January 18, 2011

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AN/PPS-26A Sense Through the Wall (STTW)
Measured Emissions for Stage 4 Spectrum Certification

The following plots show the measured spectral emissions for each of three operating modes of the AN/PPS-26A STTW handheld radar. These emissions data are measured directly from the radar's transmit port.

Antenna Characteristics:
After the transmit port, there are additional losses incurred in the antenna array backplane as described that lowers the peak radiated power of the unit. The antenna feed loss is approximately 2 dB.

Measured Transmitter Data:

401MQ3N Mode:

Fo = 3150 MHz

Peak Power: 23.9 dBm (250 mW)

Lower Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
2951.8 MHz	-198.20 MHz	-3.3 dBc	20.6 dBm
2950.2 MHz	-199.80 MHz	-20.7 dBc	3.24 dBm
2947.7 MHz	-202.3 MHz	-40.1 dBc	-16.2 dBm
2928.8 MHz	-221.25 MHz	-61.9 dBc	-38.0 dBm

Upper Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
3349.5 MHz	199.5 MHz	-3.5 dBc	20.5 dBm
3350.9 MHz	200.9 MHz	-20.9 dBc	3.0 dBm
3353.5 MHz	203.5 MHz	-40.2 dBc	-16.3 dBm
3357.6 MHz	207.6 MHz	-60.4 dBc	-36.5 dBm

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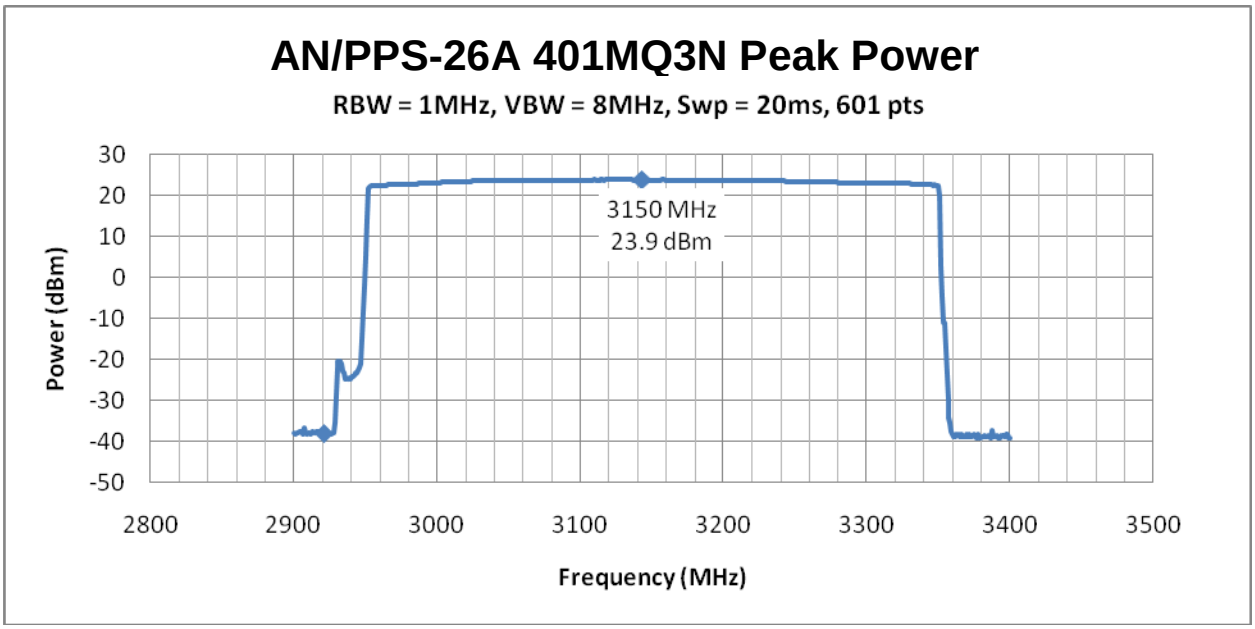
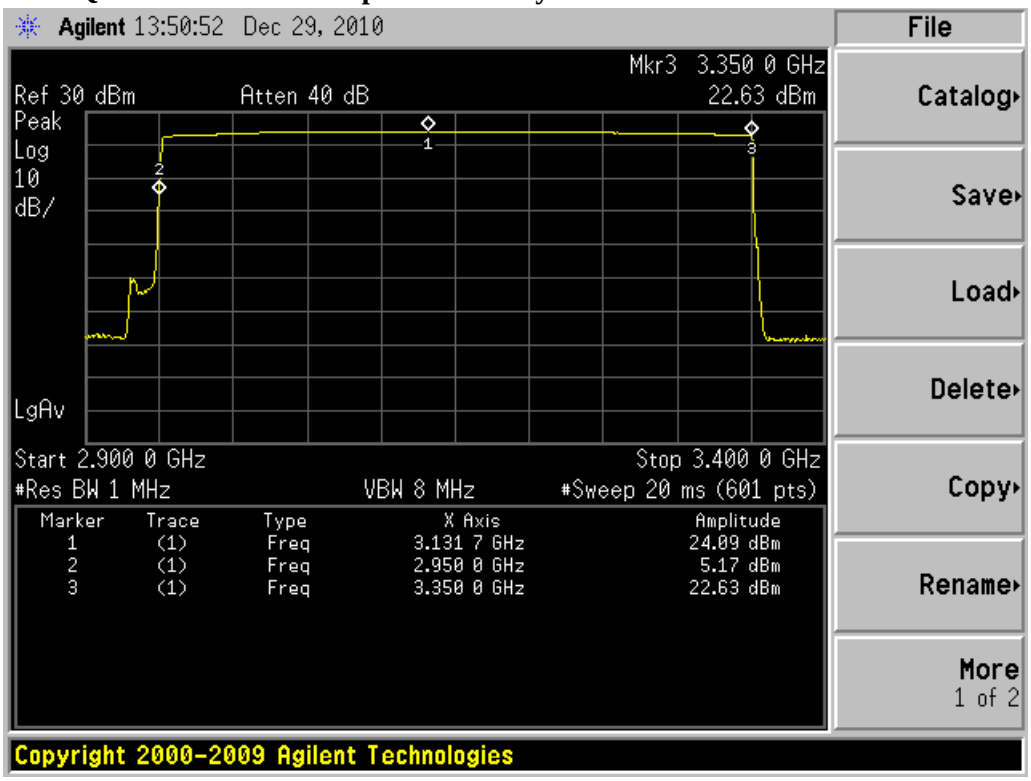
Full Bandwidth Plot:



