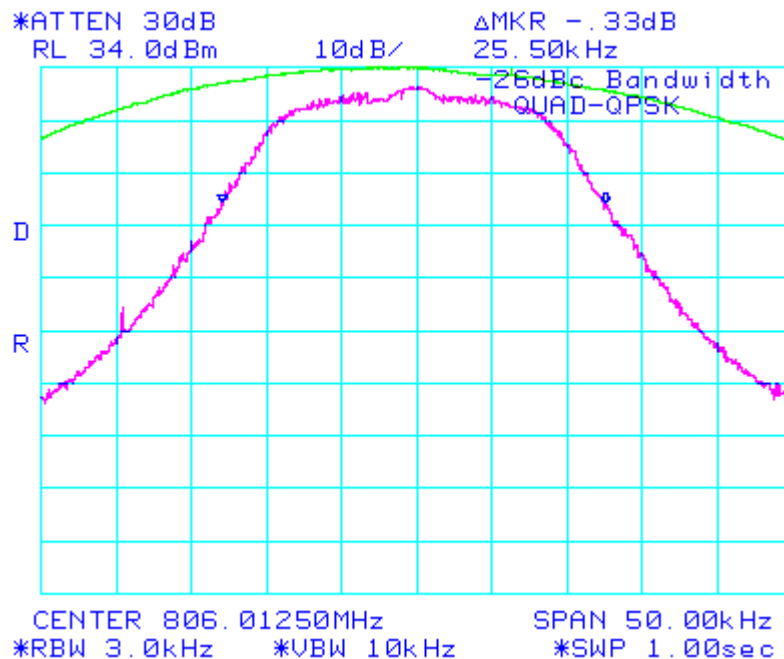
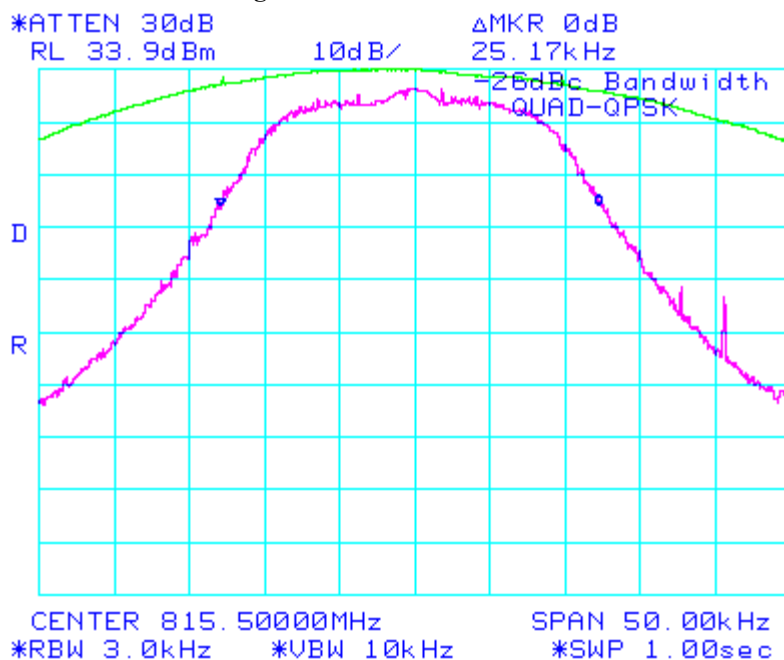


Figure 20: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 21: -26 dBc Bandwidth

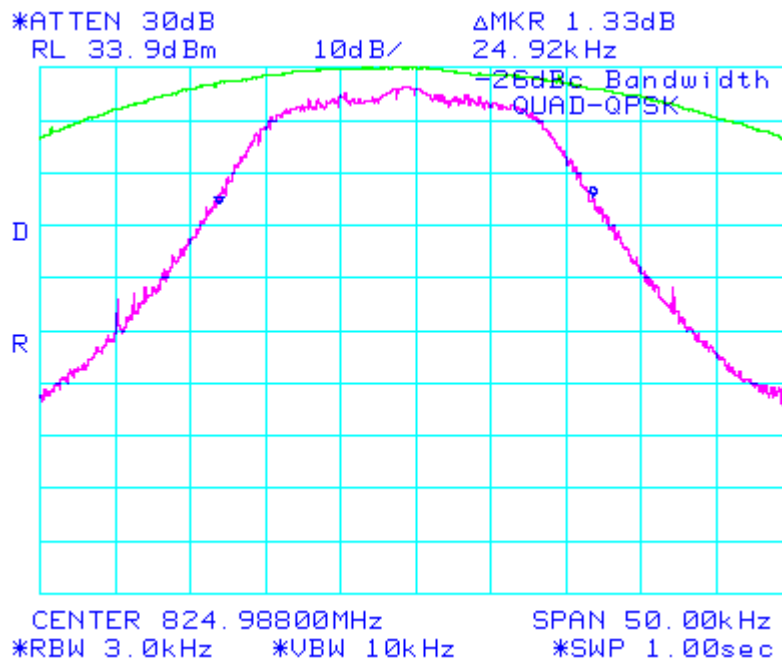
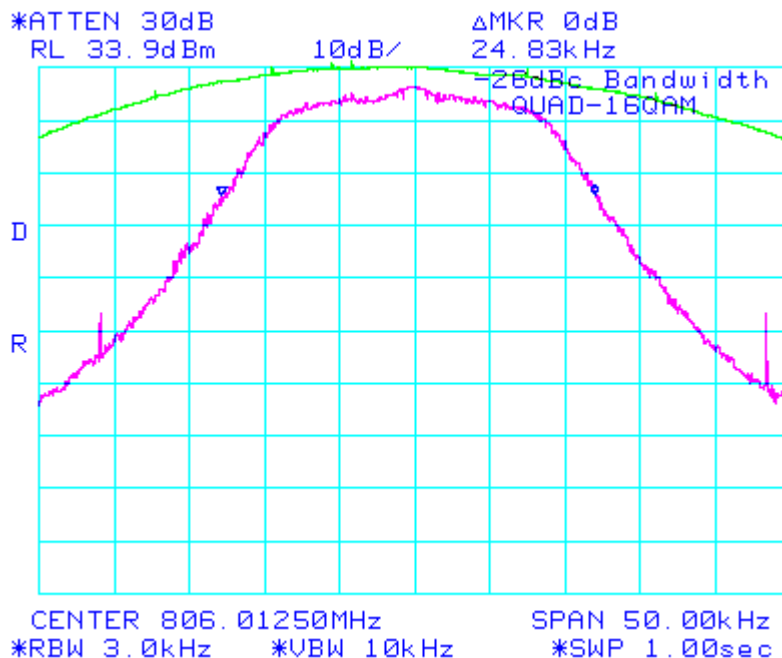


Figure 22: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 23: -26 dBc Bandwidth

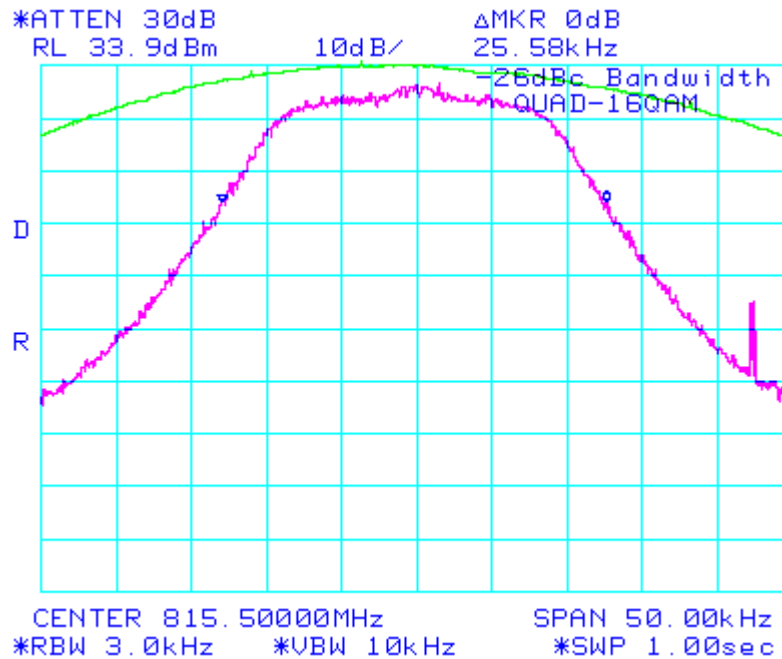
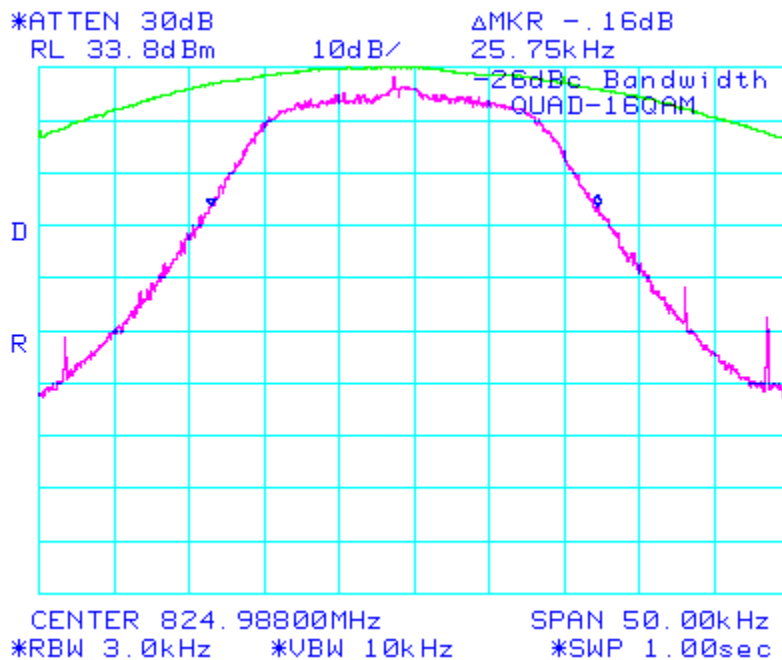


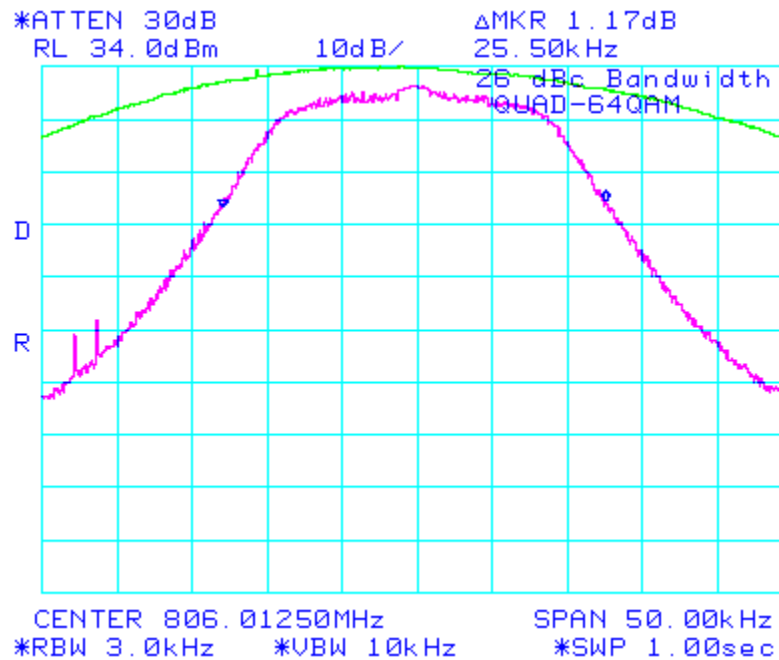
Figure 24: -26 dBc Bandwidth



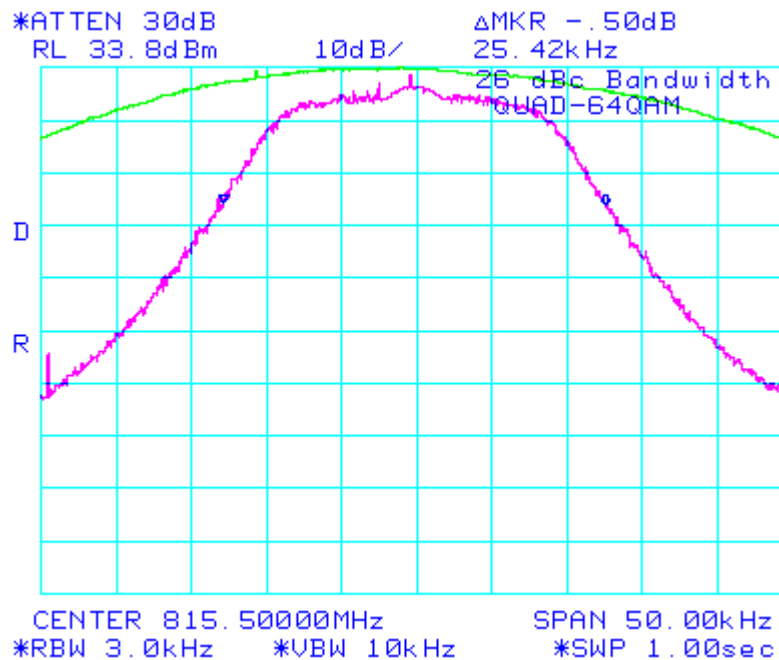


### Conducted Emission Test Data cont'd

**Figure 25: -26 dBc Bandwidth**



**Figure 26: -26 dBc Bandwidth**



### Conducted Emission Test Data cont'd

Figure 27: -26 dBc Bandwidth

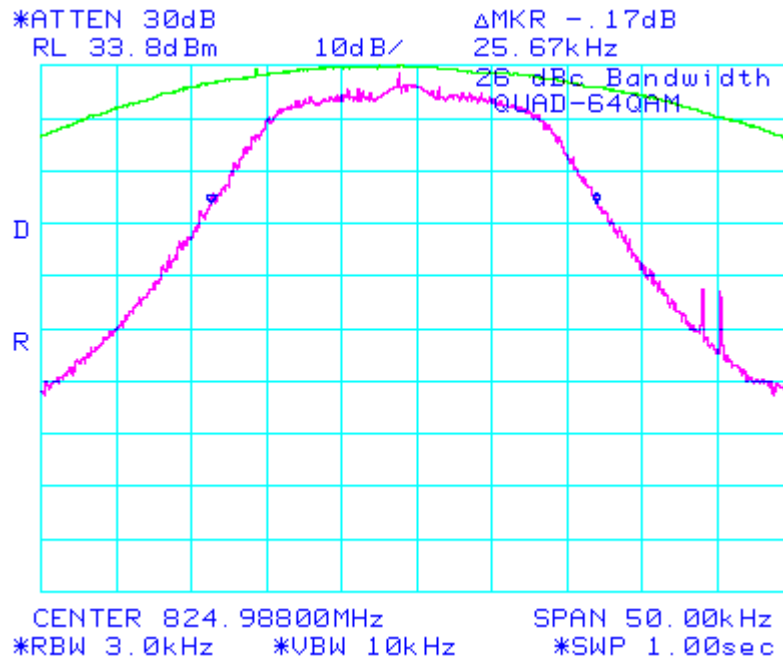
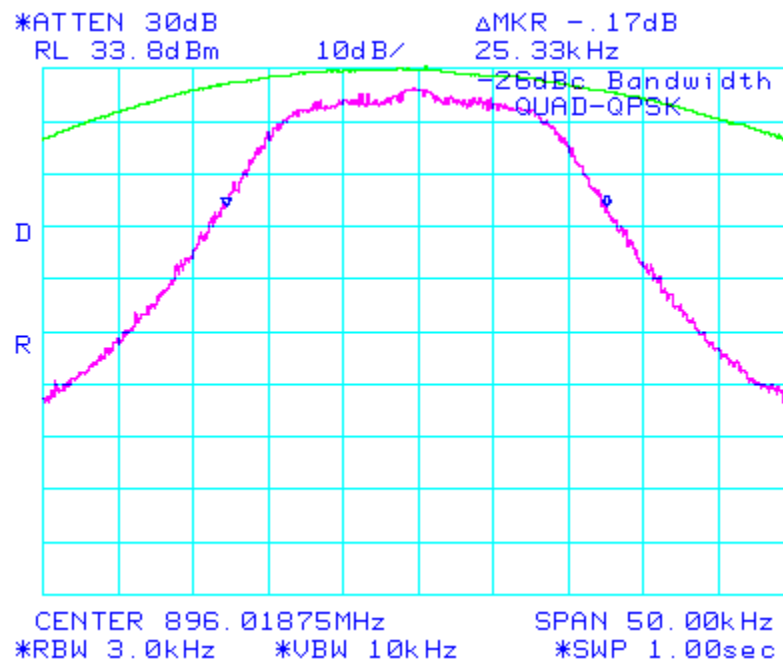


Figure 28: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 29: -26 dBc Bandwidth

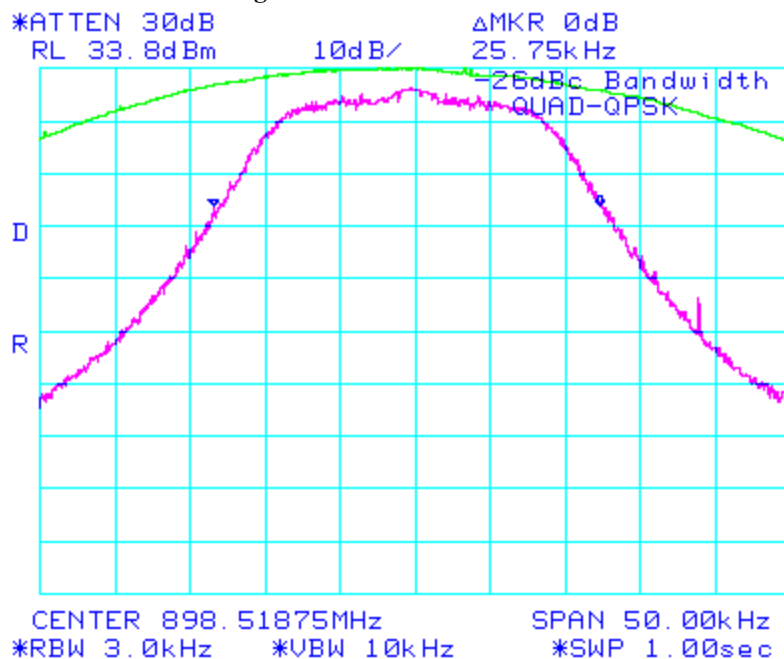
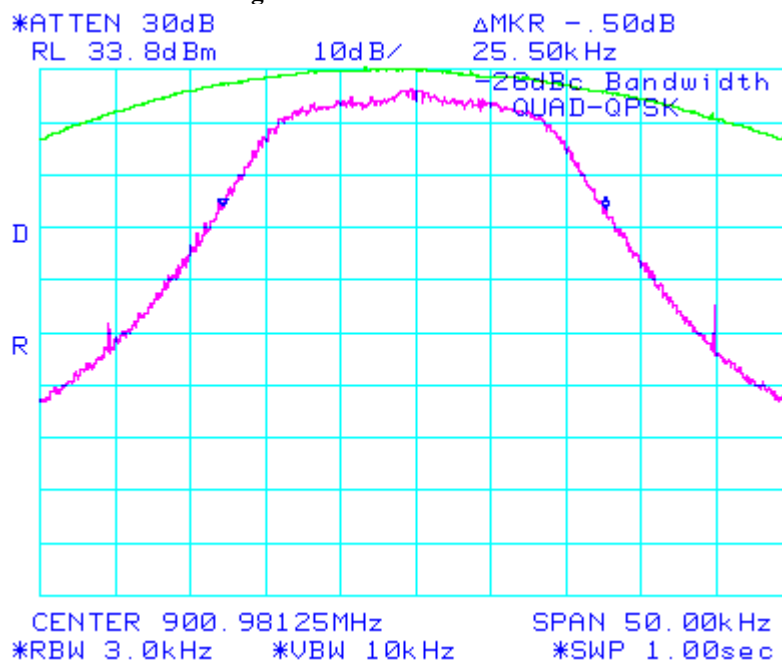


