FLEX-3000
160-6M Transceiver

Overview

- **Software Defined Radio Technology**

- **Full HF-6m coverage**

- **100 Watt class radio**

- **96kHz real-time receive bandwidth**

- **>93db of Two-Tone 3rd 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 3rd 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!™**. FlexRadio Systems is a leader in Software Defined Radio (SDR) technology. Our high-performance, PowerSDR™ software is the gold standard in SDR radio software.

www.flexradio.com

FlexRadio Systems®
Software Defined Radios

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 :
±2.5 ppm TCXO std. 32 °F to 122 °F (0 °C to+50 °C)
Optional ±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 nominal PEP CW and SSB at 13.8VDC input voltage
25 watts nominal 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 - 10m Amateur 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

www.flexradio.com

FlexRadio Systems®
Software Defined Radios