



## RF Components

Trans-Tech manufactures a wide range of ceramic-based RF components including Coaxial Resonators, Inductors and Filters. All of our components are made in-House utilizing proprietary powder formulations and ceramic processing techniques. Our tightly controlled processes from raw materials, firing, metallization, finishing, and automated assembly and test, produce the highest quality and most consistently reproducible products available today. Rapid turnaround from design to prototype is achieved utilizing our engineering expertise.

### Features:

- High Q Ceramic
- Rugged
- Temperature Compensated
- Custom Designs

### Benefits:

- Low Insertion Loss
- Small Compact Design
- Frequency Stability
- Mechanical Stability

### Applications:

- Wireless bands
- Military/Homeland Security

### Features/Benefits:

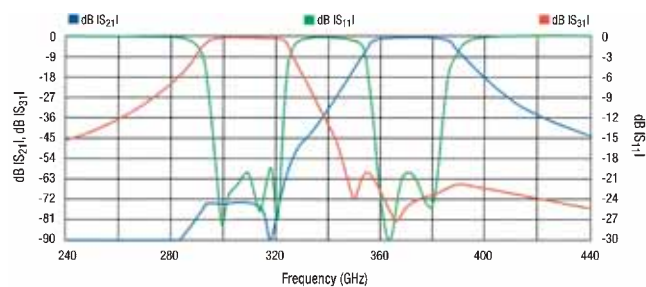
- Custom applications (300 MHz – 6 GHz)
- Connectorized options
- Surface mount
- Frequency Stability
- High Q ceramic
- Field replaceable



## Band Pass Filters

Center frequency	300 MHz to 6 GHz
Standard filter type notch, LPF	Ceramic band pass, duplexer,
Number of poles	2-10
Resonator sizes	2, 3, 4, 6, 8 and 12
Bandwidth on resonator size, FO & ÅR)	1.0%-10% (May vary depending
Insertion loss	1-4 dB typical by design
Attenuation	Varies by number of poles
Impedance	50 or 75 $\Omega$
VSWR	2.0:1 maximum
Operating temperature range	-40 to +85 °C
Mechanical packaging options pack surface mount	PCB surface mount, thru-hole, & flat
Power handling (continuous)	1 W typical

## UHF Duplexer



## Electrical Specifications

	RX	TX
<b>1.0 Electrical</b>		
1.01 Center Frequency ( $F_0$ )	370 MHz	310 MHz
1.02 Poles	BPF 4	BP 4
1.03 Bandwidth (BW)	20 MHz min.	20 MHz min.
1.04 Insertion Loss @ BW	1.1 dB max.	1.1 dB max.
1.05 Flatness (Any 6 MHz BW)	-	-
1.06 Passband Return Loss	12 dB min.	12 dB min.
1.07 Attenuation		
Band Isolation Tx-Rx	60 dB min.	50 dB min.
1.09 Power Handling Watts CW	-	-
1.10 Impedance	50 $\Omega$	50 $\Omega$

	Performance
<b>2.0 Mechanical</b>	
2.01 Dimensions L x W x H (inches)	1.33 x 2.76 x 0.394
2.02 Temperature Range	-45° C to +85 °C