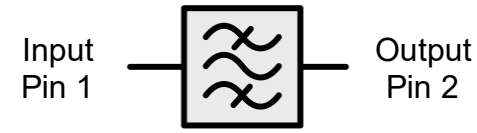
5G N260 mmWave Bandpass Filter

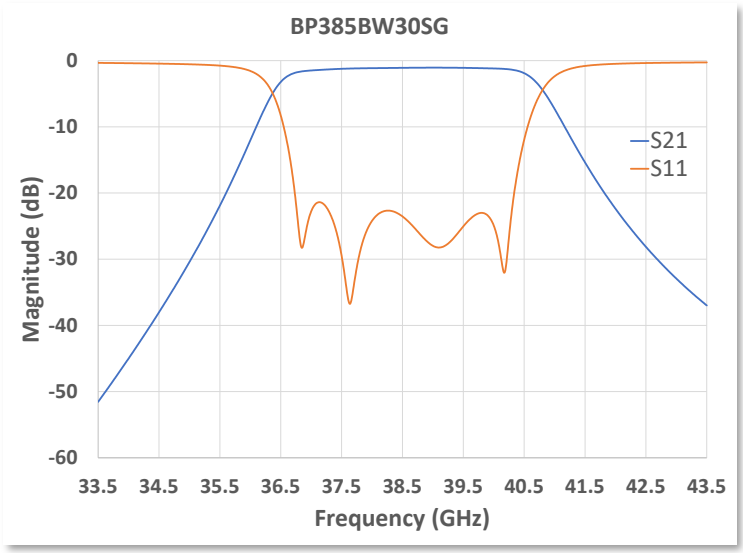
Data Sheet BP385BW30SG

FEATURES

- Low Insertion Loss
- Out-of-band rejection to 60 GHz
- Wafer level process (low manufacturing cost)
- Extremely stable over temperature
- Characteristic Impedance: 50Ω
- -55˚C to +125˚C
- Moisture Sensitivity Level: MSL2A
- Surface Mount Package

FUNCTIONAL BLOCK DIAGRAM





Typical Response

APPLICATIONS

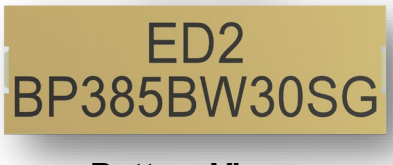
- mmW 5G devices
- n260 5G radio
- Radar, EW and defense
- General purpose wireless

GENERAL DESCRIPTION

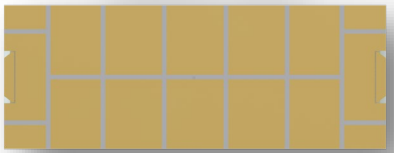
ED2's 38.5 GHz Bandpass Filter is a fused silica (glass) high-performance, low cost, surface mount component. The filter typically has a 1.2 dB insertion loss over a 3,000 MHz bandwidth. The filter's excellent rejection makes it a perfect roofing filter in complement to in-band channelization filtering. This small size filter has minimal variation in performance and is also highly repeatable from filter to filter. The filter is a RoHS-compliant industry-standard device.

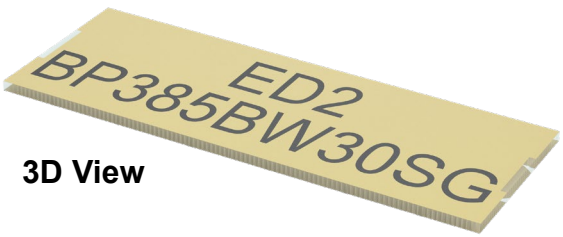
Parameter	Frequency Range (GHz)	Min	Typ. (actual)	Max
Insertion Loss (dB)	37 – 40		1.2	2
VSWR (1dB BW)			1.4	1.8
Low Side Rejection (dB)	DC- 34.5 GHz	-30	-40	
High Side Rejection (dB)	44GHz – 55Ghz	-35	-40	
Input Power(dBm)				+40
Size (L x W x H)	0.504 x 0.188 x 0.011 in 12.80 x 4.79 x 0.27 mm			