401MQ3N Full Bandwidth Spectrum Analyzer Plot



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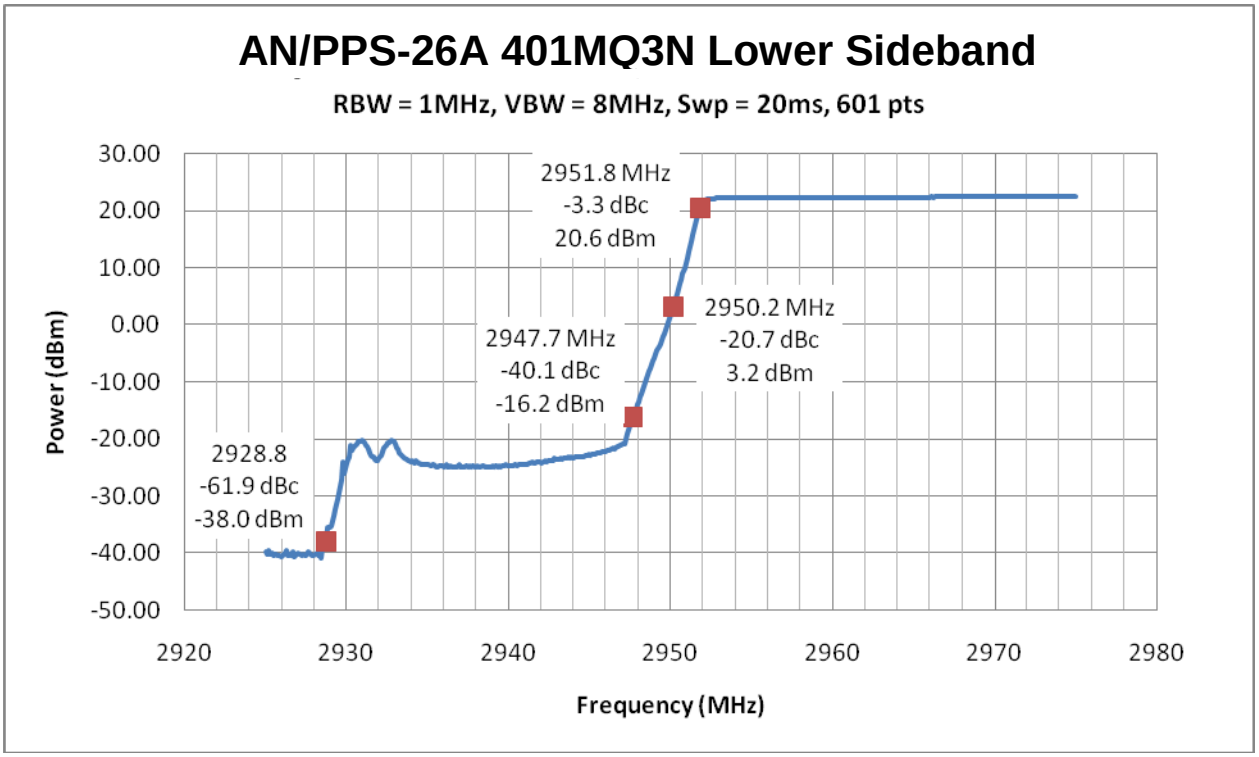
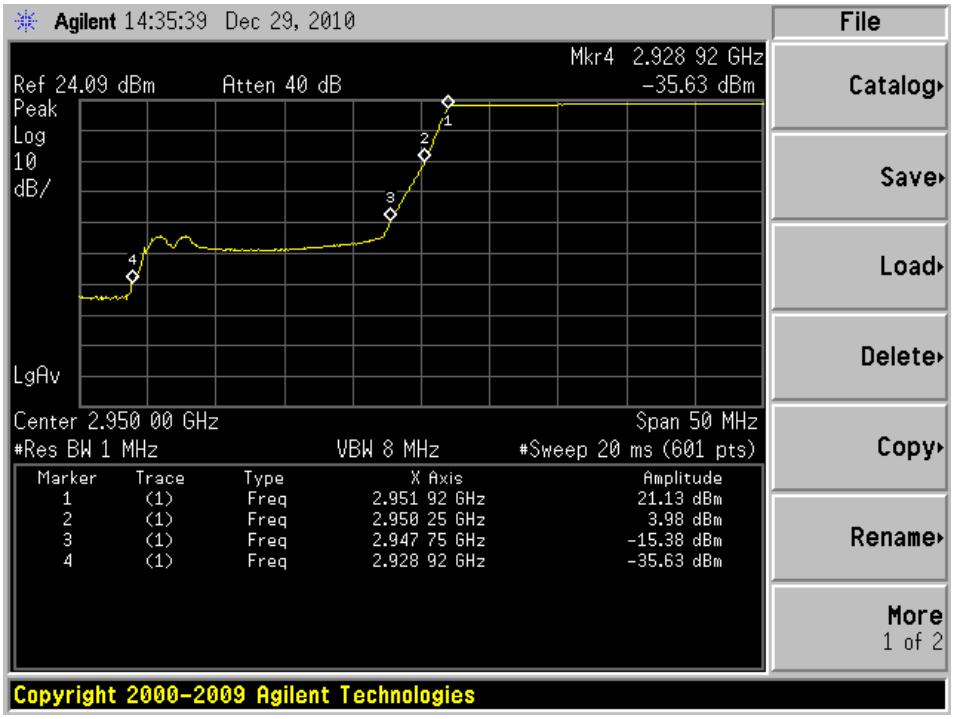
Lower Sideband Plot (Zoomed):



