



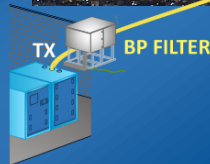
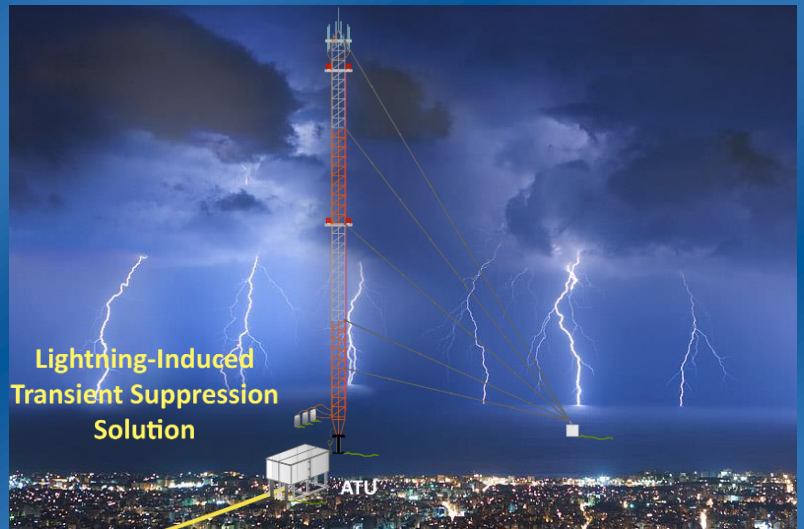
# KINTRONIC LABS

an ISO 9001 registered company

## AM/MW Bandpass Filter

### Technical Specifications

Tunable Frequency Range	540 to 1700 kHz
Insertion Loss	$\pm 4.5 \text{ KHz} \leq 0.25 \text{ dB}$
Power Rating	10 - 100 KW carrier (lower power available)
Maximum Positive Peak Modulation	125%
Impedance	50 $\Omega$ in and out
Input VSWR @ $\pm 4.5 \text{ KHz}$	$\leq 1.05:1$
Input VSWR @ $\pm 10 \text{ KHz}$	$\leq 1.25:1$



### Bandpass Filter Functions

- Galvanic isolation between transmitter and antenna
- Lightning-induced transient suppression solution
  - Bandpass filters protect the transmitter from static electricity by eliminating a DC path between the transmitter and antenna
- Significantly reduces cross modulation products by suppressing RF carriers below and above the filter passband



\*Dimensions apply to 25 kW unit and would vary with other power levels



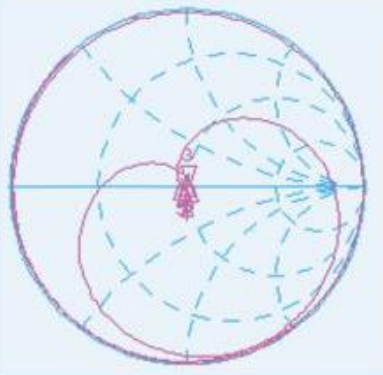
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## Features

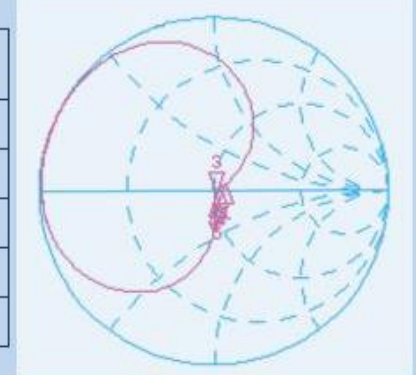
- High-Q coupled inductor design
- Fine matching and phase rotation network provided at input to filter if required
- Component layouts to eliminate unwanted cross coupling and to simplify maintenance
- Conservative RF design for long life at up to 125% modulation
- Vacuum capacitors are used to parallel resonate the filter's coupled inductors
- All inductors and interconnecting RF buss works are unplated copper tube (Silver-plating is optional at additional cost)
- Input and output port: power-level appropriate
- J-Plug at input of fine matching network to allow for bridge measurement ease
- Thermostatically-controlled forced air ventilation available, depending on throughput power level
- System pre-tuned to theoretical settings prior to shipment

## Typical Performance Characteristics



Input Port (S11)

	Input Impedance	Load Impedance	Insertion Loss
-9 KHz	48.3 + j5.9 $\Omega$	56.1 + j4.2 $\Omega$	-0.21 dB
-4.5 KHz	50.2 + j2.4 $\Omega$	52.8 + j1.1 $\Omega$	-0.19 dB
Carrier	49.5 + j0.3 $\Omega$	50.8 - j1.2 $\Omega$	-0.17 dB
+4.5 KHz	47.6 + j0.5 $\Omega$	50.1 - j3.9 $\Omega$	-0.2 dB
+9 KHz	45.6 + j3.3 $\Omega$	49.9 - j7.6 $\Omega$	-0.21 dB



Load Port (S22)

