





Via di Monte Verde 33 – 00152 Rome – Italy. Website <a href="www.linear-amplifier.com">www.linear-amplifier.com</a>

Tel. (39-6) 58209429 e\_mail info@linear-amplifier.com Fax (39-6) 58209647

# Exhibit 9: OpeAdditional Information in response to 47 CFR Ch.1 Sec. 2.1033

External Radio Frequency
Linear Amplifier
Model Expert 2K-FA







Via di Monte Verde 33 – 00152 Rome – Italy. Website www.linear-amplifier.com

Tel. (39-6) 58209429
e\_mail\_info@linear-amplifier.com

Fax (39-6) 58209647

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

#### Section c.1.

The Expert 2K-FA Linear Amplifier will be assembled and production testing performed in Italy (Rome) by S:P:E: (SOCIETA' PER L'ELETTRONICA) s.r.l. The Company is located in via di Monteverde 33 – 00152 Rome Italy. The President and principal owner of S:P:E: is Dr. Eng. Scasciafratti Gianfranco.

The Company has designed and manufactured the EXPERT 1K-FA HF + 50 MHz linear amplifier accepted as FCC ID: UW31K-FA, wich is in volume production and is being presently markeded in the Unites States.

Applicant for certification is S:P:E: s.r.l. Rome Italy.

Applicant is responsible for all aspects of quality assurance, marketing and service, as well as for the compliance with FCC rules.

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 designed "SPE EXPERT 2K-FA" hereafter "EXPERT 2K-FA" is an external radio frequency power amplifier that covers all amateur bands from 1.8 MHz through 29.7 MHz and from 50 MHz to 54 MHz and provides up to 1500 W PEP output power in all bands with a gain of not more than 15 dB.

The EXPERT 2K-FA will be marketed in the United States for use for the Amateur Radio Service. The FCC identifier for the EXPERT 2K-FA will be Y9C2K-FA.

#### Section c.3.

A copy of the Installation and Operating Instruction for the EXPERT 2K-FA is included as Exibit 6.

## Section c.4.

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

## Section c.5.

The equipment is designed to meet all specification and FCC performance standards on all amateur band from 1.8 MHz to 29.7 MHz and from 50 to 54 MHz. When derived to any buyer within FCC's jurisdiction, the equipment is not operable in CB band, the amplifier possesses none of the prohibited characteristics listed in section. FCC 97.317(b).







Via di Monte Verde 33 – 00152 Rome – Italy. Website www.linear-amplifier.com

Tel. (39-6) 58209429 e\_mail info@linear-amplifier.com Fax (39-6) 58209647

## Section c.6.

The equipment can be operated at the maximum power "MAX" state automatically using the ALC link. To teduce the amplifier output, if rquired, it is necessary only to set the amplifier to "MID" or "LOW" power state rather than changing the tansceiver drive power. It is also possible to regulate continuously the amplifier output power by changing the level of drive power from the transceiver.

## Section c.7.

The equipment is rated for maximum RF power output of 1500 W PEP, with a continuous signal is limited to 1000 W.

#### Section c.8.

Normal currents and voltages are:

"MAX" (1500 W), PA voltage 48 Vdc, 53 Adc.

"MID" (1000 W), PA voltage 35 Vdc, 46 Adc.

"LOW" (500 W), PA voltage 30 Vdc, 29 Adc.

## Section c.9.

The amplifier has an automatic tuner that handles load mismatches up to 3:1 VSWR (2.5:1 for 50 MHz). The amplifier contains a look-up table with the permitted amateur bands only (continuous coverage is inhibited, including CB band).

For the tuner management, antenna data and other working data are stored.

Every band has a sub-band set, and for each of those, data related to the antenna and auto-ATU tuning is stored.

The procedure description is included in Exhibit 11, as well as in the User's Manual – Exhibit 6.

#### Section c.10.

Several features of the EXPERT 2K-FA design are specifically intended to reduce spurious radiation to a minimum.

The input circuit 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 uses a well designed low pass filter unit wich suppresses the armonic emissions.

Results of EXPERT 2K-FA RF performance and spurious emissions are included as Exhibit 5.







Via di Monte Verde 33 – 00152 Rome – Italy. Website <u>www.linear-amplifier.com</u>

Tel. (39-6) 58209429 e\_mail info@linear-amplifier.com Fax (39-6) 58209647

# Section c.11.

A photograph showing the design of the FCC identification label for the EXPERT 2K-FA is included as Exhibit 1.

## Section c.12.

Photographs showing the construction and layout of the EXPERT 2K-FA are included as Exhibit 2 and 7.

# Section c.13.

Not applicable to external RF power amplifier.

## 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 Exhibit 5 and 10.

# Section c.16.

Not applicable to external RF power amplifier.

## Section c.17.

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