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## ELEX-3000 160-6M Transceiver

## **Overview**

MIC

PHONES

- Software Defined Radio Technology
- Full HF-6m coverage

POWER

- 100 Watts continuous output
- 96kHz real-time receive bandwidth
- >93db of Two-Tone 3<sup>rd</sup> order dynamic range
- Built in Automatic Antenna Tuner
- 12.2" X 2.1" X 12.4"
- Only 7 lbs!

The FLEX-3000 is a third generation software defined radio from FlexRadio Systems. It is a low cost/high performing HF-6M transceiver built with portability in mind. The FLEX-3000 form factor is designed to fit in a case along with a laptop and a power supply for mobile use or sit under a monitor at a base station. The FLEX-3000 utilizes high performance 24-bit A/D and D/A converters enabling superior close-in receiver performance. The FLEX-3000 offers greater than 93 dB Two-Tone 3<sup>rd</sup> order dynamic range at 2kHz spacing making it a higher performing radio than those costing two and three times as much. The small size makes it great for *Excitement Anywhere!*<sup>TM</sup>. FlexRadio Systems is a leader in Software Defined Radio (SDR) technology. Our high-performance, PowerSDR<sup>TM</sup> software is the gold standard in SDR radio software.

<u>FlexRadio Systems</u>

FLEX-3000



FlexRadio Systems 4616 W. Howard Lane, Suite 1-150 Austin, Texas 78728 +1-512-535-4713, Fax 512-233-5143

# FLEX-3000

#### **General Specifications :**

#### Rx Frequency Range :

10 kHz - 65 MHz (operating below 1.8 MHz requires external, customer provided filters to eliminate images) 160 - 6 m (specified performance in Amateur bands only)

#### Frequency Stability :

 $\pm 2.5$  ppm TCXO std. 32 °F to 122 °F (0 °C to+50 °C) Optional  $\pm 0.5$  ppm TCXO

#### Operating Temperature Range :

14 °F to 122 °F (–10 °C to +50 °C)

#### Emission Modes :

A1A (CW), A3E (AM), J3E (LSB,USB), F3E (FM), F1B\*\* (RTTY), F1D\*\* (PACKET), F2D\*\*(PACKET)

#### Frequency Steps :

1Hz minimum

#### Antenna Impedance :

Antenna input: 50 Ohms nominal, unbalanced ATU tuning range: Minimum 10-300 ohms

#### Power Consumption :

Rx 1.5A (typ.); Tx (100 W) 25A(max.)

#### Supply Voltage :

DC: DC 11-15 V Negative Ground Transmitter output specified at 13.8VDC

#### Maximum Interconnect Cable Length :

Firewire - must comply with IEEE 1394a standard No restriction on DC power cable within voltage tolerance limits under load.

#### CE Compliance Cable Requirements :

1 snap on ferrite bead on DC power cable (supplied)

2 snap on ferrite beads on FireWire cable (supplied)

1 snap on ferrite bead on FlexWire cable

All beads to be located adjacent to rear panel of radio. Dimensions :

#### (WxHxD):

12.2" X 2.1" X 12.4" (23.5cm x 22.1 cm x 31.6 cm) Weight: (approx.): 7 lbs (3.2 kg)

\*\*Requires third party software

## **Receiver Specifications :**

MDS :

MDS (typ) @ 14 MHz, 500Hz BW								
Preamp	OFF	PRE1	PRE2					
	-121dBm	-126dBm	-135dBm					

IP3 :

+28 dBm @ 14 MHz with preamp off at 2 kHz or less tone spacing (S5 IM3 method)

Selectivity :

(-6/-60 dB): CW 500 Hz -6/-60 dB: 500/640 SSB 2.4 kHz -6/-60 dB: 2.39/2.54 AM 6.6 kHz -6/-60 dB: 6.60/6.74

### **Transmitter Specifications :**

Transmitter Frequency Range : 160 - 6 m (Amateur bands only) Power Output : 1 - 100 watts PEP CW and SSB at 13.8VDC input voltage 25 watts AM carrier **Emission Modes Types :** A1A (CWU, CWL), J3E (USB, LSB), A3E (AM), F3E(FM), DIGITAL(DIGU,DIGL) Harmonic Radiation : Better than -55 dB (160 - 10mAmateur bands) Better than -60 dB (6m Amateur band) SSB Carrier Suppression : At least 55 dB below peak output Undesired Sideband Suppression : At least 55 dB below peak output Audio Response (SSB) : Flat Response 20 Hz to 20 kHz, 3-band or 10-band Software Equalizer 3rd-order IMD : Better than -33 dB below PEP @14.2MHz 100 watts PEP Microphone Impedance :

600 Ohms

© Copyright 2011 FlexRadio Systems. All Rights Reserved. FLEX-3000 is a trademark of FlexRadio Systems. Specifications are subject to change without notice or obligation, and specifications are guaranteed only within the amateur radio bands. Rev 005 3/23/2011 The FLEX-3000 operation requires connection to a PC running Windows XP, VISTA, or Windows 7. www.flexradio.com



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