BFX3012G

3625 MHz BAW Filter

2520

MAXIMUM RATING:

- Input Power Level: + 30dBm
- Operating Temperature: -20°C to +85°C
- Storage Temperature: -40°C to +125°C
- Moisture Sensitivity Level: 1
- ESD Class 500V (HBM) Class 1000V (CDM)
- Small Form Factor 2.5mm x 2.0mm x 0.8mm

Applications

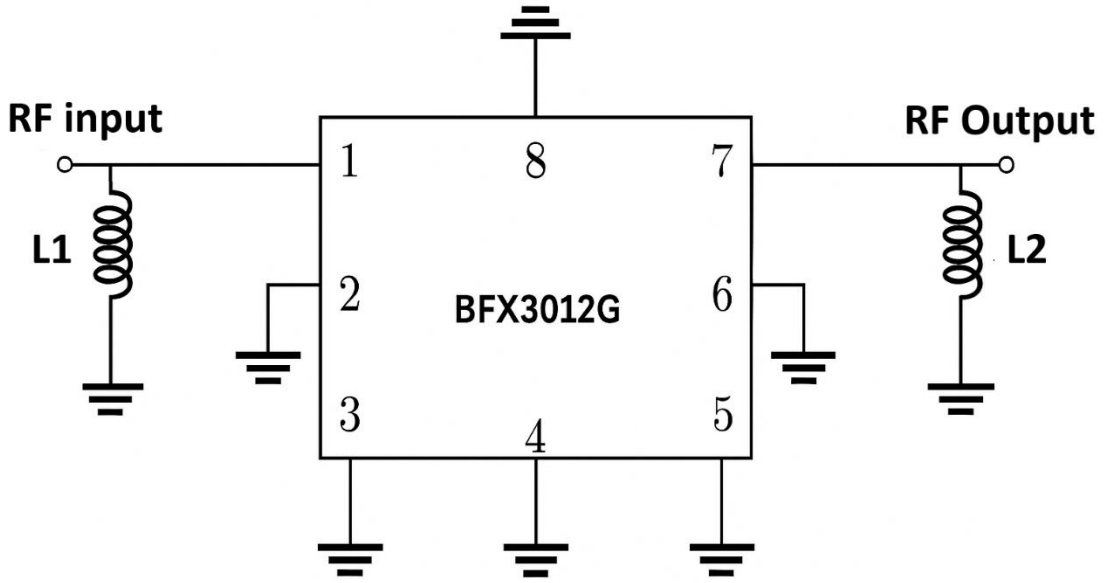
- 5G Infrastructure
- B48 CBRS
- General Purpose Wireless

ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
Center Frequency and Bandwidth	MHz	3550	3625	3700
Insertion Loss (3550 - 3700)	dB		1.5(1)	2.7
Amplitude Ripple	dB		1	1.5
Attenuation				
10 ~ 1000 MHz	dB	50	55	
1700 ~ 2690 MHz	dB	22	25	
2690 ~ 3450 MHz	dB	22	25	
3450 ~ 3530 MHz (2)	dB	10	15	
3720 ~ 3800 MHz (2)	dB	9	15	
3800 ~ 6000 MHz	dB	14	25	
6000 ~ 8000 MHz	dB	15	18	
Return Loss	dB	10	16(1)	
Load Impedance	Ω		50	
Power Handling (5G NR, 100MHz, PAR 7.8dB)	dBm			30
2nd Harmonic (Po=27dBm @25c)	dBm/MHz		-28	
3rd Harmonic (Po=27dBm @25c)	dBm/MHz		-73	

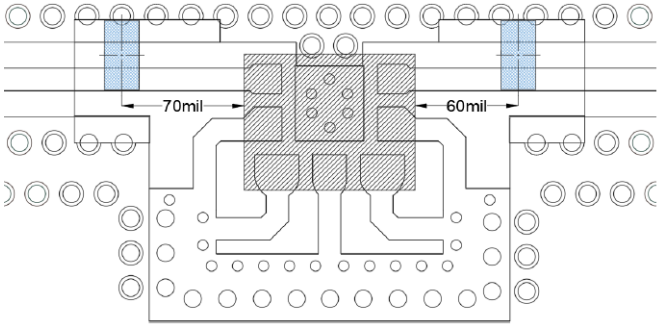
(1) Averaged over specified frequency at 25C.
(2) Averaged over 5MHz.

