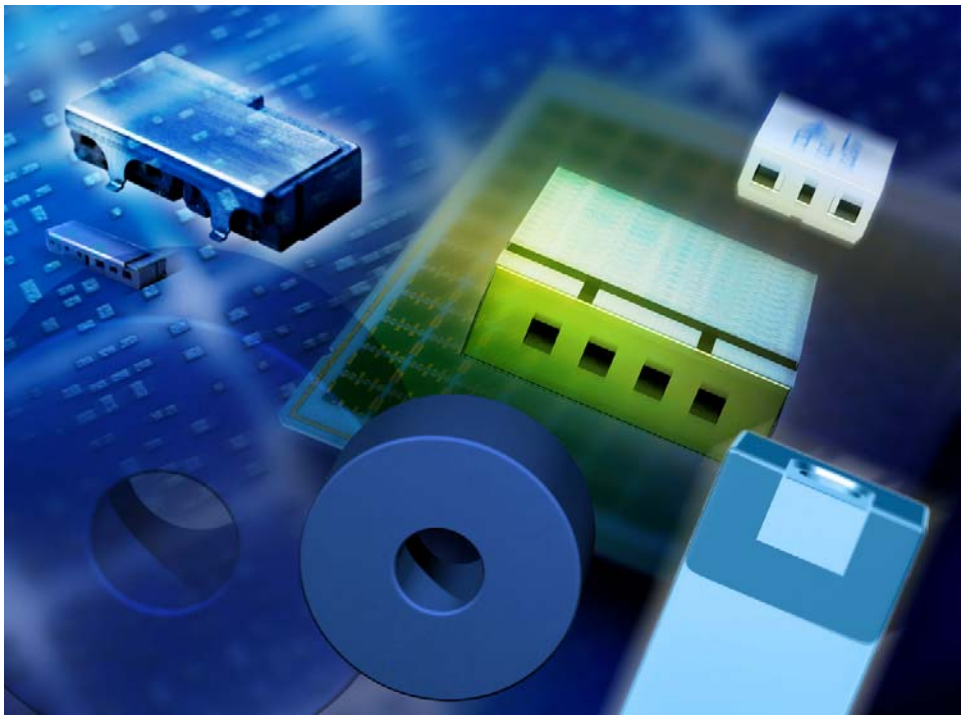
3-Pole Filter for WLL Base Station RX Filter

B69843N3557A120

Data Sheet



Application

- RF filter for WLL (Wireless Local Loop)

Features

- SMD filter consisting of coupled resonators with stepped impedances
- $MgTiO_3$-$CaTiO_3$ (ε_r = 21 / TC_f =0±10 ppm/K) with a coating of copper (10µm) and tin (>5µm)
- Excellent reflow solderability, no migration effect due to copper/tin metallization
- ESD insensitivity and ESD protecting due to filter characteristics

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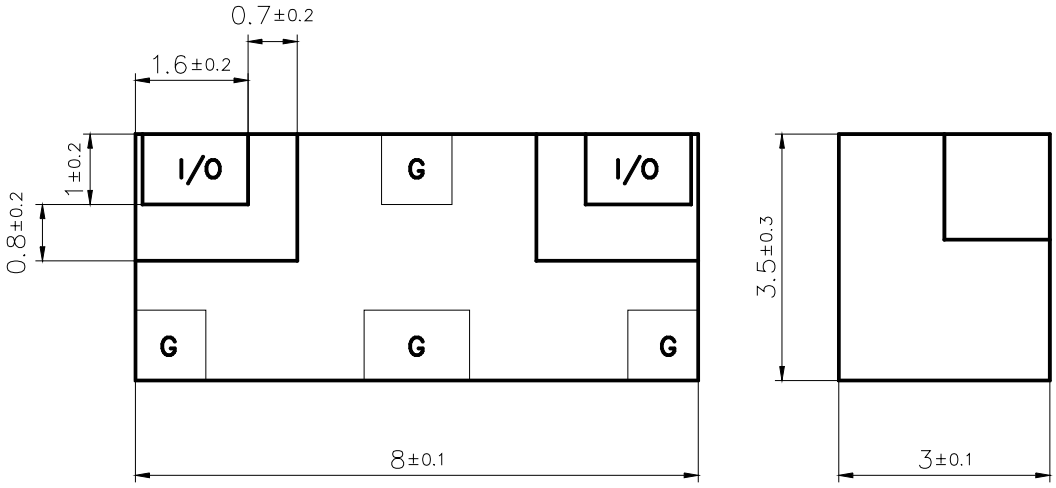
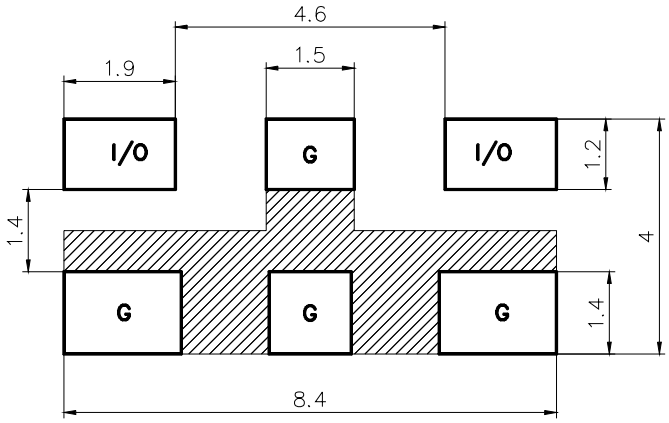
Component drawing