Top View



Bottom View





3D View

Document Feedback

7636 N. Oracle Road, Tucson, Arizona 85704, U.S.A.
Tel: 1-520-341-8310

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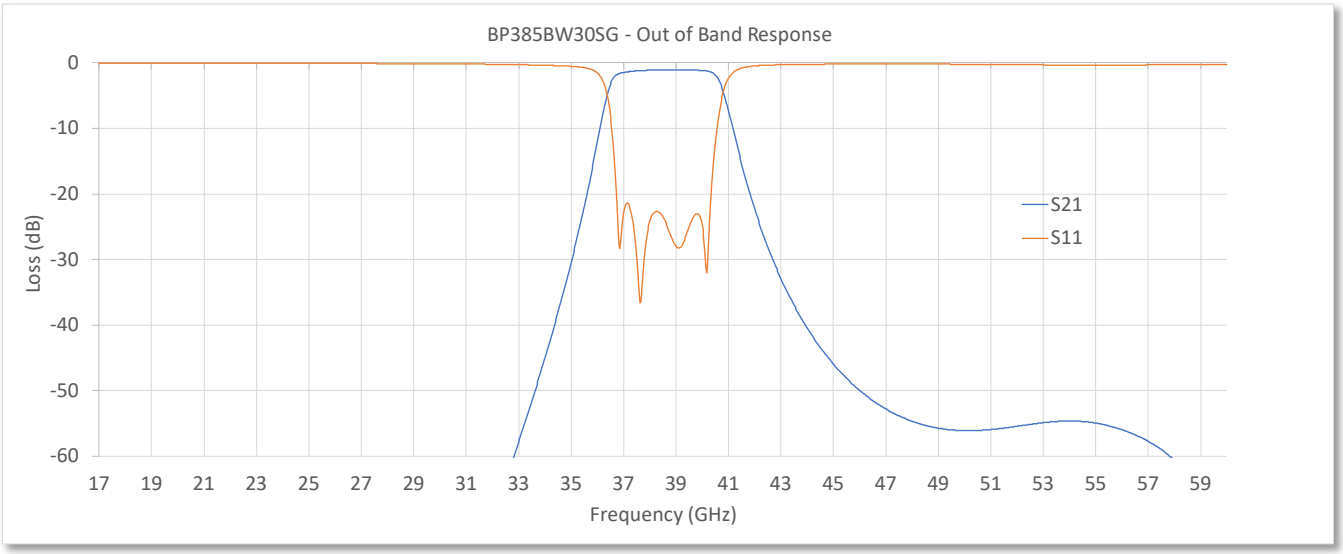
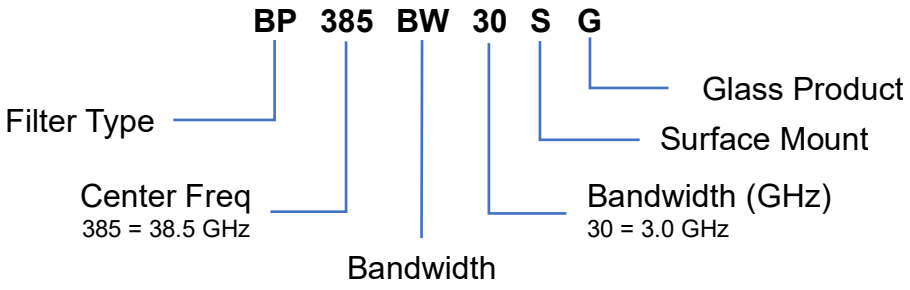