EVB Schematic



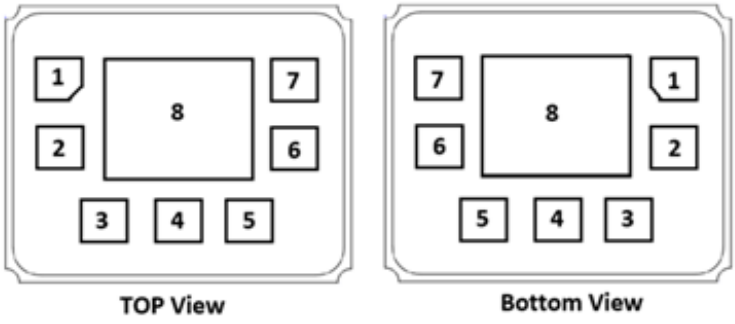
Reference Des.	Value	Description Manufacturer	Manufacturer	Part Number
L1	2.6nH	Chip inductor, 0402, ±0.1nH	Murata	LQW15AN2N6GZD
L2	3.0nH	Chip inductor, 0402, ±0.1nH	Murata	LQW15AN3N0C10D

EVB Layout



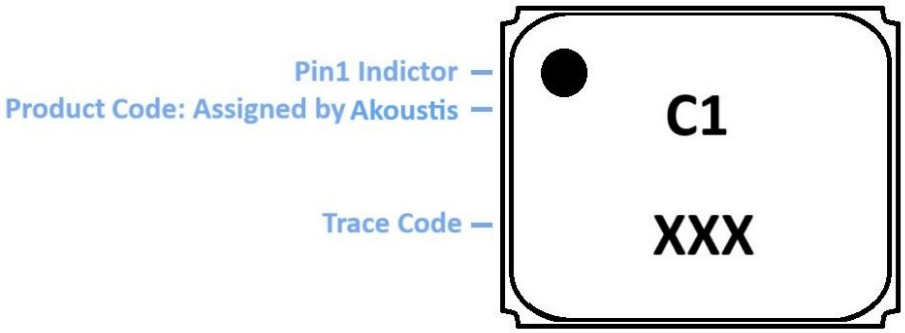
Notes: Center ground pad via: 6mil; outer via: 10mil

Pin definition

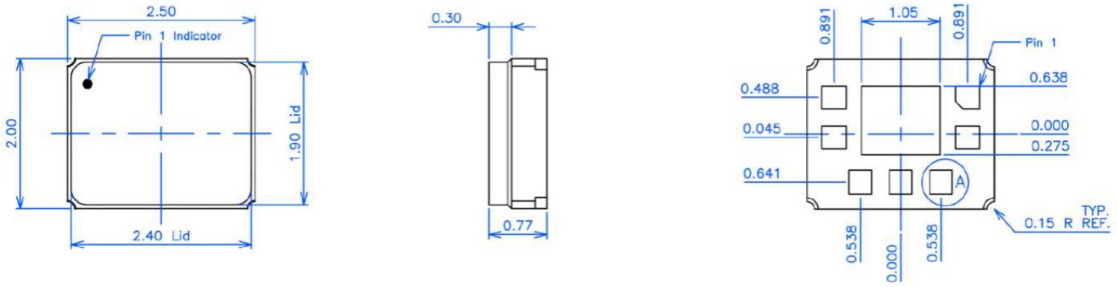


Pin	Name	Description
1	RF In	(High power input)
7	RF Out	Antenna TX
2, 3, 4, 5, 6, 8,	GND	Ground

Typical Part Marking



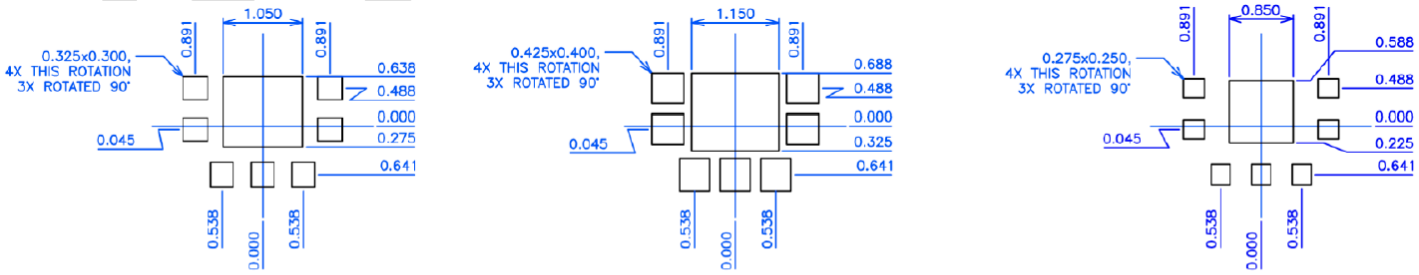
Outline Drawing



NOTES:
1. PLATING THICKNESS
   ELECTRO Ni : 1.27~8.89µm(S/P)
   ELECTRO Au : 0.30~1.00µm(S/P)

