

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

**External Radio Frequency Power Amplifier ACOM 2100** 

**Model 2100** 

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

#### Section c.1.

The "ACOM2100" HF linear amplifier will be assembled and production testing performed in the Republic of Bulgaria by the 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: SRRA1010, which is in volume production and is being presently marketed in the United States by the Applicant;
- the "ACOM1011" HF Linear Amplifier accepted as FCC ID: X8NAA1011, which is in volume production and is being presently marketed in the United States by the Applicant;
- the "ACOM1500" HF Linear Amplifier accepted as FCC ID: X8NX8NAA1500, which is in volume production and is being presently marketed in the United States by the Applicant;
- the "ACOM600S" HF Linear Amplifier accepted as FCC ID: X8NA600S, 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 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 "ACOM2100 HF linear amplifier", hereafter "ACOM2100", is an external radio frequency power amplifier that covers all amateur bands from 1.8 through 54MHz and provides 1500W PEP or continuous output power with 50 to 85W-exciter drive. It is based on and is similar to our previous model ACOM1500 (FCC ID: X8NX8NAA1500) and uses the same tube but provides continuous carrier operation at 1500W.

The ACOM2100 will be marketed in the United States for use in the Amateur Radio Service. The FCC identifier for the ACOM2100 will be 2AJXZ2100

# Section c.3

A copy of the Installation and Operating Instructions for the ACOM2100 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 54MHz. 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 1500W PEP. Lower power linear operation is possible by reducing RF excitation proportionately. An instantaneous peak-reading bar-graph is provided for direct readout of output forward peak-power at any time. The numeric value of the output power can be read on the display too.

# Section c.7

The equipment is rated for maximum RF power output of 1500W PEP or continuous carrier.

#### Section c.8

Nominal voltages and currents at rated output (1500W) continuous carrier are:

- plate DC voltage: 3000V;plate DC current: 0.88A:
- screen grid DC voltage: 325V;
- screen grid DC current: 35mA;
- control grid bias DC voltage: -55 ... -66V, adjusted individually for 250mA idling plate current.

#### 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 12, as well as in the Operating Manual - Exhibit 6, Section 4-4.

# Section c.10

Several features of the ACOM2100 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 port over the entire frequency range. The plate output circuit comprises a classic Pi-L network, which suppresses the harmonic emissions and an additional UHF filter is inserted to the antenna output port.

Results of our ACOM2100 performance tests are included in Exhibit 5. The RF performance and spurious emissions are generally the same as those of "ACOM1000" and "ACOM1500" models.

#### Section c.11

A photograph showing the design of the FCC identification label for the ACOM2100 is included as Exhibit 1.

#### Section c.12

Photographs showing the construction and layout of the ACOM2100 are included as Exhibits 2 and 7.

# Section c.13

Not applicable to external RF power amplifies.

## 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.

# 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.