Figure 30: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 31: -26 dBc Bandwidth

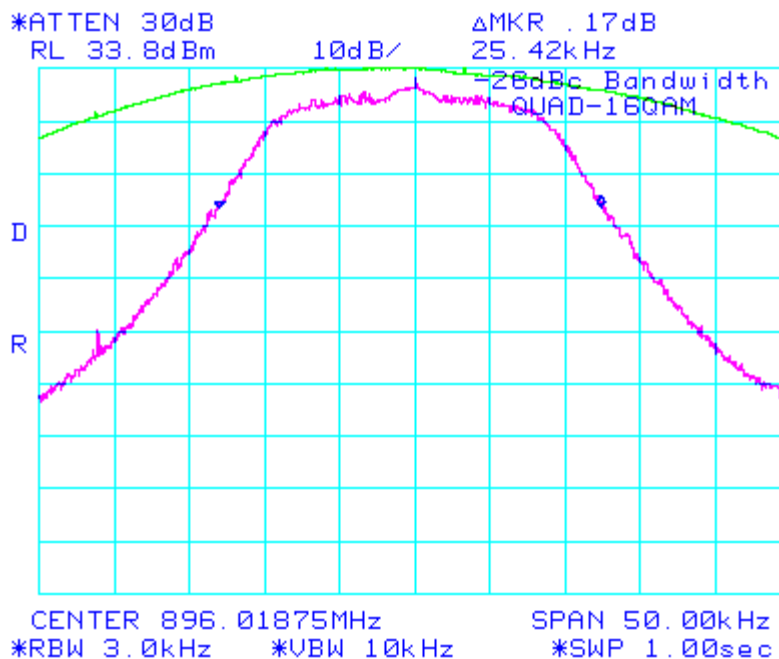
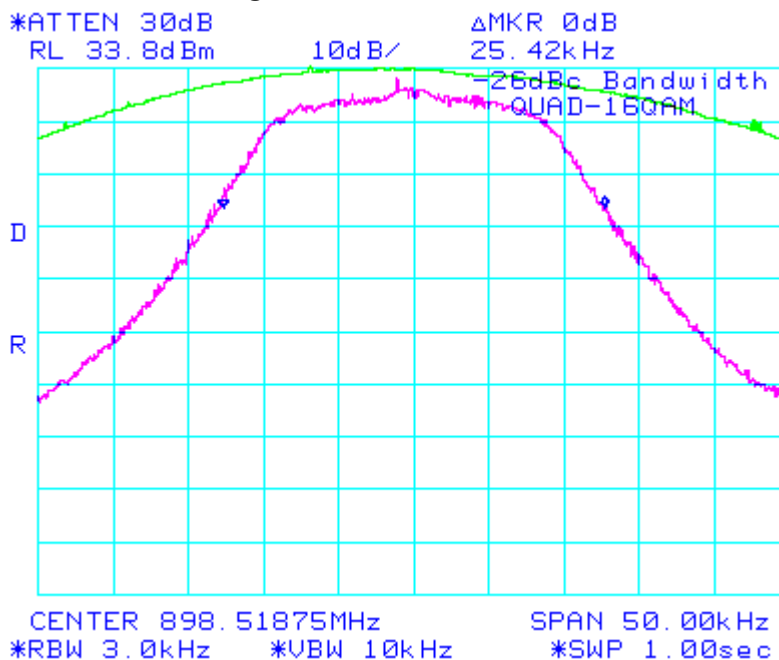


Figure 32: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 33: -26 dBc Bandwidth

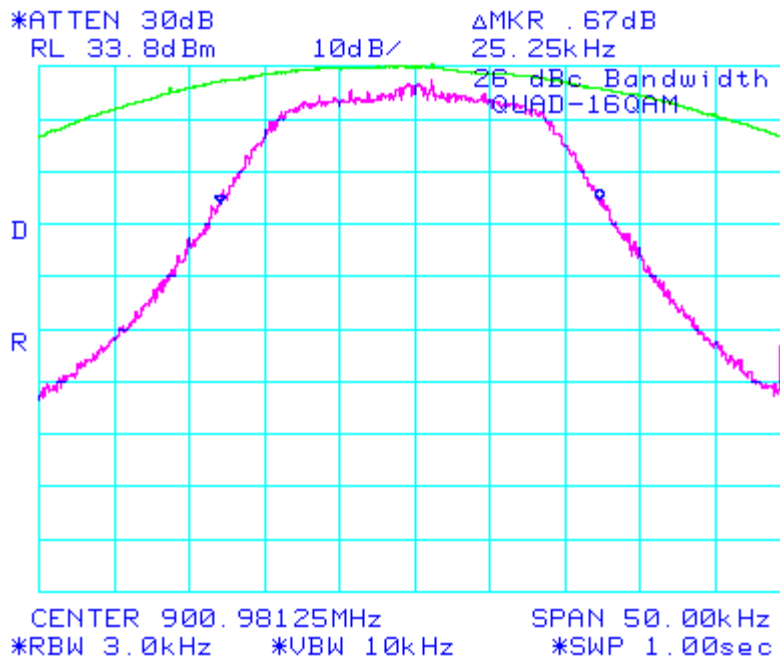
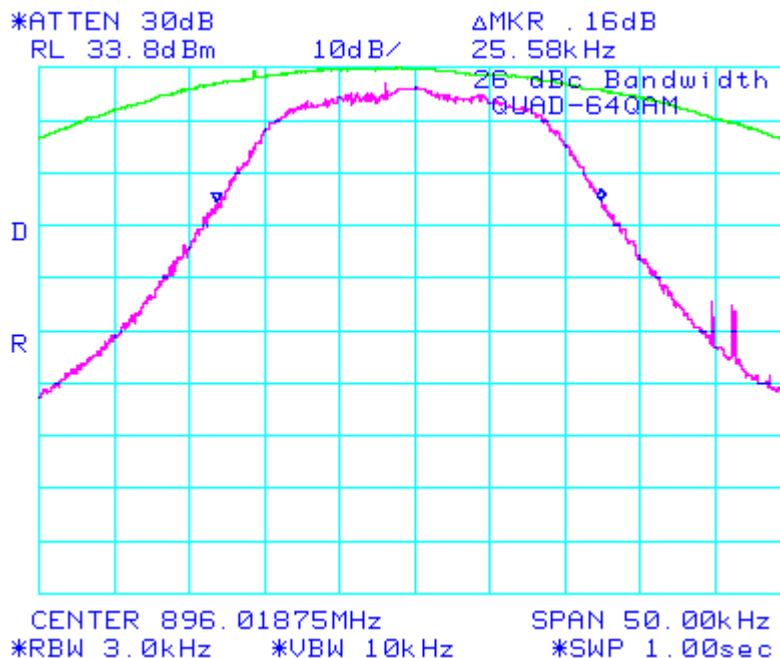


Figure 34: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 35: -26 dBc Bandwidth

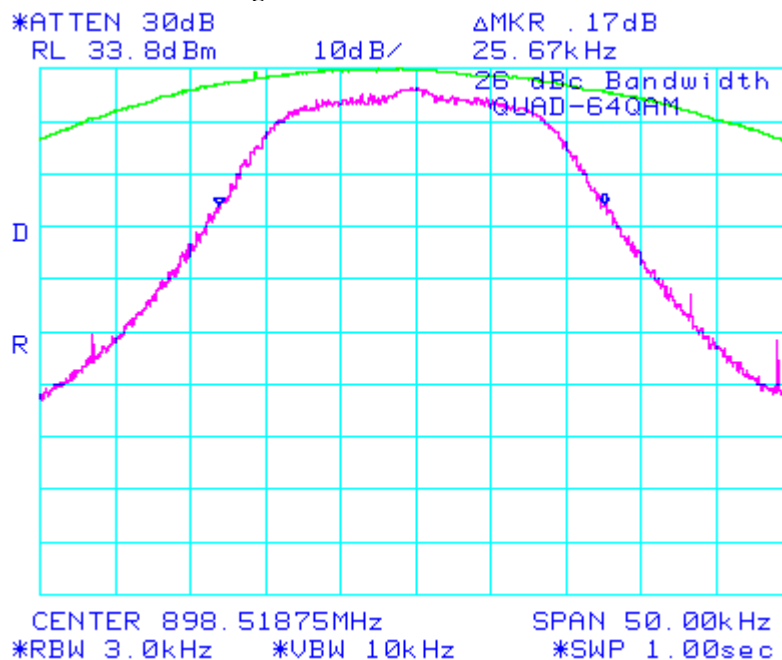
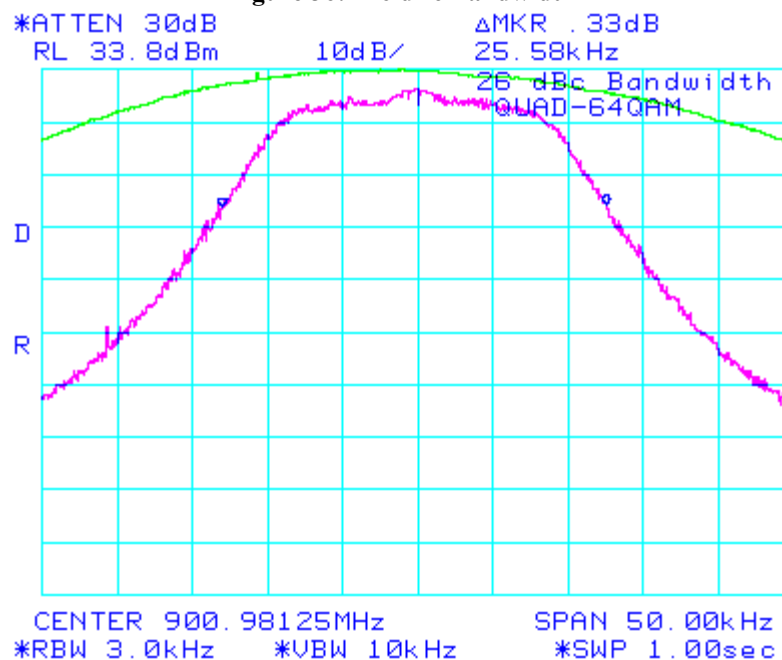


Figure 36: -26 dBc Bandwidth



### Conducted Emission Test Data cont'd

Figure 37: QUAD\_QPSK\_EA Mask 90.691(a)

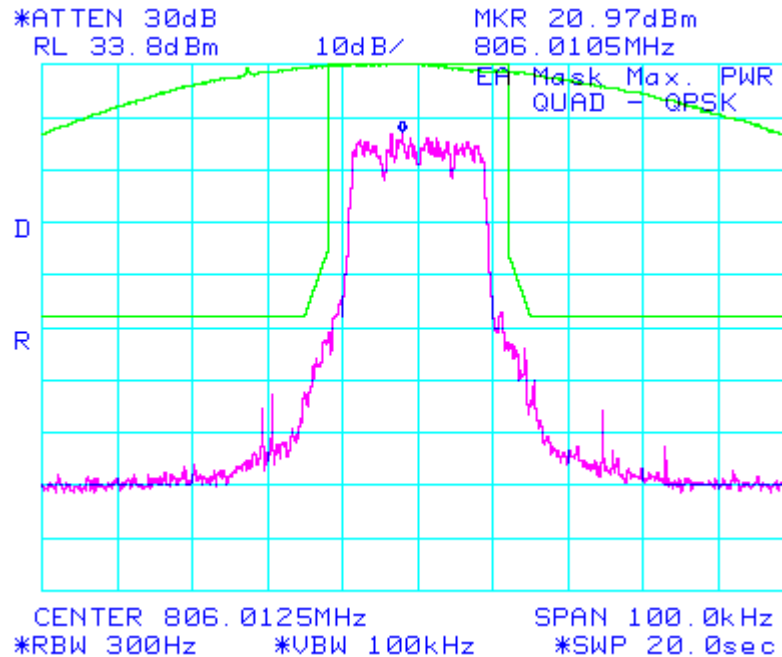
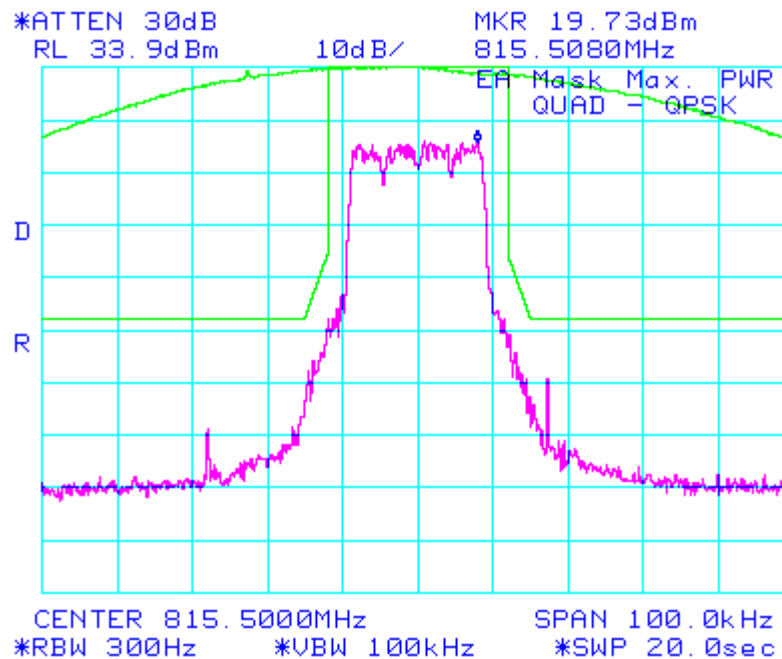


Figure 38: QUAD\_QPSK\_EA Mask 90.691(a)



### Conducted Emission Test Data cont'd

Figure 39: QUAD\_QPSK\_EA Mask 90.691(a)

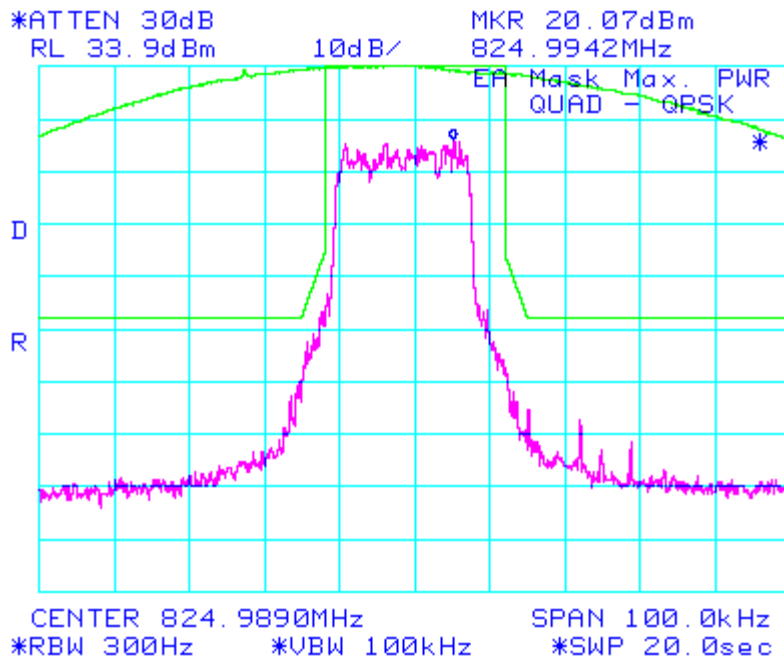
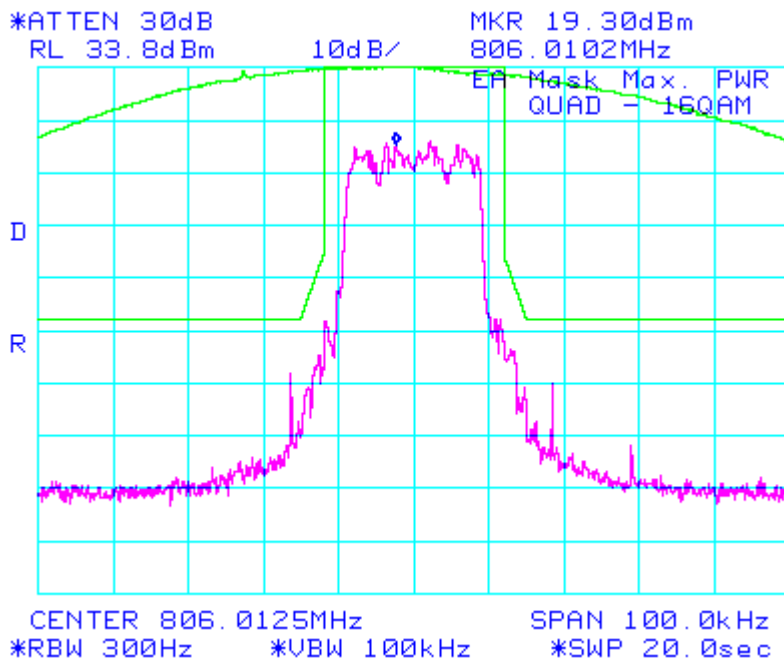


Figure 40: QUAD\_16QAM\_EA Mask 90.691(a)





### Conducted Emission Test Data cont'd

Figure 41: QUAD\_16QAM\_EA Mask 90.691(a)

