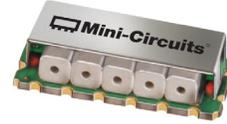




THE BIG DEAL

- Narrow Band Design with Fast Roll-off
- High Rejection, 70 dB Typ.
- Insertion Loss, 4.8 dB Typ.

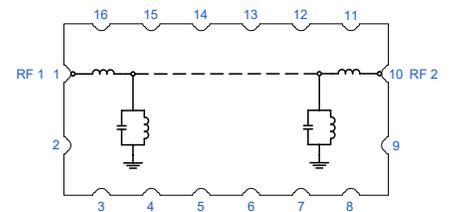


Generic photo used for illustration purposes only

APPLICATIONS

- Test and Measurement Systems
- Radionavigation-Satellite Services

FUNCTIONAL DIAGRAM



PRODUCT OVERVIEW

All our coaxial-ceramic resonator filters are built with rugged construction, qualified to withstand multiple demanding reflow cycles. Excellent repeatability across units is achieved through precise tuning and process control.

ELECTRICAL SPECIFICATIONS^{1,2} AT +25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units	
Passband	Center Frequency	—	—	1600	—	MHz	
	Insertion Loss	F1-F2	1590 - 1610	—	4.8	5.5	dB
	Return Loss	F1-F2	1590 - 1610	10	15	—	dB
Stopband, Lower	Rejection	DC-F3	DC - 1500	65	80	—	dB
		F3-F4	1500 - 1572	20	30	—	dB
Stopband, Upper	Rejection	F5-F6	1627 - 1680	20	30	—	dB
		F6-F7	1680 - 3000	55	70	—	dB
		F7-F8	3000 - 3800	—	50	—	dB

1. Tested in Evaluation Board P/N TB-CBP4-1600A+.

2. This component should not be used as a DC-block. In applications where DC voltage and/or current is present at either the input or output ports, external DC blocking capacitors are required.

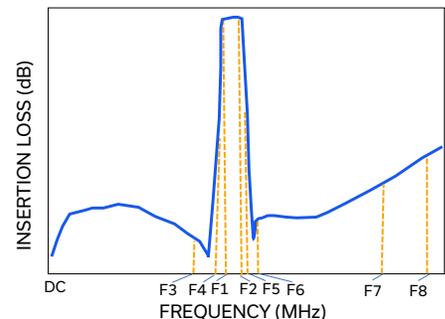
ABSOLUTE MAXIMUM RATINGS³

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

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

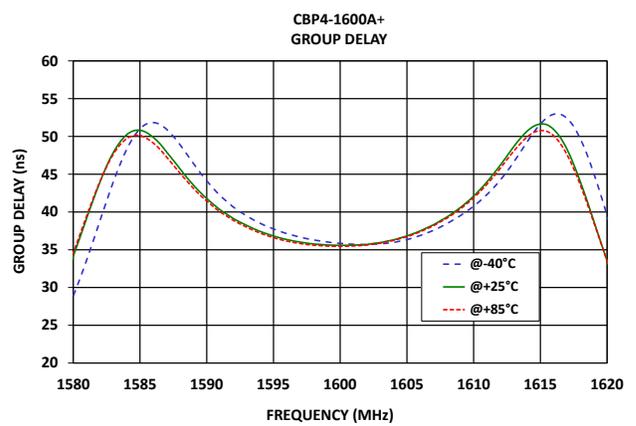
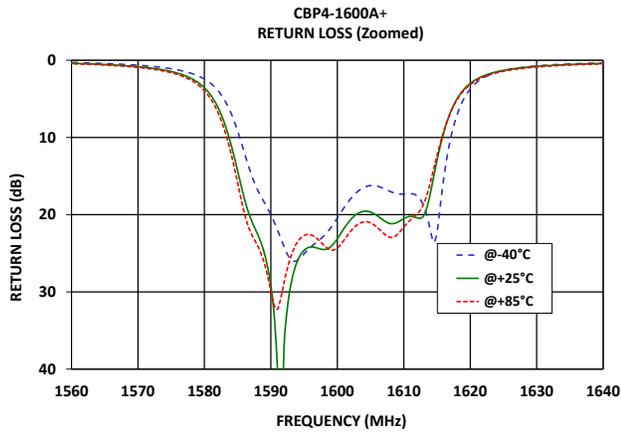
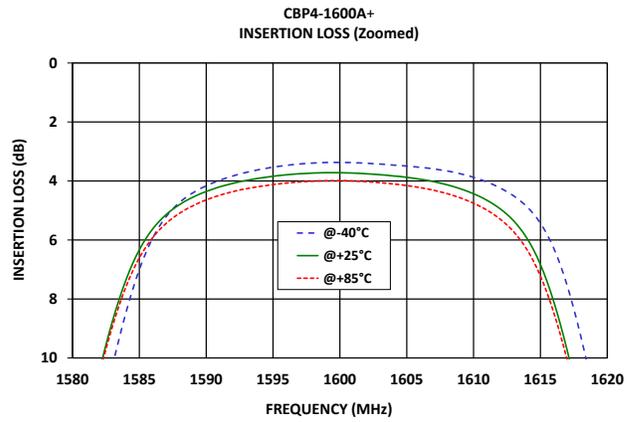
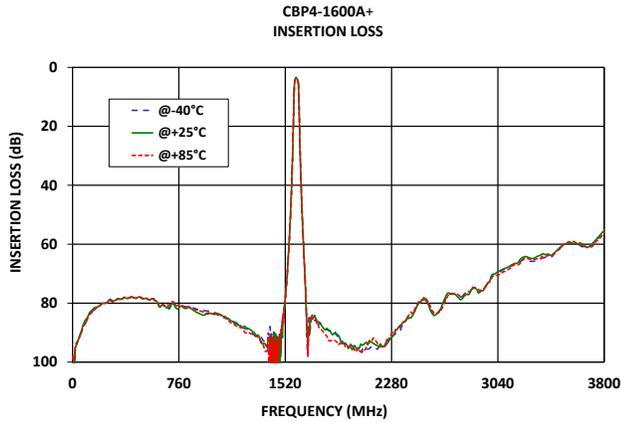
4. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 1 W at +85°C.

