



(CAVITY) COAXIAL

Diplexer

ZVDP-902-252-S+

50Ω (902 to 928, 2400-2500) MHz SMA Female

KEY FEATURES

- Low Insertion Loss, 0.4 dB Typ.
- Good Return Loss, 20 dB Typ.
- High Rejection, 90 dB Typ.
- Power Handling 75 W

APPLICATIONS

- Test and Measurement
- Electronic Counter Measures
- Bluetooth ISM Band

PRODUCT OVERVIEW

Mini-Circuits' ZVDP-902-252-S+ is a coaxial cavity diplexer designed by implementing resonant structures with very high Q and are ideal for narrow-band, high-selectivity applications.

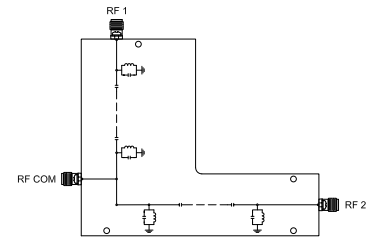
Bandpass, diplexer, and multiplexer designs can be realized with this technology with passband, up to 50GHz, and stopband width greater than 3x cut-off frequency.

Mini-Circuits' coaxial cavity filters feature a special protective assembly to prevent accidental de-tuning that would otherwise require expensive replacement or return to the factory for re-tuning. Precise machining allows the realization of cavity filters with small form factors for applications where size is critical.



Generic photo used for illustration purposes only

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS AT +25°C

Parameter		Function (Port)	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	Band Pass 1 (RF COM-RF1)	902 - 928	—	0.5	1.0	dB
		Band Pass 2 (RF COM-RF2)	2400 - 2500	—	0.4	1.0	
	Return Loss	Band Pass 1 (RF1)	902 - 928	14	18	—	dB
		Band Pass 2 (RF2)	2400 - 2500	14	20	—	
		Common (RF COM)	902 - 928	14	18	—	
			2400 - 2500	14	20	—	
Stop Band	Rejection	Band Pass 1 (RF COM - RF1)	DC - 830	27	33	—	dB
			1000 - 1200	28	34	—	
			1200 - 3000	50	62	—	
		Band Pass 2 (RF COM - RF2)	DC - 1800	70	90	—	
			1800 - 2300	25	31	—	
			2600 - 3000	34	41	—	
			3000 - 6000	70	90	—	

ABSOLUTE MAXIMUM RATINGS¹

Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power (RF COM - RF1) ²	75 W @25°C
Input Power (RF COM - RF2) ²	75 W @25°C

1. Permanent damage may occur if any of these limits are exceeded.

2. Power rating applies only to signals within the passband.

REV. A
ECO-023134
EDU4679
ZVDP-902-252-S+
URJ
240925





(CAVITY) COAXIAL

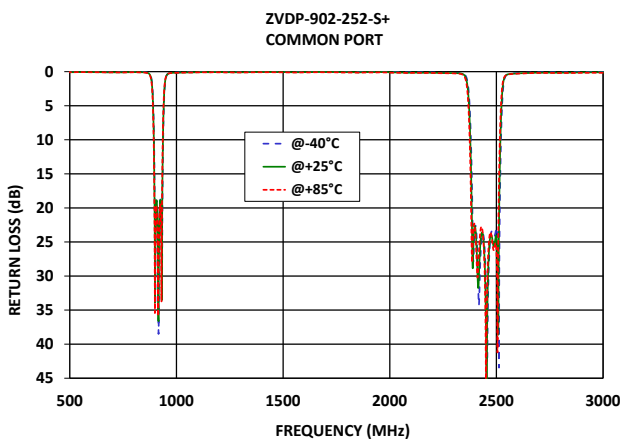
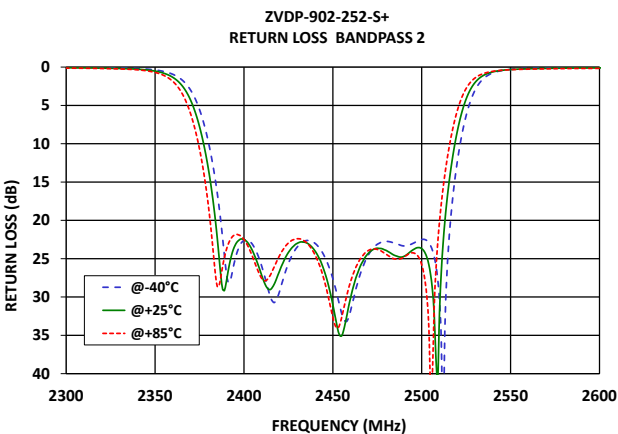
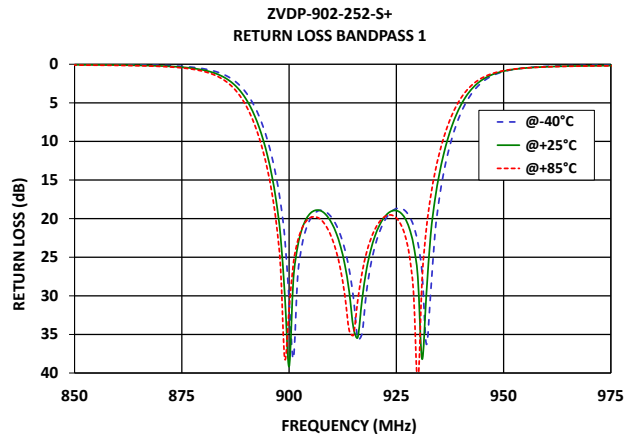
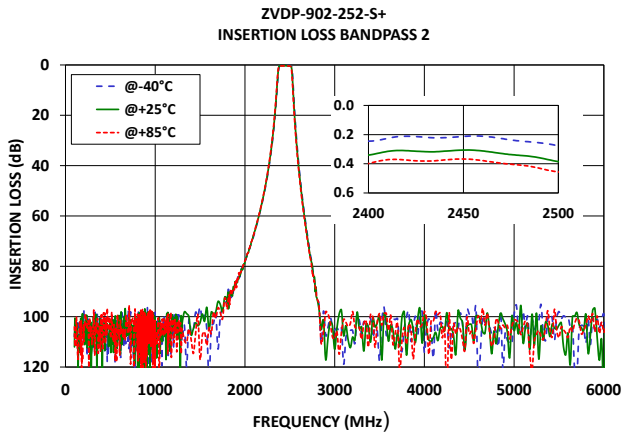
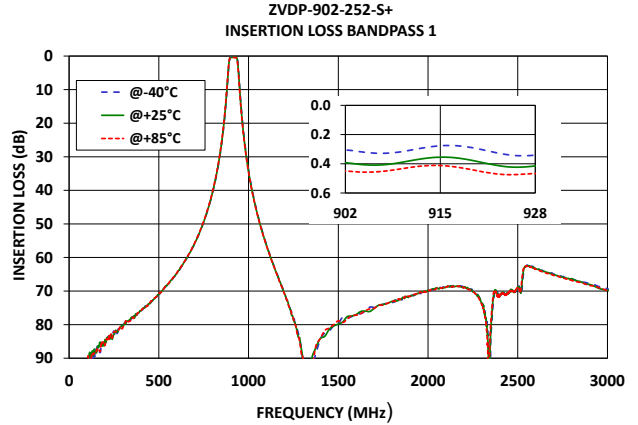
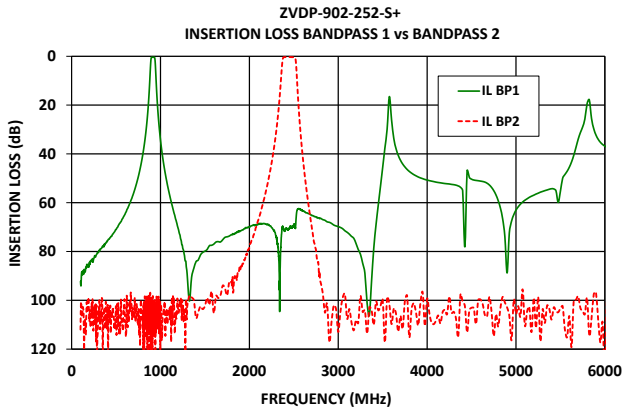
Diplexer