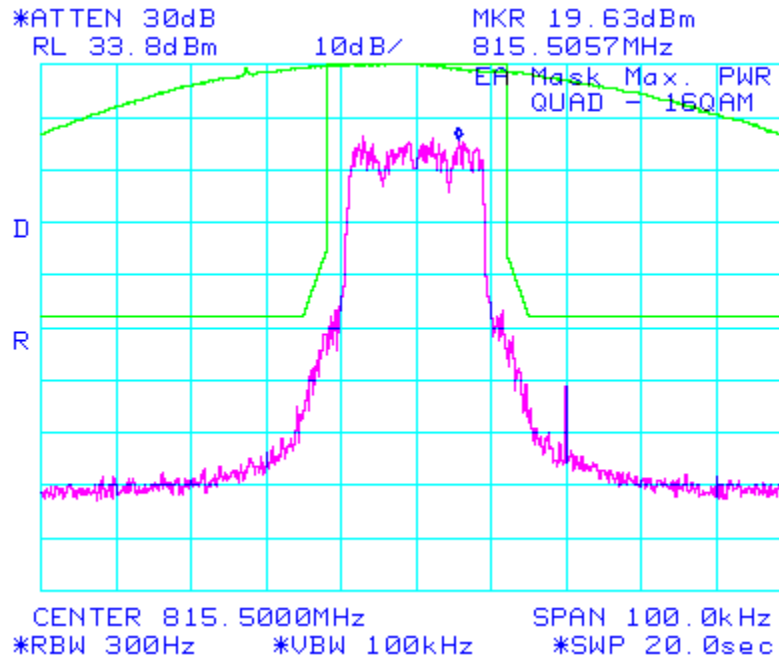
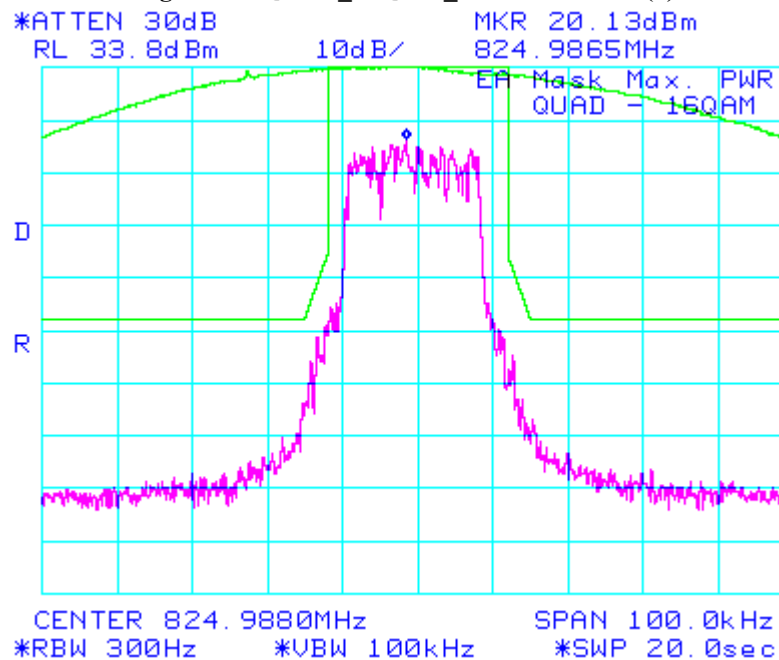


Figure 42: QUAD\_16QAM\_EA Mask 90.691(a)



### Conducted Emission Test Data cont'd

Figure 43: QUAD\_64QAM\_EA Mask 90.691(a)

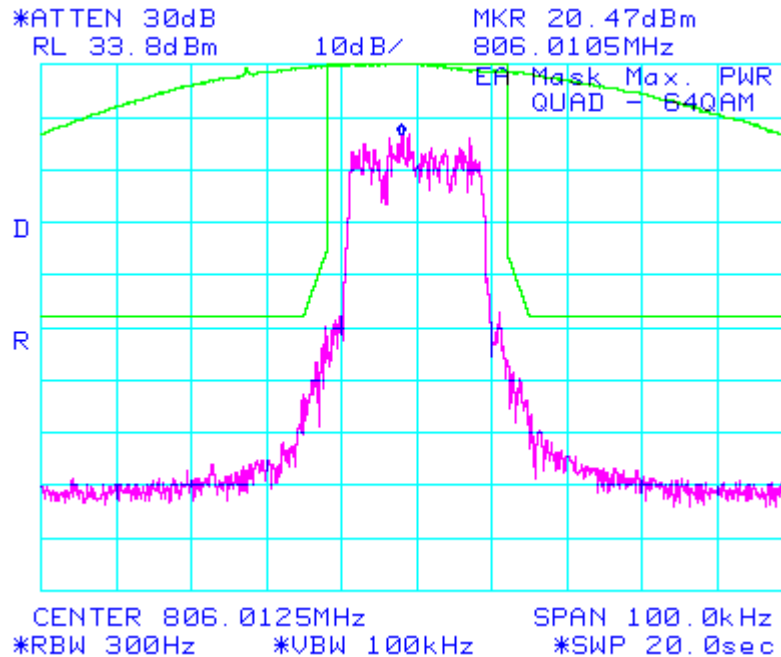
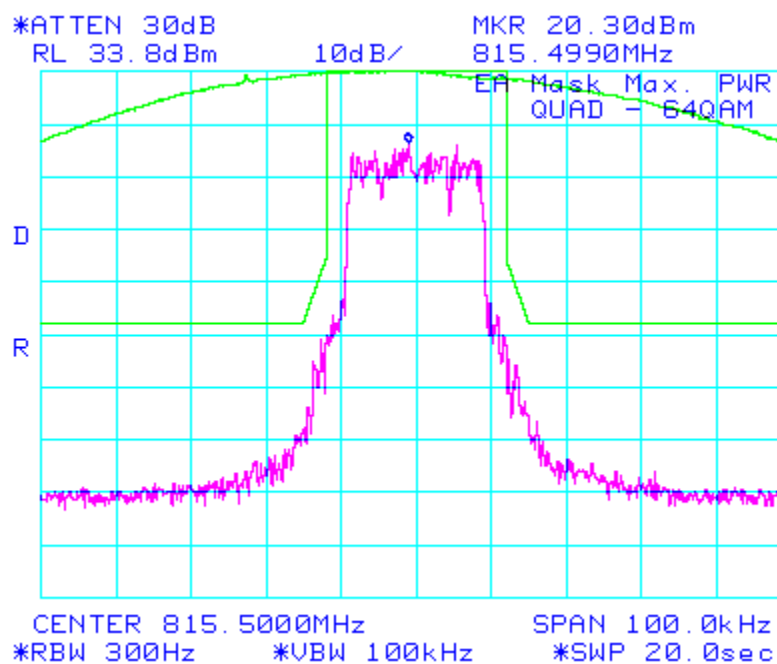


Figure 44: QUAD\_64QAM\_EA Mask 90.691(a)



### Conducted Emission Test Data cont'd

Figure 45: QUAD\_64QAM\_EA Mask 90.691(a)

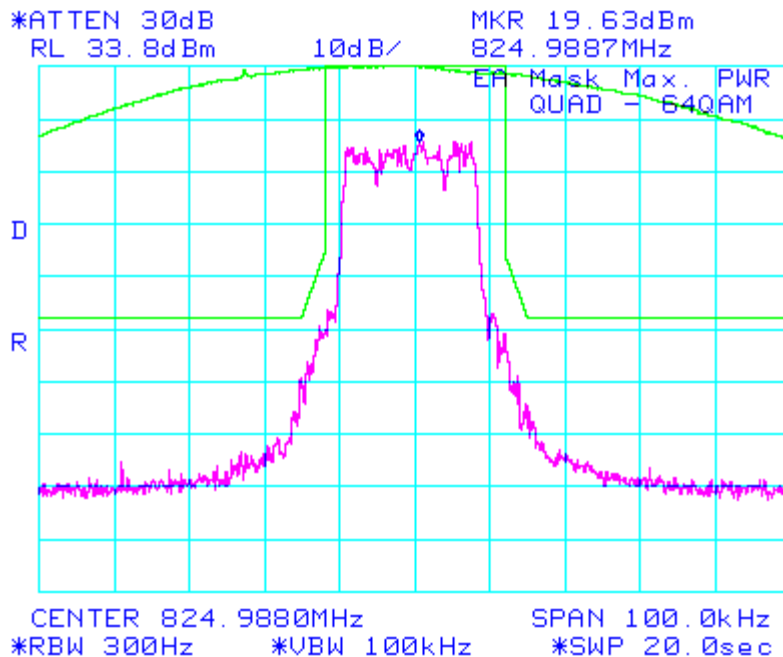
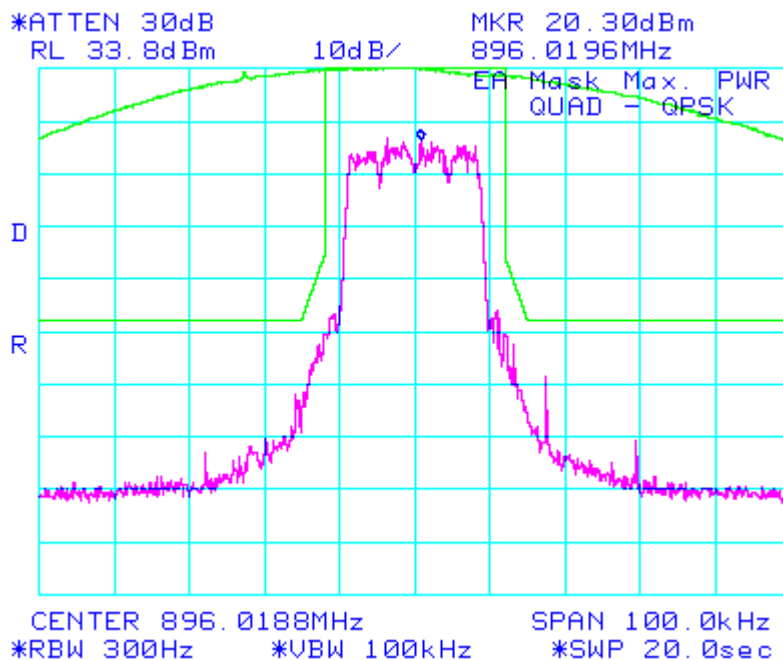


Figure 46: QUAD\_QPSK\_EA Mask 90.691(a)



### Conducted Emission Test Data cont'd

Figure 47: QUAD\_QPSK\_EA Mask 90.691(a)

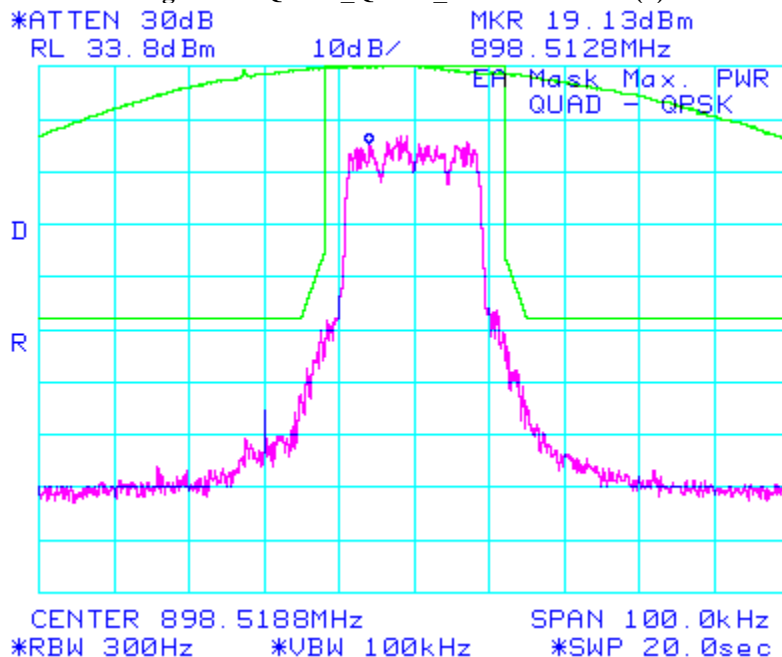
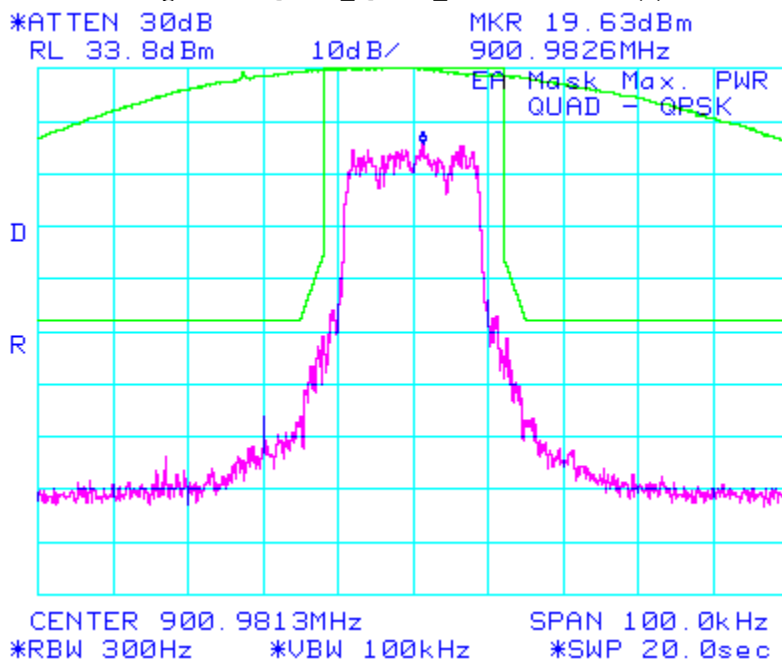


Figure 48: QUAD\_QPSK\_EA Mask 90.691(a)



### Conducted Emission Test Data cont'd

Figure 49: QUAD\_16QAM\_EA Mask 90.691(a)

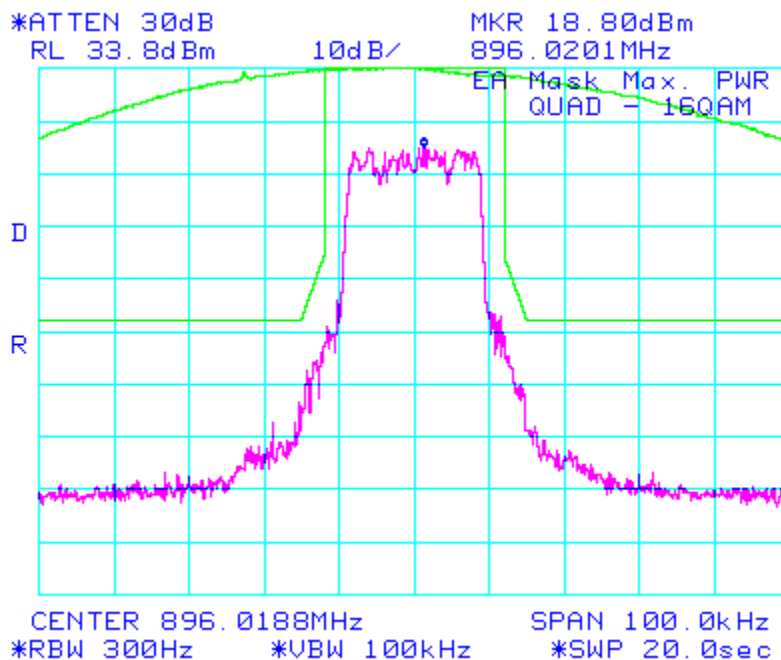
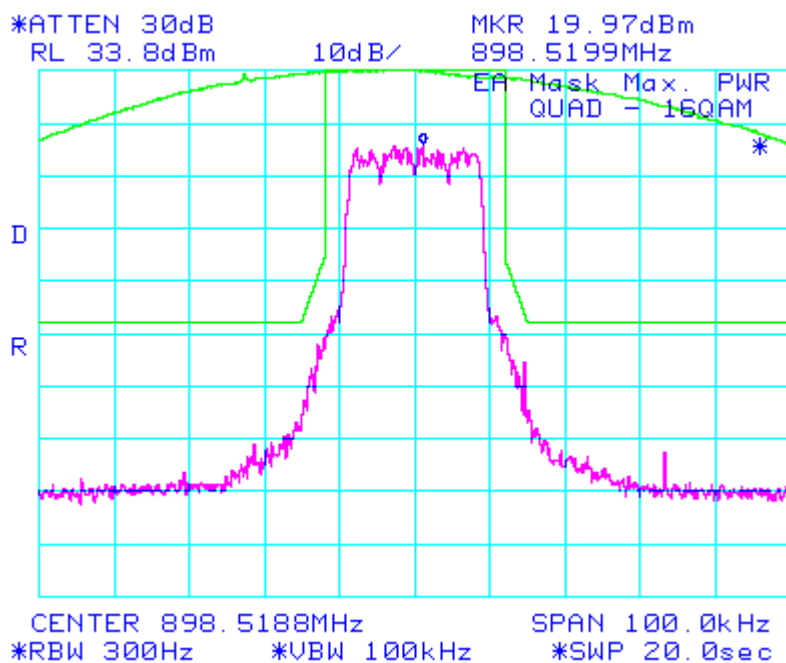
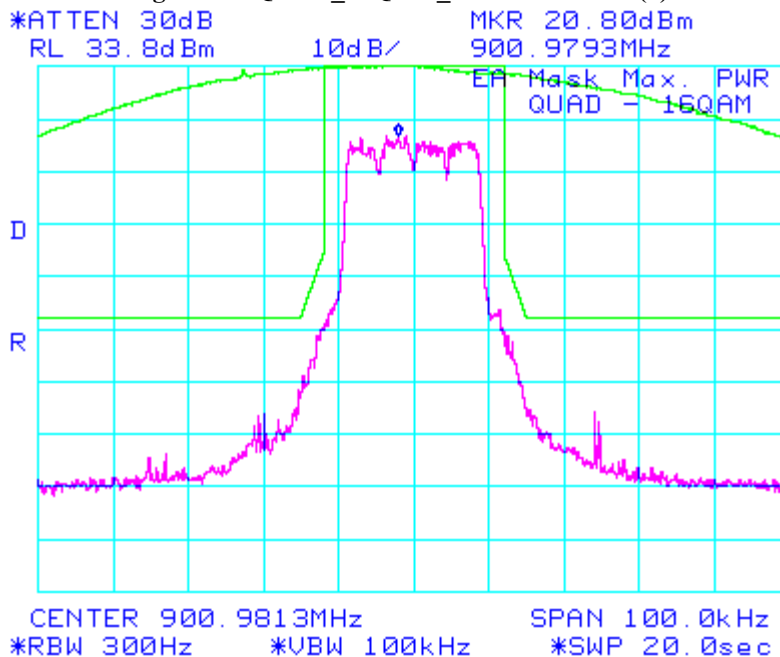


Figure 50: QUAD\_16QAM\_EA Mask 90.691(a)