Typical Rejection

PART NUMBER DESCRIPTION



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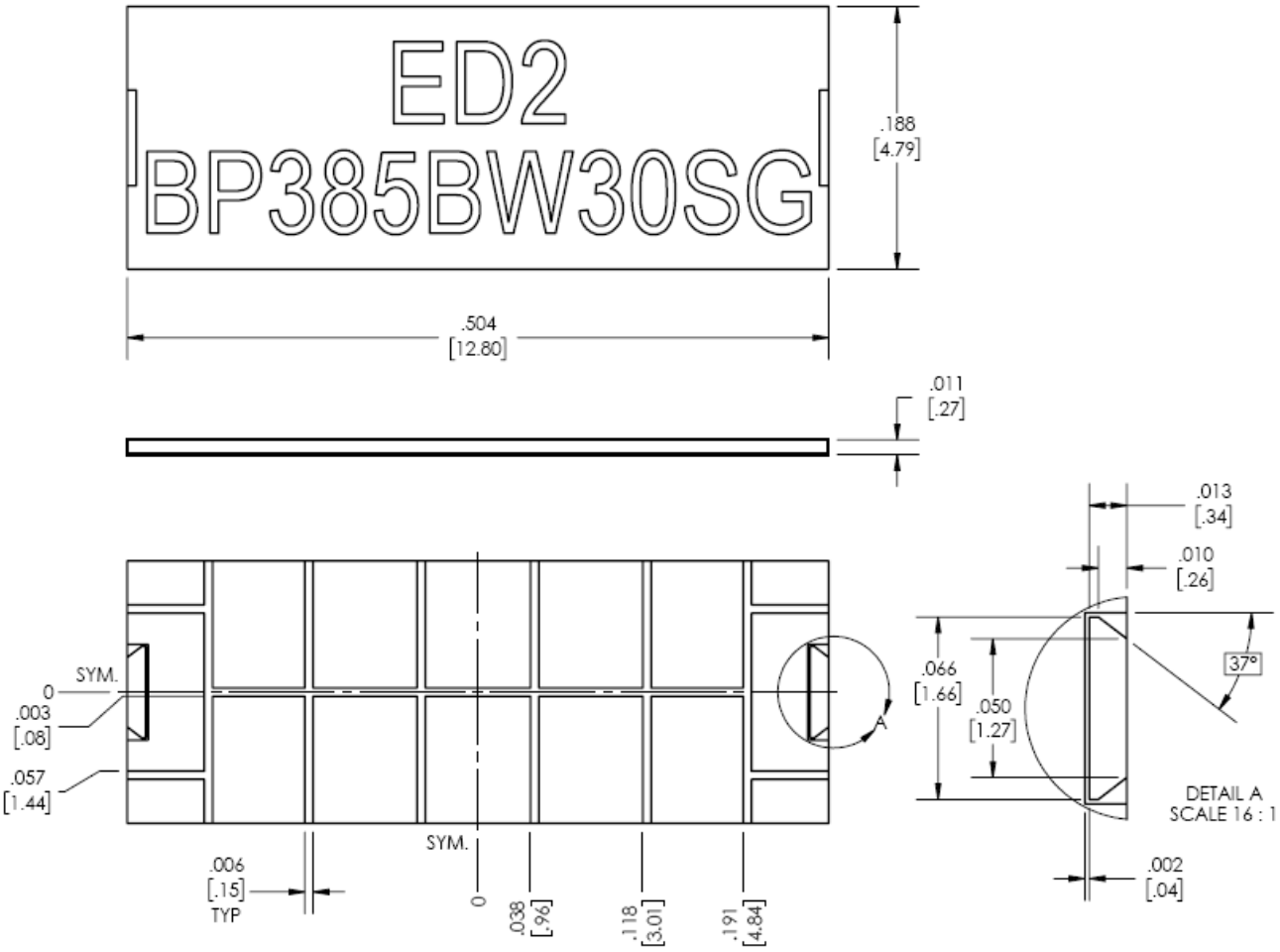
PHYSICAL DIMENSIONS



