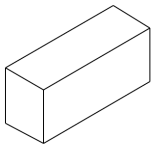
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

CF1009
LTCC Filter

4700 MHz
Used for 5G N79



2.0 x 1.25 mm

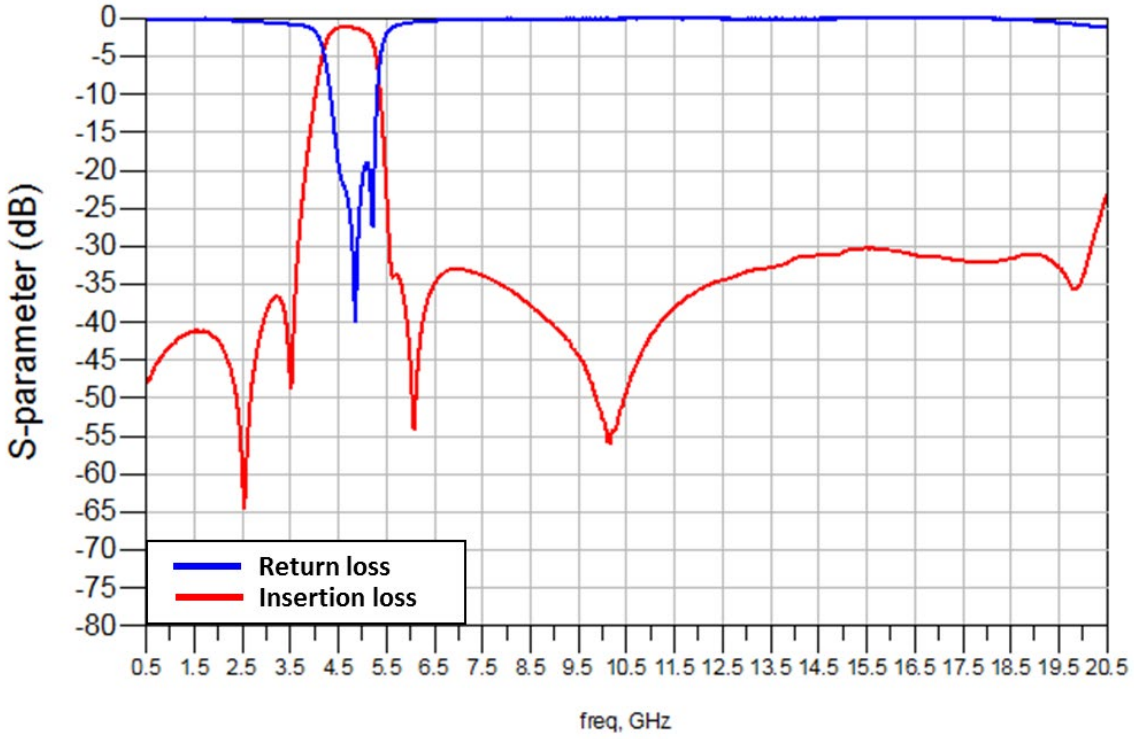
Absolute Maximum Ratings

Rating	Value	Units
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +85	°C
Impedance (Unbalanced)	50	Ohm
Power Capacity	3 W Max.	
Moisture Sensitivity Level 1 (Refer to IPC/JEDEC J-STD-020)		
HBM ESD: Pass 1KV on all pins (Based on AEC-Q200 -002)		
MM ESD: Pass 200V (Based on EIA/JESD22-A115)		