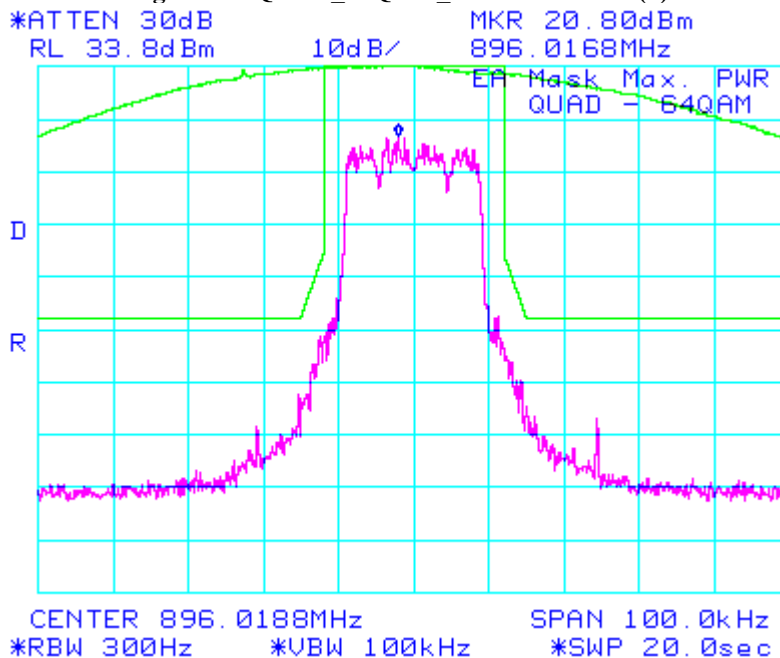


### Conducted Emission Test Data cont'd

**Figure 51: QUAD\_16QAM\_EA Mask 90.691(a)**

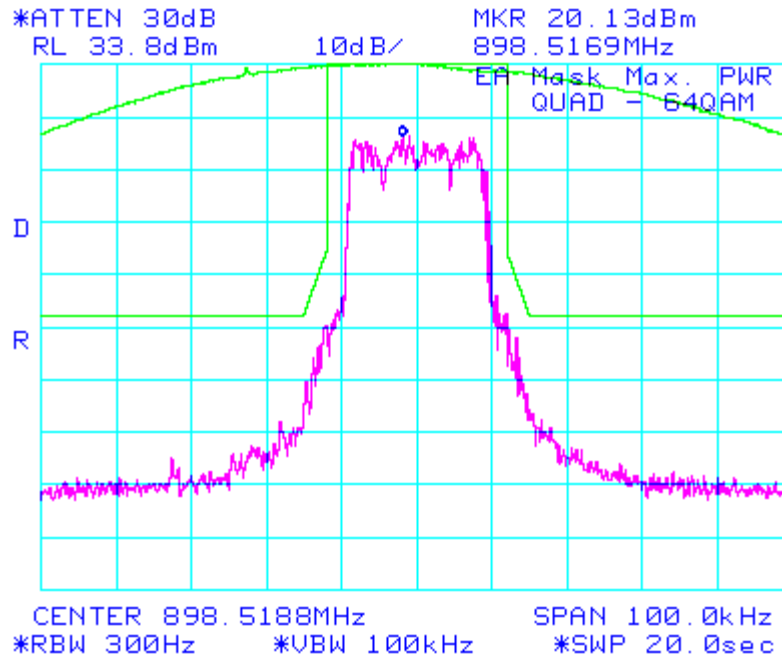


**Figure 52: QUAD\_64QAM\_EA Mask 90.691(a)**

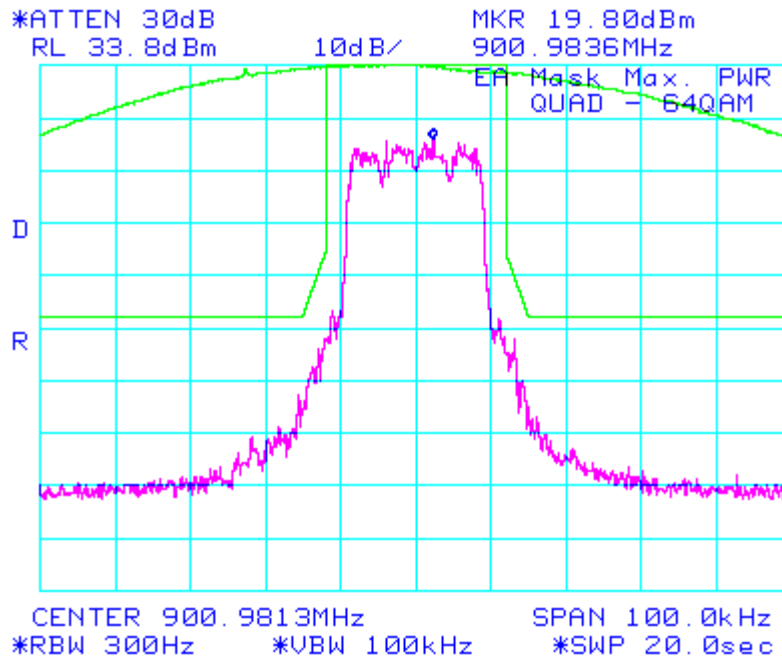


### Conducted Emission Test Data cont'd

**Figure 53: QUAD\_64QAM\_EA Mask 90.691(a)**

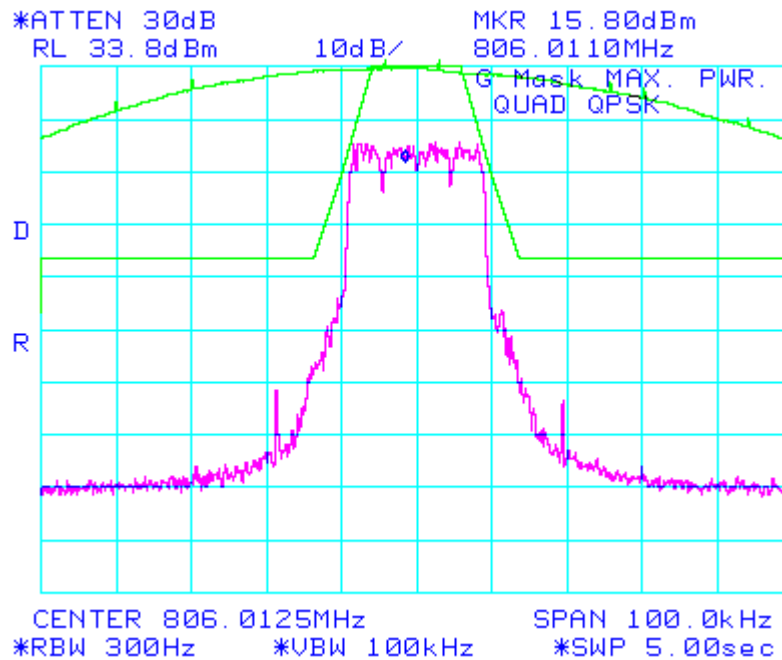


**Figure 54: QUAD\_64QAM\_EA Mask 90.691(a)**

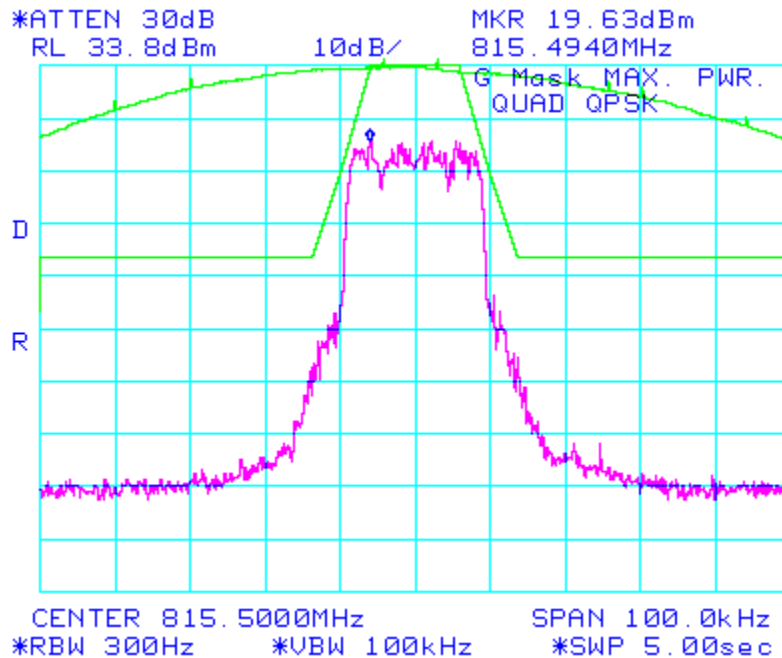


### Conducted Emission Test Data cont'd

**Figure 55: QUAD\_QPSK\_G Mask 90.210(g)**



**Figure 56: QUAD\_QPSK\_G Mask 90.210(g)**





### Conducted Emission Test Data cont'd

Figure 57: QUAD\_QPSK\_G Mask 90.210(g)

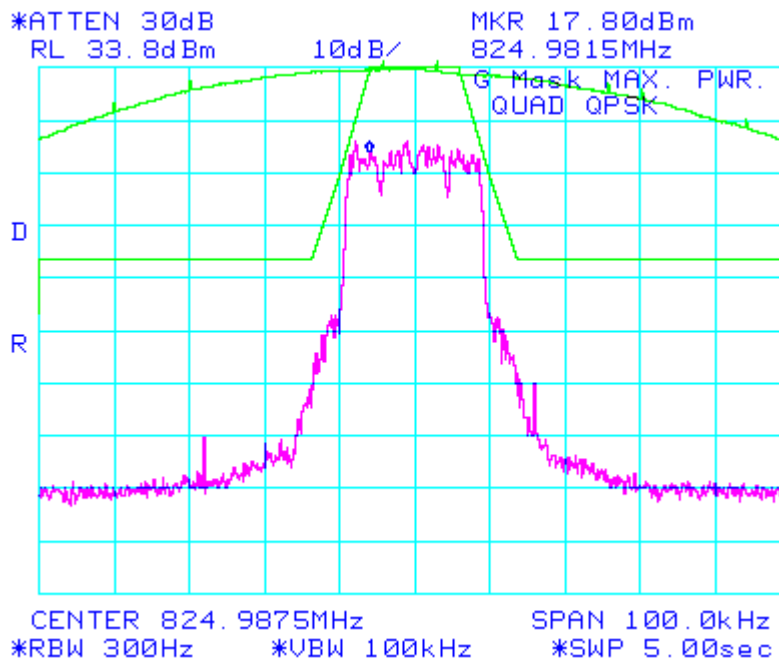
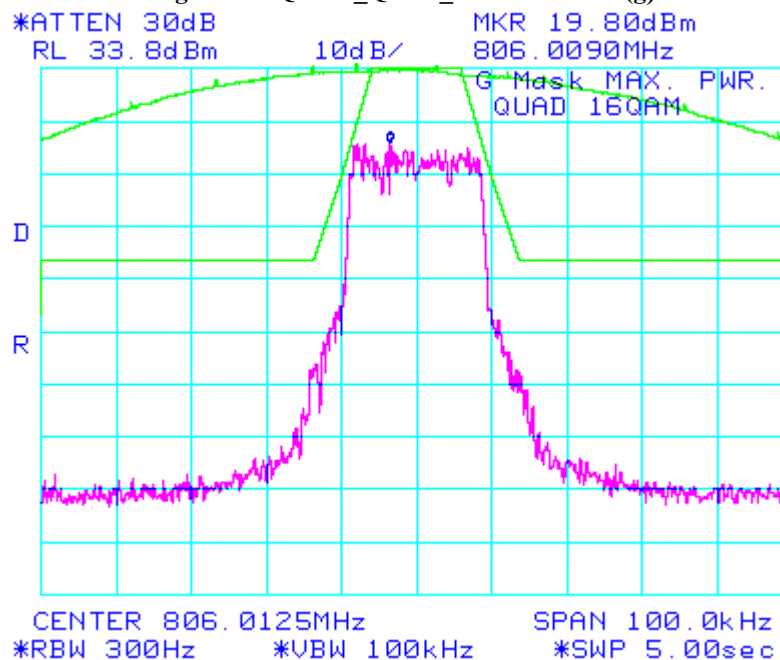


Figure 58: QUAD\_QPSK\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 59: QUAD\_16QAM\_G Mask 90.210(g)

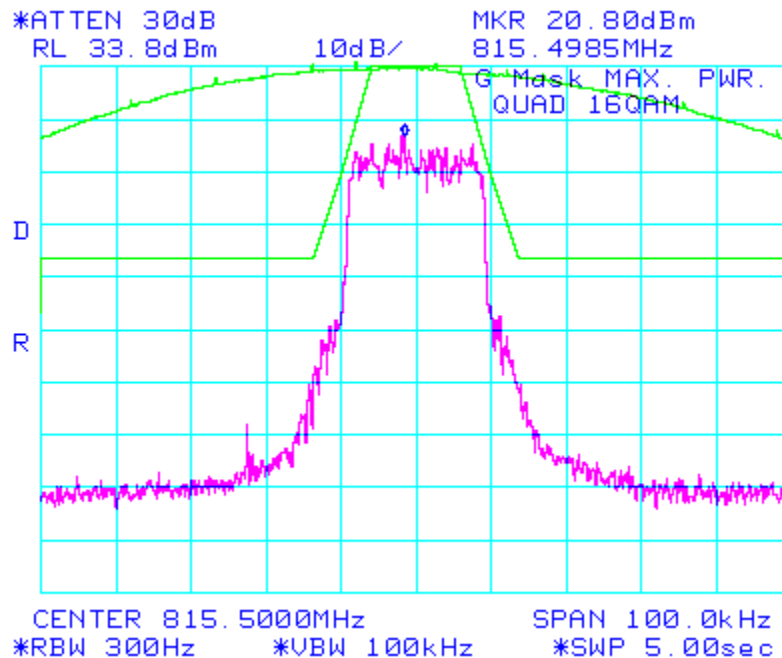
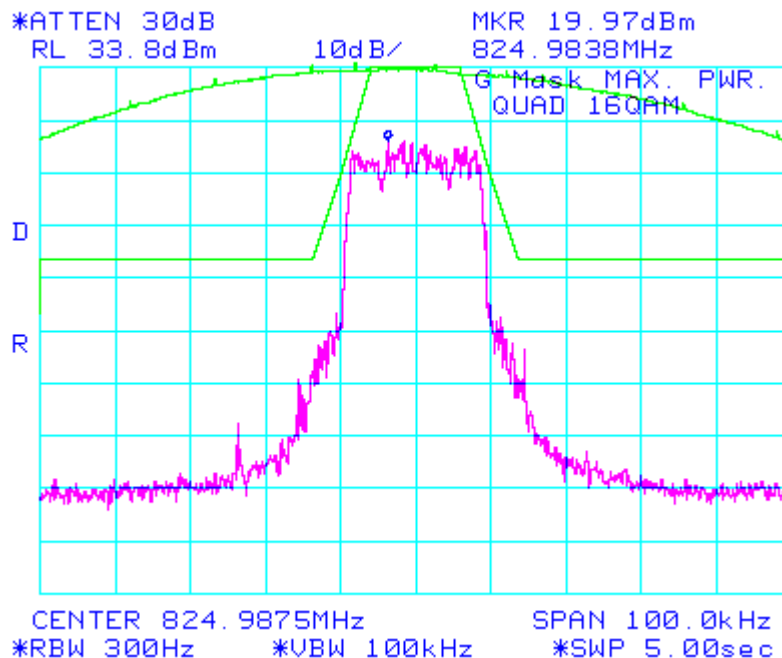


Figure 60: QUAD\_16QAM\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 61: QUAD\_64QAM\_G Mask 90.210(g)

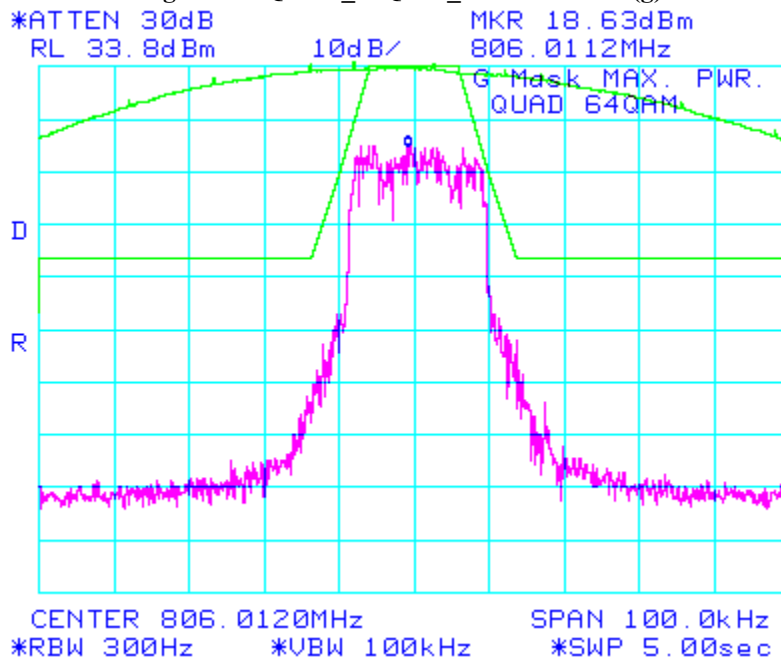
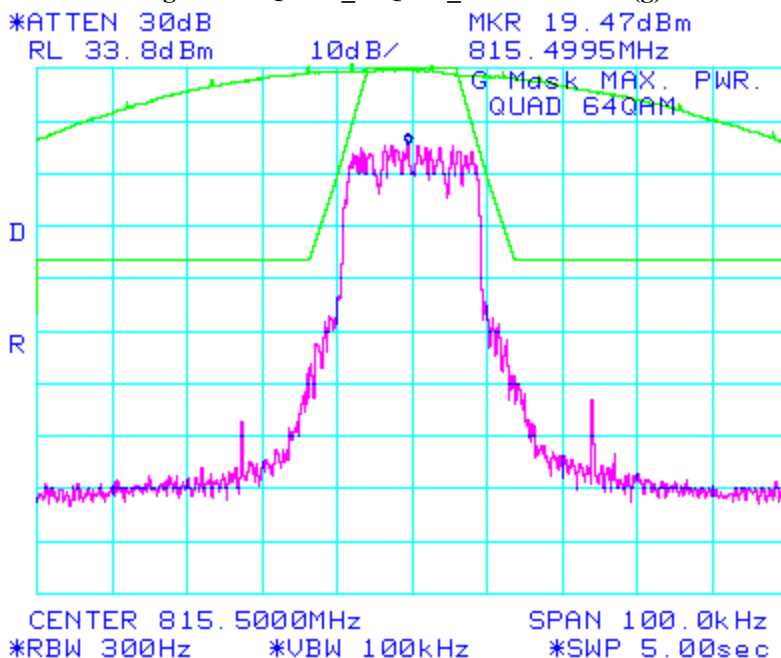


Figure 62: QUAD\_64QAM\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 63: QUAD\_64QAM\_G Mask 90.210(g)

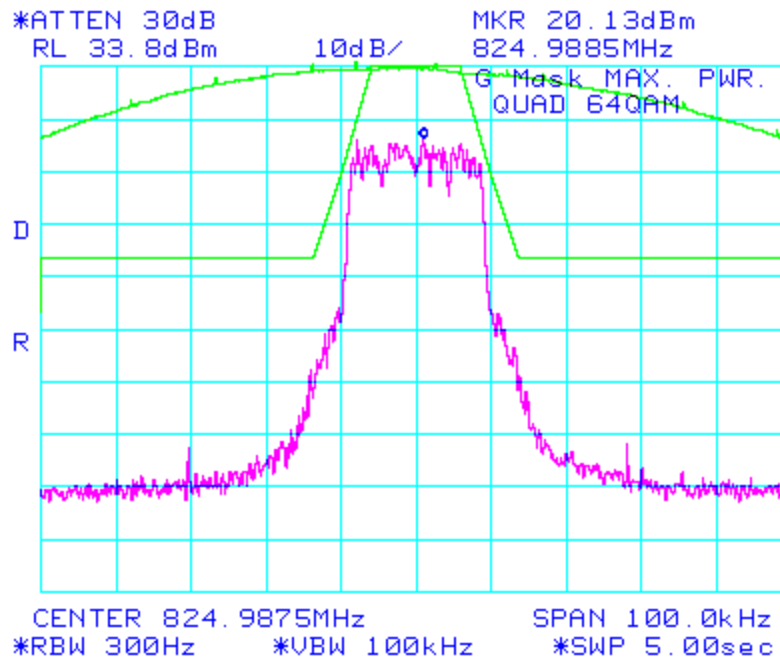
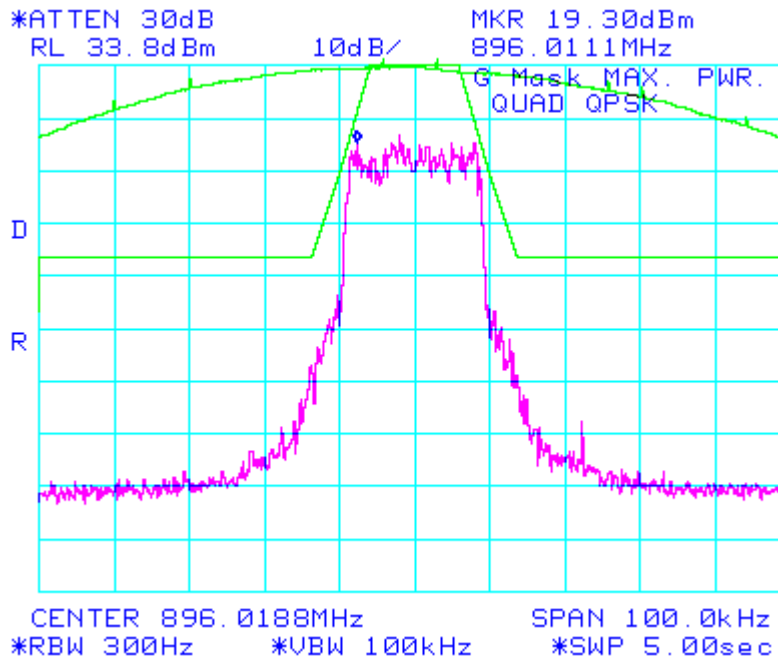


