

THRP-4548

HIGH PERFORMANCE REPEATER PANEL

The Telewave THRP-4548 High Performance Repeater Panel greatly improves the effective sensitivity and selectivity of a repeater receiver for extended mobile and portable coverage, and provides maximum inter-modulation protection for the transmitter.

The panel uses a T-4560 dual isolator with a 50 watt termination on the second stage output, and a low pass filter for transmitter IM protection. This combination provides over 60 dB of IM protection over a ± 5 MHz bandwidth, and Tx 2nd harmonic attenuation of over 50 dB.

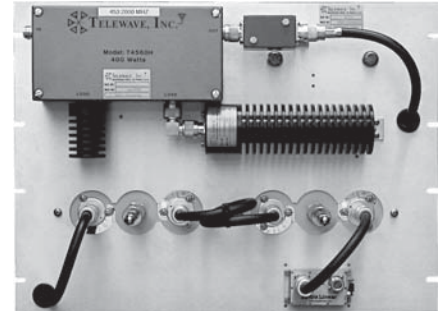
The duplexer is a TPRD-4544, with four 4" cavities in a pass/reject configuration. This duplexer has only 1.8 dB insertion loss, and provides over 110 dB isolation. The receiver side of the duplexer is interconnected to two 8" high

"Q" bandpass cavities, to form a narrow pass-band preselector.

The output of the preselector is coupled to one of two types of low-noise preamplifiers. The TLA450-12 is a variable-gain, low-noise bipolar preamp. This preamp is recommended for areas that are prone to lightning damage or high ambient signal levels.

The second preamp option is the TGA450-12, which uses a PHEMT GaAsFET transistor for high sensitivity. This preamp is recommended for sites with a relatively low existing ambient noise level.

The Telewave THRP-4548 High Performance Repeater Panel puts all this equipment on one 14" H by 19" W panel, pretuned, tested, and ready to install. The total price is less than if the equipment was purchased separately, and requires less rack space.



THRP-4548 FRONT



THRP-4548 BACK

SPECIFICATIONS		PREAMP	Bipolar	GaAsFET
Frequency range	400-512 MHz	Gain - Antenna to RX	+8 to +28 dB	+17 dB
Frequency separation (min)	5 MHz	Preamp noise figure	2.5 dB	0.7 dB
Power input (continuous)	125 watts	Preamp 3rd order intcp.	+35 dBm	+24 dBm
VSWR (max)	1.22:1	Preamp input power	+12 to +18 VDC	
TX-RX isolation	110 dB	Preamp current (typ.)	170 mA	18 mA
Insertion loss TX to Antenna	1.8 dB			
TX 2nd harmonic attn.	50 dB			
Antenna to TX isolation at 5 MHz	75 dB			
RX-TX isolation	120 dB			
Temperature range	-30°C to +40°C			
Connector type	N Female			
Finish	Grained aluminum			
Dimensions (HWD) in. (cm)	14 x 19 x 12 (13.5 x 48.3 x 30.5)			
Net weight lb. (kg)	17 (7.7)			