



**Exhibit 10: Measurements**  
**Demonstrating Conformance to**  
**97.307 and 97.317**

**External Radio Frequency  
Power Amplifier OM2000A+**

**Model 2000A+**

**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](mailto:info@arraysolutions.com)

## 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 ETL 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<br>97.307d |             |             |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|-----------------------|-----------------------------------|-------------|-------------|---------------------------------|
| Frequenc<br>y f1, MHz                                                                                                                           | Input<br>Power,<br>W | Output<br>Power,<br>W | Amplifier<br>Gain, dB | 2f1,<br>dBc                       | 3f1,<br>dBc | 4f1,<br>dBc | 5-10f1,<br>dBc<br>worst<br>case |
| 1,850                                                                                                                                           | 72                   | 1500                  | 13,19                 | 52,3                              | 76,0        | 81,8        | 85,0                            |
| 3,750                                                                                                                                           | 71                   | 1500                  | 13,25                 | 51,7                              | 77,2        | 82,7        | 85,0                            |
| 7,150                                                                                                                                           | 71                   | 1500                  | 13,25                 | 58,0                              | 79,3        | 81,1        | 85,0                            |
| 10,125                                                                                                                                          | 73                   | 1500                  | 13,13                 | 58,7                              | 81,7        | 83,3        | 85,0                            |
| 14,175                                                                                                                                          | 71                   | 1500                  | 13,25                 | 62,1                              | 81,7        | 84,2        | 85,0                            |
| 18,100                                                                                                                                          | 70                   | 1500                  | 13,31                 | 62,9                              | 78,3        | 80,1        | 85,0                            |
| 21,225                                                                                                                                          | 64                   | 1500                  | 13,70                 | 63,2                              | 80,4        | 83,2        | 85,0                            |
| 24,930                                                                                                                                          | 57                   | 1500                  | 14,20                 | 56,8                              | 73,7        | 81,5        | 85,0                            |
| 28,500                                                                                                                                          | 51                   | 1500                  | 14,69                 | 62,7                              | 72,2        | 78,9        | 82,0                            |
| 50,200                                                                                                                                          | 61                   | 1500                  | 13,91                 | 71,9                              | 74,7        | 78,3        | 85,0                            |
| 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                   | 48,8                  | -0,11                 |                                   |             |             |                                 |
| 27,000                                                                                                                                          | 50                   | 48,7                  | -0,11                 |                                   |             |             |                                 |
| 28,000                                                                                                                                          | 50                   | 48,5                  | -0,13                 |                                   |             |             |                                 |

## 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 60W 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                                                        | -34,7 | -46,2 | -54,8 | -62,3 | -65            |

**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.