Figure 64: QUAD\_QPSK\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 65: QUAD\_QPSK\_G Mask 90.210(g)

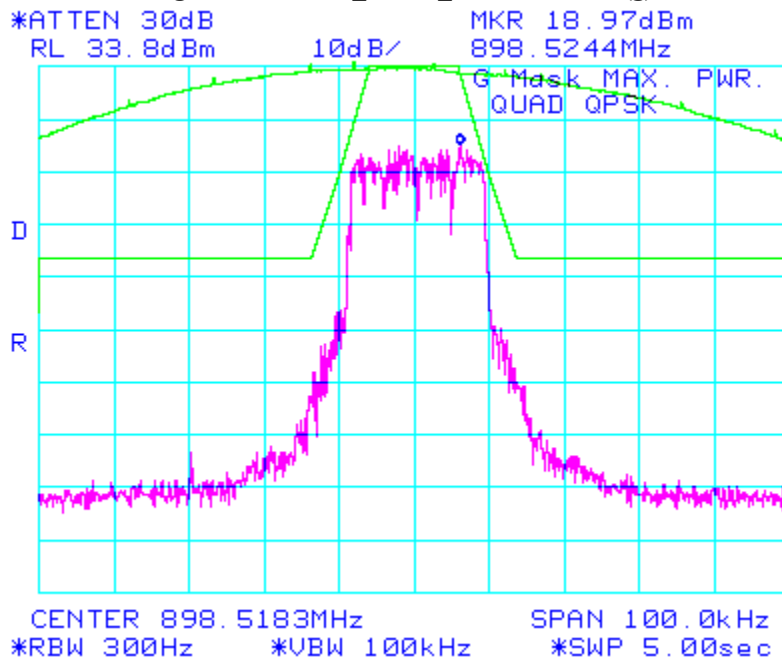
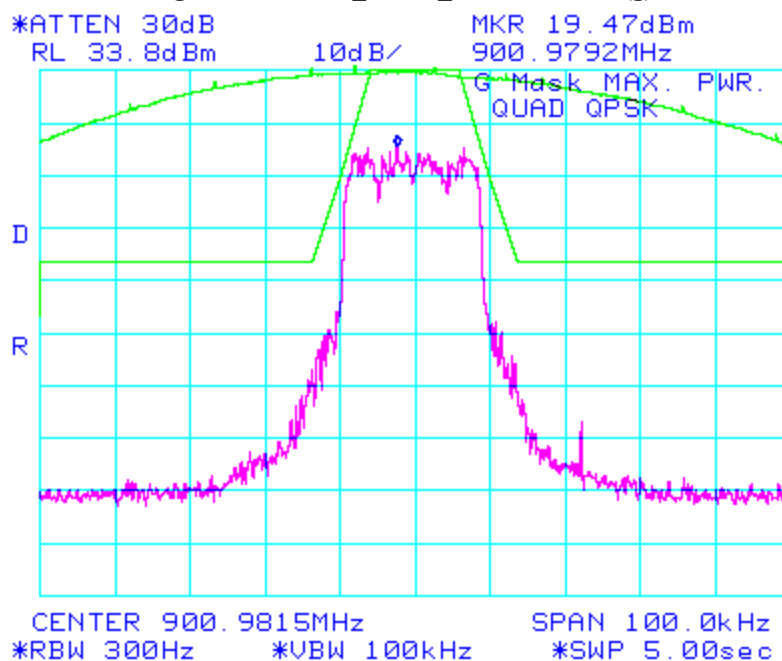


Figure 66: QUAD\_QPSK\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 67: QUAD\_16QAM\_G Mask 90.210(g)

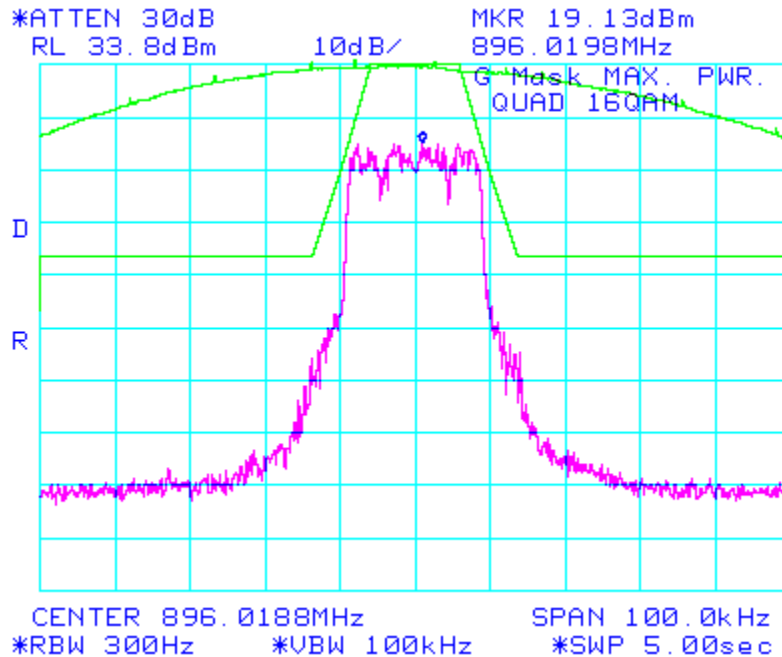
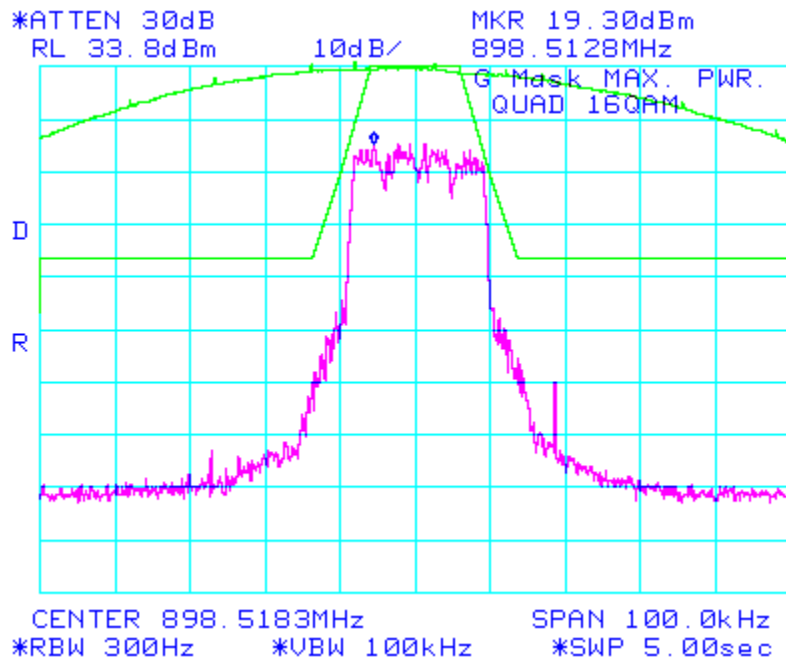


Figure 68: QUAD\_16QAM\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 69: QUAD\_16QAM\_G Mask 90.210(g)

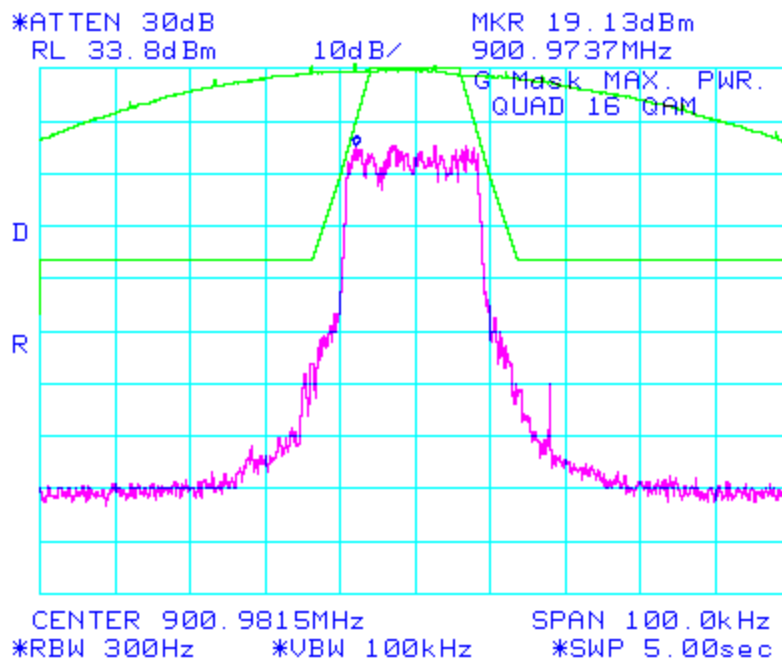
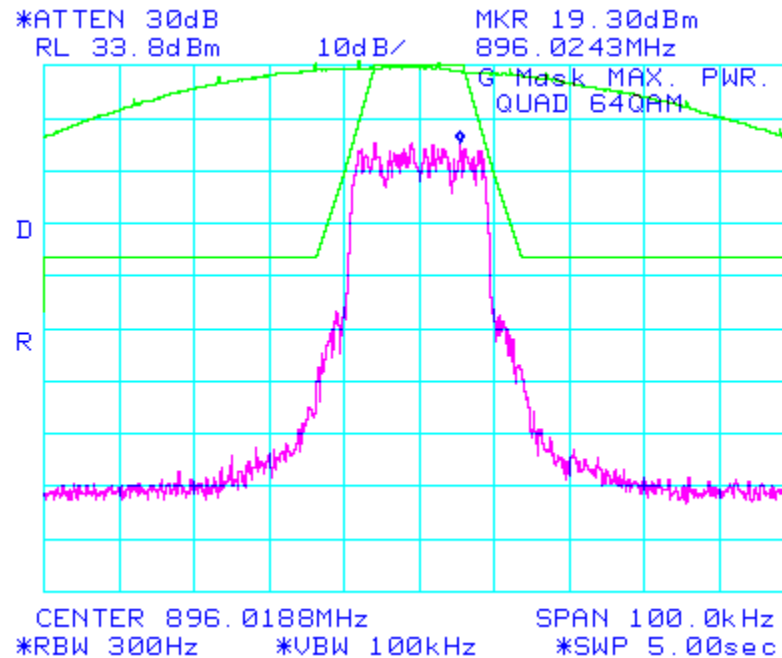


Figure 70: QUAD\_64QAM\_G Mask 90.210(g)



### Conducted Emission Test Data cont'd

Figure 71: QUAD\_64QAM\_G Mask 90.210(g)

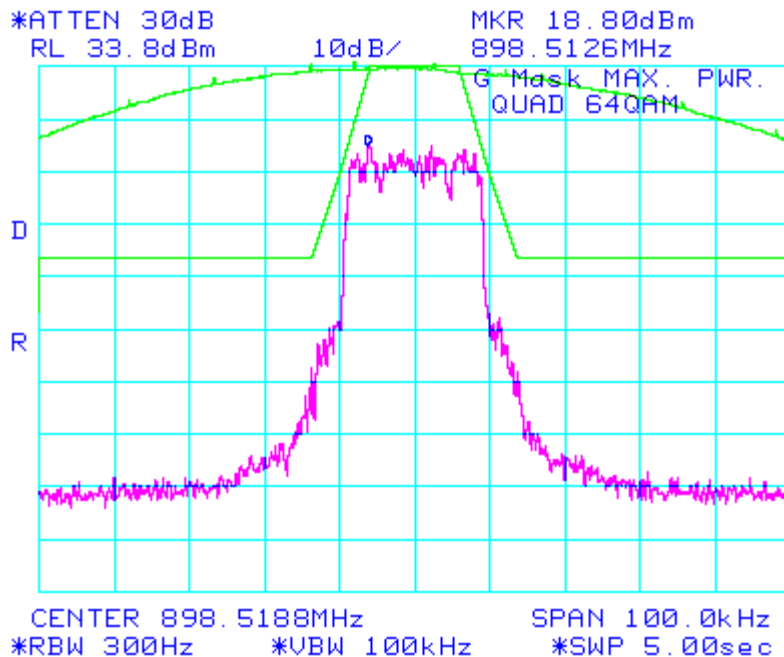
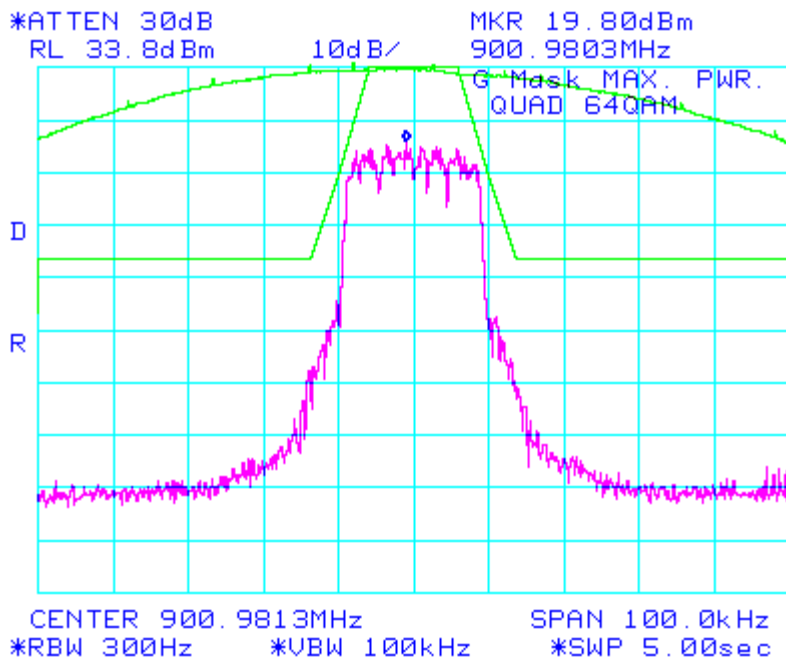


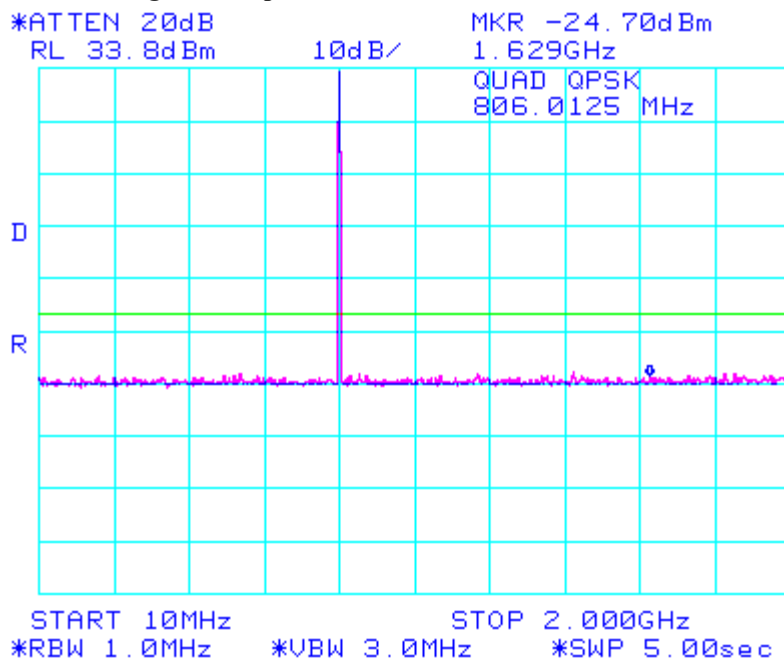
Figure 72: QUAD\_64QAM\_G Mask 90.210(g)



