CAVITY COAXIAL

Bandpass Filter

ZVBP-778-S+

50Ω 773 to 783 MHz SMA Female

KEY FEATURES

- Low Insertion Loss, 0.7dB Typ.
- Good Return Loss, 23dB Typ.
- High Rejection, 60dB Typ.
- Wide Stopband up to 3300MHz
- Power Handling 100 Watts.



Generic photo used for illustration purposes only

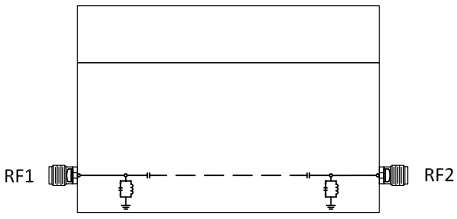
APPLICATIONS

- LTE Public Safety.

PRODUCT OVERVIEW

Mini-Circuits' ZVBP-778-S+ is a coaxial cavity filter designed by implementing resonant structures with very high Q and are ideal for narrow-band, high-selectivity applications.
Mini-Circuits' coaxial cavity filters feature a special protective assembly to prevent accidental de-tuning that would otherwise require expensive replacement or return to factory for re-tuning. Precise machining allows realization of cavity filters with small form factors for applications where size is critical.

FUNCTIONAL DIAGRAM



ELECTRICAL SPECIFICATIONS[1] AT +25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	—	—	778	—	MHz
	Insertion Loss	F1-F2	773 - 783	—	0.7	1.1	dB
	Return Loss	F1-F2	773 - 783	15	23	—	dB
Stop Band, Lower	Rejection	DC-F3	DC - 712	55	60	—	dB
		F3-F4	712 - 750	25	30	—	
Stop Band, Upper	Rejection	F5-F6	806 - 844	25	31	—	dB
		F6-F7	844 - 3300	55	63	—	

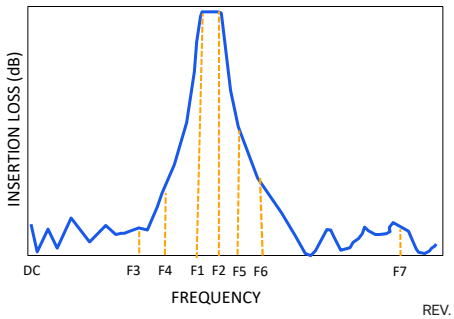
1. This filter is bi-directional RF1 and RF2 ports may be interchanged, see S-Parameters for actual performance.

ABSOLUTE MAXIMUM RATINGS[2,3]

Parameter	Ratings
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power[4]	100W at +25°C

2. Permanent damage may occur if any of these limits are exceeded.
3. Input and output ports are DC short to ground.
4. Power rating applies only to signals within the passband.

TYPICAL FREQUENCY RESPONSE AT +25°C



REV. OR
ECO-020818
ZVBP-778-S+
EDU4644
URJ
240205

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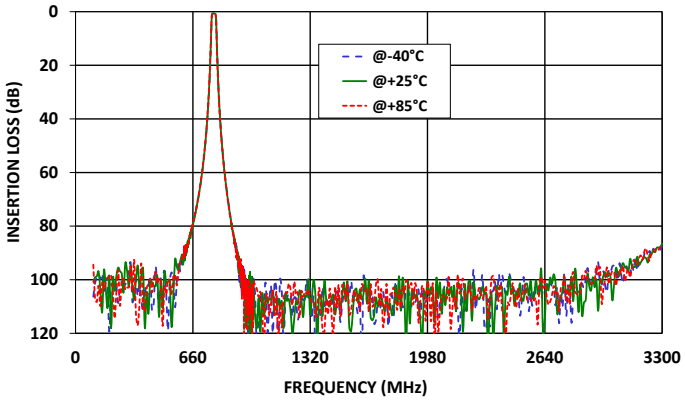
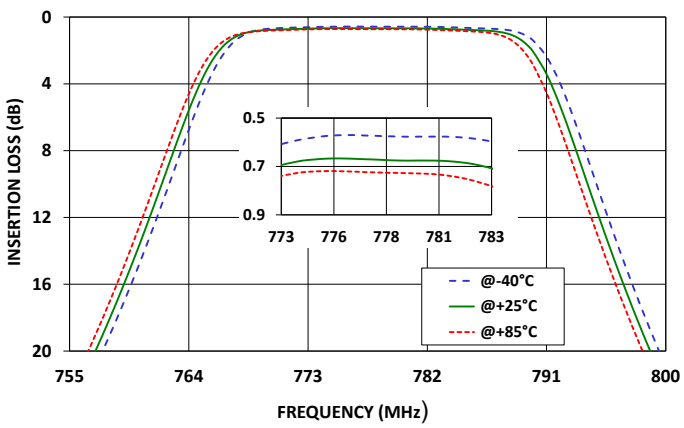
TYPICAL PERFORMANCE GRAPHS

