

# ELECRAFT® XV Series Transverters

High Performance for 50, 144 and 222 MHz



## High Performance Transverters

Three state-of-the-art transverters are included in Elecraft's new XV Series: the XV50 (6 Meters), XV144 (2 Meters), and XV222 (222 MHz). On receive, the transverters combine a low receive noise figure (typically 0.8 dB) with a high dynamic range front end (+17 dBm mixer), ensuring exceptional weak-signal performance even in large-signal environments. On transmit, 20-25 watts output will drive most high power linear amplifiers. A sequenced keying output is provided for external amplifiers (when used with the K2) and a built-in 10-segment LED bar graph wattmeter provides fast power output monitoring. Provision is also made for an optional crystal oven to enhance frequency stability.

## Use with any HF rig

The XV transverters can be used with nearly any transceiver that covers the 28 to 30 MHz frequency range, including Elecraft's high-performance K2 and K2/100.

Single-port and dual-port IF connections work with almost any transceiver interface. IF transmit levels from -20 dBm to +39 dBm (.01 mW to 8 W) can be accommodated, with a constant-impedance IF termination for top performance. Reliable overload detection is included at the IF port to protect the mixer.

Multiple transverters can be daisy-chained to a single IF transceiver, providing multi-band operation without cable rearrangement. A brightly-illuminated label clearly identifies which transverter is selected.

There is also an auxiliary BNC connector on the rear panel that can be wired for a RX-only path at the XV output for split TX/RX antenna paths.

## Attractive, Compact Packaging

The XV Series transverters are packaged in attractive, low-profile enclosures measuring only 1.2" (3 cm) tall, with styling that matches the Elecraft K2. In addition to working with most HF rigs, the XV transverters can be integrated tightly with the K2, providing automatic XV band selection, programmable per band offsets, independent, calibrated display of each transverter's operating frequency to 10 Hz, and front-panel power level control.

## Easy to Build, Understand and Repair

Like Elecraft's transceivers, the XV Series transverters are completely modular, simplifying construction and alignment. The professionally-written, fully-illustrated manual will appeal to experienced as well as first-time builders. The kits are easy to assemble, featuring our "no-wires" construction, and all surface-mount parts used in the kit (15 total) are pre-installed at the factory.

## Comprehensive Assembly and User Manual

Our illustrated step-by-step assembly instructions include modular assembly and check out of each stage. Extensive theory of operation and troubleshooting sections are also provided.

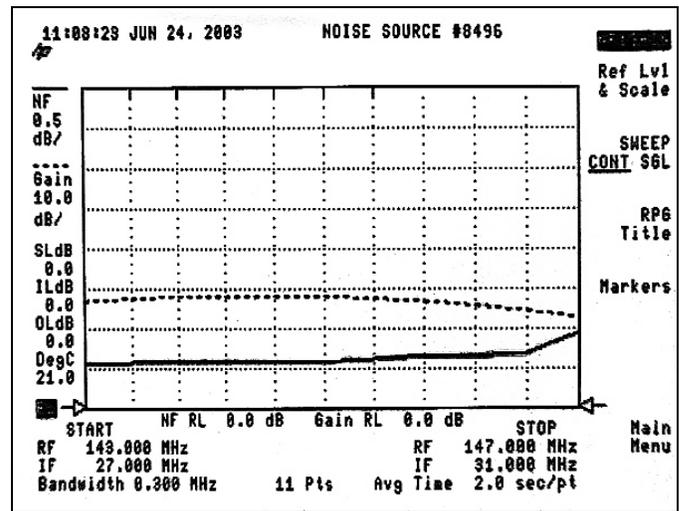
## Strong Customer Support

Our technical support via telephone and the Internet will get your XV up and running quickly. On-line manuals, frequently asked questions (FAQ), and our very active user group email list make building the XV Series a great experience.

## XV STANDARD FEATURES

Specifications and Pricing subject to change without notice. 05/2004

- Will work with almost any HF rig and the Elecraft K2 Transceiver
- 28 - 30 MHz IF Frequency
- Built-in 10-segment LED bar graph wattmeter
- Single-port and split dual-port IF connections allow use with almost any transceiver interface.
- Rugged, attractive custom enclosure
- 1.2h x 7.8w x 8.2d inches
- Weight 3 lbs.
- Efficient 12 Volt operation for home or field
- Low-noise front end. 0.8 dB NF typical
- Double-balanced +17 dBm diode mixer for excellent dynamic range
- TX Power: 20 W (XV50), 25 W (XV144 and XV222)
- IF transmit levels from -20 dBm to +39 dBm (.01 milliWatt to 8 watts) can be accommodated
- Constant-impedance IF termination for consistent performance.
- External KEYIN and KEYOUT connectors for interfacing to most rigs
- All XV transverters for 144 MHz and above use a type N connector for their main RF port. The XV50 uses a UHF connector. (UHF and N connectors are also available from our parts group if you wish to change them.)



Sweep of NF and Gain from 143 to 147 MHz (XV144)



## K2 – XV Integration

- In addition to working with almost any 28 MHz capable rig, the XV transverters can be tightly integrated with the K2 Transceiver.
- The K2 supports up to 6 transverter bands; programmable display freq., I.F freq. and front panel adjustable power. Each transverter is automatically selected and powered on by the K2 as bands are changed.
- The same transverter can be mapped to multiple K2 transverter bands. The K2 then displays the correct frequency on each band. (Ex.: Using the same XV144 as an intermediate IF for two microwave bands.)
- For optimal use with the K2 Transceiver, the KIO2 AUX I/O option or the KPA100 (which includes KIO2 functionality) must also be installed in the K2 to provide the external control signals for the XV transverters.
- The XV transverters can be driven from the K2's regular HF RF output connector, or they can be driven by the split TX/RX connectors on the K60XV low level internal transverter interface option for the K2.



## OPTIONS

### Crystal Oven Option (XVOVN)

- Enhanced temperature stability option. High performance commercial oven installs directly over the LO crystal on the XV PC board.

### K2 Low Level Transverter Interface (K60XV)

- Provides an integrated low level split I/O internal interface for the K2 transceiver.

## Pricing: XV Transverters and Options

XV50 Transverter for 50 MHz	\$349.00	E620064 UHF Connector, Female, Chassis Mount	\$ 3.50
XV144 Transverter for 144 MHz	\$349.00	E620069 N Connector, Female, Chassis Mount	\$ 7.50
XV222 Transverter for 222 MHz	\$349.00	K60XV Transverter Interface for the K2	\$ 89.00
XVOVN Crystal Oven High Stability Option	\$ 45.00		



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