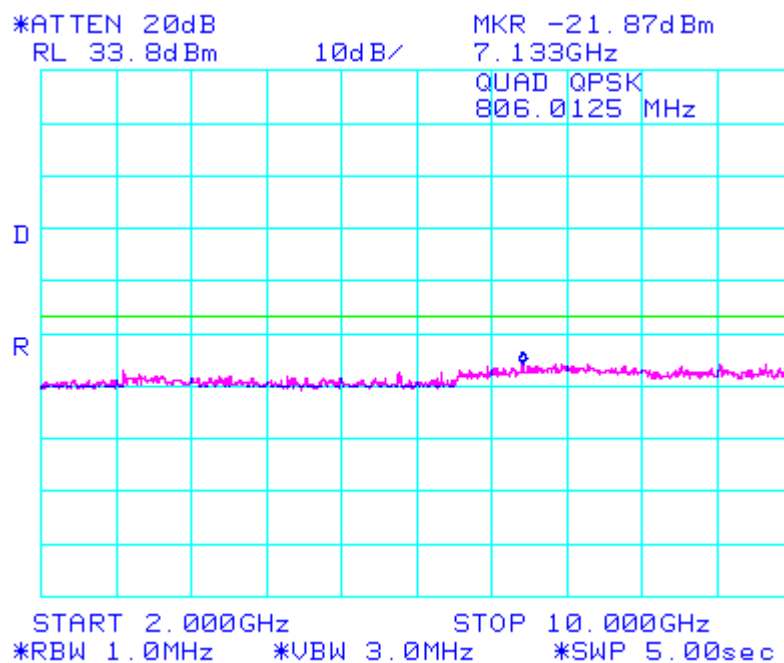


### Conducted Emission Test Data cont'd

**Figure 73: Spurious Conducted Emissions 2.1051**

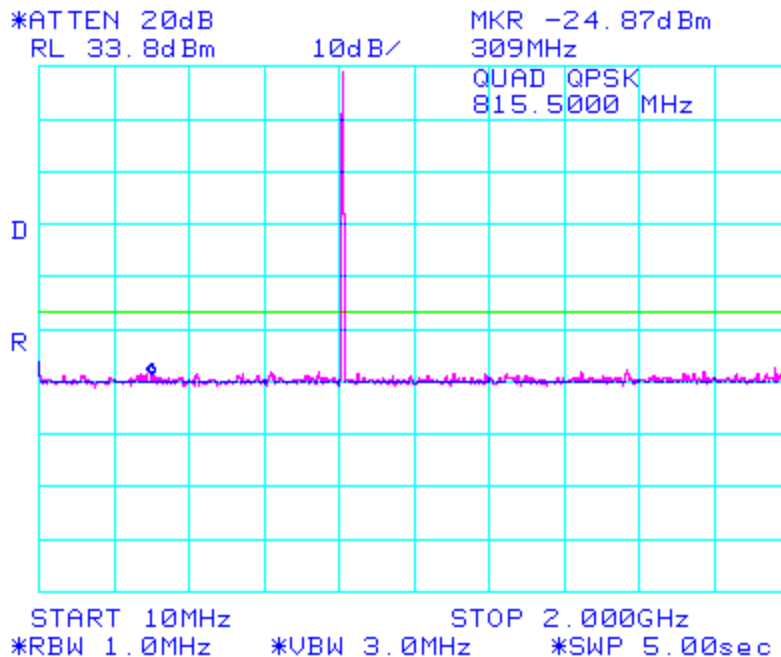


**Figure 74: Spurious Conducted Emissions 2.1051**

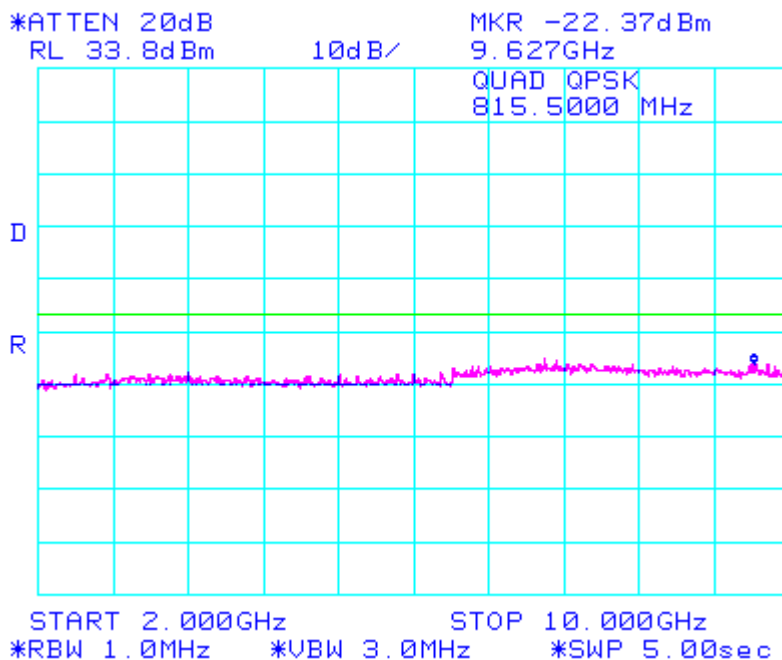


### Conducted Emission Test Data cont'd

**Figure 75: Spurious Conducted Emissions 2.1051**

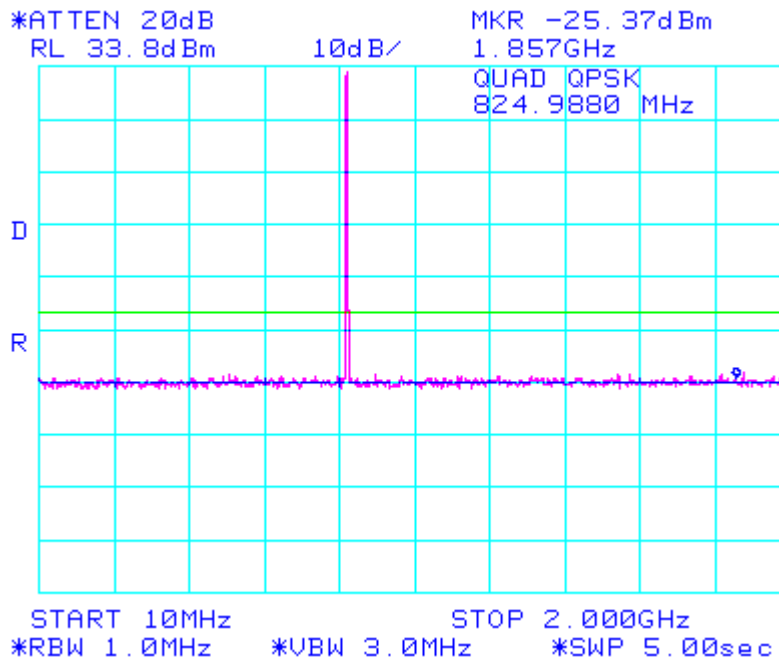


**Figure 76: Spurious Conducted Emissions 2.1051**

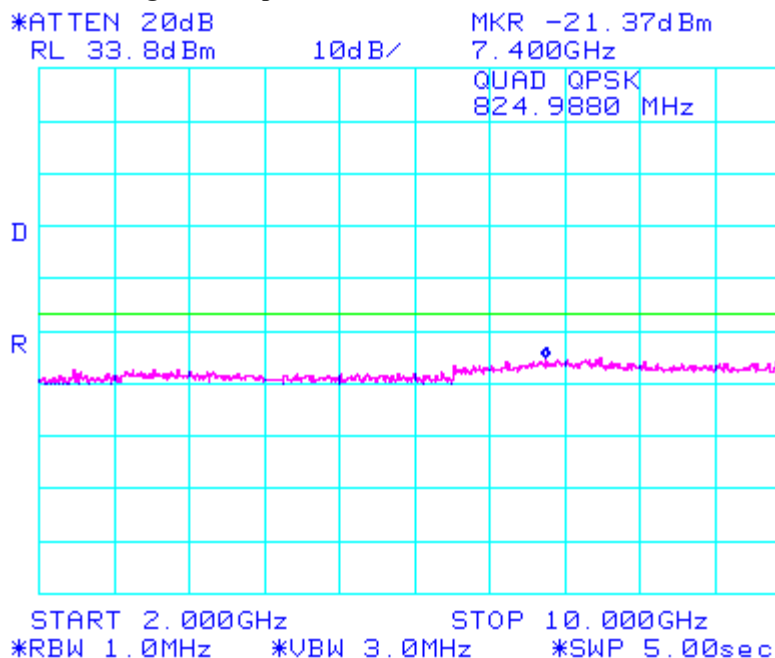


### Conducted Emission Test Data cont'd

**Figure 77: Spurious Conducted Emissions 2.1051**

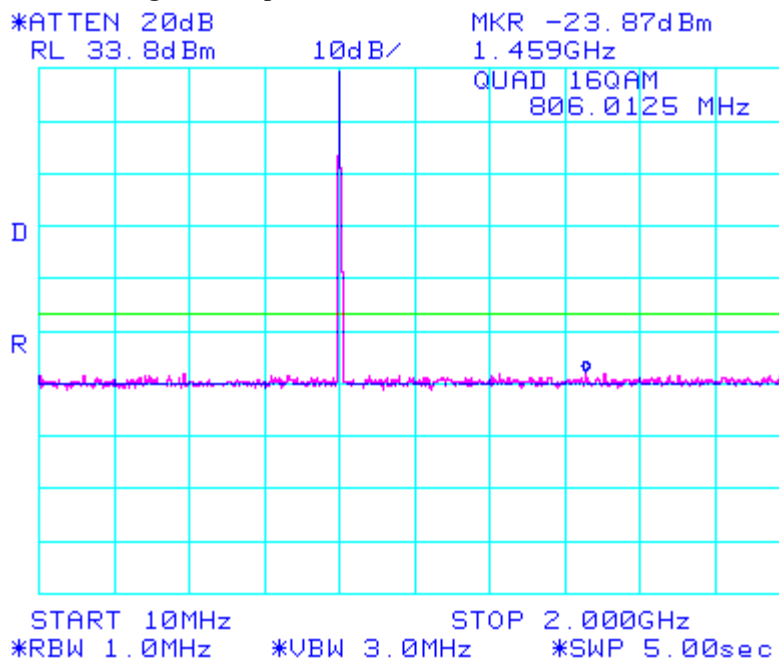


**Figure 78: Spurious Conducted Emissions 2.1051**

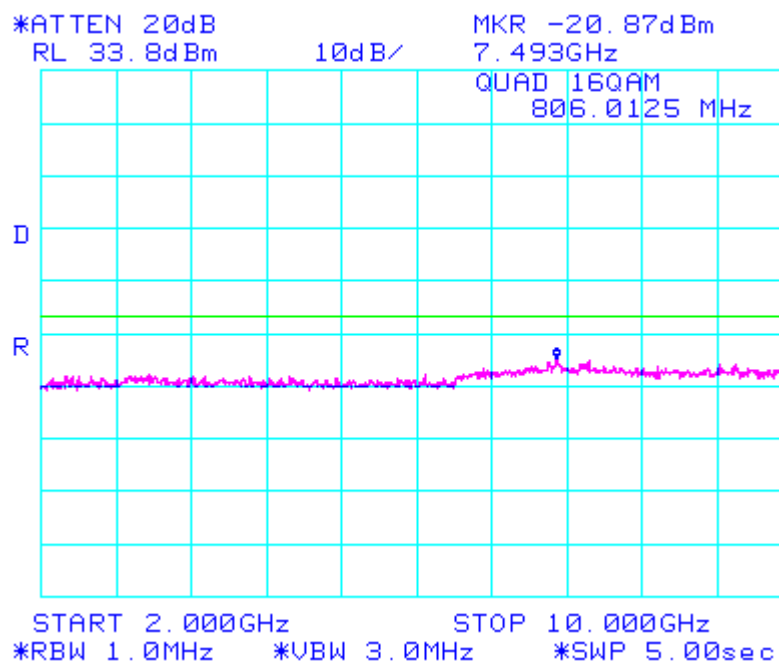


### Conducted Emission Test Data cont'd

**Figure 79: Spurious Conducted Emissions 2.1051**

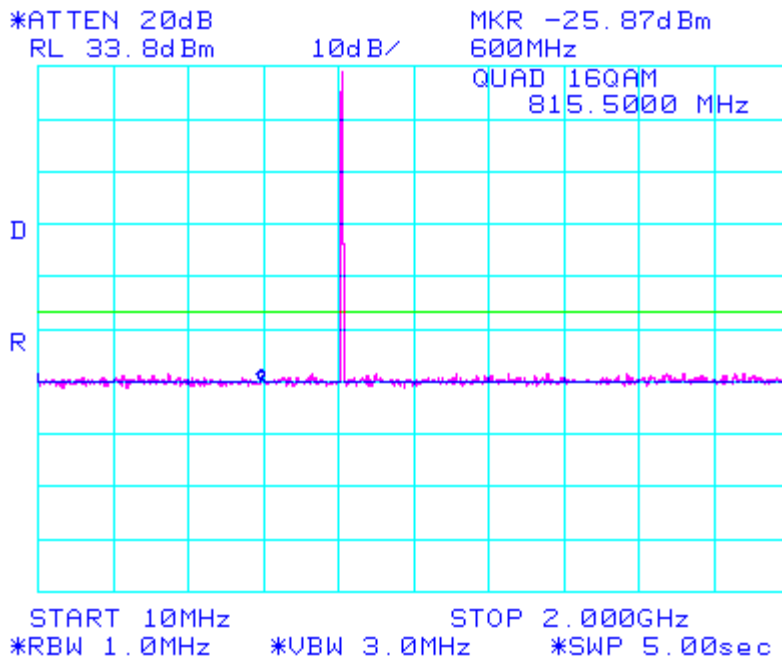


**Figure 80: Spurious Conducted Emissions 2.1051**

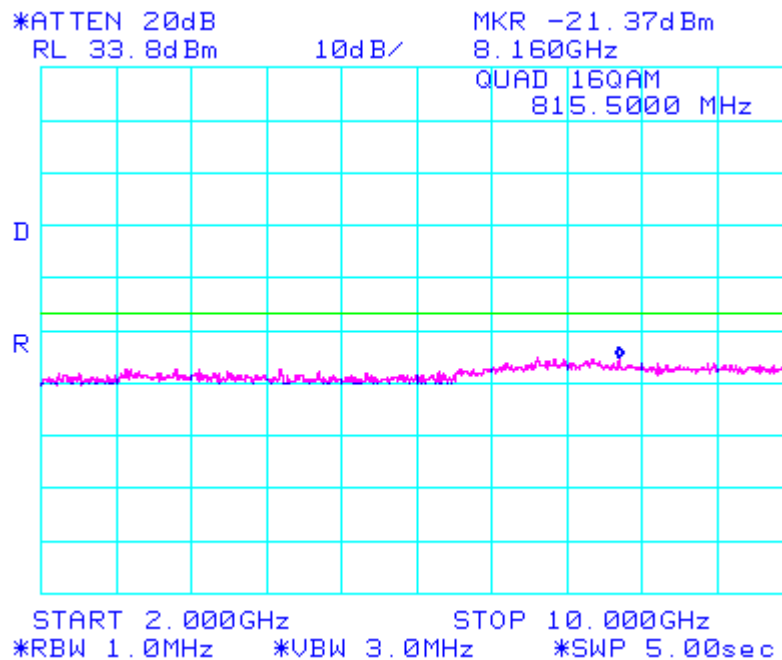


### Conducted Emission Test Data cont'd

**Figure 81: Spurious Conducted Emissions 2.1051**

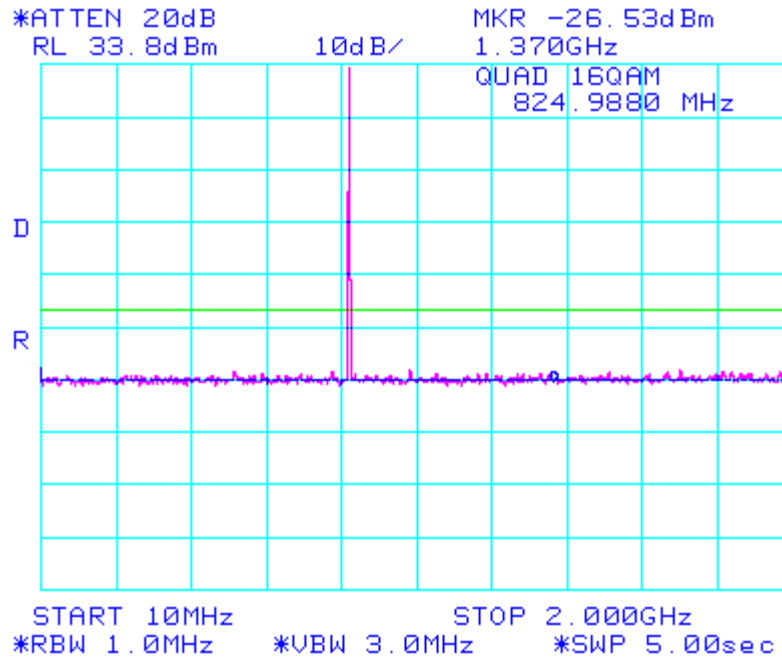


**Figure 82: Spurious Conducted Emissions 2.1051**

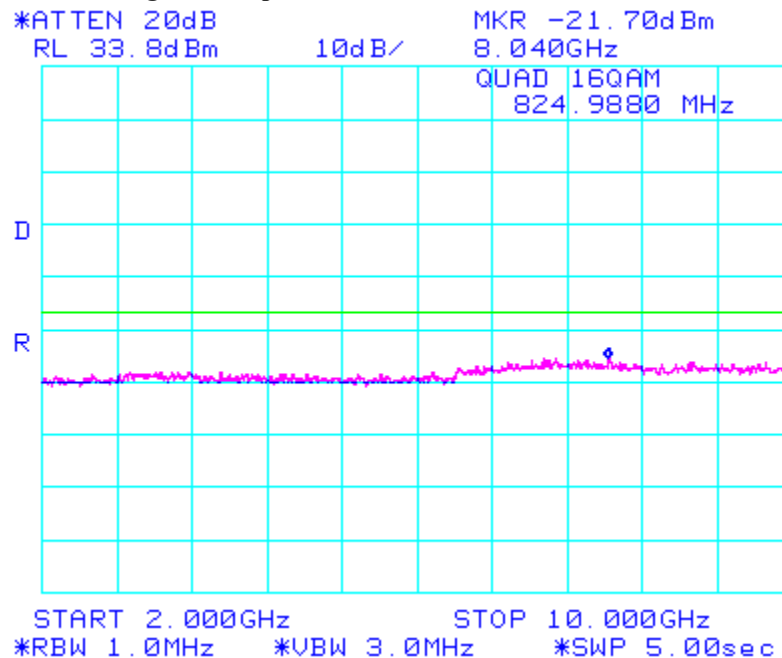


### Conducted Emission Test Data cont'd

**Figure 83: Spurious Conducted Emissions 2.1051**

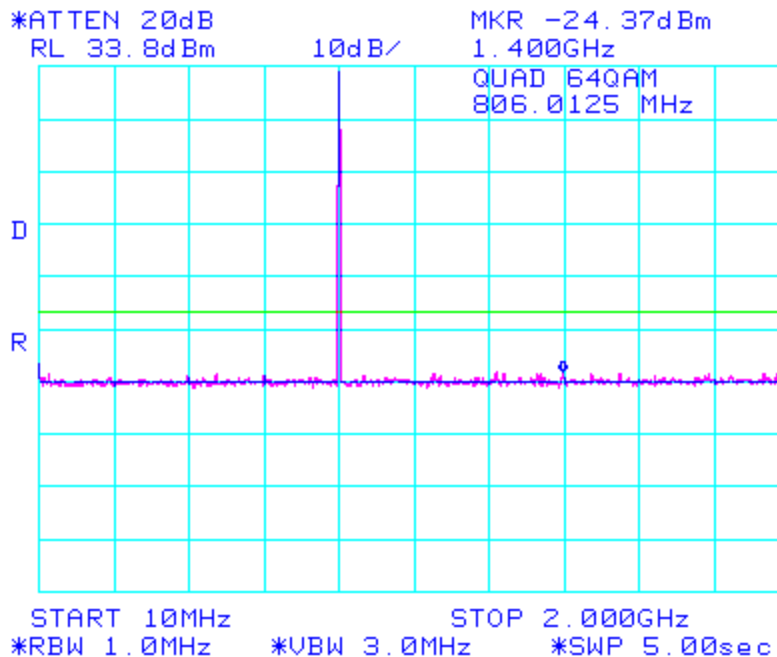


**Figure 84: Spurious Conducted Emissions 2.1051**

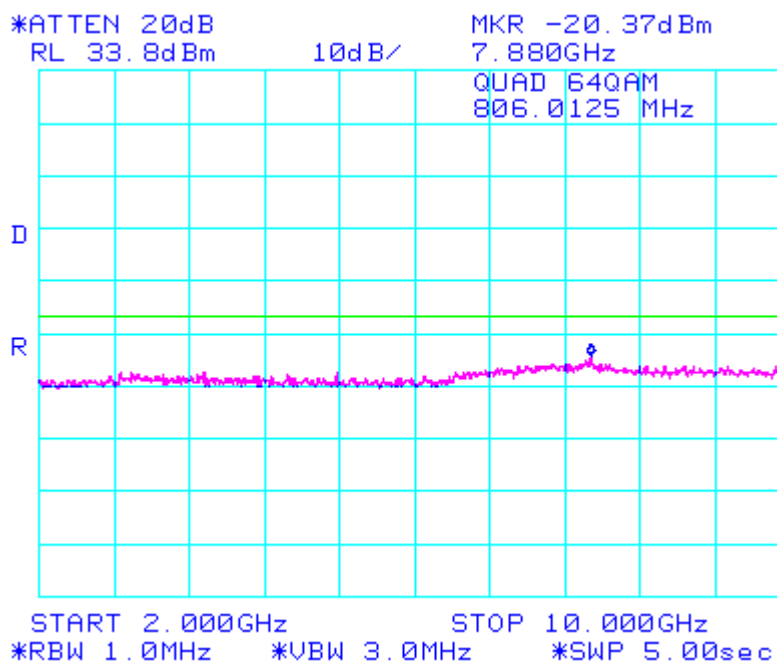


### Conducted Emission Test Data cont'd

**Figure 85: Spurious Conducted Emissions 2.1051**

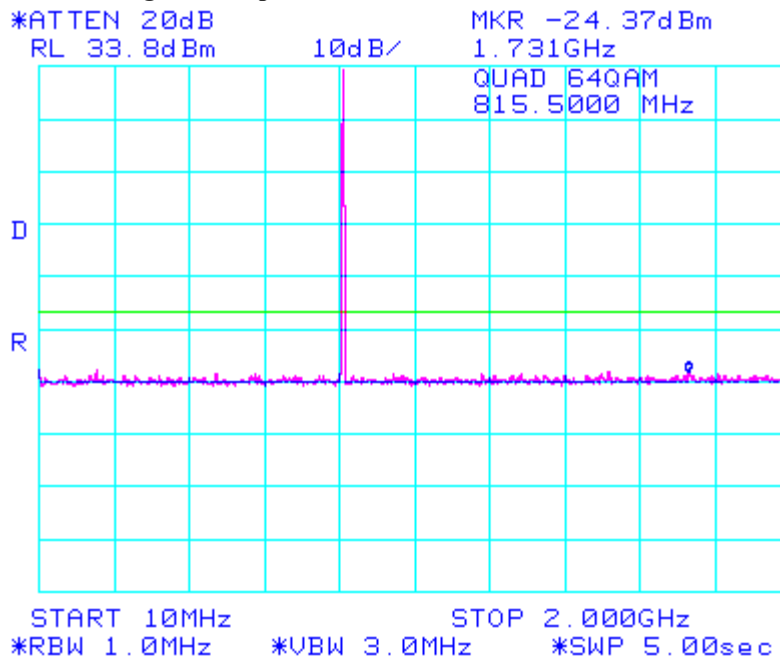


**Figure 86: Spurious Conducted Emissions 2.1051**

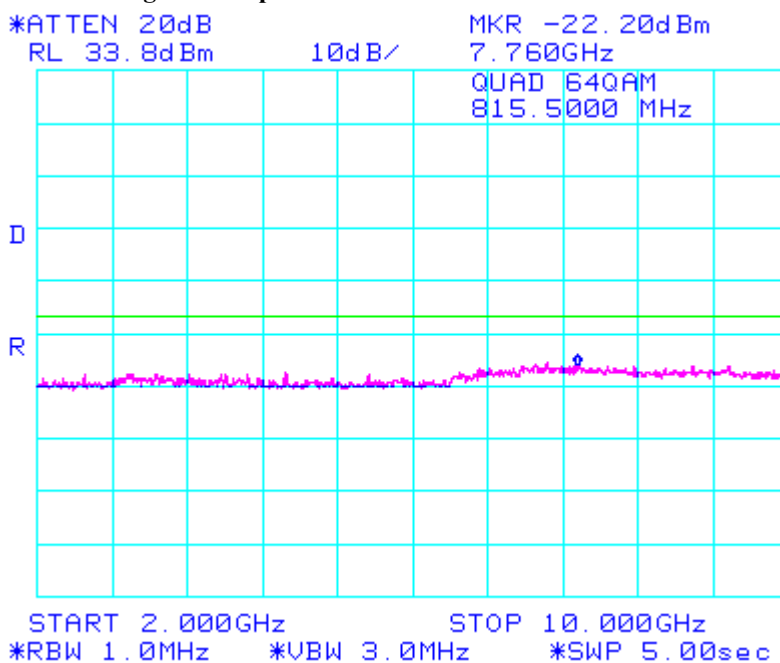


### Conducted Emission Test Data cont'd

**Figure 87: Spurious Conducted Emissions 2.1051**



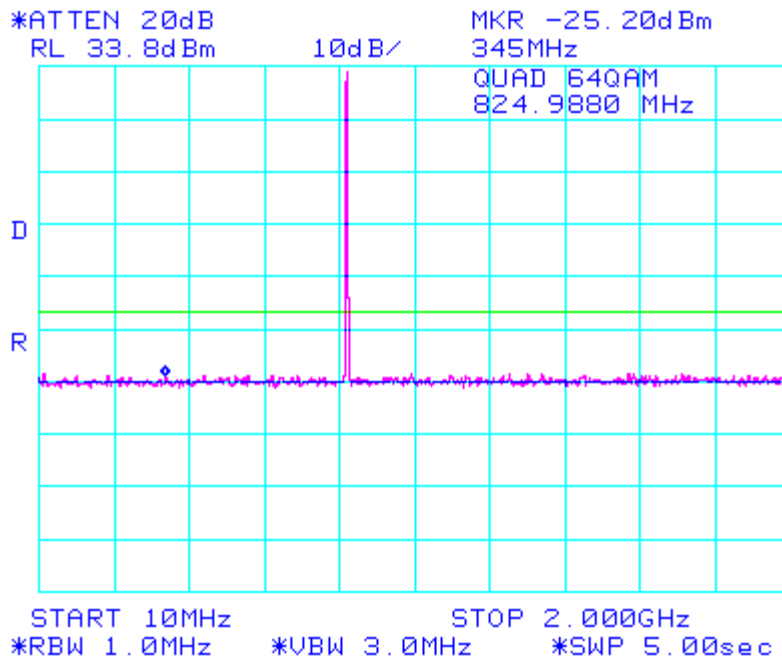
**Figure 88: Spurious Conducted Emissions 2.1051**



