



Microwave Ceramics Filter

3-pole filter for WLL base station RX filter

Series/Type:	S3B3/1/6
Ordering code:	B69843N4007A100
Date:	2010-02-10
Version:	P2

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Preliminary data sheet

Modification

P1		18.11.04	Freising
P2	Upgraded to new form	25.01.10	Reichel

Application

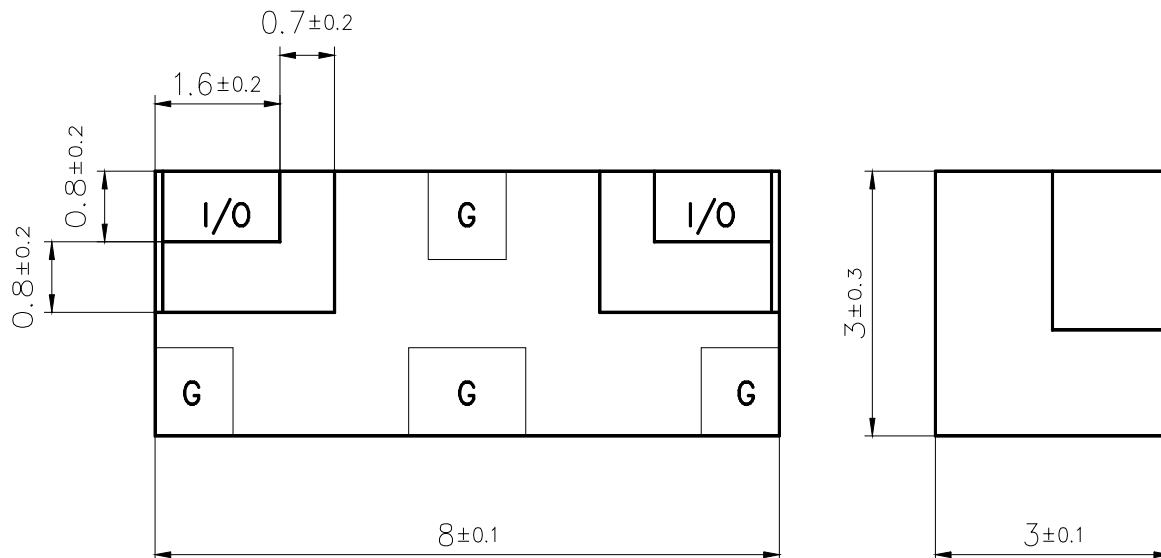
- RF filter for WLL (Wireless Local Loop)

Features

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

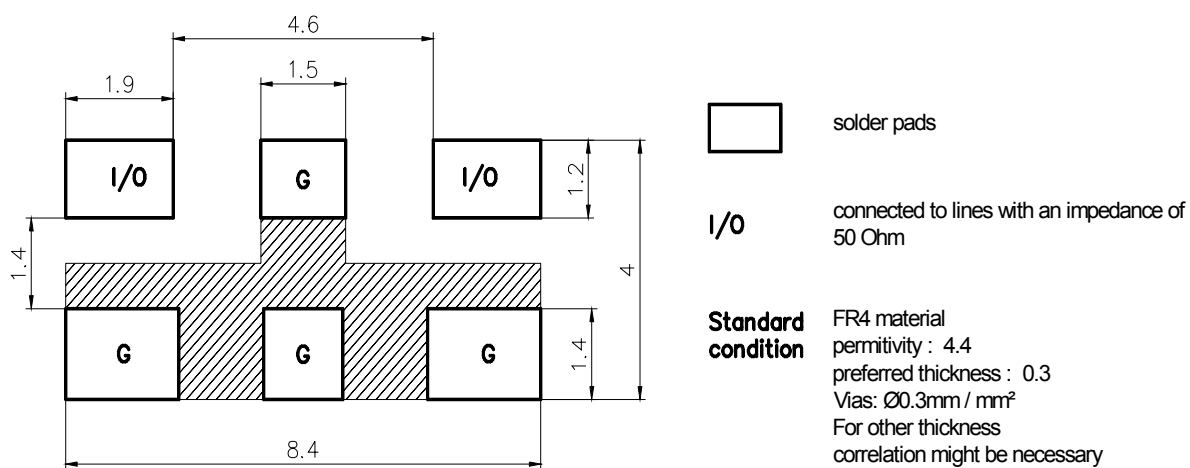
Preliminary data sheet

Component drawing



View from below onto the solder terminals and view from beside
 Marking: 'EPCOS logo '4007'', on top of the filter

