# **Q** Microwave An **Amphenol** company

# QCB10287M5P2.2-CS

10112-10462MHz BPF

Rev A, 9/23/2024

Subject to change without Notice

### **Features**

- Wideband 5% Bandwidth
- Low Insertion Loss
- Steep Rejections

# **Applications**

- SATCOM Satellite Link RX
- Communications
- EW Applications



age may be a representation of the final product and see outline for details.

## **Product Overview**

The QCB10287M5P2.2-CS is a 50 $\Omega$  bandpass filter in a rugged connectorized package. With close in rejections this filter acts as a brick wall perfect for signal conditioning before any analog to digital converter. With low insertion loss you will see minimal impact to noise figure while reducing unwanted noise outside the band on interest.

## **Electrical Specifications @ 25°C**

Over Temperature information available when requested

# Characteristic Impedance $50\Omega$

Parameter	Frequency (MHz)	Min.	Тур.	Max.	Units
Insertion Loss Passband	10112 — 10462		1.5	2.2	dB
Insertion Loss Center Frequency	10287		1.5		dB
Return Loss	10112 — 10462	-14	-15		dB
Lower Rejection Stop Band	1000 — 9800	-55	-65		dBc
Lower Rejection Stop Band	9800 — 9950	-20	-25		dBc
Upper Rejection Stop Band	10625 — 10770	-20	-25		dBc
Upper Rejection Stop Band	10770 — 18000	-55	-65		dBc

<sup>\*</sup>Contact Factor if additional parameters are required such as: Ripple, Phase Linearity, Group Delay, etc...





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## **Absolute Maximum Ratings**

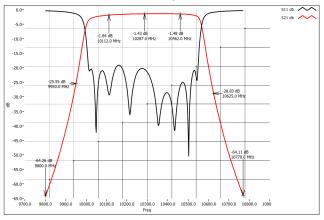
Permanent Damage may occur if any of these limits are exceeded

Parameter	Ratings		
Operating Temperature	-40°C to +125°C		
Storage Temperature	-55°C to +150°C		
Input Power	50 Watt		

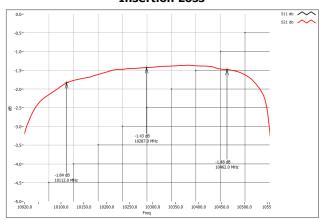
# Typical Performance Graphs @ 25°C

Performance may be simulated contact factory for details or associated S-Parameter files.

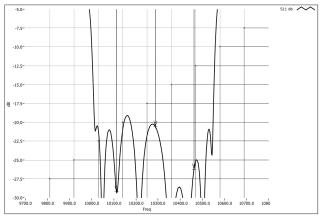
#### Filter Response



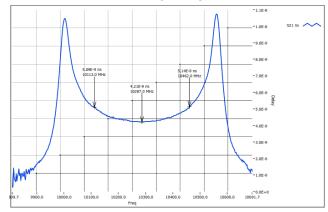
#### Insertion Loss



#### **Return Loss**



#### **Group Delay**







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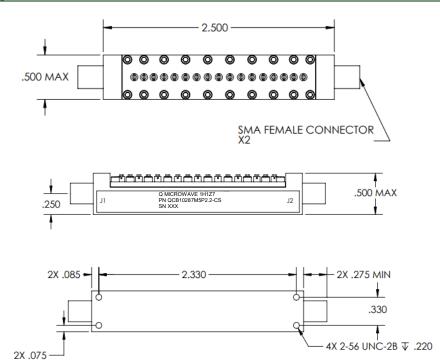
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### **Mechanical Detail**

1) Material	HOUSING: ALUMINUM, 6061-T6 ; COVER: ALUMINUM, 6061		
2) Finish	GRAY PAINT		
3) Hermeticity	ENVIRONMENT SEAL		
4) Input/Output	SMA (F), FINISH PASSIVATED STAINLESS STEEL.		
5) Marking	POLYIMIDE LABEL, GLOSSY WHITE		
6) Package	900616		



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