ZVDP-902-252-S+

Mini-Circuits

50Ω (902 to 928, 2400-2500) MHz SMA Female

TYPICAL PERFORMANCE GRAPHS





(CAVITY) COAXIAL

Diplexer

ZVDP-902-252-S+

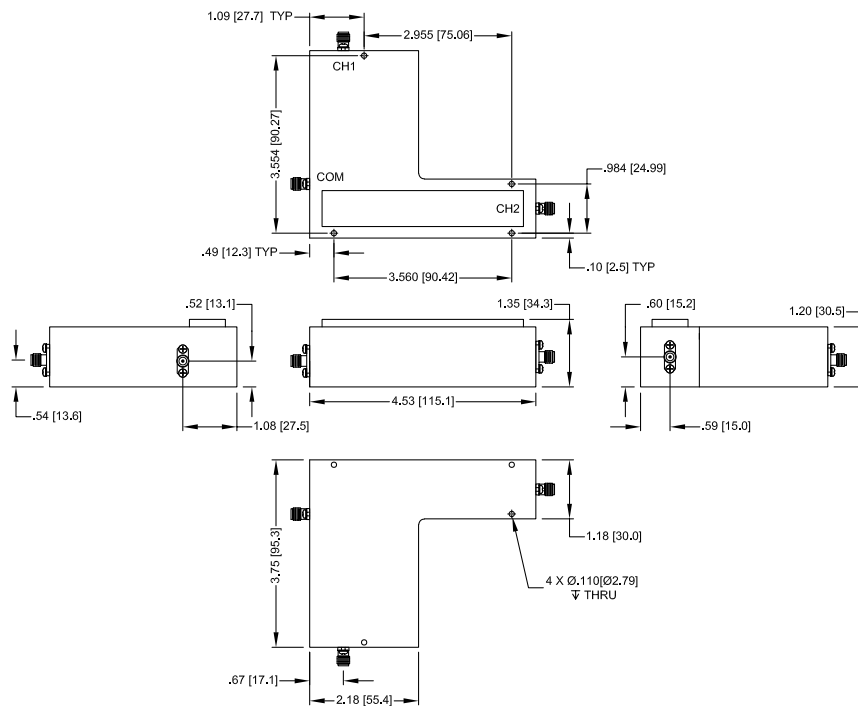
Mini-Circuits

50Ω (902 to 928, 2400-2500) MHz SMA Female

CONNECTOR DESCRIPTION

Function	Marking on Unit	Connector
RF COM	COM	SMA Female
RF1	CH1	SMA Female
RF2	CH2	SMA Female

CASE STYLE DRAWING



Unit Weight: 320 Grams.
 Dimensions are in inches (mm). Tolerances: 2 Pl. ± .100; 3 Pl. ± .015

PRODUCT MARKING*: ZVDP-902-252-S+

*Marking may contain other features or characters for internal lot control.





(CAVITY) COAXIAL

Diplexer

ZVDP-902-252-S+

Mini-Circuits

50Ω (902 to 928, 2400-2500) MHz SMA Female

ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	<p>Data</p> <p>Graphs</p> <p>S-Parameter (S3P Files) Data Set (.zip file)</p>
Case Style	AAF3613
RoHS Status	Compliant
Environmental Ratings	ENV46

NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html

