



Exhibit 10: Measurements
Demonstrating Conformance to
97.307 and 97.317

**External Radio Frequency
Power Amplifier OM2000+**

Model 2000+

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Measurements Demonstrating Conformance to 97.307 and 97.317

97.317(a)(1)(2)&(3) & 97.317(b). Spurious Emissions per 97.307(d) and Gain versus Frequency.

Results reflect amplifier as shipped with 26 to 28MHz Bands disabled.

Amplifier under test operated at frequency f1 with CW (A1A) excitation. Spectrum analyzer with a 20dB input attenuator was used to observe all frequencies, from f1 through at least 10f1 for harmonic and spurious emissions.

Power Gain per 97.317				Spurious Emmisions per 97.307d			
Frequency f1, MHz	Input Power, W	Output Power, W	Amplifier Gain, dB	2f1, dBc	3f1, dBc	4f1, dBc	5-10f1, dBc worst case
1,850	75	1500	13,01	51,7	75,0	82,1	85,0
3,750	72	1500	13,19	50,6	76,1	81,9	85,0
7,150	70,5	1500	13,28	58,3	81,8	81,1	85,0
10,125	72	1500	13,19	58,7	81,7	82,1	85,0
14,175	70	1500	13,32	61,8	82,1	85,0	85,0
18,100	69	1500	13,37	62,9	76,1	81,2	85,0
21,225	65,3	1500	13,61	64,5	80,4	81,3	85,0
24,930	58,5	1500	14,09	54,5	72,1	81,5	85,0
28,500	51,8	1500	14,62	64,7	71,0	76,1	80,0
50,200	63,4	1500	13,74	58,2	55,5	73,1	80,0
Amplifier was not capable of operation on any frequency or frequencies between 26 and 28MHz as measured at the points below per 97.317-(a) (3).							
26,000	50	49,1	-0,08				
27,000	50	49,0	-0,09				
28,000	50	48,9	-0,10				

97.307(a)(b). Intermodulation & Linearity

Exciter operating in SSB mode with two equal-tone audio applied to the microphone input. Amplifier under test driven to 1500W PEP output at the center of the band with 70W PEP input power.

Inter-modulation in dB relative to 1500W PEP per 97.307(a)(b)					
Order:	D3	D5	D7	D9	D11 and higher
Freq. MHz	dB	dB	dB	dB	dB
14,200	-34,2	-47,8	-55,1	-60,6	-62

97.317(a)(1). When the amplifier is in the “standby” or “off” positions, but still connected to the exciter, no measurable spectrum change from the normal output of the exciter is detectable with the spectrum analyzer (noise floor approximately -115dBc) when amplifier is driven with 0 to 150 W mean RF power.

97.317(b). The amplifier possesses none of the prohibited characteristics listed in this section.

97.317(a)(2). The amplifier gain does not exceed 15 dB for any level of input signal.

Additional data: Information and data supplied by tube manufacturer concerning FU-728F tetrode is available by request from the manufacturer.



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