401MQ3N Lower Sideband Spectrum Analyzer Plot



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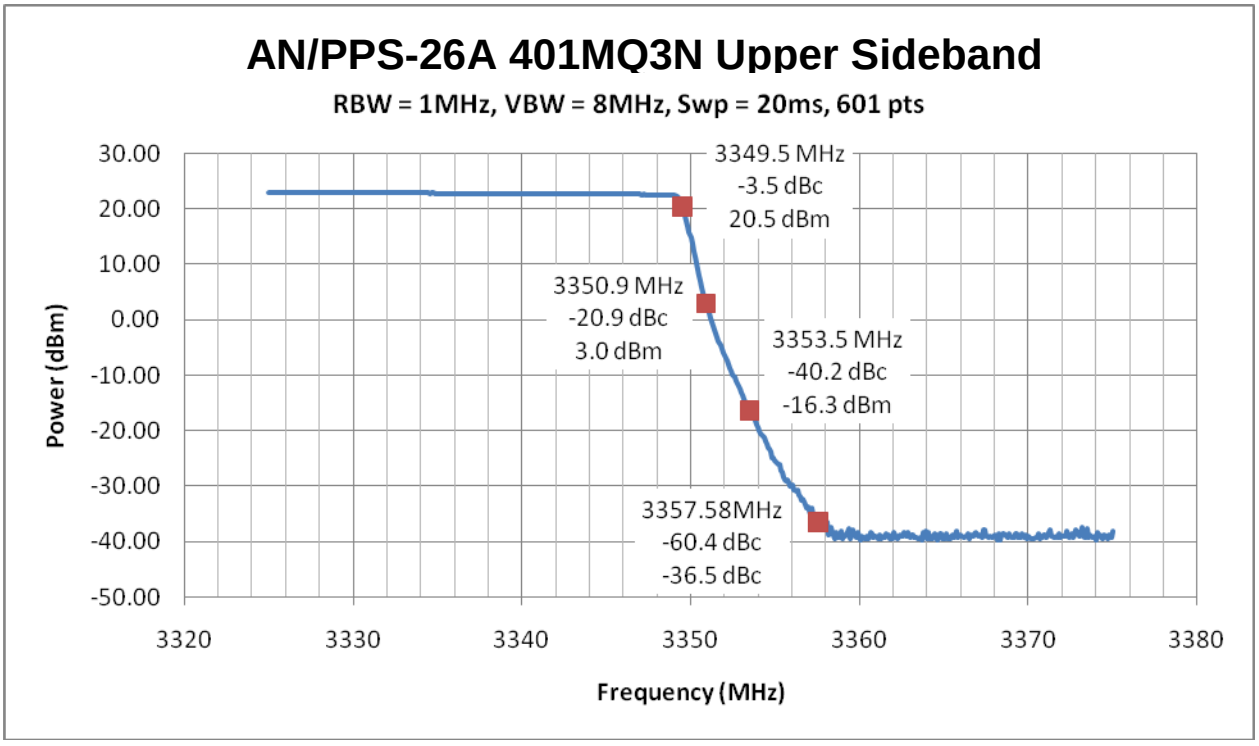
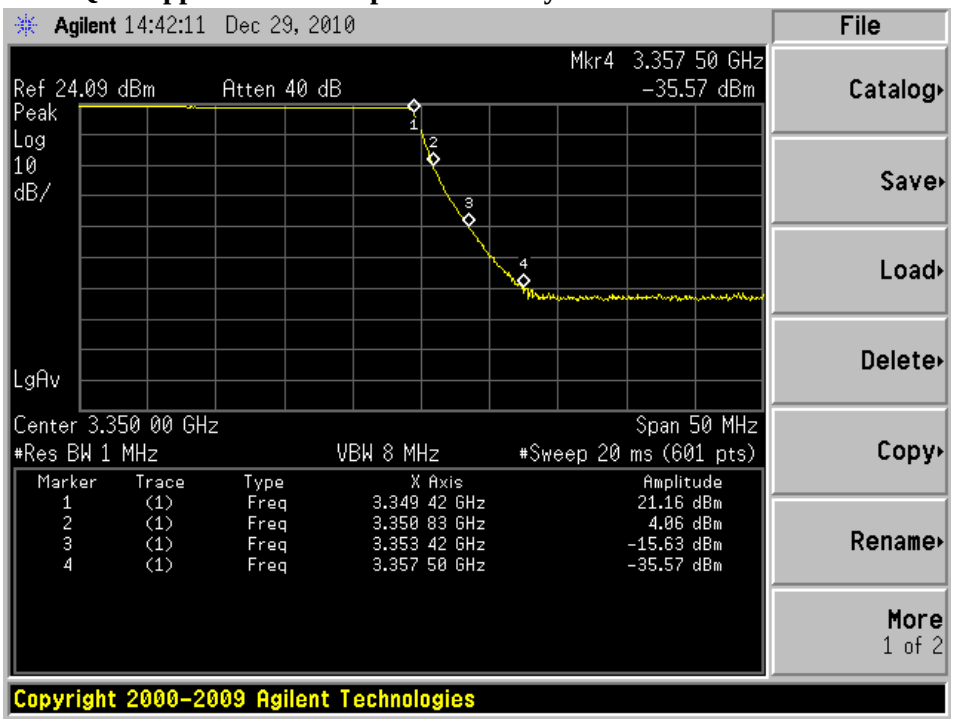
Upper Sideband Plot (Zoomed):



401MQ3N Upper Sideband Spectrum Analyzer Plot



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322MQ3N Mode:

Fo = 3150 MHz

Peak Power: 24.0 dBm (251 mW)

Lower Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
2990.9 MHz	-159.1 MHz	-3.8 dBc	20.2 dBm
2989.4 MHz	-160.6 MHz	-20.1 dBc	3.9 dBm
2986.9 MHz	-163.1 MHz	-40.7 dBc	-16.7 dBm
2968.0 MHz	-182.0 MHz	-61.3 dBc	-37.3 dBm

Upper Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
3310.0 MHz	160.0 MHz	-3.5 dBc	20.5 dBm
3311.3 MHz	161.3 MHz	-20.7 dBc	3.3 dBm
3313.9 MHz	163.9 MHz	-40.4 dBc	-16.4 dBm
3317.8 MHz	167.8 MHz	-60.6 dBc	-36.6 dBm

