



CERAMIC RESONATOR SURFACE MOUNT

Band Pass Filter

CBP4-4625AG+

50Ω

4555 to 4695 MHz

THE BIG DEAL

- Good Insertion Loss, 1.9 dB Typ.
- Excellent Rejection, 58 dB Typ.
- Good Return Loss, 18 dB Typ.
- Miniature Shielded Package

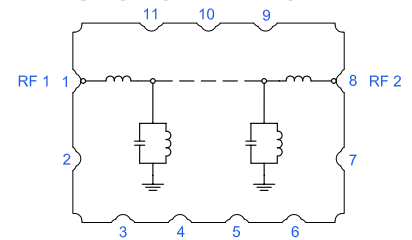


Generic photo used for illustration purposes only

APPLICATIONS

- Ship-Shore Communications
- Satellite Communications
- Mobile Telecommunications
- Radio Astronomy

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^{1,2,3} AT +25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Units
Passband	Center Frequency	—	—	4625	—	MHz
	Insertion Loss	F1-F2	—	1.9	2.7	dB
	Return Loss	F1-F2	10	18	—	dB
Stopband, Lower	Rejection	DC-F3	50	58	—	dB
		F3-F4	20	29	—	dB
Stopband, Upper	Rejection	F5-F6	20	29	—	dB
		F6-F7	33	45	—	dB

1. Tested in Evaluation Board P/N TB-CBP4-4625AG+.

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

3. 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.

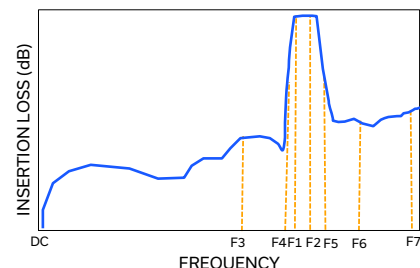
ABSOLUTE MAXIMUM RATINGS⁴

Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C
Input Power ⁵	5 W at +25°C

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

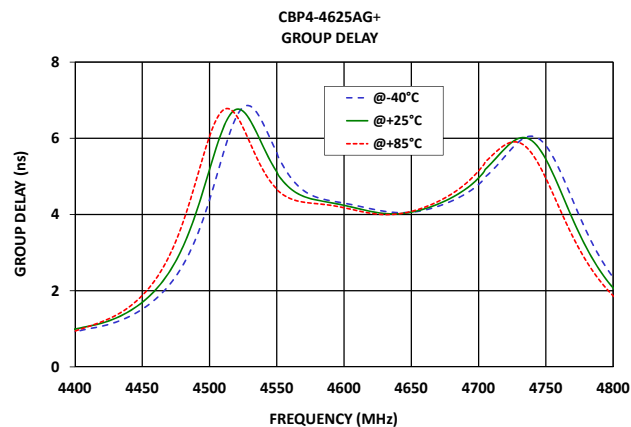
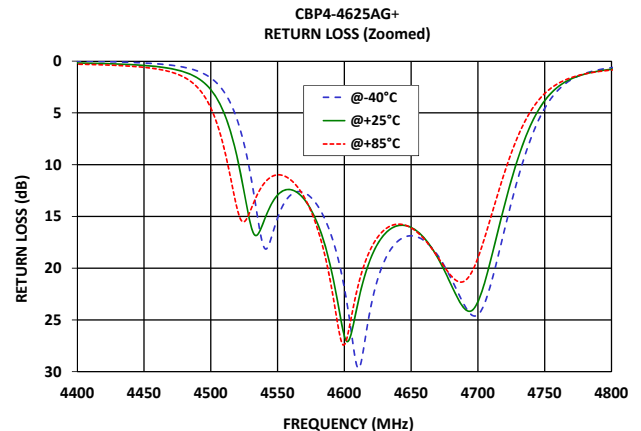
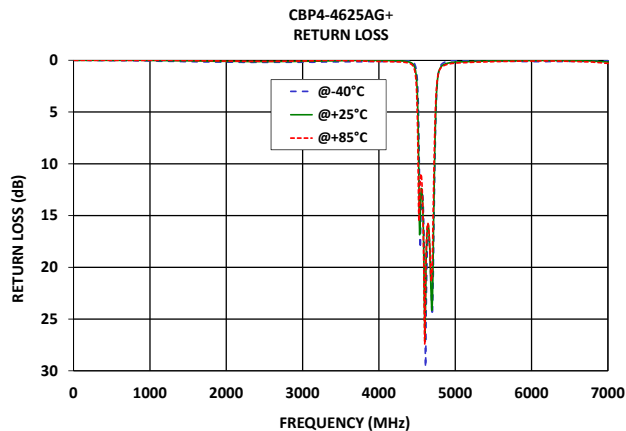
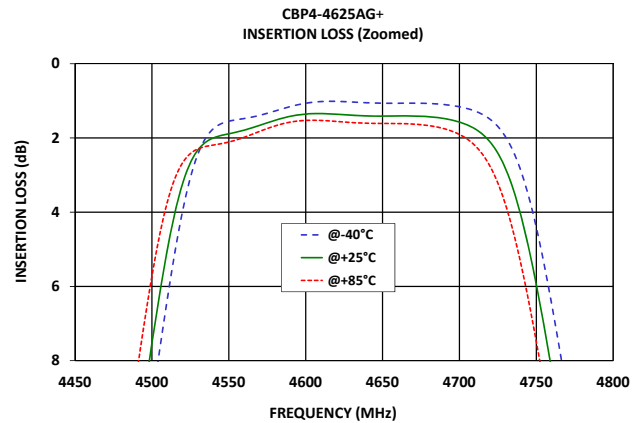
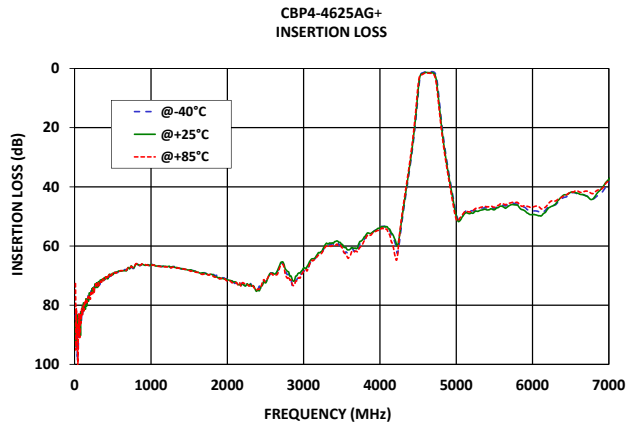
5. Power rating applies only to signals within the passband. Power rating above +25°C operating temperature decreases linearly to 1 W at +85°C.