View from below onto the solder terminals and view from beside

Recommended Footprint



solder pads

I/O connected to lines with an impedance of 50 Ohm

Standard condition

FR4 material
permitivity : 4.4
preferred thickness : 0.3
Vias: Ø0.3mm / mm²
For other thickness
correlation might be necessary

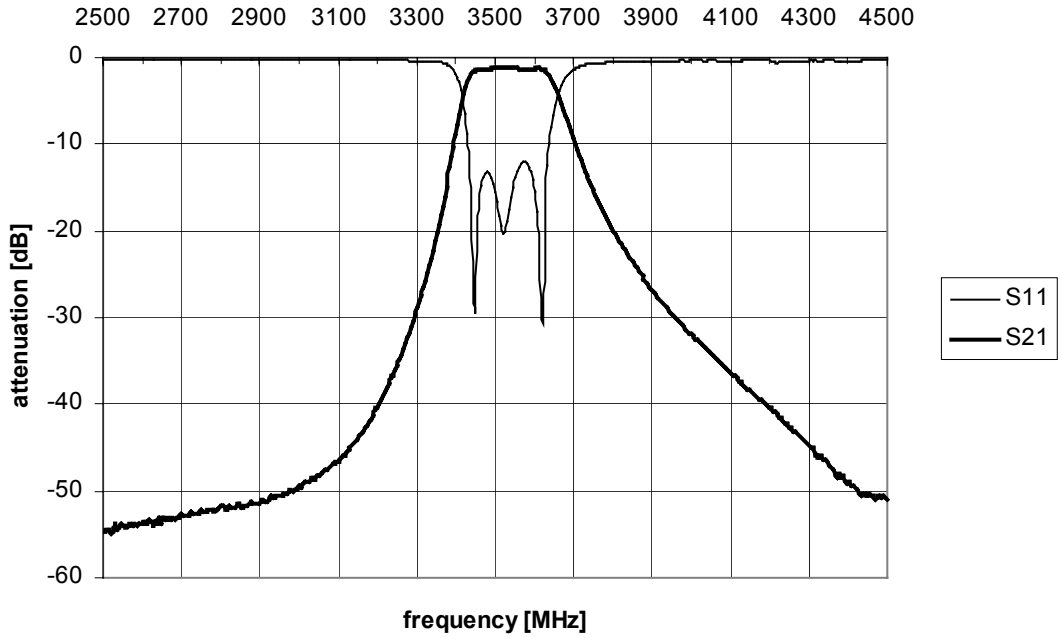
Characteristics

		min.	typ.	max.	
Center frequency	f_c	-	3550.0	-	MHz
Insertion loss	α_{IL}		0.9	1.2	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 2588 to 2688 MHz		45	48		dB
at 3900 to 4200 MHz		20	26		dB

Maximum ratings

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

Typical passband characteristic



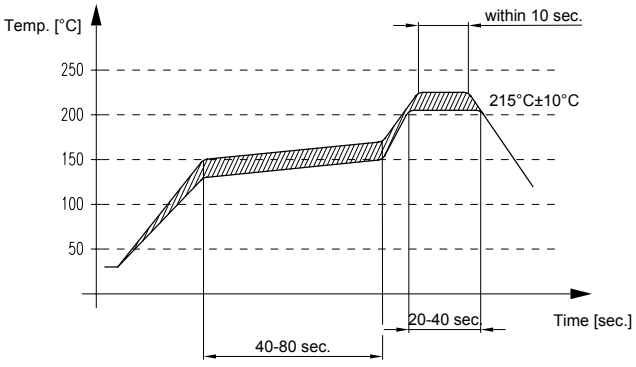
Processing information

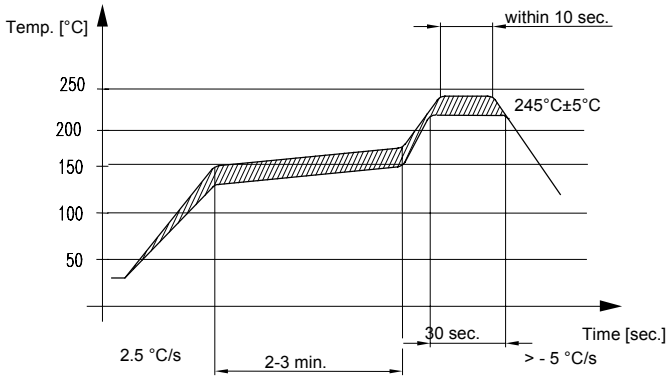
- Wettability to IEC 68-2-58: ≥ 75% (after aging)

Soldering Requirements

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

Recommended soldering conditions (infrared):





Delivery mode

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