OM Power

Exhibit 10:Measurments Demonstrating Conformance to 97.307 and 97.317

External Radio Frequency Power Amplifier OM2500A

Model OM2500A

Array Solutions

2611 North Beltline Rd

Suite 109

Sunnyvale, Texas 75182

USA

Tel: 214 954 7140

fax: 214 954 7142

E-mail: info@arraysolutions.com

Measurements Demonstrating Conformity to 97.307 and 97.137

97.317 (a)(1)&(3) & 97.137(b). Spurious Emissions per 97.307(d) and Gain versus Frequency
Results reflect amplifier as shipped with 24.5 and 28 MHz 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	66,2	1500	13,55	52,5	77,1	100,4	80,8
3,750	67,8	1500	13,45	52,2	78,4	98,2	86,9
7,150	67,0	1500	13,50	53,6	74,8	90,1	92,4
10,125	65,1	1500	13,63	56,8	77,1	104,2	92,6
14,175	63,8	1500	13,71	63,8	75,8	98.6	94,4
18,100	63,2	1500	13,75	66,4	75,3	90,3	90,7
21,225	60,7	1500	13,93	73,4	77,6	94,2	101,3
Amplifier was not capable of operationon any frequency betweeb 24 and 35MHz as measured at the points below per 97-317 –(b) (1) (2).							
24,000	50	48,7	-0,11				
26,000	50	48,6	-0,12				
27,120	50	48,6	-0,12				
28,000	50	48,5	-0,13				
35,000	50	48,4	-0,14				
1,850	30	757	14,02				
3,750	30	737	13,90				
7,150	30	728	13,85				
10,125	30	741	13,93				
14,175	30	775	14,12				
18,100	30	783	14,16				
21,225	30	807	14,30				
24,930*	30	829	14,41				
28,500*	30	863	14,59				
After owner modification to activate 24 – 28MHz bands							
24,930*	57,6	1500	14,16	56,3	67,4	76,5	83,8
28,500*	53,5	1500	14,48	56,6	65,0	89.9	95,4

*Not usable as shipped, data applicable only after enabling of 24 and 28MHz bands

When delivered to any buyer located within the FCC's jurisdiction, the equipment is operable on authorized amateur bands only from 1.8 through 21.45MHz. To meet the requirements of 97.137 (b), the equipment employs lock-out system. If OM2500A is set manually or automatically to the bands between 24 and 28 MHz LED INHIBIT lights up and doesn't allow transmission. Operation on these bands in possible only in STBY mode and only output power from the driver equipment flows through the PA.

97.307 (a) (b). Inter-Modulation & Linearity

Exciter operating in SSB (A3E, J3E) mode with two equal-tone audio applied to the microphone input. Amplifier under test was driven to 700W PEP output at the center of the band with typically 60W PEP input power.

Inter- modulation in dB relative to 1500W per 97.307					
Order:	**D3**	**D5**	**D7**	**D9**	**D11 and higher**
Freq. MHz	**dB**	**dB**	**dB**	**dB**	**dB**
1,850	44,0	50,4	55,0	61,4	66,2
3,650	41,8	53,8	55,5	61,2	66,8
7,050	41,0	50,2	55,6	58,8	66,2
10,100	40,9	48,6	58,6	65,3	72,1
14,150	40,3	49,2	56.5	60.2	66,8
18,100	41,6	50,1	55,4	62,3	65,2
21,150	41,4	47,4	56,1	62,7	69,3
24,900 *	41,8	53,6	60,7	67,1	76,4
28,500 *	41,4	55,8	65,5	68,8	72,3

*Not usable as shipped; data applicable only after authorized owner modification.

97.137 (a) (2) & (3)

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 110dBc) when amplifier is driven with 0 to 100W mean RF power.

97.317 (c)

The amplifier possesses none of the prohibited characteristics listed in this section.

97.317 (c) (6) (iii)

The amplifier gain does not exceed 14,6 dB for any level of input signal.

97.317 (c) (6) (iv)

The amplifier is capable of greater than 50% duty cycle at rated power output, namely 1500W PEP or 1000W continuous carrier, with A1A, A3E (J3E), or F1B, F3E and J3F emission.

97.317 (c) (7)

Amplifier gain is established principally by RF negative feedback in the cathode circuit. The input swamping resistor is used only to present a 50Ohm load to the grid matching circuit, not as an attenuator. Removal of this resistor or changing its value will result in a severe load mismatch to the exciter output.

Additional Data

Information and data supplied by tube manufacturer concerning GU84B tetrode is available upon request from the manufacturer.