TYPICAL FREQUENCY RESPONSE





TYPICAL PERFORMANCE GRAPHS





FUNCTIONAL DIAGRAM

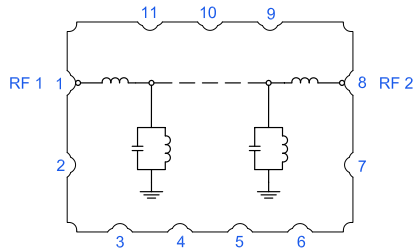
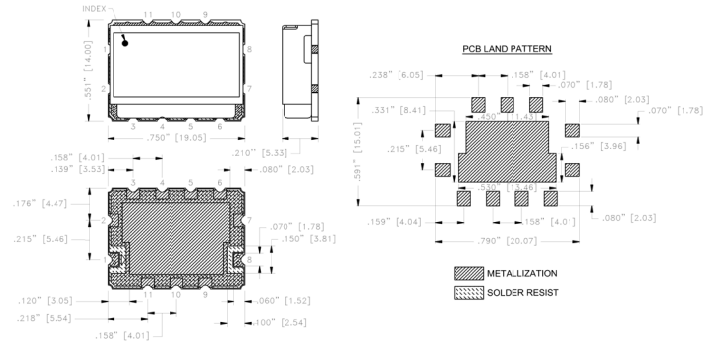


Figure 1. CBP4-4625AG+ Functional Diagram

PAD DESCRIPTION

Function	Pad Number	Description
RF1 ²	1	Connects to RF Input Port
RF2 ²	8	Connects to RF Output Port
GROUND	2-7,9,10,11	Connects to Ground on PCB, (See drawing PL-761)

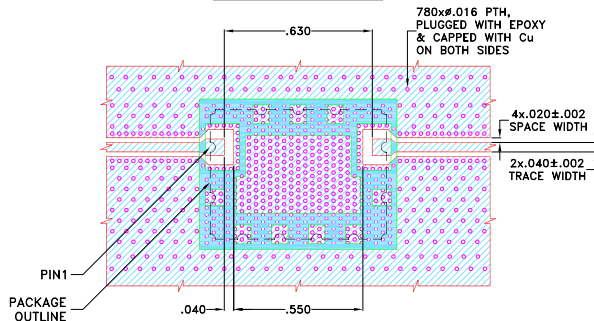
CASE STYLE DRAWING



Weight: 2.4 gram

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

SUGGESTED PCB LAYOUT

SUGGESTED MOUNTING CONFIGURATION FOR
RZ2511-1 CASE STYLE

NOTES:

- TRACE WIDTH IS SHOWN FOR ROGERS (RO4350B) WITH DIELECTRIC THICKNESS .020±.0015. COPPER: 1/2 Oz. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
- 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 SOLDERMASK

Figure 2. Suggested PCB Layout

PRODUCT MARKING*: CBP4-4625AG

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



Mini-Circuits

CERAMIC RESONATOR SURFACE MOUNT

Band Pass Filter

CBP4-4625AG+

50Ω

4555 to 4695 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	RZ2511-1 Lead Finish: Gold over Nickel Plate
RoHS/REACH Status	Compliant
Tape and Reel	F122
Suggested Layout for PCB Design	PL-761
Evaluation Board	TB-CBP4-4625AG+ Gerber File
Environmental Rating	ENV54
MSL Level	MSL1

NOTES

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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