Notes:
- All Units are in mm unless otherwise stated
- General Tolerance:
  Linear X.XXX = ±0.050mm
  X.XX = ±0.10mm

PCB Footprint



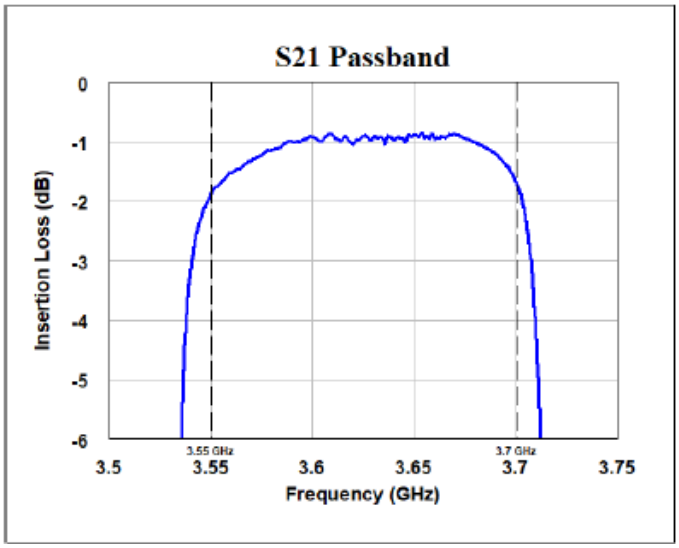
Recommended PCB
Metal Top View

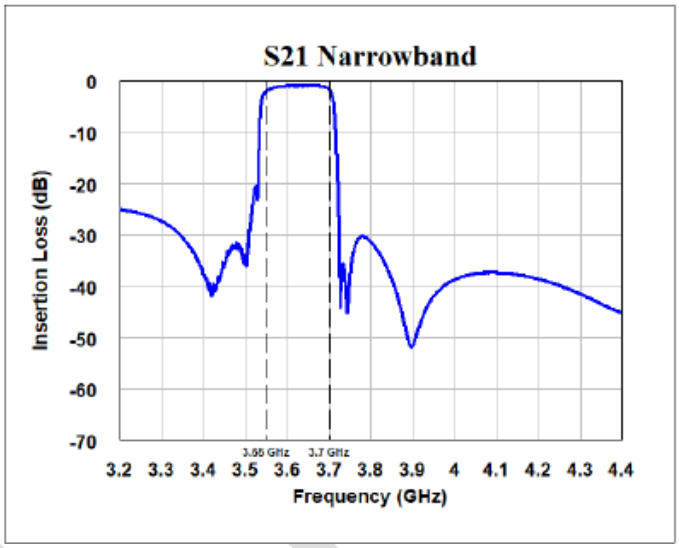
Recommended
Solder Mask Opening
Top View