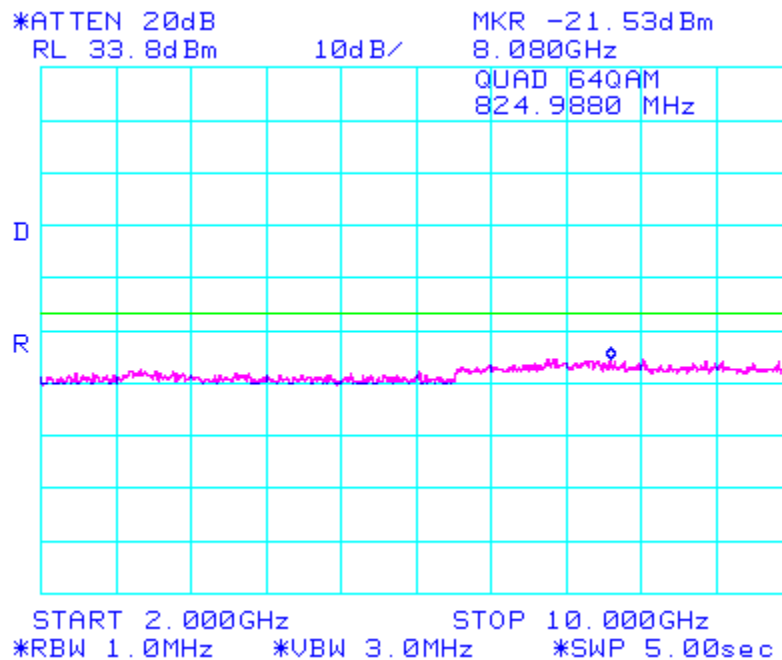


### Conducted Emission Test Data cont'd

**Figure 89: Spurious Conducted Emissions 2.1051**

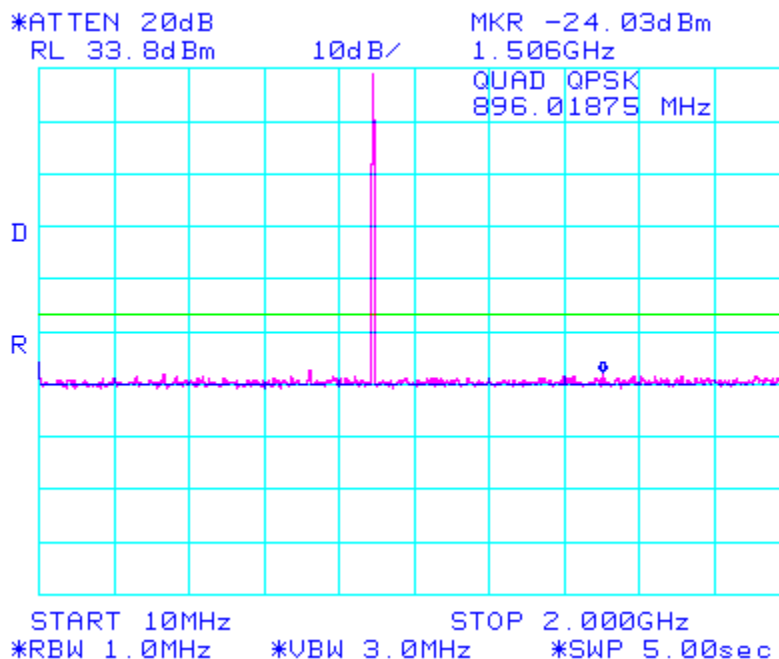


**Figure 90: Spurious Conducted Emissions 2.1051**

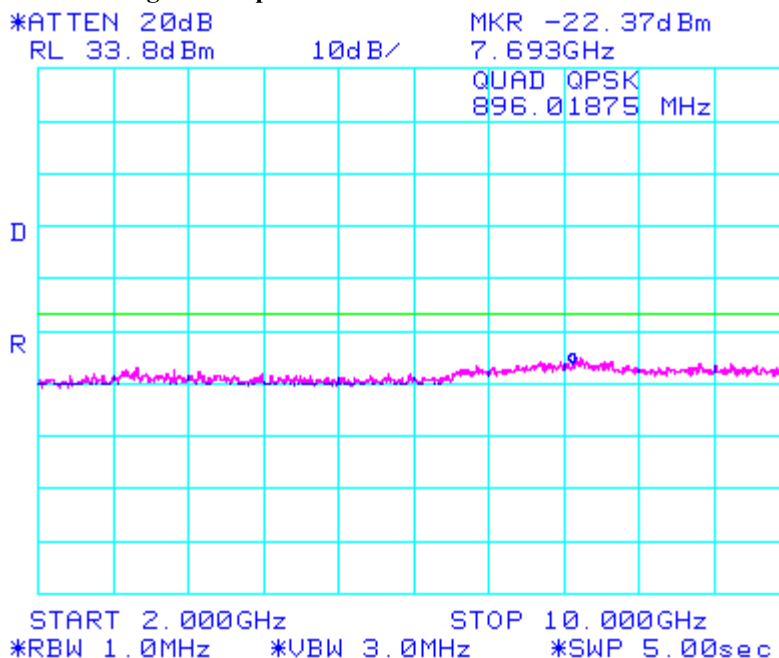


### Conducted Emission Test Data cont'd

**Figure 91: Spurious Conducted Emissions 2.1051**

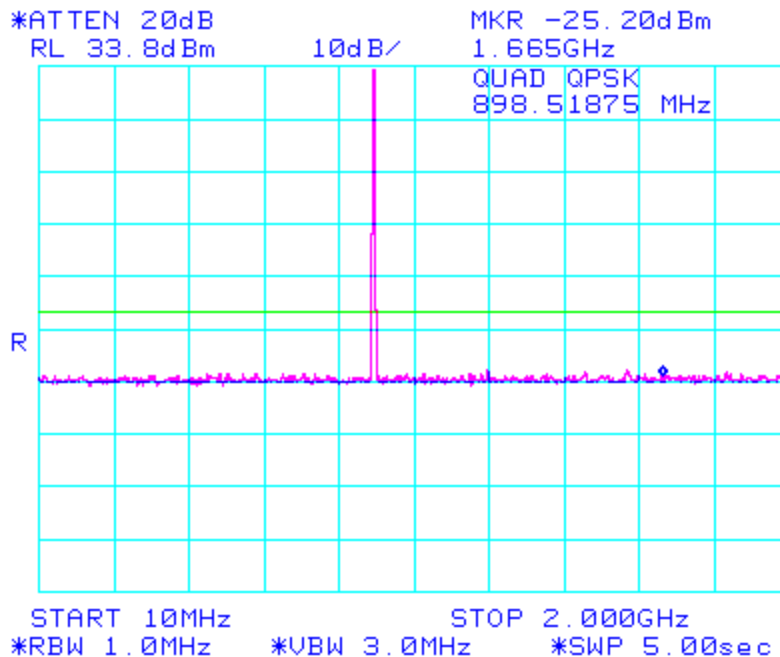


**Figure92: Spurious Conducted Emissions 2.1051**

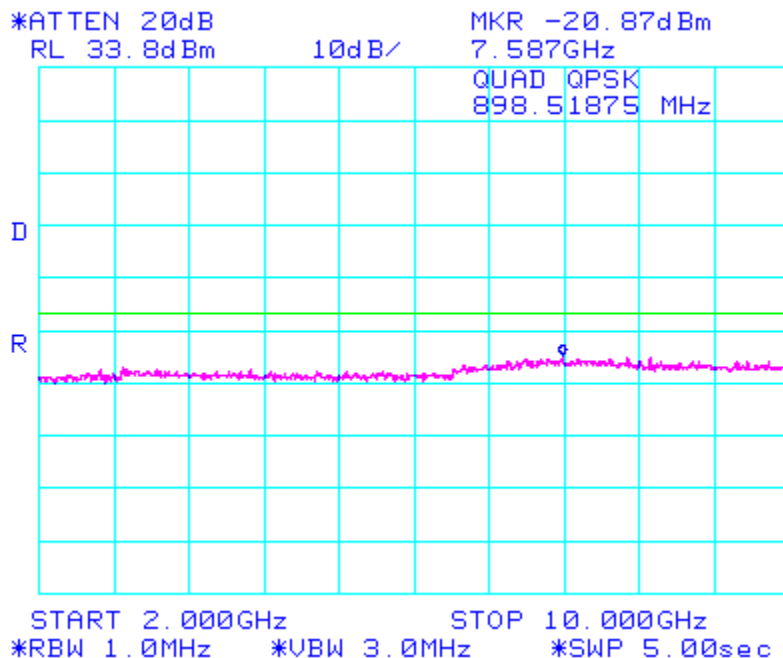


### Conducted Emission Test Data cont'd

**Figure 93: Spurious Conducted Emissions 2.1051**

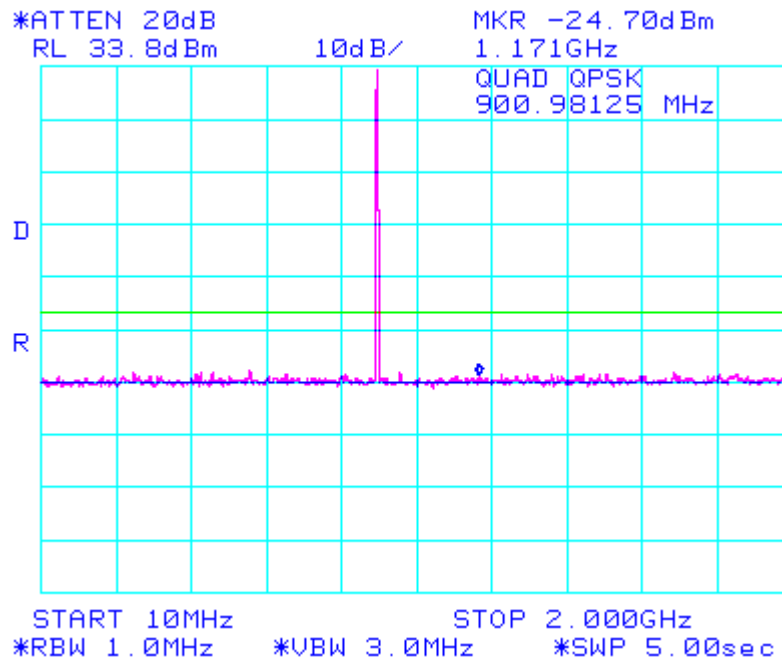


**Figure 94: Spurious Conducted Emissions 2.1051**

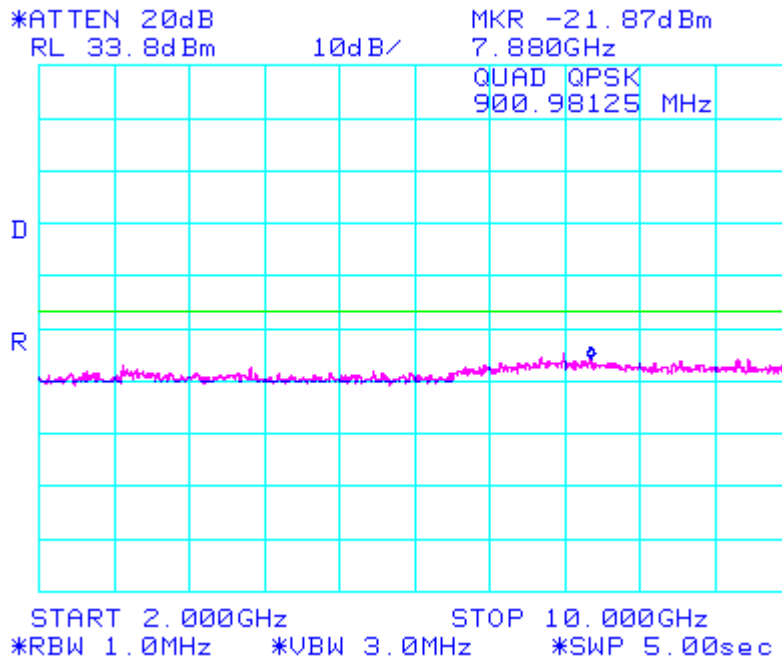


### Conducted Emission Test Data cont'd

**Figure 95: Spurious Conducted Emissions 2.1051**

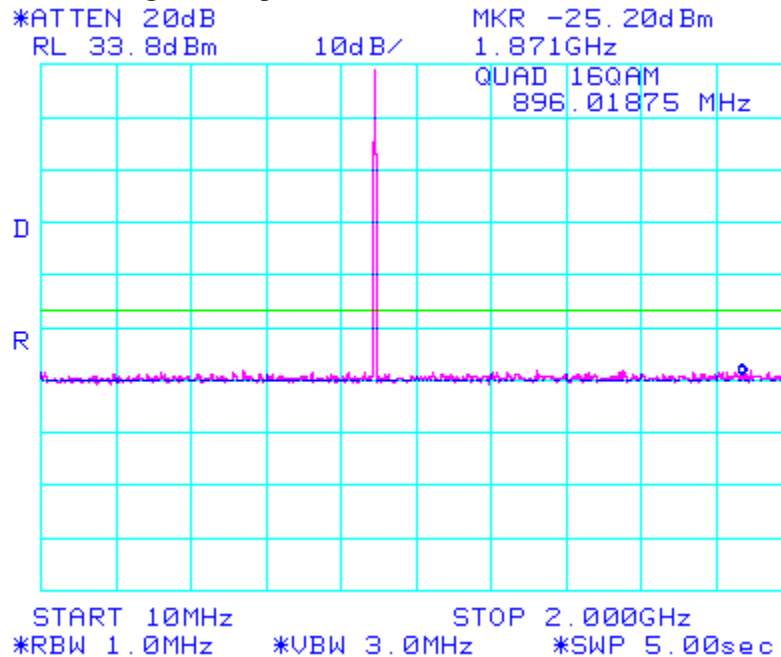


**Figure 96: Spurious Conducted Emissions 2.1051**

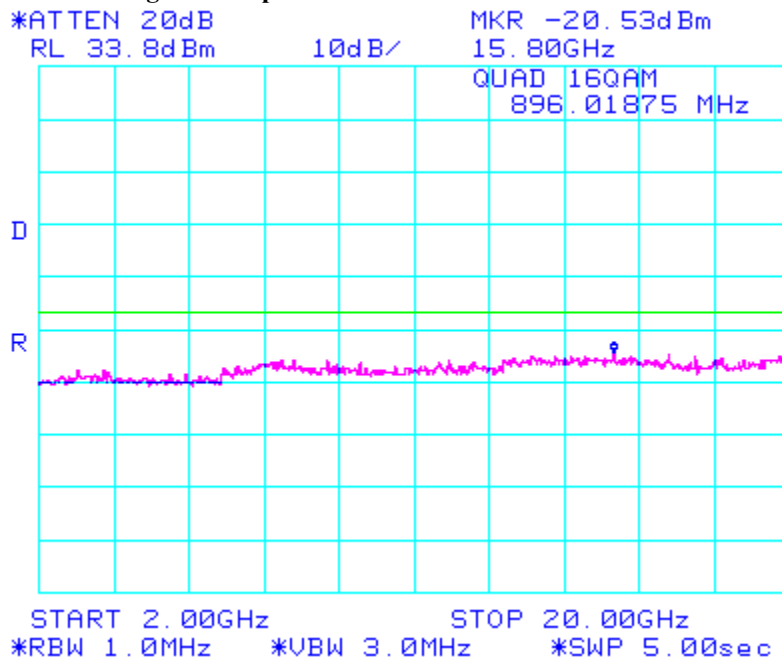


### Conducted Emission Test Data cont'd

**Figure 97: Spurious Conducted Emissions 2.1051**

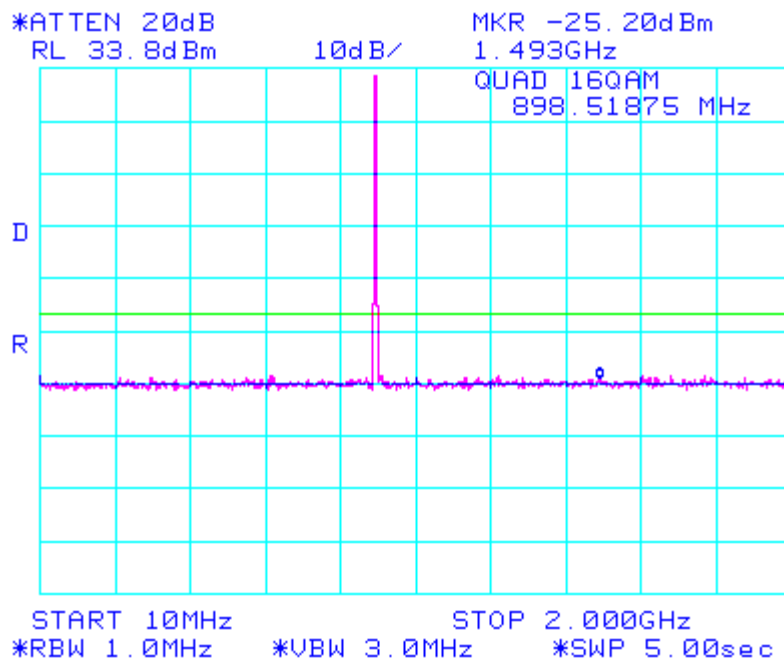


**Figure 98: Spurious Conducted Emissions 2.1051**

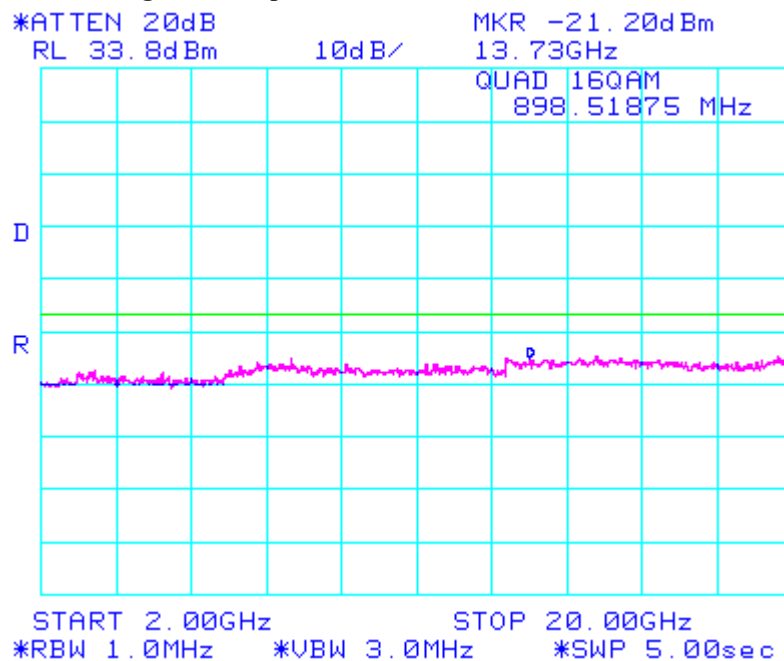


