

Eclipse II VHF/UHF Repeater

from Falcon Direct, Inc.

The repeater of tomorrow is here today! Narrow or wide band Analog-P25 Mixed Mode

Narrow banding of existing repeaters must be accomplished before the end of 2012. That's the bad news. The good news is that you can use this opportunity to upgrade to lower maintenance cost, perhaps more power and even the ability to move up to P25 digital capability!

You can start with 60 or 100 watts of power today with conventional 25 and 12.5 kHz narrow band capability just by sliding out your old repeater and replacing it with the Eclipse II. You can use your existing duplexer and antenna system for maximum cost savings. You can upgrade to P25 digital or start with both analog and digital capability today!

Maintenance is not a problem. Direct Ethernet connectivity allows remote diagnostics and reconfiguration with a PC. With a broadband connection, you can even upgrade from analog to digital without visiting the site! You are covered by a three year warranty. Your cost savings on maintenance alone can pay for the Eclipse II!

The Eclipse II, developed by RF Technology Pty Ltd. of Australia, is available from ICOM America Systems (IAS). More information on IAS is available at www.info4u.us/IAS_Systems.pdf.

Mini-Price Guide

- 60/100 watt narrow band repeater - \$7,995!
- Upgrade to P25 digital now or later for just \$3,000 additional!
- Desk mount or specify optional 28" rack \$200, or 30" cabinet - \$600
- Standard 2/3MHz duplexer - \$1,495 or 400/600 kHz duplexer - \$2,995
- Programming software and cable - \$395
- Spare analog exciter/receiver, power supply, and 100 watt PA - \$6,495 (Add \$2,200 for P25)

See www.info4u.us/D-Base.pdf for information on other repeater models



Modular design reduces downtime and maintenance cost!

FalconDirect

Call us anytime, 24/7 at 800-489-2611

Flexible, Reliable, and Affordable SDR Technology



RFT Eclipse 2 – P25 Repeater Station



General Specifications:

Frequency Range: 136-174MHz, 440-490 MHz
Channel spacing: 12.5 kHz/ 25kHz
External reference: 5MHz / 10MHz/ 12.8MHz
Monitor speaker output: 3 watts @ 8 ohm
Microphone input: 6 mV RMS @200 ohm
Duty cycle: 100%
Power Supply: +13.8VDC +/-10% (Negative Ground)
Current Drain: 20A Max with 100 Watt RF output power
750mA Max with TX OFF
Operating temperature: -30°C to +60°C

Receiver

Frequency Spread: 38MHz
Frequency Stability: +/-1ppm (-30°C to +60°C)
Frequency Step: <10Hz
First IF frequency: 45 MHz
Second IF frequency: 0 Hz
Sensitivity: 12dB SINAD @ -119dBm (0.25uV) RF Input
Selectivity: 80dB for 25kHz Channel spacing
75dB for 12.5kHz Channel spacing
Spurious Rejection: 90dB
Intermodulation: 85dB
Modulation acceptance: 7.5kHz for 25kHz Channel spacing
3.75 kHz for 12.5kHz Channel spacing
Noise squelch: Adjustable from 0 to 26 dB SINAD
Carrier squelch: Adjustable from -120dbm to -60dBm
Audio Response: 300Hz to 3000Hz
+1/-3dB, Flat or 6dB per Octave de-emphasis
Audio Distortion: < 3%
Line output level: -20dbm to 0dbm @600ohm



Transmitter Exciter

Frequency Spread: 38MHz
Frequency Stability: +/-1ppm (-30°C to +60°C)
Frequency Step: <10Hz
Maximum deviation: 5kHz for 25kHz Channel spacing
2.5kHz for 12.5kHz Channel spacing
Output power: 0.3 Watt to 5 Watt programmable
Spurious & harmonics: <75dBc
Hum & Noise: -52dB for 25kHz Channel spacing
-46dB for 12.5 kHz Channel spacing
Audio Response: 300Hz to 3000Hz
+1/-3dB, Flat or 6dB per Octave de-emphasis
Audio Distortion: < 3%
Line input level: -20dbm to +10dbm @600ohm

Power Amplifier

Frequency Spread: 26MHz
Output Power: 20 to 100Watt related to the RF output from exciter
Spurious & harmonics: <-36dbm



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