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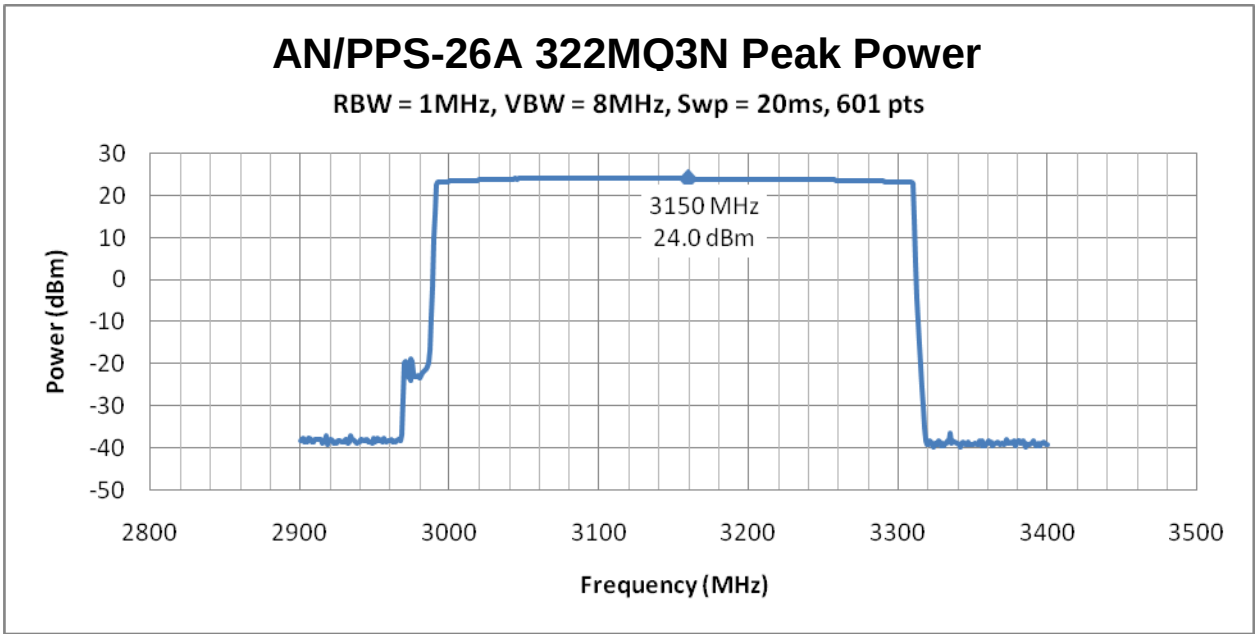
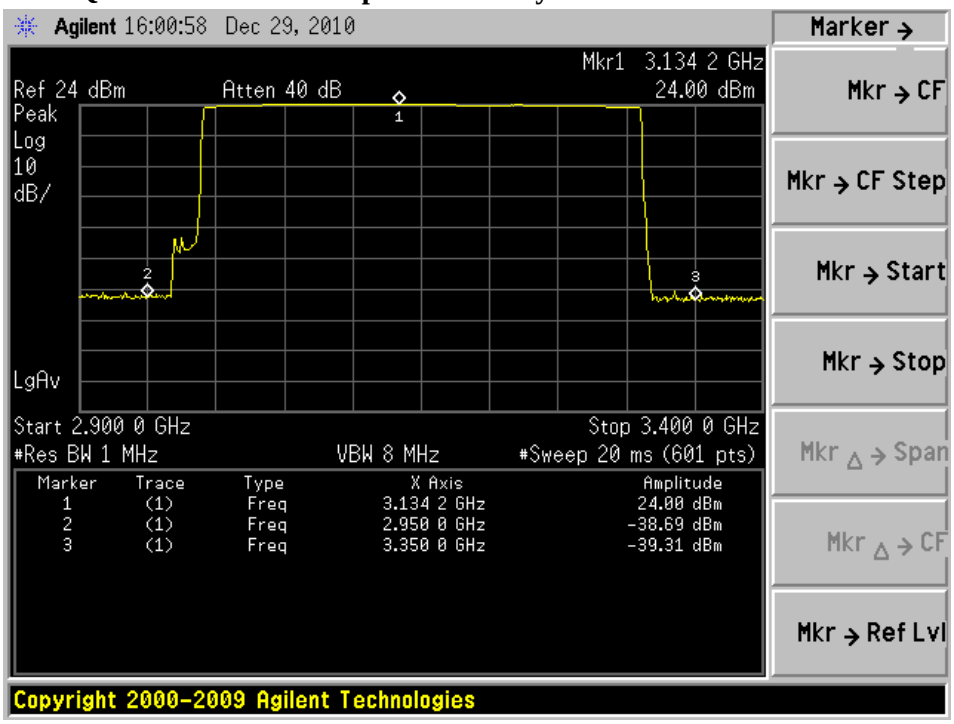
Full Bandwidth Plot:



