



## Microwave Ceramics Filter

3-pole filter for WLL base station TX filter

<b>Series/Type:</b>	<b>S3B3/1/8</b>
<b>Ordering code:</b>	<b>B69843N3527A270</b>
Date:	2010-02-09
Version:	P2

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Preliminary data sheet

**Modification**

P1		07.11.05	Reichel
P2	Upgraded to new form	09.02.10	Reichel

**Application**

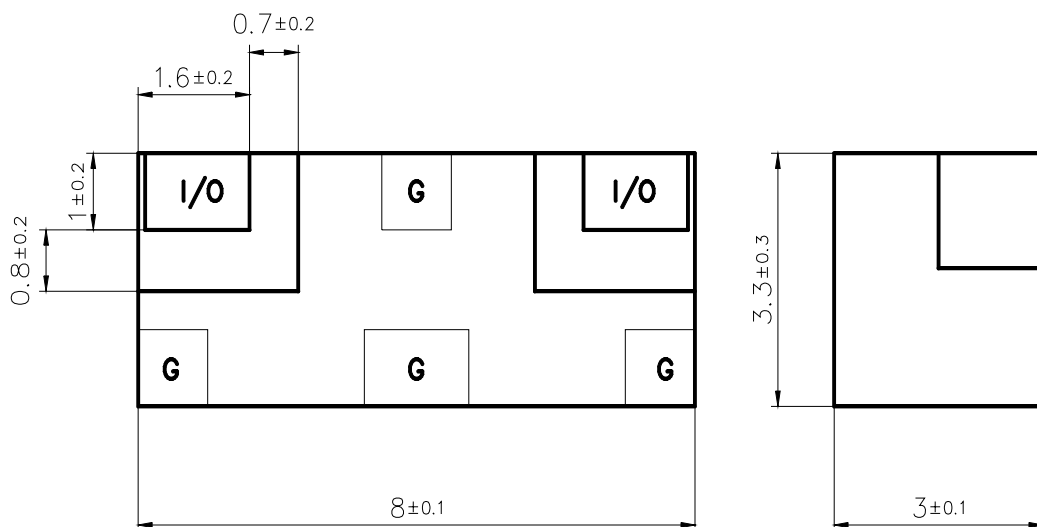
- RF filter for WLL (Wireless Local Loop)

**Features**

- SMD filter consisting of coupled resonators with stepped impedances
- $\text{MgTiO}_3\text{-CaTiO}_3$  ( $\epsilon_r = 21/\text{TC}_f = 0 \pm 10 \text{ ppm/K}$ ) 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

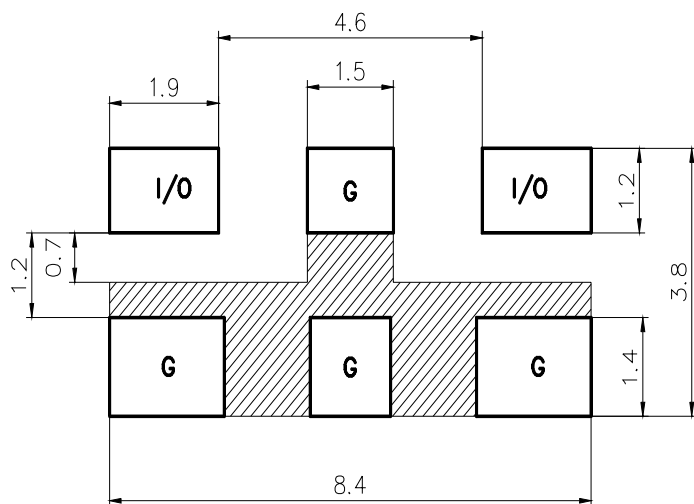
Preliminary data sheet



Component drawing



View from below onto the solder terminals and view from beside  
 Marking: 'EPCOS logo '3527'', on top of the filter

Recommended footprint



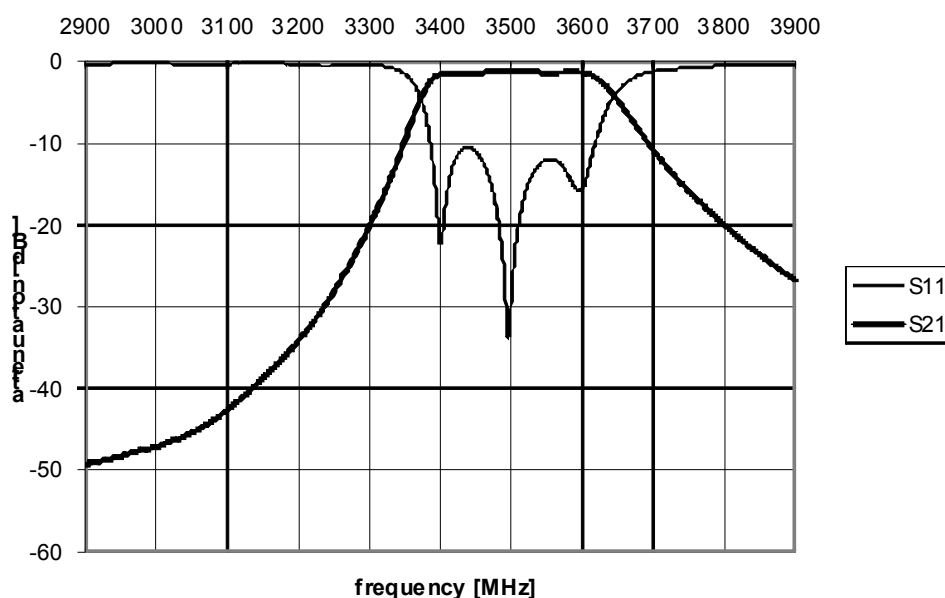
-  solder pads
-  ground area below solder resist with vias to second ground layer
- I/O** connected to lines with an impedance of 50 Ohm
- Standard condition** FR4 material  
 permittivity: 4.4  
 preferred thickness: 0.3  
 Vias: Ø0.3mm / mm<sup>2</sup>  
 For other thickness correlation might be necessary

**Preliminary data sheet**
**Characteristics**

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
Center frequency	$f_c$	–	3525.0	–	MHz
Insertion loss	$\alpha_{IL}$		1.1	1.4	dB
Passband	B	270			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		$\Omega$
Power	P			1.0	W
Attenuation	$\alpha$				
	at 2588 to 2738 MHz	46	48		dB
	at 2944 to 3119 MHz	32	35		dB
	at 3856 to 4031 MHz	17	19		dB
	at 6800 to 7150 MHz	t.b.d*			dB

**Maximum ratings**

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

**Typical passband characteristic**




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