Recommended footprint

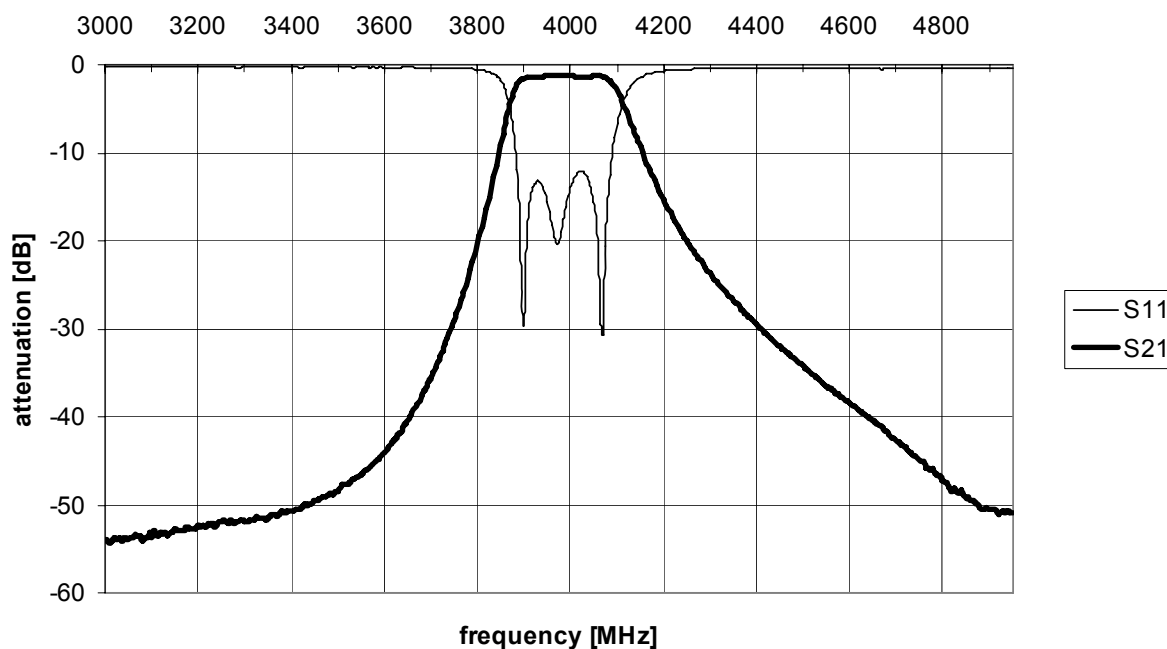


Preliminary data sheet
Characteristics

		min.	typ.	max.	
Center frequency	f_c	–	4000.0	–	MHz
Insertion loss	α_{IL}		1.1	1.6	dB
Passband	B	100			MHz
Amplitude ripple (peak – peak) at any 10 MHz 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				
	2500 MHz	50			dB
	6000 MHz	25			dB

Maximum ratings

IEC climatic category (IEC 68-1)		–55 °C/+85 °C/	°C
Operating temperature	T_{Op}	–55/+85	°C

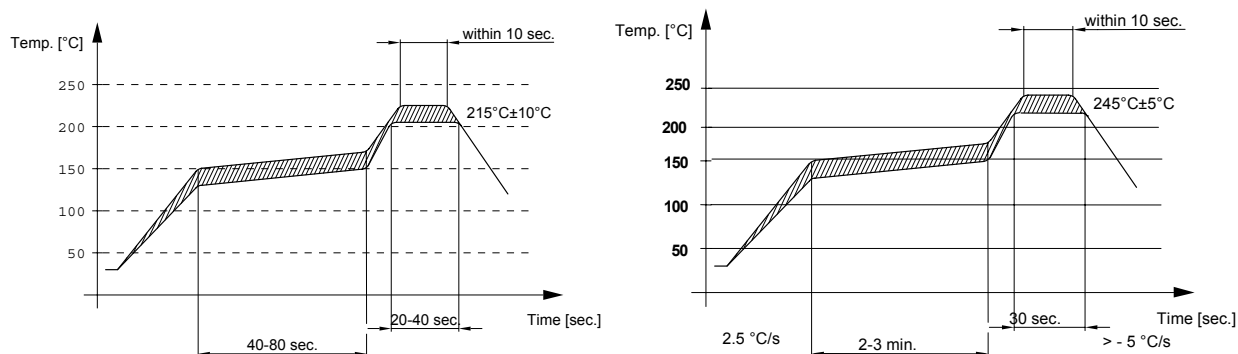
Typical passband characteristic


Preliminary data sheet
Processing information

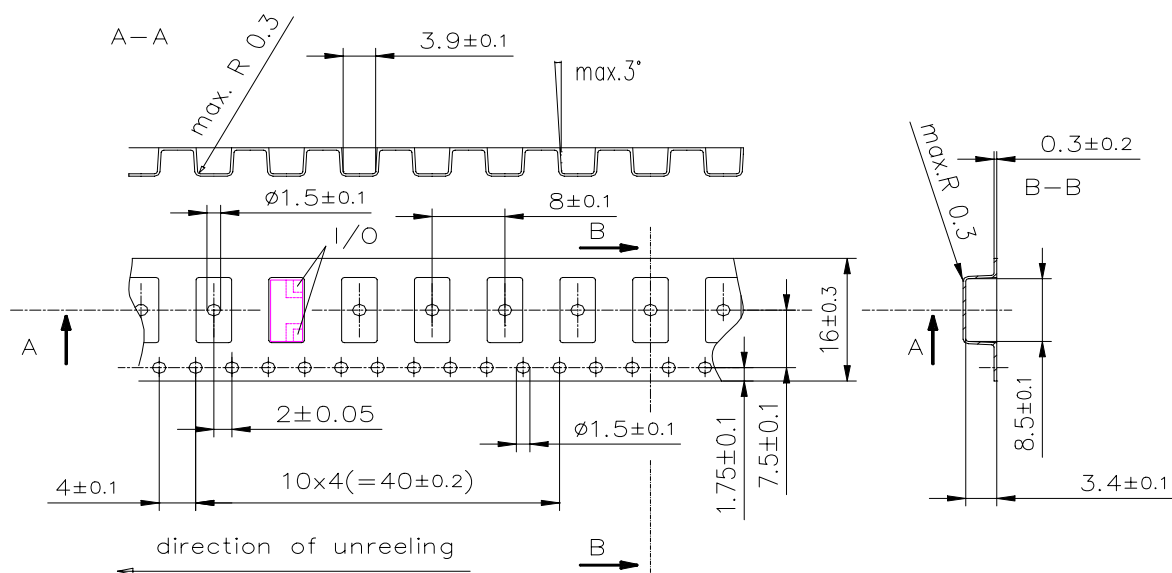
- Wettability acc. to IEC 68-2-58: $\geq 75\%$ (after aging)

Soldering requirements

	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature	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



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