322MQ3N Full Bandwidth Spectrum Analyzer Plot



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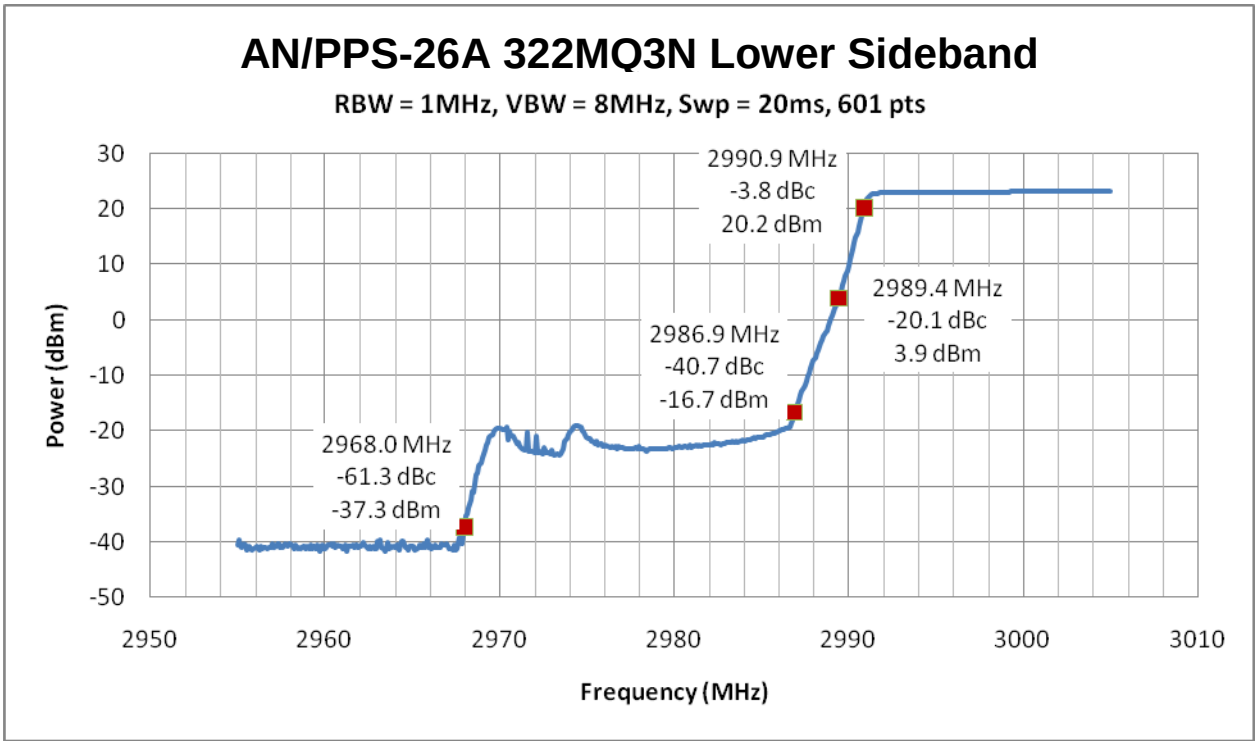
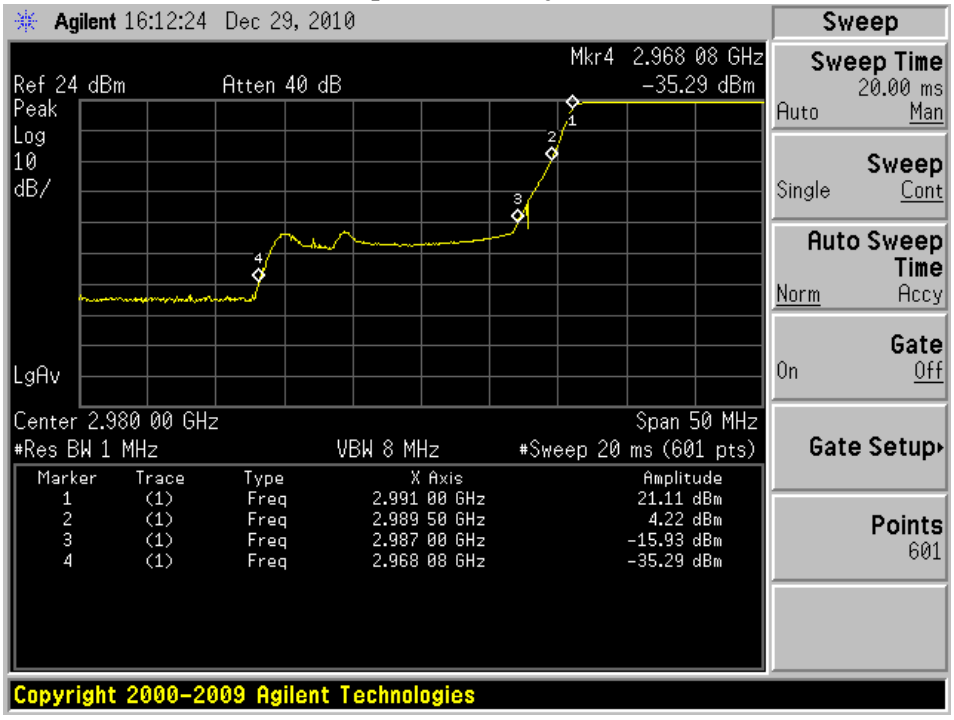
Lower Sideband Plot (Zoomed):