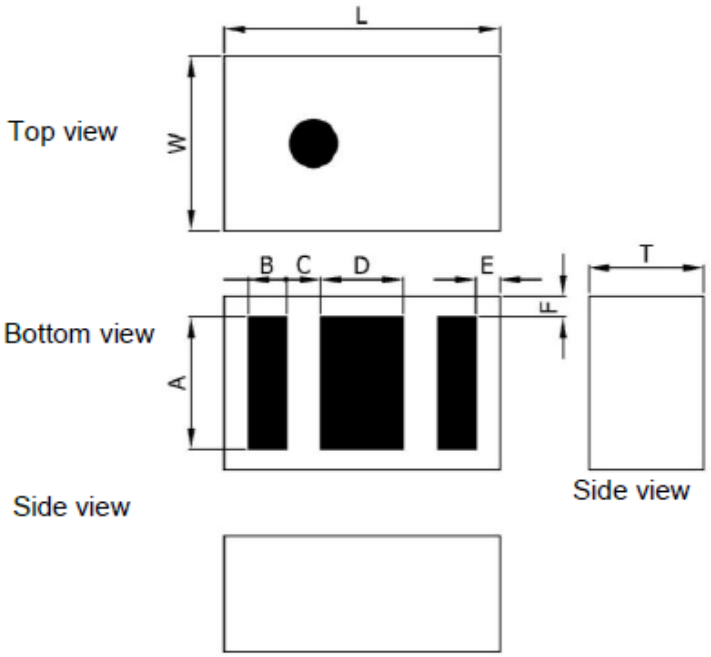
Electrical Characteristics

Item	Specifications
Frequency range	4400 ~ 5000 MHz
Insertion Loss (at 25°C)	2.00 dB max. @4400 ~ 4600 MHz 1.60 dB max. @4600 ~ 4800 MHz 1.80 dB max. @4800 ~ 5000 MHz
Insertion Loss (at -40 ~ +85°C)	2.30 dB max. @4400 ~ 4600 MHz 1.80 dB max. @4600 ~ 4800 MHz 2.30 dB max. @4800 ~ 5000 MHz
Attenuation	37 dB Min. @ 450 ~ 2200 MHz 37 dB Min. @ 2300 ~ 2483 MHz 33 dB Min. @ 2496 ~ 2690 MHz 15 dB Min. @ 5490 ~ 5670 MHz 25 dB Min. @ 5670 ~ 5950 MHz 25 dB Min. @ 6200 ~ 8000 MHz 25 dB Min. @ 8800 ~ 10000 MHz 15 dB Min. @ 13200 ~ 15000 MHz 15 dB Min. @ 17600 ~ 20000 MHz
VSWR	2.0 Max.
Characteristics Impedance	50Ω

Frequency Characteristics

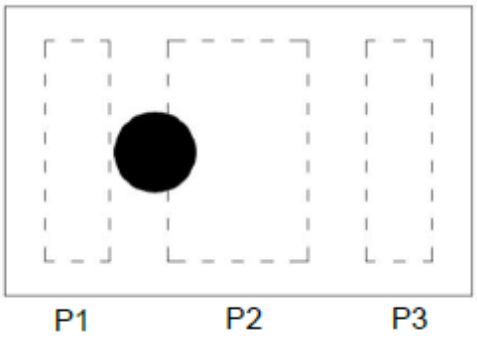


Outline Drawing

Figure	Symbol	Dimension (mm)
	L	2.00 ± 0.15
	W	1.25 ± 0.15
	T	0.70 max.
	A	0.95 ± 0.10
	B	0.275 ± 0.10
	C	0.25 ± 0.10
	D	0.60 ± 0.10
	E	0.175 ± 0.10
	F	0.15 ± 0.10

