

Application

- RF filter for WLL (Wireless Local Loop)

Features

- SMD filter consisting of coupled resonators with stepped impedances
- $\text{MgTiO}_3\text{-CaTiO}_3$ ($\epsilon_r = 21$ / $TC_f = 0 \pm 10$ ppm/K) with a coating of copper ($10\mu\text{m}$) and tin ($>5\mu\text{m}$)
- Excellent reflow solderability, no migration effect due to copper/tin metallization
- ESD insensitivity and ESD protecting due to filter characteristics

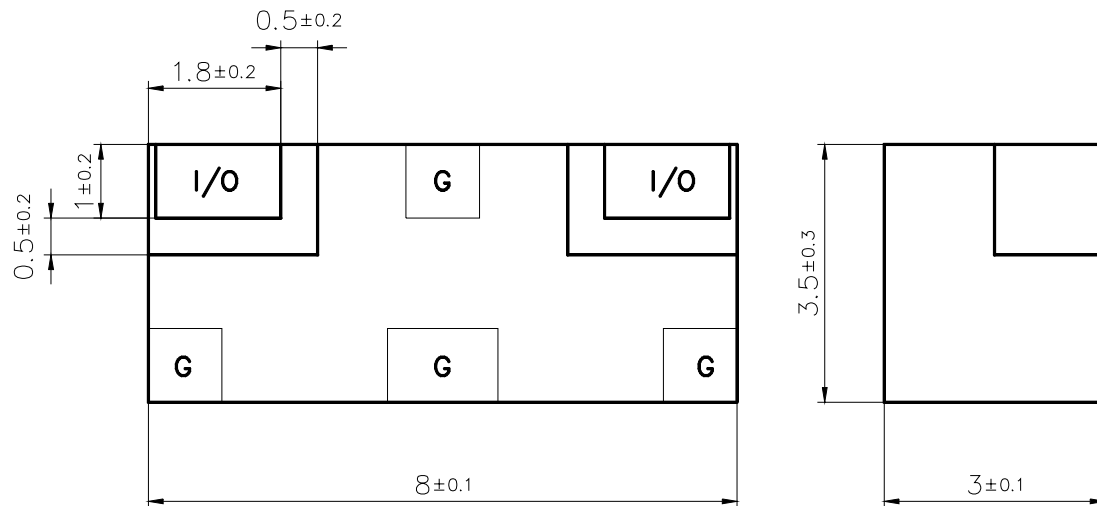
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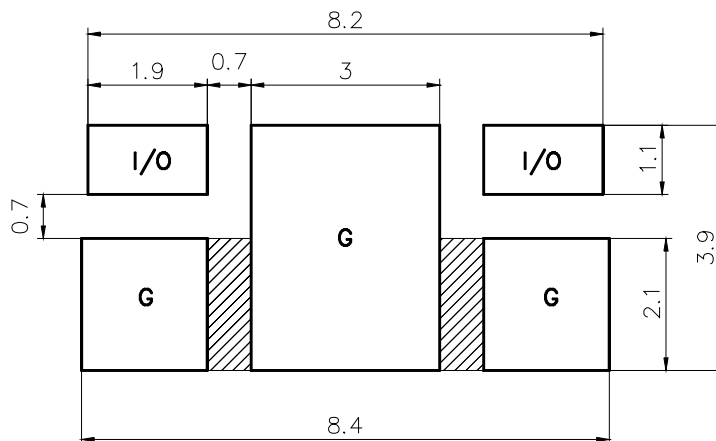
Data Sheet



Component drawing



View from below onto the solder terminals and view from beside

Recommended Footprint



-  solder pads
-  ground area below solder resist with vias to second ground layer
- I/O** connected to lines with an impedance of 50 Ohm
- Standard condition** FR4 material
permittivity : 4.4
preferred thickness : 0.3
Vias: Ø0.3mm / mm²
For other thickness correlation might be necessary