322MQ3N Lower Sideband Spectrum Analyzer Plot



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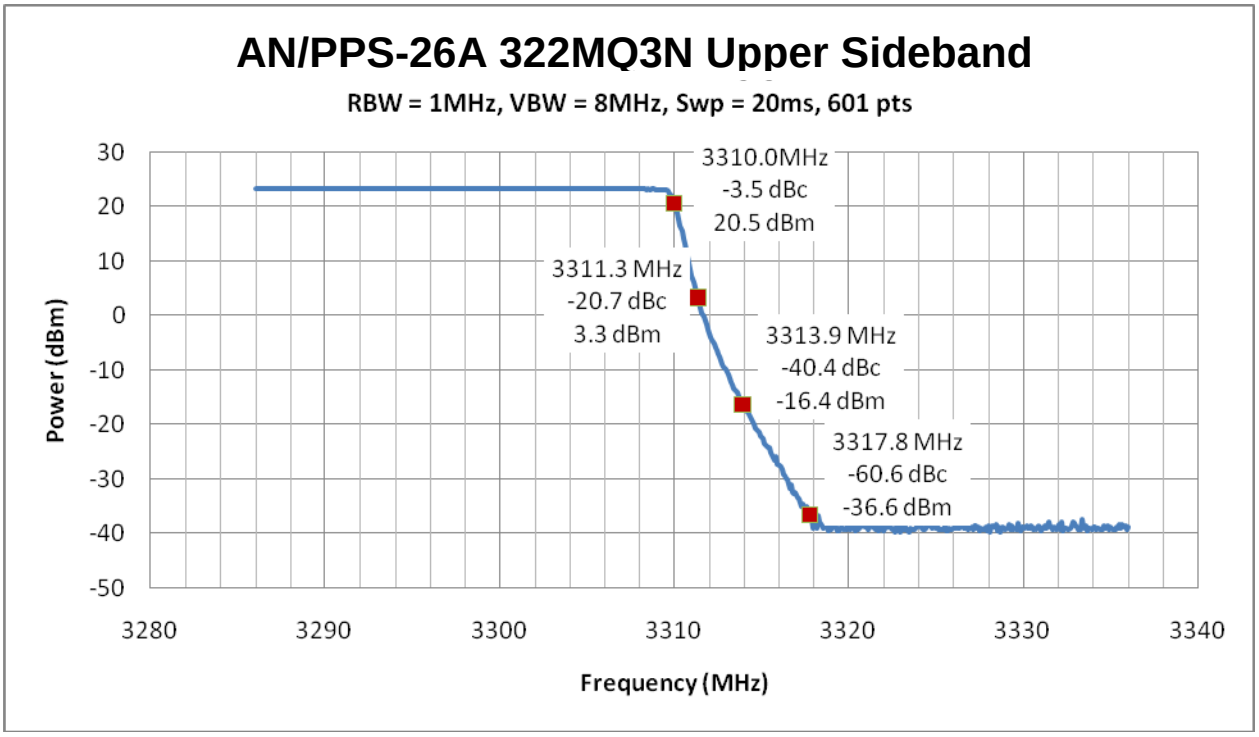
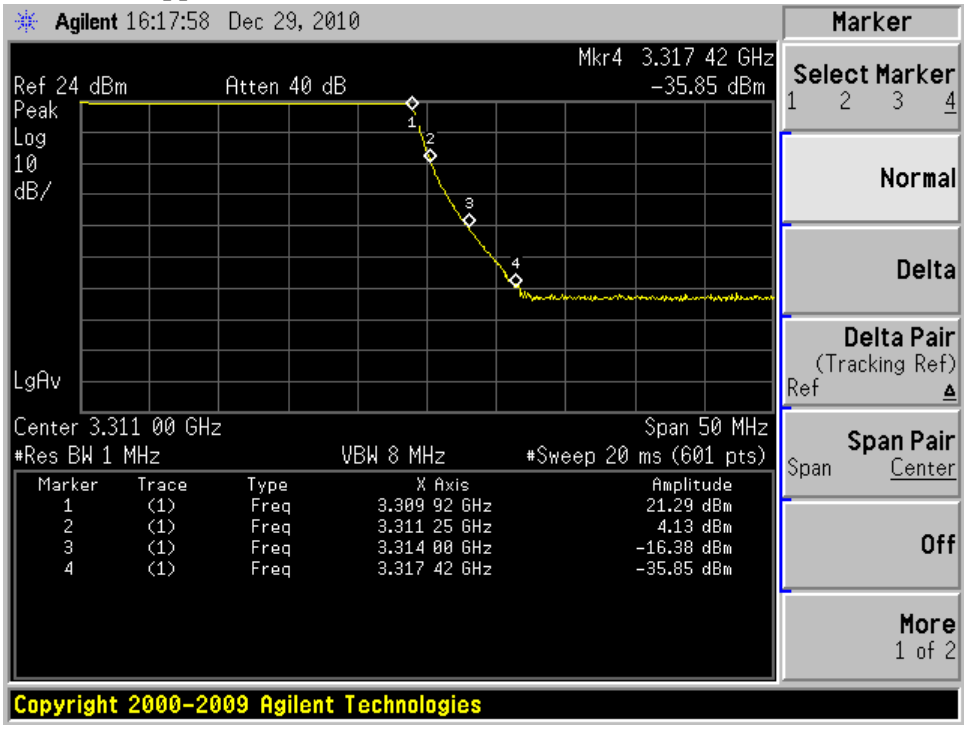
Upper Sideband Plot (Zoomed):



322MQ3N Upper Sideband



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269MQ3N Mode:

Fo = 3150 MHz

Peak Power: 23.9 dBm (250 mW)

Lower Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
3017.3 MHz	-132.7 MHz	-3.2 dBc	20.8 dBm
3015.8 MHz	-134.2 MHz	-20.8 dBc	3.2 dBm
3013.6 MHz	-136.4 MHz	-40.5 dBc	-16.5 dBm
2994.9 MHz	-155.1 MHz	-60.5 dBc	-36.5 dBm

Upper Sideband

Frequency	Half BW Offset (Fo)	Measured Level(dBc)	Measured Level(dBm)
3283.5 MHz	133.5 MHz	-3.0 dBc	21.0 dBm
3284.8 MHz	134.8 MHz	-20.6 dBc	3.4 dBm
3287.3 MHz	137.3 MHz	-40.3 dBc	-16.3 dBm
3291.0 MHz	141.0 MHz	-60.6 dBc	-36.6 dBm

