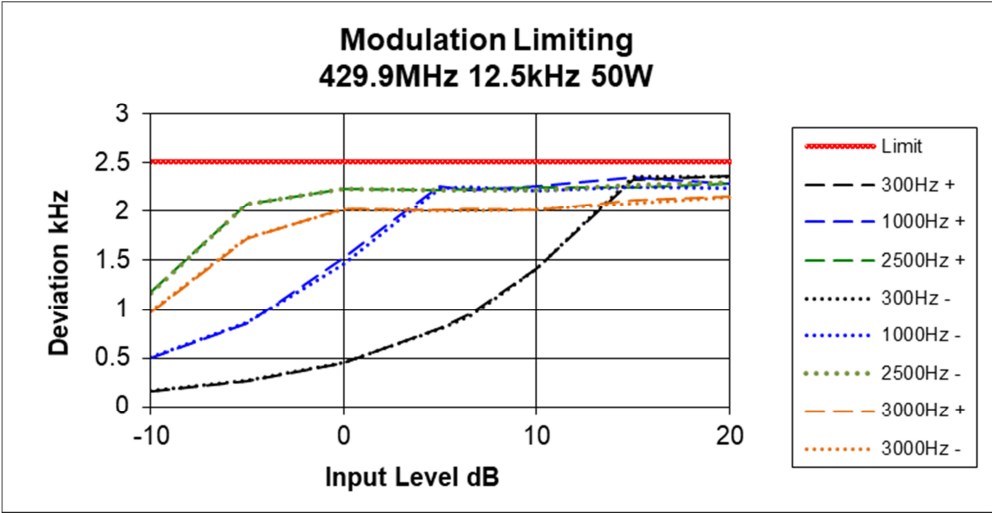


Transmitter Modulation Limiting

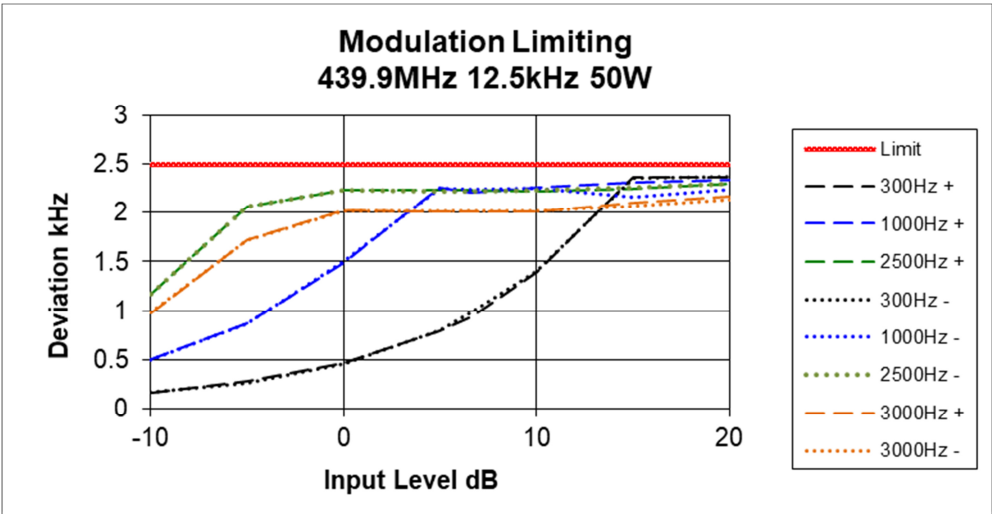
SPECIFICATION: FCC CFR 2.1047 (b)

Tx FREQUENCY: 429.9 MHz 12.5 kHz Channel Spacing



SPECIFICATION: FCC CFR 2.1047 (b)

Tx FREQUENCY: 439.9 MHz 12.5 kHz Channel Spacing



TRANSMITTER 99% EMISSION BANDWIDTH

SPECIFICATION: RSS-119 5.5

GUIDE: RSS-Gen 6.7

MEASUREMENT PROCEDURE:

1. Refer Annex A for Equipment Set up.
2. For analog measurements: The EUT was modulated by a 2500 Hz tone at an input level 16 dB above a level that produced 50% deviation. The input level was established at the frequency of maximum response of the audio modulating circuit.
For Data measurements: The EUT was modulated with an internally generated pseudo random bit sequence at the appropriate Baud rates.
3. The Occupied Bandwidth was measured on the Spectrum Analyser.