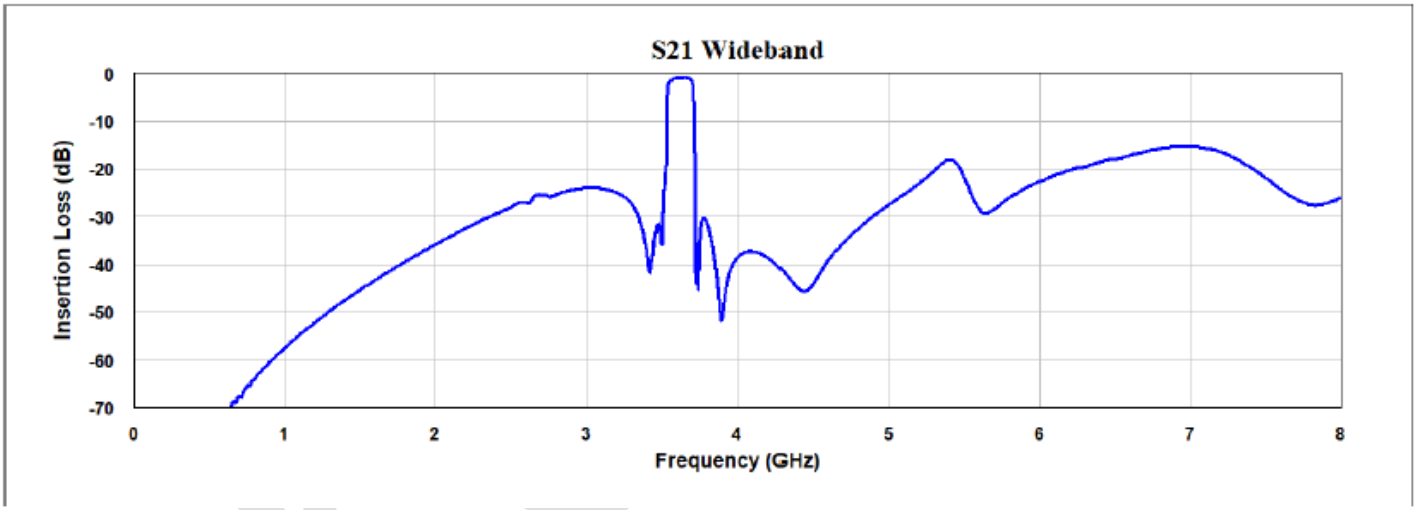
Recommended Stencil
Pattern Top View

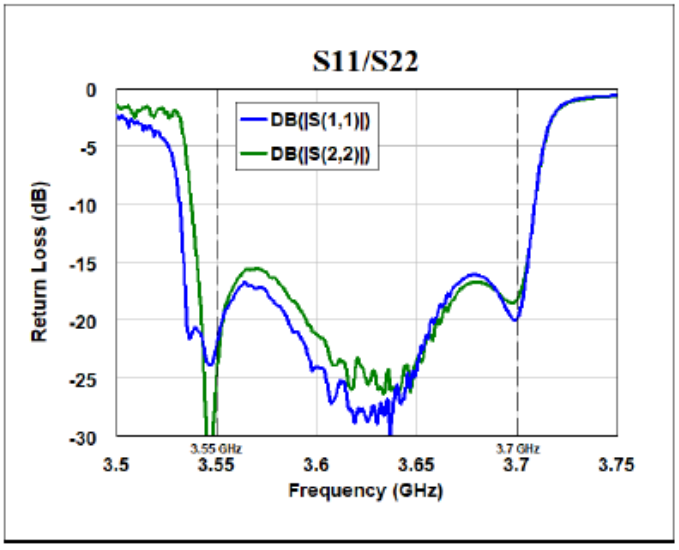
Unit: mm

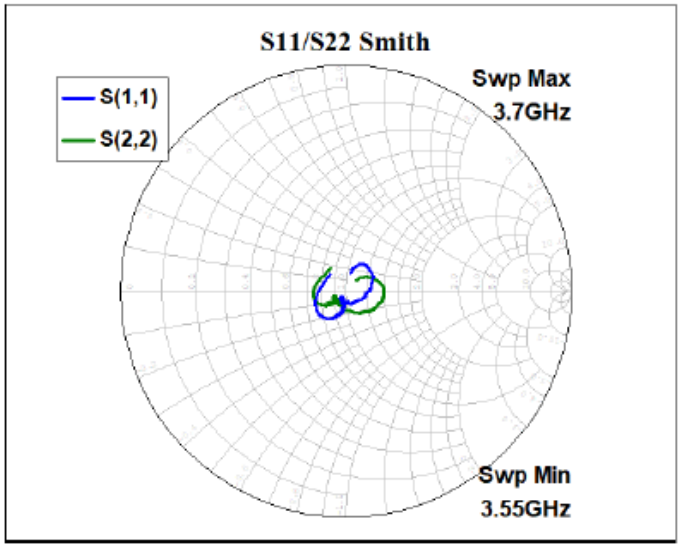
Performance Plots







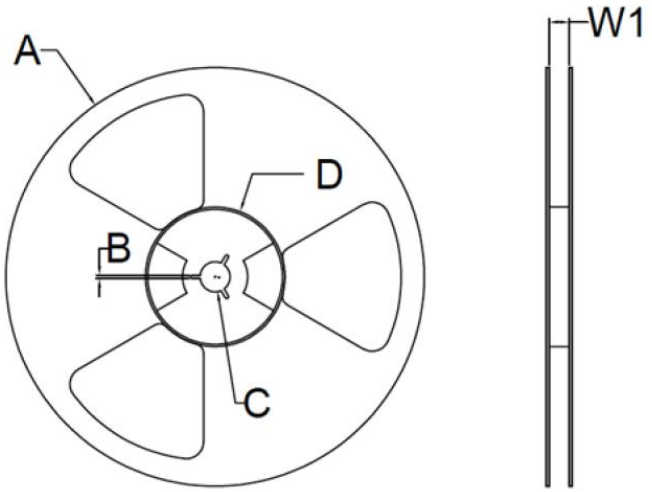




Reel Dimension

Reel Count

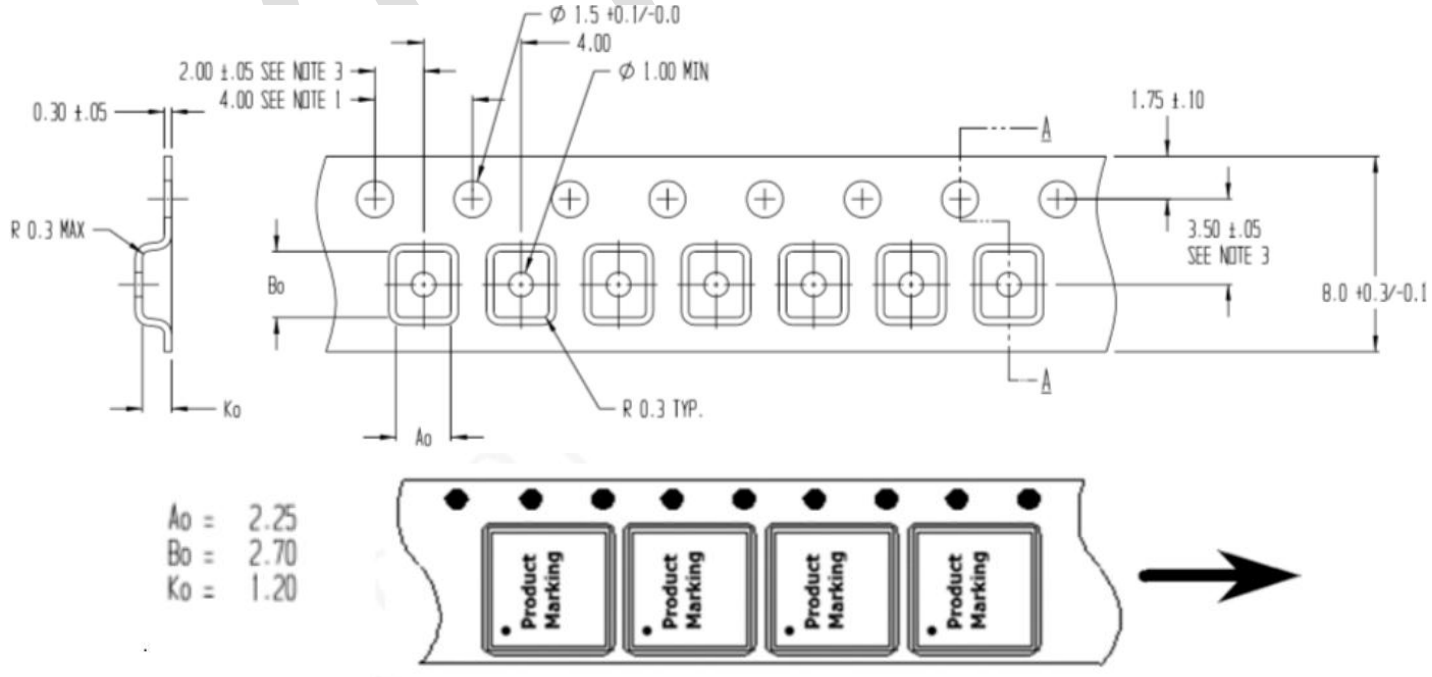
7” = 2500



Reel Dimensiones						
Reel Size	Tape Width	A	B	C	D	W1 *measured at hub
7 Inch	8 mm	180 +0/-2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0 mm	60.0 +/- 2.0 mm	8.40 + 1.5 / -0 mm
	12 mm	180 +0/-2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0 mm	60.0 +/- 2.0 mm	12.40 + 2.0 / -0 mm
	16 mm	180 +0/-2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0 mm	60.0 +/- 2.0 mm	16.40 + 2.0 / -0 mm
13 Inch	8 mm	330 +/- 2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0.2 mm	102 +/- 2.0 mm	8.8 + 2.0 / -0 mm
	12 mm	330 +/- 2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0.2 mm	102 +/- 2.0 mm	12.8 + 2.0 / -0 mm
	16 mm	330 +/- 2.0 mm	2.0mm +/-0.5	13.0 + 0.5 / -0.2 mm	102 +/- 2.0 mm	16.8 + 2.0 / -0 mm

Note: 7 Inch Reel Only Has One Opening

TAPE DIMENSION



RECOMMENDED REFLOW PROFILE

1. Preheating shall be fixed at 150℃~200℃ for 90~180 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 90~130 seconds
4. Heating 20 seconds for 245~260℃ peak (min. 10sec, max 30sec).
5. Time: 2 times.