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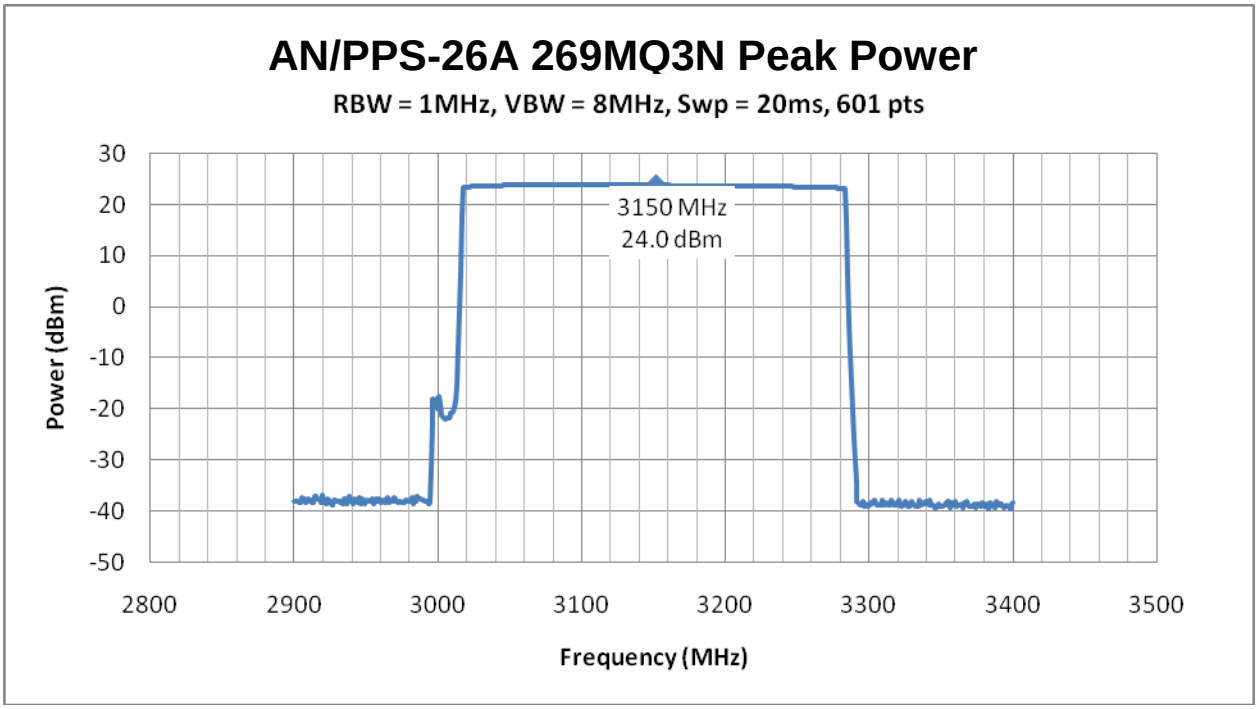
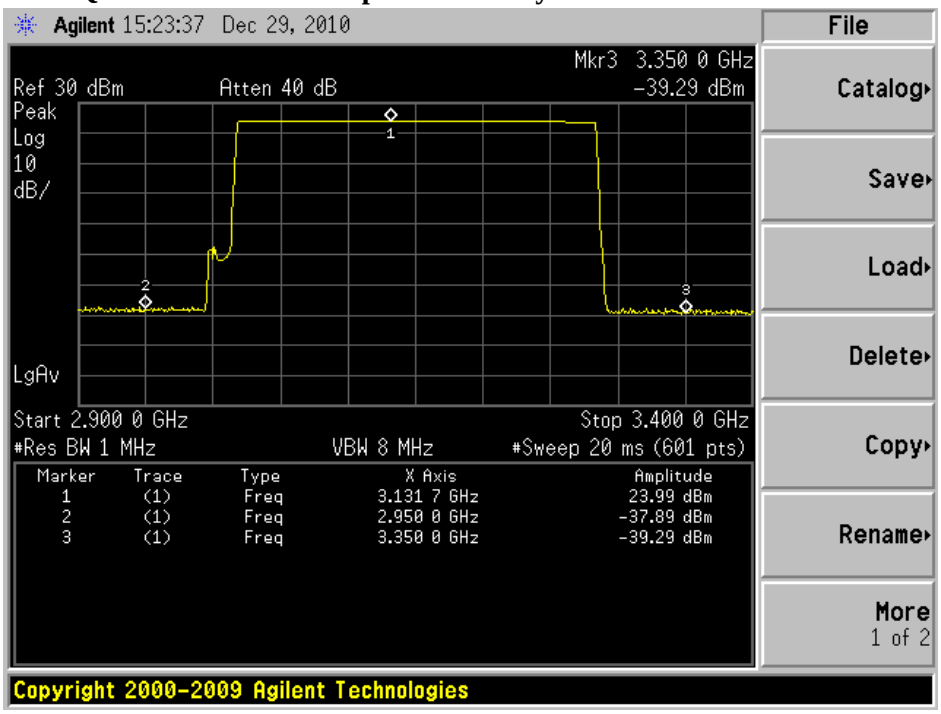
Full Bandwidth Plot:



