

## THRP-1548, 4548, 7648, 8648

### HIGH PERFORMANCE REPEATER PANEL

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

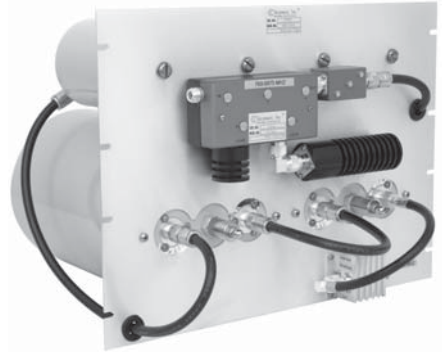
The THRP panel uses a dual isolator with a 50 watt termination on the second stage output, and a low pass filter for transmitter IM protection. This combination provides more than 60 dB of IM protection over a  $\pm 5$  MHz bandwidth, and transmitter 2nd harmonic attenuation of over 50 dB.

The duplexer utilizes 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 standard configuration uses a TLA series low-noise bipolar preamp. This preamp is recommended for areas that are prone to lightning damage or high ambient signal levels.

The optional TGA series preamps use a PHEMT amplifier for higher sensitivity. This preamp is recommended for sites with low existing RF noise levels.

The THRP series puts all this equipment on one 14" x 19" panel, pretuned and ready to install. The total price is less than if the equipment was purchased separately, and requires less rack space.



**THRP-7648 FRONT**



**THRP-7648 BACK**

FREQUENCY RANGES	
<b>THRP-1548</b>	138 - 174 MHz
<b>THRP-4548</b>	400 - 512 MHz
<b>THRP-7648</b>	763 - 869 MHz
<b>THRP-8648</b>	806 - 960 MHz

SPECIFICATIONS	PREAMP	Bipolar	PHEMT (opt.)
Frequency range	138-960 MHz	Gain - Antenna to RX	+8 to +20 dB
Frequency separation (min)	3 MHz	Noise figure (typ.)	2.5 dB
Power input (continuous)	125 watts	3rd order intercp.	+35 dBm
VSWR (max)	1.22:1	Input power	+12 to +24 VDC
TX-RX isolation (typ.)	110 dB	Current (typ.)	170 mA
Insertion loss TX to Antenna (typ.)	1.8 dB		40 mA
TX 2nd harmonic attn. (typ.)	50 dB		
Antenna to TX isolation (typ.)	75 dB at 5 MHz		
RX-TX isolation (typ.)	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 (35.6 x 48.3 x 30.5)		
Net weight lb. (kg)	25 (11.4) (400-860 MHz)		