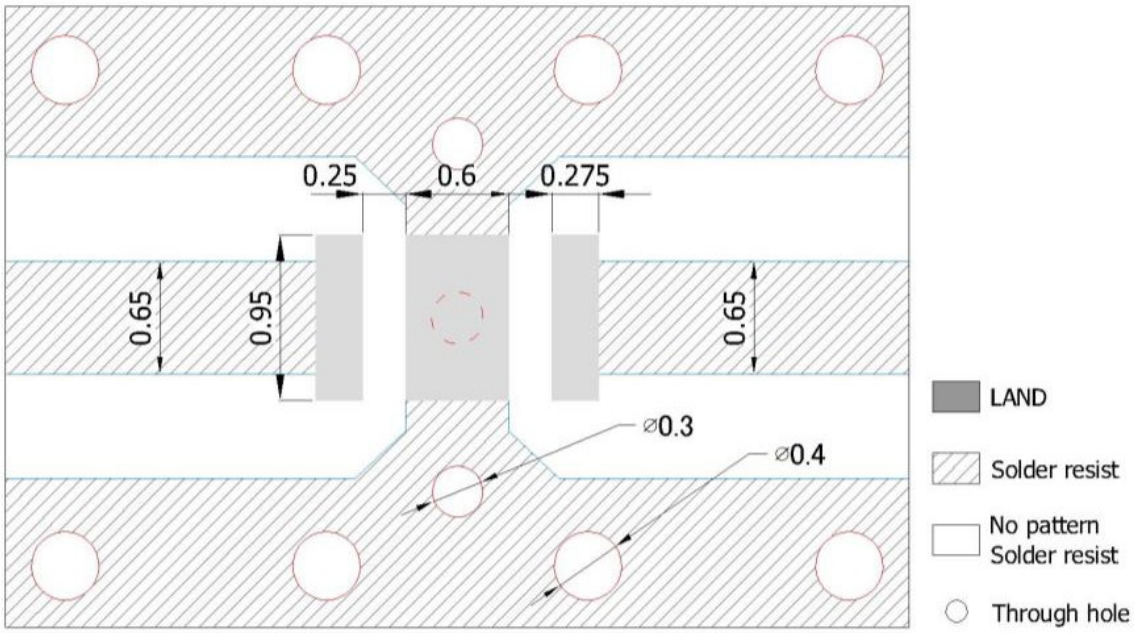
Construction

Top view



PIN	Connection
1	Input
2	GND
3	Output

PCB Footprint



Unit: mm

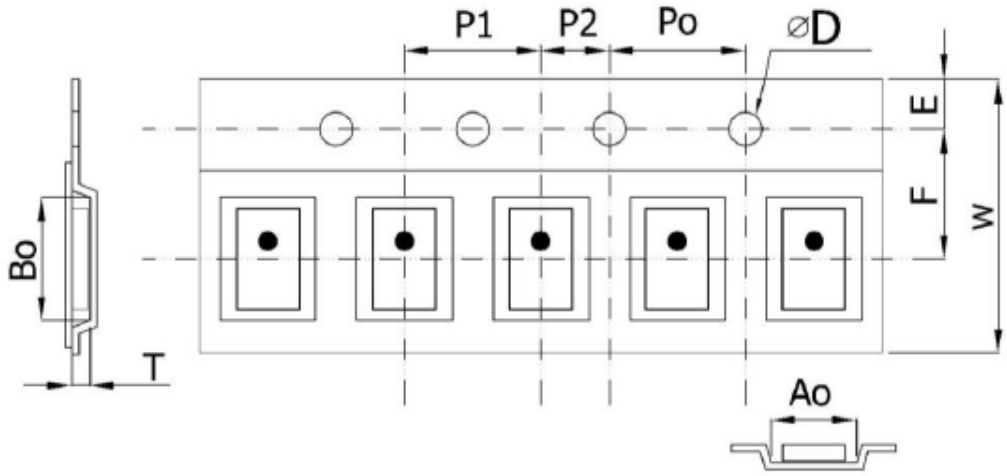
Line width to be designed to match 50Ω characteristic impedance ,depending on PCB material and thickness.

Packing

ORDERING CODE

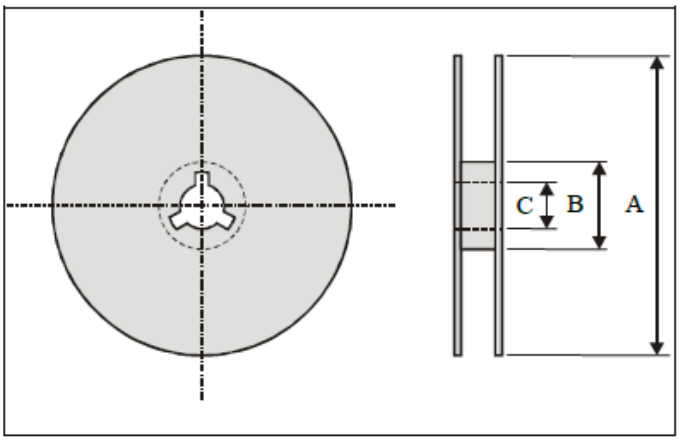
RF	BPF	2012	4G7	W	3	T
Walsin RF device	**Product Code** BPF : Band Pass Filter	**Dimension code** Per 2 digits of Length, Width, e.g. : 2012= Length 2.0 mm, Width 1.2 mm,	**Central Frequency** 4G7 : 4.7 GHz	**Application** W: Wi-Max	**Specification** Design code	**Packing** T : Reeled

Minimum Ordering Quantity: 2000 pcs per reel.



Plastic Tape specifications (unit :mm)

Index	Ao	Bo	ΦD	T	W
Dimension (mm)	1.40 ± 0.10	2.25 ± 0.10	1.55 ± 0.05	0.75 ± 0.10	8.00 ± 0.10
Index	E	F	Po	P1	P2
Dimension (mm)	1.75± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05



Index	A	B	C
Dimension (mm)	Φ178.0	Φ60.0	Φ13.0

Taping Quantity:2000 pieces per 7" reel

Recommended Reflow Profile

1. Preheating shall be fixed at 150~180℃ for 60~90 seconds.
2. Ascending time to preheating temperature 150℃ shall be 30 seconds min.
3. Heating shall be fixed at 220℃ for 50~80 seconds and at 260℃+0/-5℃ peak (20~40sec).
4. Time: 2 times.