

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

## **External Radio Frequency Power Amplifier OM4000A**

#### Model OM4000A

#### **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

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

#### Section c.1.

The "OM4000A HF linear amplifier will be assembled and production testing performed in the Republic of Slovakia by the company "OM Power, Ltd". OM Power, Ltd. Was founded and started production external radio frequency power amplifiers for amateur use since 2003. The company has designed and manufactured the following types of amplifiers:

- the "OM2500 HF" HF Linear Amplifier accepted as FCC ID: X8NX8NOM2500A which was marketed in the United States by Array Solutions Itd. Inc. of Sunnyvale, Texas ,USA continuously till now;
- the "OM2500A" Automatic HF Linear Amplifier accepted as FCC ID: X8NX8NOM2500A, which is in volume production and is being presently marketed in the United States by the Applicant;
- the "OM2000+" HF Linear Amplifier accepted as FCC ID: X8NX8NOM2000 which was marketed in the United States by Array Solutions ltd. Inc. of Sunnyvale, Texas ,USA continuously till now;

OM Power, Ltd is located at Báč 126, ZIP 93030, Slovakia. The president and principal owner of OM Power, Ltd is Mr. Tibor Ferenec.

Applicant for certification, Array Solutions is a distributor of OM Power, Ltd products in North America. With respect to the subject, "OM4000A" 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-tested 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 OM4000A HF linear amplifier", hereafter "OM4000A", is an external radio frequency power amplifier that covers all amateur bands from 1.8 through 30 MHz and provides 1500W PEP output power with typically 60W-exciter drive, or 1500W continuous carrier. It is based on and is similar to our previous model OM2500A (FCC ID: X8NX8NOM2500A) but uses more popular tube.

The OM4000A will be marketed in the United States for use in the Amateur Radio Service. The FCC identifier for the OM4000A will be X8NOM4000A

#### Section c.3

A copy of the Installation and Operating Instructions for the OM4000A is included as Exhibit 6.

Exhibit 9 Page 2 of 4

#### 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 30 MHz. When delivered to any buyer within FCC's jurisdiction, the equipment is not operable on frequencies between 26MHz and 28MHz according to FCC 97.317(b).

#### Section c.6

The equipment can be operated at any power level up to 1500W continuous carrier. Lower power linear operation is possible by reducing RF excitation proportionately. An analog and digital peak-reading meter 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 continuous carrier.

#### Section c.8

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

DC plate voltage: 3100V DC plate current: 0.9A DC screen voltage: 350V DC screen current: 0mA

DC grid bias: -68V (adjusted individually for 500mA idling plate current).

#### Section c.9

Tune-up procedure is simplified by a TUNE bargraph 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 5.4.

#### Section c.10

Several features of the OM4000A design are specifically intended to reduce spurious radiation to a minimum.

In the input circuit, a non-inductive resistor load ensures that VSWR of 1,2:1 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 OM4000A performance tests are included in Exhibit 5. RF performance and spurious emissions are generally the same as that of "OM2500HF", "OM2500A".

#### Section c.11

A photograph showing the design of the FCC identification label for the OM4000A is included as Exhibit 1.

Exhibit 9 Page 3 of 4

#### Section c.12

Photographs showing the construction and layout of the OM4000A are included as Exhibits 2 and Exhibit 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 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.