269MQ3N Full Bandwidth Spectrum Analyzer Plot



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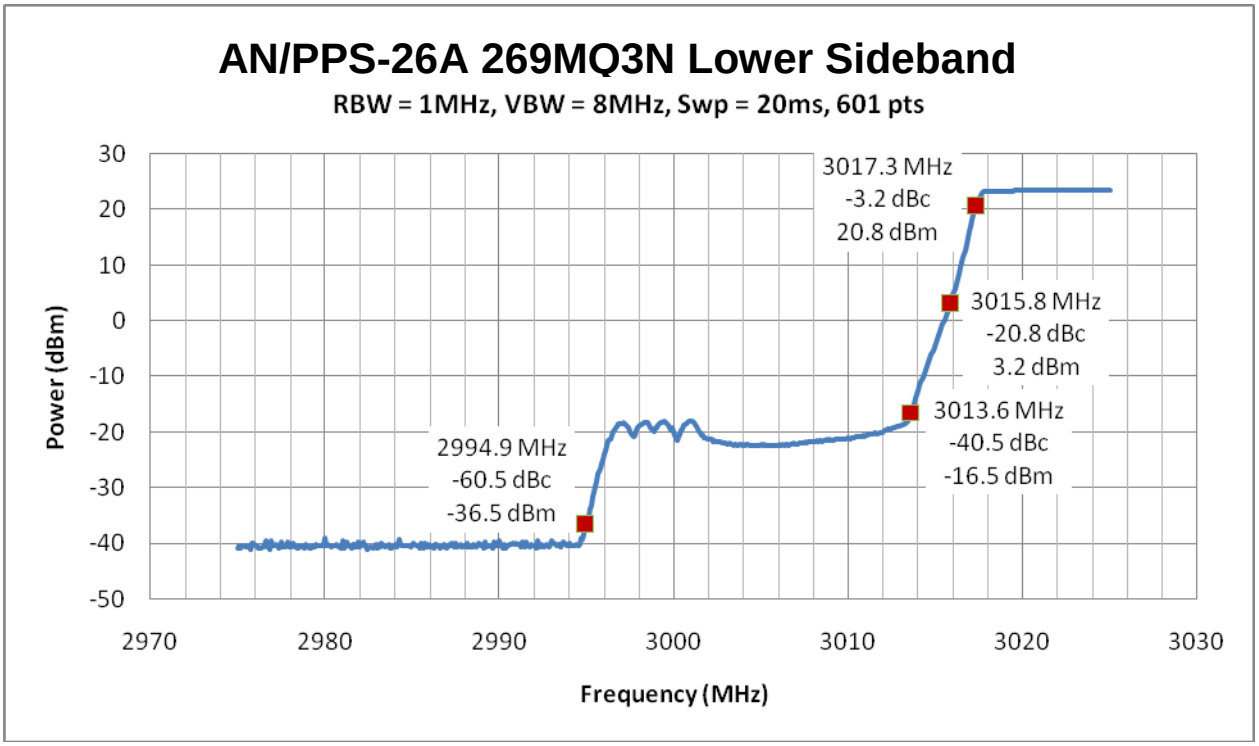
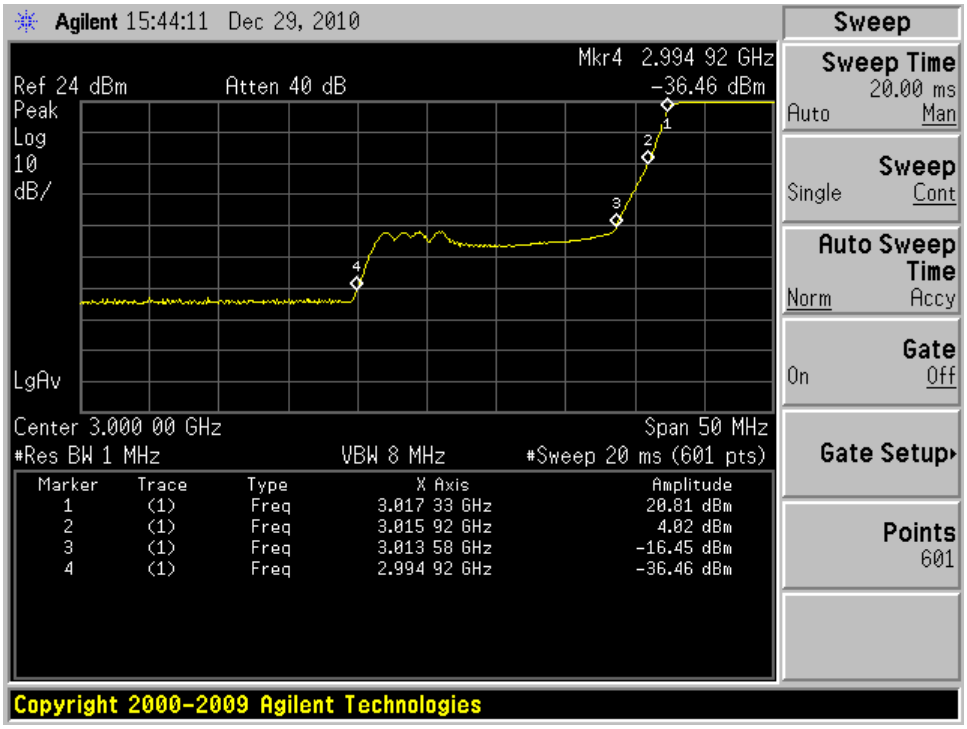
Lower Sideband Plot (Zoomed):



269MQ3N Lower Sideband Spectrum Analyzer Plot



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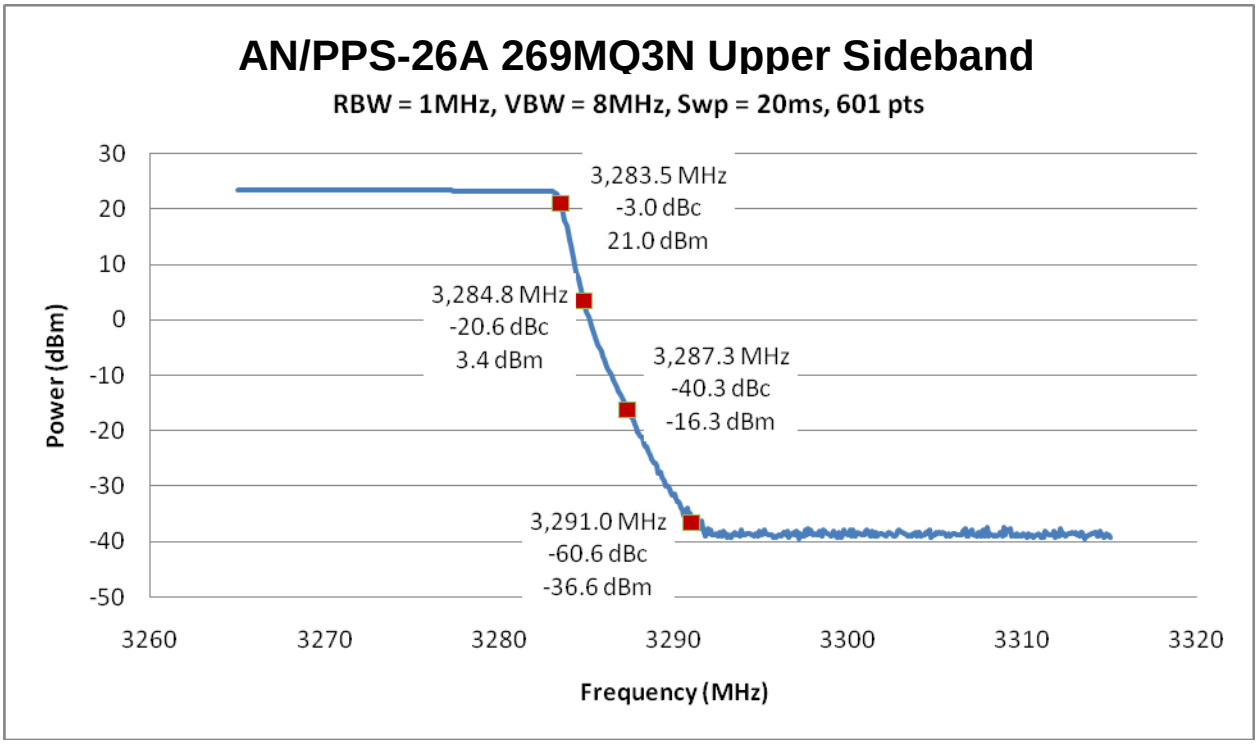
Upper Sideband Plot (Zoomed):



269MQ3N Upper Sideband Spectrum Analyzer Plot