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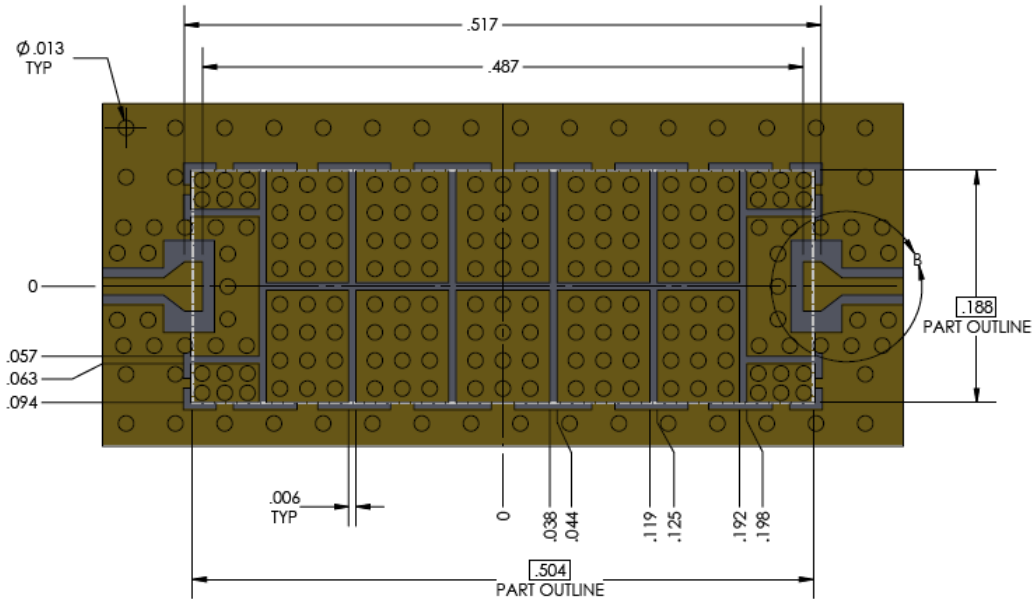
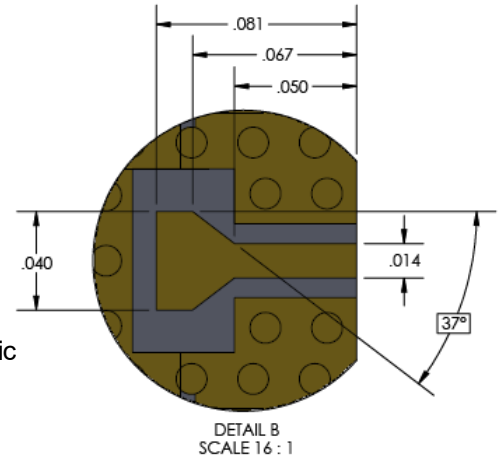
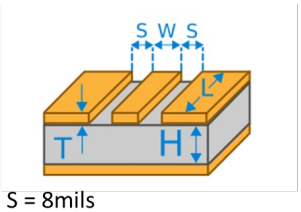
RECOMMENDED PCB LAYOUT



Grounded Coplanar Waveguide (GCPW):
Conductor Width = 0.014”
Dielectric Thickness = 0.0075”
Conductor Gap = 0.008”

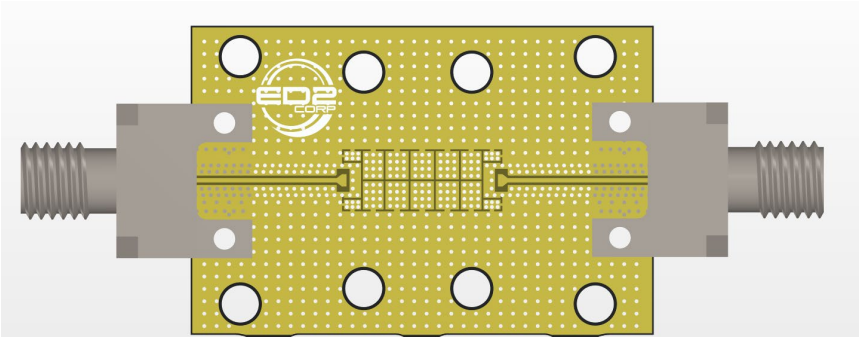
Note:
- Substrate: Isola Corp Astra MT-77
- Material Thickness: 0.0075” + Stiffener
- 50Ω trace dimensions are application specific





S = 8mils
W= 14mils
T = 2mils (Plated 1/2oz VLP Copper)
H = 7.5mils (Astra MT-77)

EVALUATION BOARD AVAILABLE UPON REQUEST



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