



**Exhibit 9: Additional Information in  
Response to 47 CFR Ch.1 Sec. 2.1033**

**External Radio Frequency  
Power Amplifier ACOM 1011**

**Model 1011**

**Array Solutions**

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## **Additional Information in Response to 47 CFR Ch.1 Sec. 2.1033**

### **Section c.1.**

The "ACOM1011" HF linear amplifier will be assembled and production testing performed in the Republic of Bulgaria by the private company "ACOM, OOD". ACOM, OOD has been designed and manufactured external radio frequency power amplifiers for amateur use since 1990. The company has designed and manufactured the following types of amplifiers:

- the "ETO 91B" HF Linear Amplifier accepted as FCC ID: DGVPA-91B which was marketed in the United States by Alpha/Power, Inc. of Colorado Springs, COLORADO continuously till 1999;
- the "ACOM2000A" Automatic HF Linear Amplifier accepted as FCC ID: OITAA2000, which is in volume production and is being presently marketed in the United States by the Applicant;
- the "ACOM1000" HF+6m Linear Amplifier accepted as FCC ID: OITAA1000, which is in volume production and is being presently marketed in the United States by the Applicant.
- the "ACOM1010" HF Linear Amplifier accepted as FCC ID: SRRRA1010, which is in volume production and is being presently marketed in the United States by the Applicant.

ACOM, OOD is located at Bul.Nikola Musanov Nr.151, 1330 Sofia Bulgaria. The president and principal owner of ACOM, OOD is Mr. Vassil M. Vassilev.

Applicant for certification, Array Solutions is a distributor of ACOM, OOD products in North America. With respect to the subject, "ACOM1011" HF linear amplifier equipment, Applicant is responsible for all aspects of quality assurance, marketing and service in USA, as well as for the compliance with FCC rules. Array Solutions is located at 2611 North Beltline Rd, Suite 109, Sunnyvale, Texas 75182, USA.

Applicant has conducted or observed all design-proof testing and will re-test samples of production equipment on an ongoing basis to assure conformance to Applicant's quality standards, including all FCC regulatory requirements.

### **Section c.2**

This product designated "ACOM1011 HF linear amplifier", hereafter "ACOM1011", is an external radio frequency power amplifier that covers all amateur bands from 1.8 through 29.7MHz and provides 700W PEP output power with typically 60W-exciter drive, or 500W output continuous carrier. It is based on and is similar to our previous model ACOM1010 (FCC ID: SRRRA1010) but uses two less powerful and more popular tubes instead of a single more powerful one.

The ACOM1011 will be marketed in the United States for use in the Amateur Radio Service. The FCC identifier for the ACOM1011 will be .....

### **Section c.3**

A copy of the Installation and Operating Instructions for the ACOM1011 is included as Exhibit 6.

### **Section c.4**

The equipment is suitable for all types of emission authorized for amateur HF use in 97.305 of FCC rules.

### **Section c.5**

The equipment is designed to meet all specifications and FCC performance standards on all amateur bands from 1.8 to 29.7MHz. When delivered to any buyer within FCC's jurisdiction, the equipment is not operable on frequencies between 24MHz and 35MHz according to FCC 97.317(b).

### **Section c.6**

The equipment can be operated at any power level up to 700W PEP. Lower power linear operation (to 500W continuous carrier) is possible in the regime "RTTY" and by reducing RF excitation proportionately. An instantaneous peak-reading LED bargraph is provided for direct readout of output forward peak-power at any time. Another LED bargraph readout is foreseen for reflected output power.

**Section c.7**

The equipment is rated for maximum RF power output of 700W PEP or 500W output continuous carrier, 50% duty cycle. It is limited to 800W maximum (including reflected power).

**Section c.8**

Nominal voltages and currents at rated output (700W) are:

DC plate voltage: 2250V for SSB and 2000V for RTTY;  
DC plate current: 0.5A for SSB and 0.45A for RTTY (bot tubes totally);  
DC screen voltage: 290V;  
DC screen current: 30mA (bot tubes totally);  
DC grid bias: -45...-50V (adjusted individually for 195mA idling plate current (both tubes totally)).

**Section c.9**

Tune-up procedure is simplified by a plate-load True Resistance Indicator (TRI) which helps the operator to quickly and precisely match antennas and eliminates probability of inadvertent mistune. The antenna impedance matching capability is up to VSWR 3:1 or higher. The procedure description is included in Exhibit 11, as well as in the Operating Manual - Exhibit 6, Section 4-5.

**Section c.10**

Several features of the ACOM1011 design are specifically intended to reduce spurious radiation to a minimum.

In the input circuit, a non-inductive resistor load ensures that VSWR of 1.3:1 or less is presented to the exciter at the RF input terminal over the entire frequency range. The output circuit comprises a classic Pi-L network, which suppresses the harmonic emissions.

Results of our ACOM1011 performance tests are included in Exhibit 5. RF performance and spurious emissions are generally the same as that of "ETO91B", "ACOM2000A", "ACOM1000", and "ACOM1010".

**Section c.11**

A photograph showing the design of the FCC identification label for the ACOM1011 is included as Exhibit 1.

**Section c.12**

Photographs showing the construction and layout of the ACOM1011 are included as Exhibits 2 and 7.

**Section c.13**

Not applicable to external RF power amplifiers.

**Section c.14**

Not applicable, as provided in Section c.15.

**Section c.15**

Measurement data indicating compliance with requirements of Part 97.307 and Part 97.317 is included as Exhibits 5 and 10.

**Section c.16**

Not applicable to external RF power amplifiers.

**Section c.17**

Not applicable to external RF power amplifiers. The subject equipment application is not part of a composite system.