



FLEX-5000

160-6M Transceiver

Overview

- Software Defined Radio Technology
- Full HF-6m coverage with optional VHF/UHF Coverage
- 100 Watts continuous output
- 192kHz real-time receive bandwidth
- Greater than 99db of Two-Tone 3rd order dynamic range
- Automatic Antenna Tuner Option
- Second Receiver Option

The FLEX-5000A™ is FlexRadio Systems' flagship software defined radio delivering the highest performance and feature set of any SDR HF-6M transceiver. Using FlexRadio's unique Quadrature Sampling Detector (QSD) and high performance 24-bit A/D and D/A converter technology, the FLEX-5000A delivers world class receiver performance with greater than 99 dB Two-Tone 3rd order dynamic range at 2 kHz spacing. Between 192 kHz of real-time receive bandwidth display and infinitely tunable filters, the FLEX-5000A is in a league of its own. The FlexRadio Quadrature Sampling Encoder (QSE) plus a highly linear 100 Watt continuous duty amplifier make the FLEX-5000A ideal for all modes of narrow and wide band analog and digital transmission modes.

In addition to exceptional performance, the FLEX-5000A offers the flexibility of multiple antenna ports, keying circuitry, balanced and unbalanced audio, plus a full-featured transverter interface. Options include an automatic antenna tuner and 2nd fully synchronous receiver. The FLEX-5000A is the perfect transceiver to **Tune in Excitement!**™. FlexRadio Systems, founded in 2003, is a leader in Software Defined Radio (SDR) technology. Our high-performance, GPL open source PowerSDR™ software is the gold standard in Software Defined Radio software.

www.flexradio.com

FlexRadio Systems®
Software Defined Radios

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FLEX-5000

General Specifications :

Rx Frequency Range :

10 kHz - 65 MHz (operating – requires external, customer provided filters below 1.8 MHz to eliminate images)

160 - 6 m (specified performance in Amateur bands only)

Frequency Stability :

±0.5 ppm TCXO std. 32 °F to 122 °F (0 °C to +50 °C)

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 :

50 Ohms, unbalanced (3xUHF)

16 - 500 Ohms, unbalanced (With Optional Tuner ON,

16-150 Ohms, 6m)

Power Consumption :

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

Supply Voltage :

DC: DC 13.8 V ± 10%

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.

Special EMI/RFI Requirements :

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):

9.25" x 9.0" x 12.4" (23.5cm x 22.1 cm x 31.6 cm)

Weight: (approx.): 13 lbs (5.9 kg)

**Requires third party software

Receiver Specifications :

MDS :

MDS (typ) @ 14 MHz, 500Hz BW

Preamp OFF ON

-121dBm -126dBm

IP3 :

+30 dBm at 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

Image Rejection :

70 dB or better (160 - 6m Amateur bands)

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 - 10m Amateur bands)

Better than -65 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 10 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 (200 to 10k K)

Balanced Line In Impedance :

600 Ohms (200 to 10k K)

www.flexradio.com

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