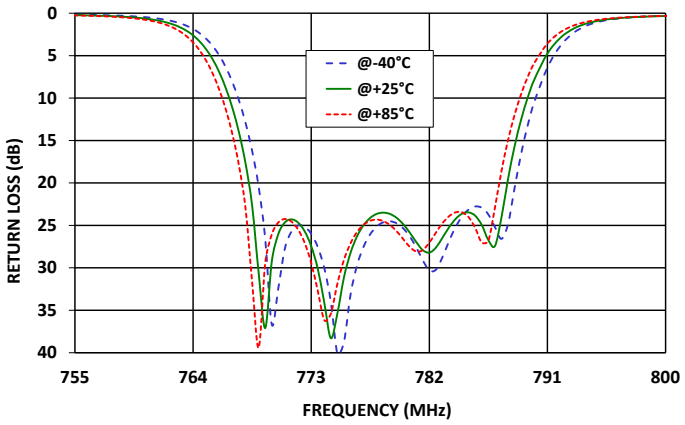
ZVBP-778-S+
INSERTION LOSS



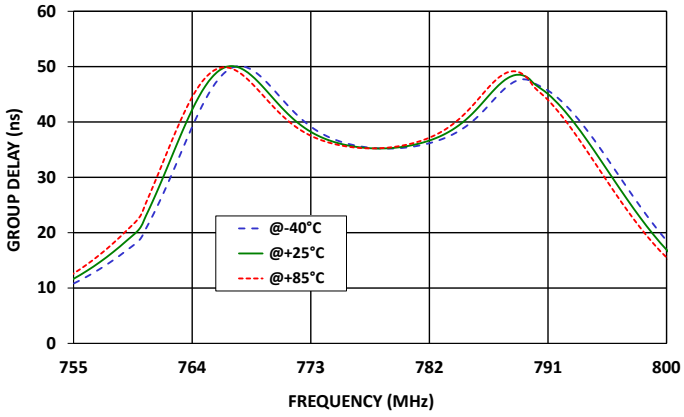
ZVBP-778-S+
INSERTION LOSS (Zoomed)



ZVBP-778-S+
RETURN LOSS



ZVBP-778-S+
GROUP DELAY



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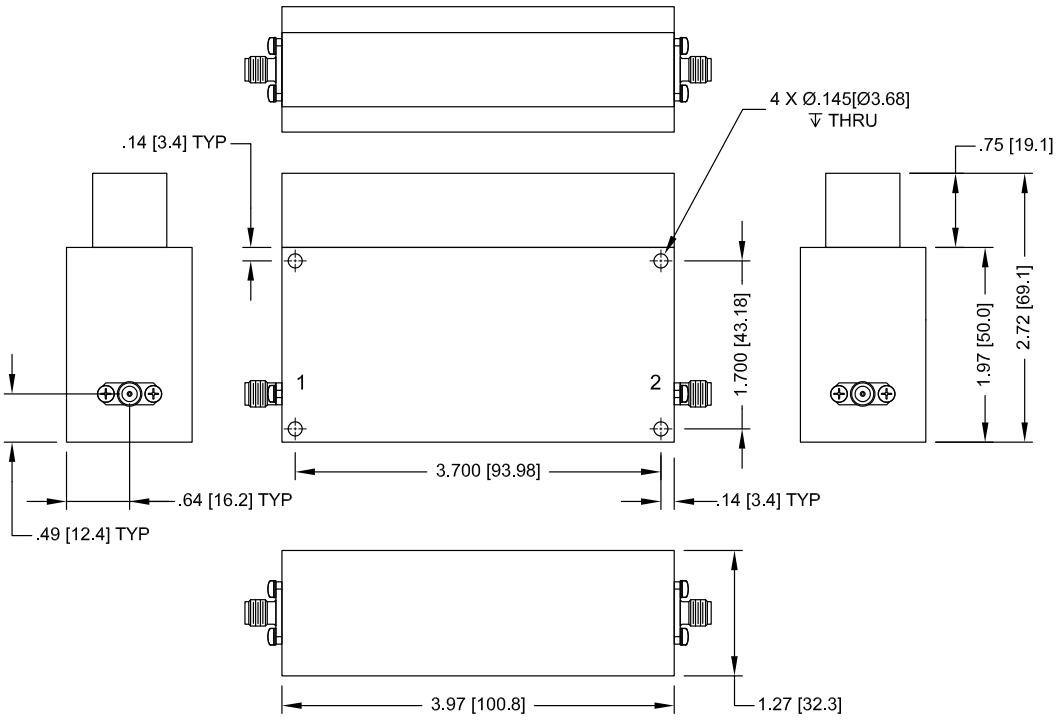
CONNECTOR DESCRIPTION

Function	Marking on Unit	Connector
RF1[1]	1	SMA Female
RF2[1]	2	SMA Female

CASE STYLE DRAWING



Unit weight: 285 grams

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

PRODUCT MARKING*: ZVBP-778-S+

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

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ADDITIONAL INFORMATION IS AVAILABLE ON OUR DASHBOARD CLICK HERE

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file)
Case Style	ZK3546
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