### Conducted Emission Test Data cont'd

**Figure 99: Spurious Conducted Emissions 2.1051**

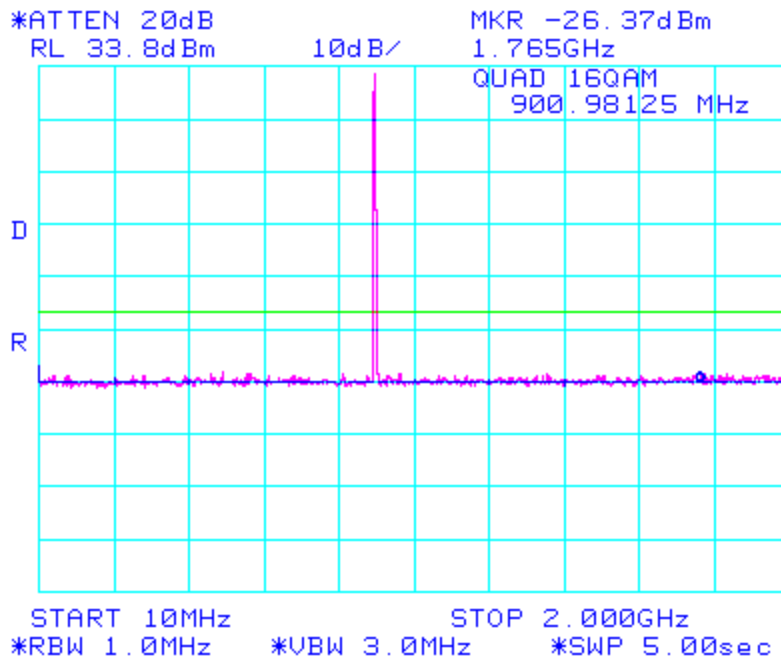


**Figure 100: Spurious Conducted Emissions 2.1051**

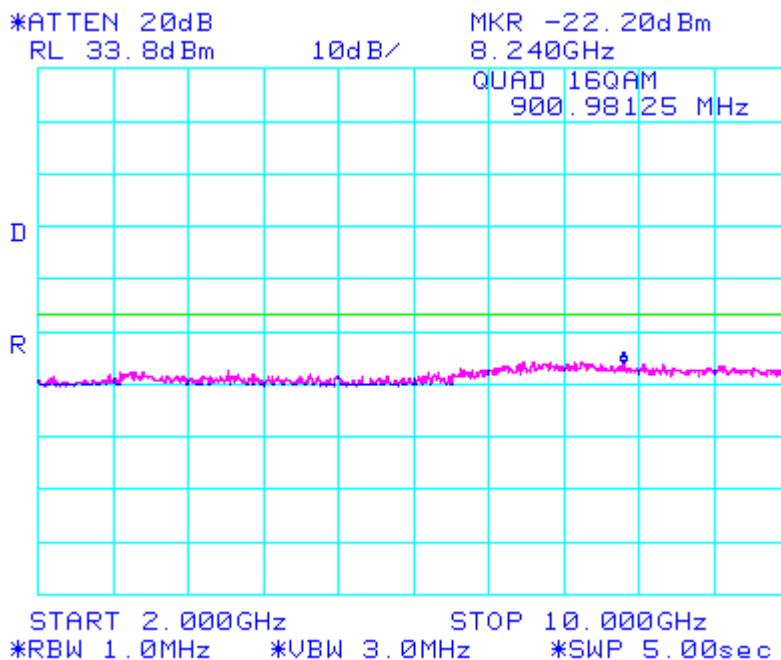


### Conducted Emission Test Data cont'd

**Figure 101: Spurious Conducted Emissions 2.1051**

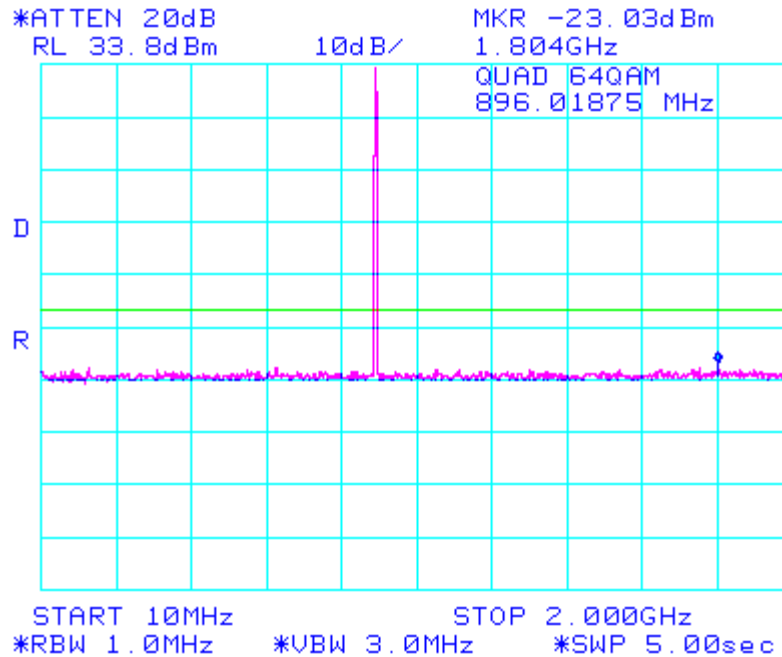


**Figure 102: Spurious Conducted Emissions 2.1051**

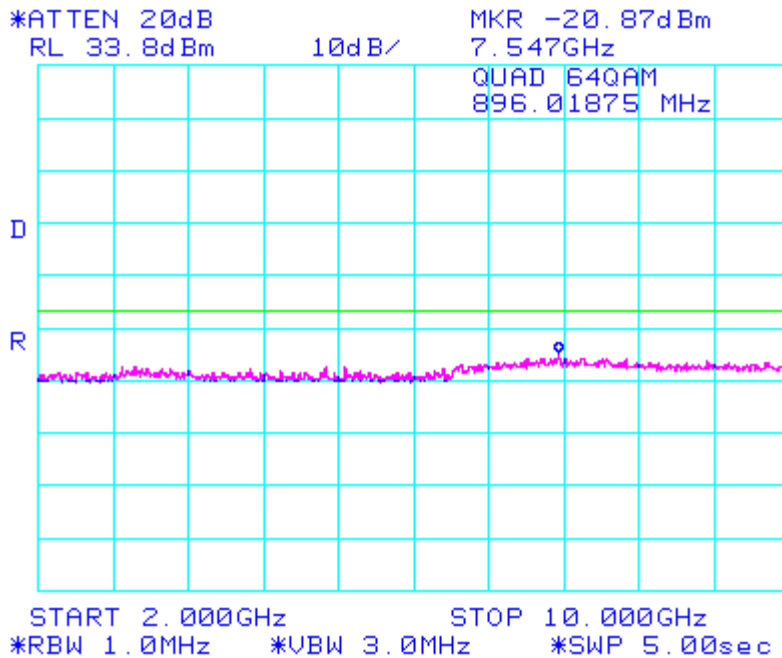


### Conducted Emission Test Data cont'd

**Figure 103: Spurious Conducted Emissions 2.1051**



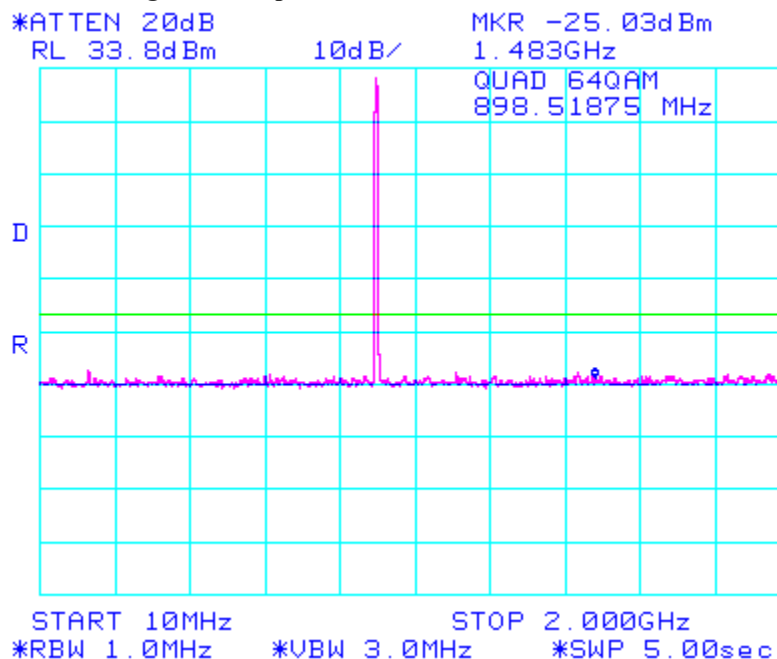
**Figure 104: Spurious Conducted Emissions 2.1051**



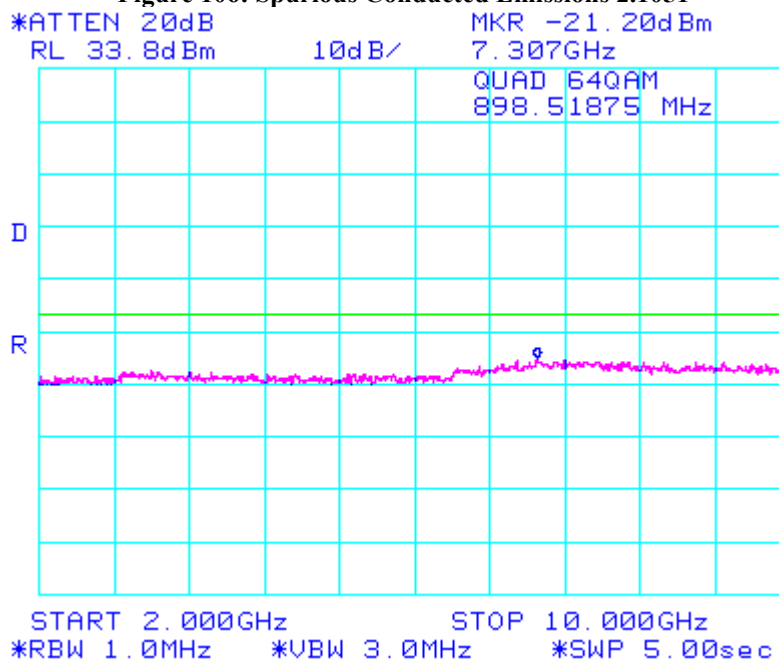


### Conducted Emission Test Data cont'd

**Figure 105: Spurious Conducted Emissions 2.1051**

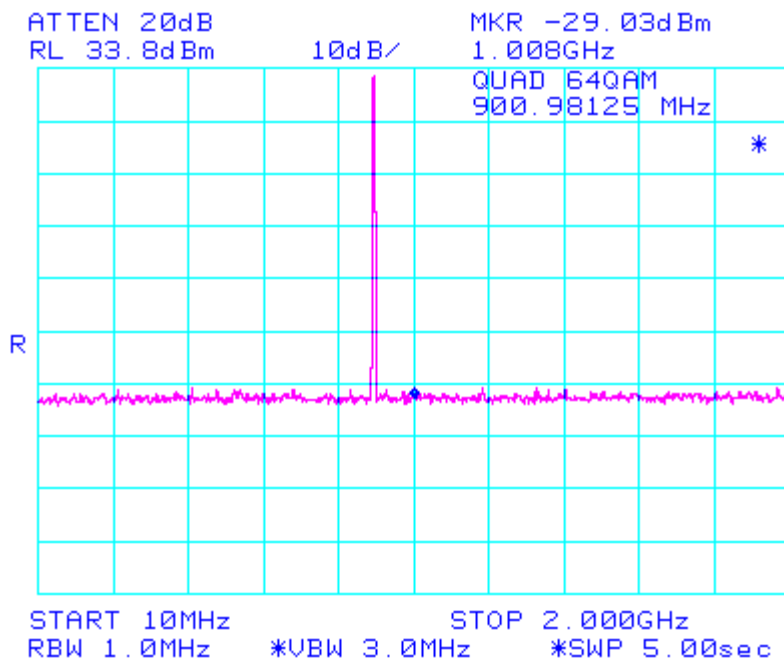


**Figure 106: Spurious Conducted Emissions 2.1051**

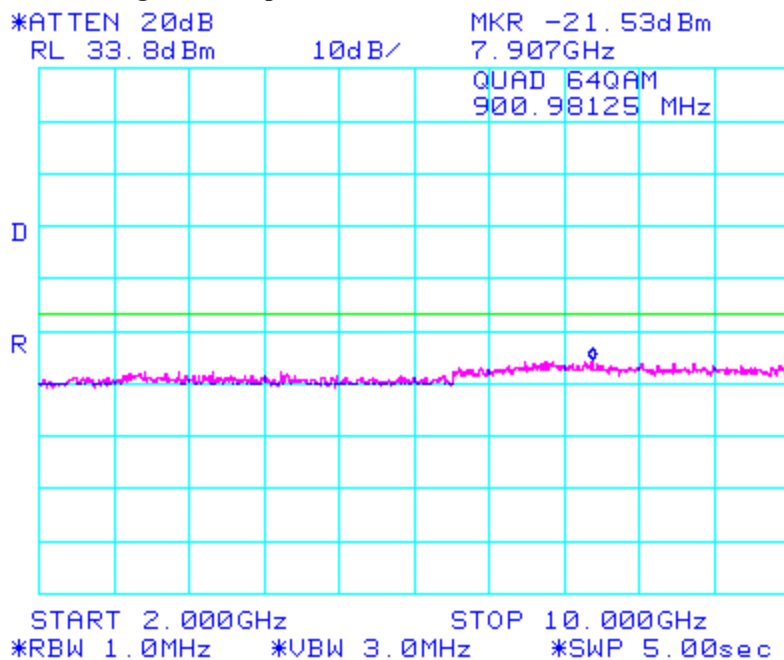


### Conducted Emission Test Data cont'd

**Figure 107: Spurious Conducted Emissions 2.1051**



**Figure 108: Spurious Conducted Emissions 2.1051**



### Test-Setup Photo