Data Sheet

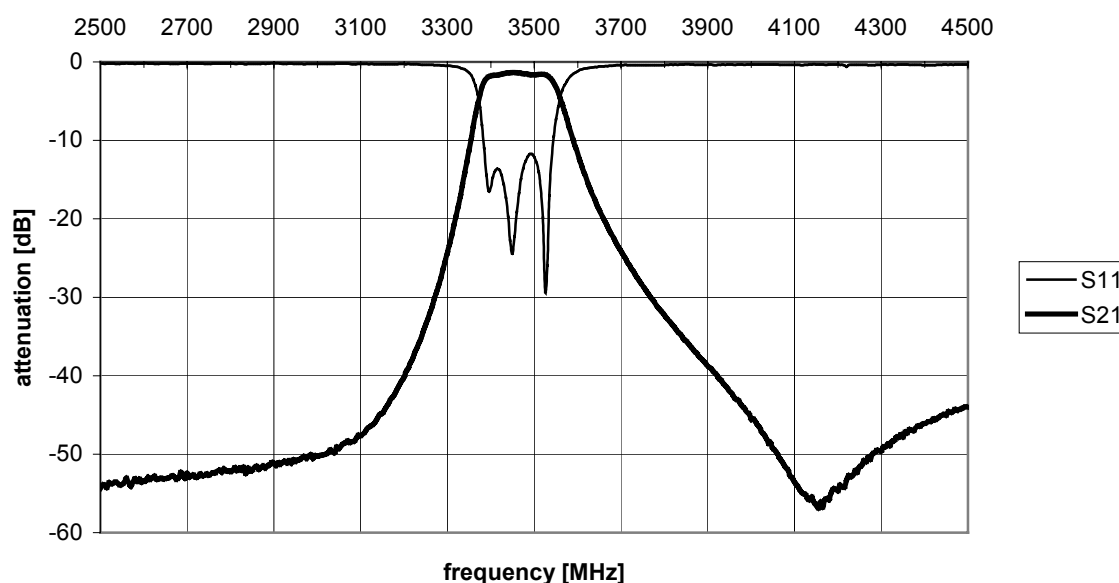
Characteristics

		min.	typ.	max.	
Center frequency	f_C	-	3450.0	-	MHz
Insertion loss	α_{IL}		1.6	2.0	dB
Passband	B	120			MHz
Amplitude ripple (peak - peak) at any 10MHz BW	$\Delta\alpha$			0.4	dB
Standing wave ratio	SWR		1.5	2.0	
Impedance	Z		50		Ω
Power	P			1.0	W
Attenuation	α				
	at 2944 to 3044 MHz	45	51		dB
	at 3800 to 4200 MHz	20	29		dB

Maximum ratings

IEC climatic category (IEC 68-1)		- 40/+ 90/56	
Operating temperature	T_{Op}	-40 / + 85	°C

Typical passband characteristic

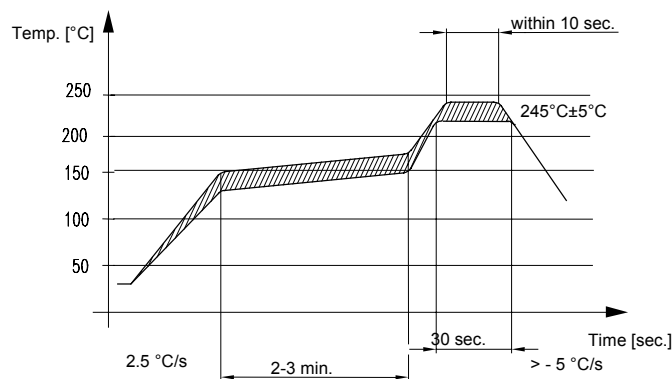
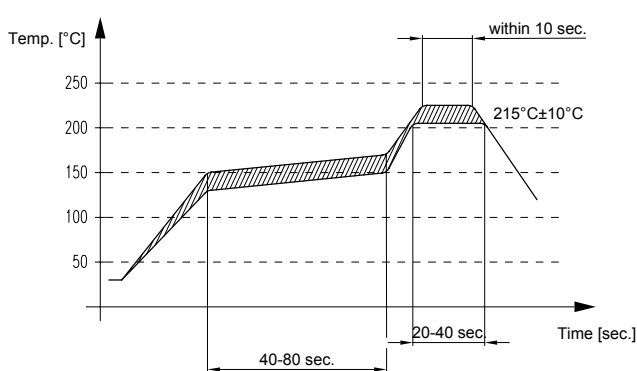


Data Sheet
Processing information

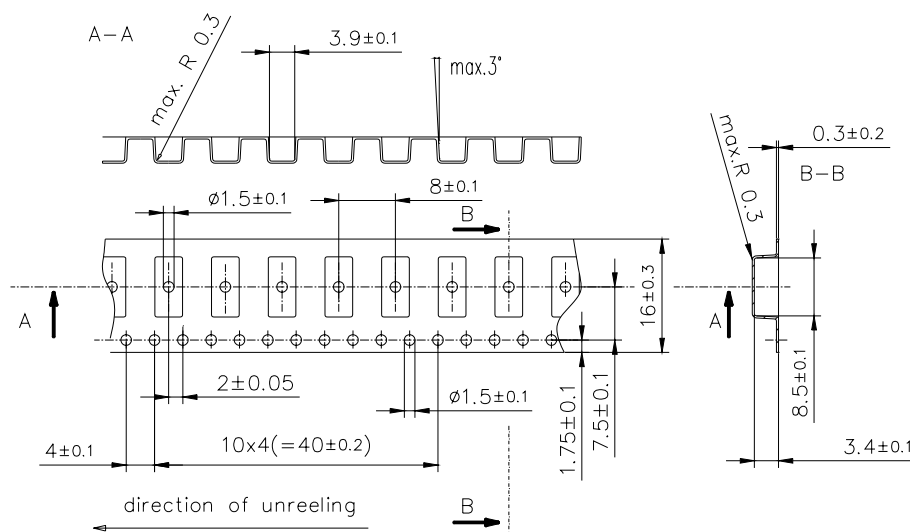
- Wettability to IEC 68-2-58: $\geq 75\%$ (after aging)

Soldering Requirements

	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	$^{\circ}\text{C}$ $^{\circ}\text{C}$

Recommended soldering conditions (infrared):

Delivery mode

- Blister tape acc. to IEC 286-3, PS, grey
- Pieces/tape: 2000



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