MEASUREMENT RESULTS:

		Bandwidths (kHz)		
Channel Spacing (MHz)	Channel Spacing (kHz)	Analog	FFSK 1200 bps	DMR
406.2	12.5	9.97	6.97	7.48
418.0	12.5	9.97	6.82	7.48
420.0	12.5	9.97	6.88	7.47
429.9	12.5	9.97	6.88	7.47
439.9	12.5	9.97	6.82	7.50
Limit Authorized Bandwidth 47 CFR 90.209 RSS 119 5.5		11.25	11.25	11.25
Necessary BW used in emission designator		11.0	7.6	7.6
Result		Pass	Pass	Pass

TRANSMITTER OCCUPIED BANDWIDTH AND SPECTRUM MASKS

SPECIFICATION: FCC 47 CFR 2.1049 (c)

RSS-119 5.5

GUIDE: TIA/EIA-603E 2.2.11 (Analog)
TIA-102.CAAA-C 2.2.5 (Digital)

MEASUREMENT PROCEDURE:

4. Refer Annex A for Equipment Set up.
The EUT was modulated with an internally generated pseudo random bit sequence at the appropriate Baud rates.
5. The Occupied Bandwidth was measured on the Spectrum Analyser, with bandwidth settings as follows.
Emission Mask D – Resolution Bandwidth = 100 Hz, Video Bandwidth = 1 kHz

MEASUREMENT RESULTS:

See the plots on the following pages for 12.5 kHz channel spacing.

MEASUREMENT UNCERTAINTY 95% $\pm 0.65\text{dB}$

LIMIT CLAUSE: FCC 47 CFR 90.210

RSS-119 5.5

EMISSION MASKS

Emission Mask D 12.5 kHz Channel Spacing Analog, FFSK, Digital Voice/Data

DATA SPEED

FFSK 12.5 kHz Channel Spacing 1200 bps

Digital Voice/Data 12.5 kHz Channel Spacing 9600 bps

Photo: Measurement Setup



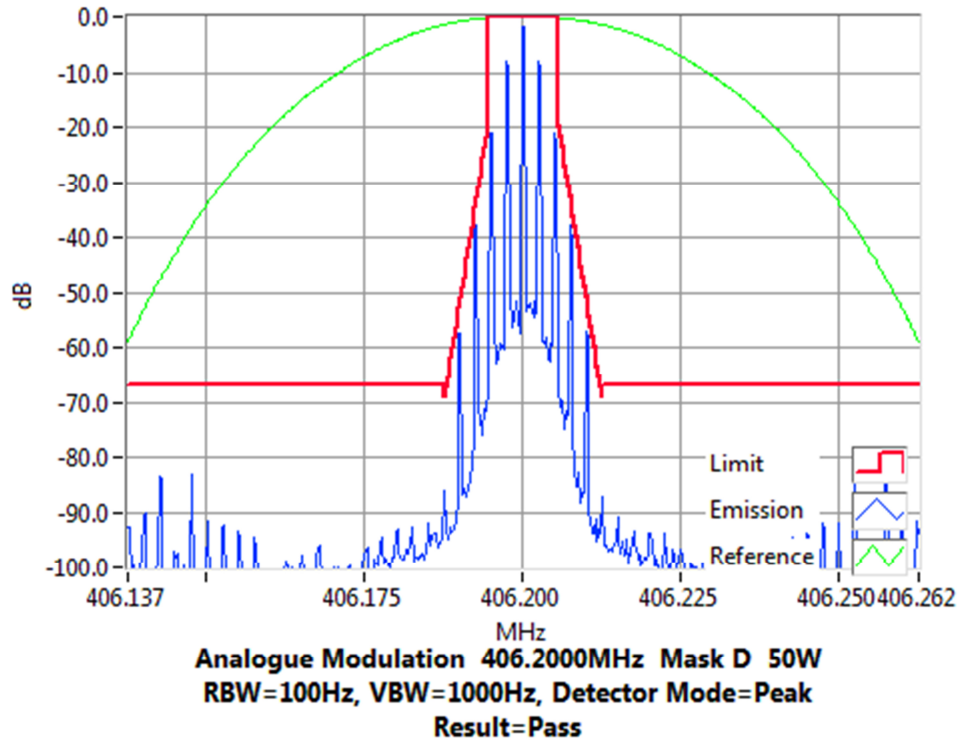
Occupied Bandwidth and Spectrum Masks

ANALOGUE VOICE

SPECIFICATION: FCC CFR 2.1049 (c)

RSS-119 5.5

Tx FREQUENCY: 406.2 MHz 50 W 12.5 kHz Channel Spacing



Tx FREQUENCY: 406.2 MHz 5 W 12.5 kHz Channel Spacing