TYPICAL FREQUENCY RESPONSE





TYPICAL PERFORMANCE GRAPHS





FUNCTIONAL DIAGRAM

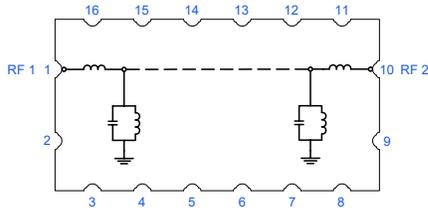
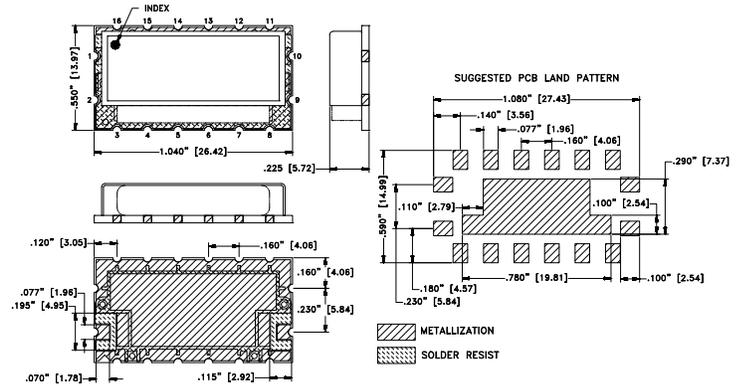


Figure 1. CBP4-1600A+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1	1	Connects to RF Input Port
RF2	10	Connects to RF Output Port
GROUND	2-9, 11-16	Connects to Ground on PCB, (See drawing PL-331)

CASE STYLE DRAWING

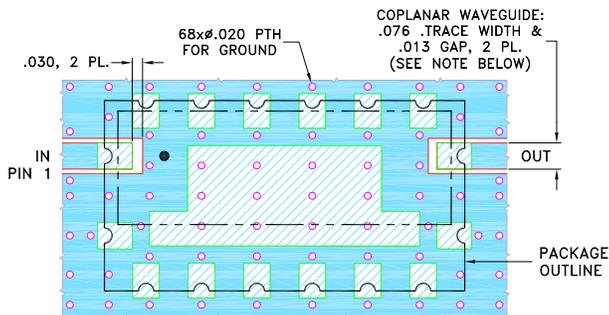


Weight: 4.8 gram

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015

SUGGESTED PCB LAYOUT

SUGGESTED MOUNTING CONFIGURATION FOR
KU1513/KV1514 CASE STYLE, "16FL02" PIN CODE



- NOTE: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS $.060 \pm .004$; COPPER: 1/2 Oz. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Figure 2. Suggested PCB Layout

PRODUCT MARKING*: CBP4-1600A

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



Band Pass Filter

CBP4-1600A+

50Ω

1590 to 1610 MHz

ADDITIONAL DETAILED INFORMATION IS AVAILABLE ON OUR DASHBOARD

[CLICK HERE](#)

Performance Data & Graphs	Data Graphs S-Parameter (S2P Files) Data Set (.zip file) De-embedded to device pads
Case Style	KV1514 Lead Finish: Gold over Nickel Plate
RoHS/REACH Status	Compliant
Tape and Reel	F106
Suggested Layout for PCB Design	PL-331
Evaluation Board	TB-CBP4-1600A+ Gerber File
Environmental Rating	ENV54
MSL Level	MSL1

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