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Telewave Transmitter Combiners Deliver High Performance in Land Mobile and Public Safety Communication Systems

SAN JOSE, CA (March 28, 2017) – [Telewave, Inc.](#), today introduced the [M108-150-XTP-M](#) Series transmitter combiners that deliver very high isolation, low loss, and high RF power handling capability for use in public safety and land mobile radio applications operating between 148 to 174 MHz.

The trend toward narrower guard bands between transmit and receive frequencies requires extremely effective filtering to mitigate interference and increase intermodulation suppression between transmitters. Telewave's transmitter combiners are designed to meet these challenges using very-high-Q, low-loss cavity filters and the company's [T-1560M](#) two-stage isolators that provide extremely high transmitter-to-transmitter isolation and antenna-to-transmitter isolation of 75 dB.

The M108-150-XTP-M Series combiners are designed to accommodate up to 12 channels with one or two transmit antennas. They allow up to 12 cavities to be mounted horizontally on three, 4-channel panels in an optional 19 x 72-in. rack or up to eight cavities mounted vertically in the rack. Vertical mounting can be important if the combiners must be placed in an area with limited space or when mounting on a wall is desired.

Models in the series handle between 100 W and 125 W CW per channel with minimum channel separation of 125 kHz and second-order harmonic suppression of 90 dB. They operate over a temperature range of -30°C to +60°, have a maximum VSWR of 1.25:1, and use female Type-N input and output connectors. Full-surface heat sinks ensure stable thermal management in any environment. One model in the series, the M108-150-8TP-M100, can operate at altitudes up to 15,000 ft. while others are typically usable up to 10,000 ft.

“Land mobile and public safety communications systems face interference from co-located sites and a densely-packed spectrum,” said Telewave Chief Executive Officer Robert Bagheri. “Our new M108-150-XTP-M Series transmitter combiners are designed to ensure these systems deliver their full performance and reliability under these difficult conditions.”

Rack support is provided for an optional Telewave tuner assembly that can be mounted in any orientation in the rack as well as RF power monitoring using Telewave's

[PM10C2S1C](#) power monitor that requires only 1.75 in. of rack space for each channel. Remote keying of the transmitter can also be provided. A receiver subsystem can be created using the M108-150 Series, a Telewave preselector, and 1 rack-unit receiver panel to serve up to 16 channels.

The M108-150-XTP-M can be factory mounted in an optional rack and can be paired with an optional power monitor on receive, preselector, and multicoupler. Like all Telewave products for land mobile and public safety applications, electrical and RF specifications of the M108-150-XTP-M Series combiners can be customized to meet specific customer requirements. More information is available by contacting Telewave Application Engineering Department.

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About Telewave

Founded in 1973, Telewave is a leading manufacturer of RF products for radio systems used in public safety and land mobile applications, utilities and transportation, defense systems, and by radio amateurs. Its products include duplexers, cavity filters, transmitter combiners, power dividers, transmit and receive filters and isolators, tower-top preamplifiers, preselectors, high-power terminations, and antennas. The company also manufactures instruments designed to ensure the performance of communication systems, including wattmeters and RF power monitors. Telewave's products are used by more than 7,500 equipment and network manufacturers and government agencies throughout the world.