



## Microwave Ceramics Filter

3-pole filter for WLL base station RX filter

<b>Series/Type:</b>	<b>S3B3/1/9</b>
<b>Ordering code:</b>	<b>B69843N3557B120</b>
Date:	2010-02-09
Version:	P2

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Preliminary data sheet

**Modification**

P1	Created from F4030	25.11.04	Freising
P2	Upgraded to new form	09.02.10	Reichel

**Application**

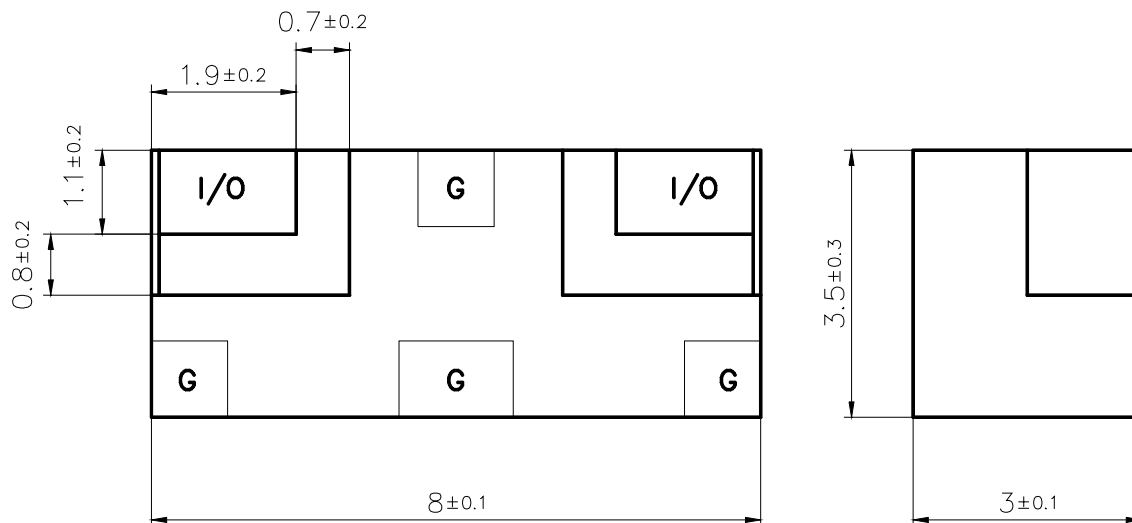
- RF filter for WLL (Wireless Local Loop)

**Features**

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

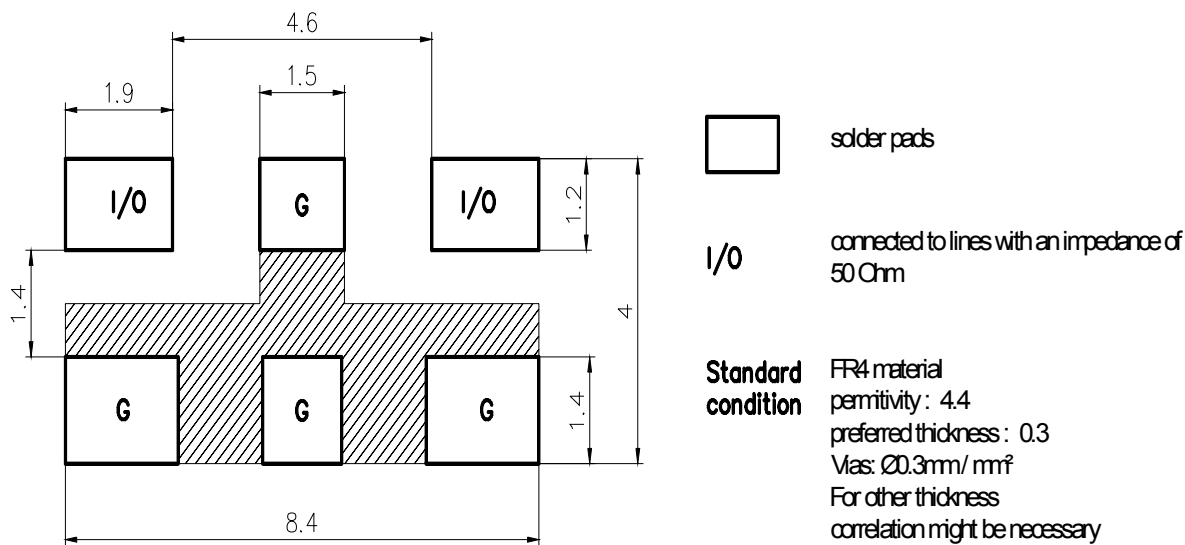
Preliminary data sheet

Component drawing



View from below onto the solder terminals and view from beside  
 Marking: 'EPCOS logo '3557'', on top of the filter

Recommended footprint

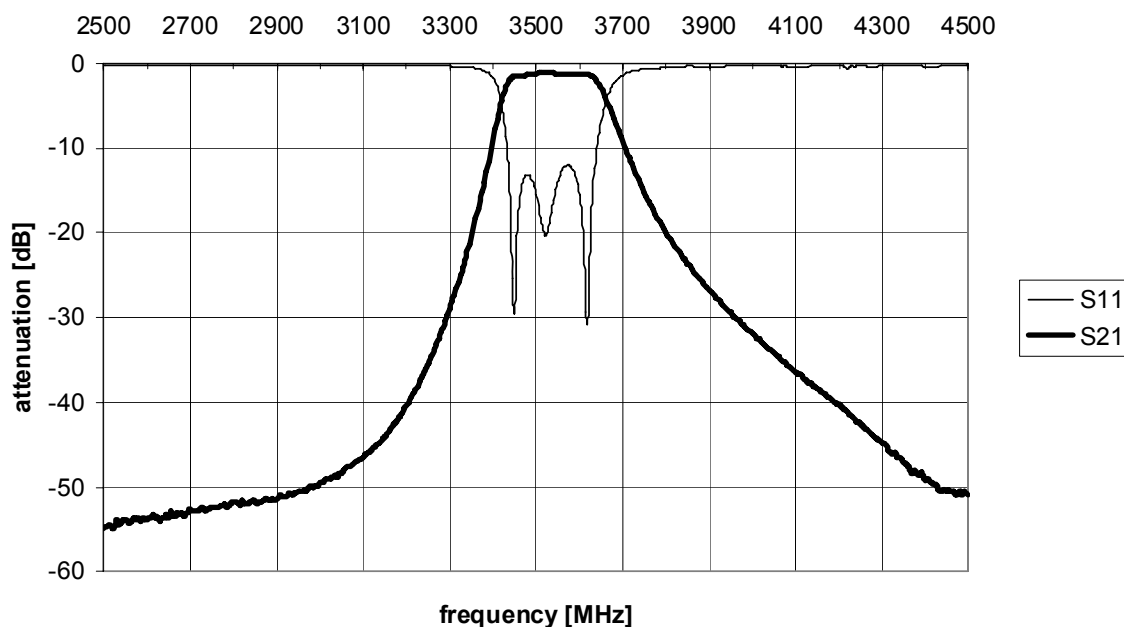


**Preliminary data sheet**
**Characteristics**

		min.	typ.	max.	
Center frequency	$f_c$	–	3550.0	–	MHz
Insertion loss	$\alpha_{IL}$		0.75	0.9	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		$\Omega$
Power	P			1.0	W
Attenuation	$\alpha$	at 2588 to 2688 MHz	45	47	dB
		at 3900 to 4200 MHz	18		dB

**Maximum ratings**

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

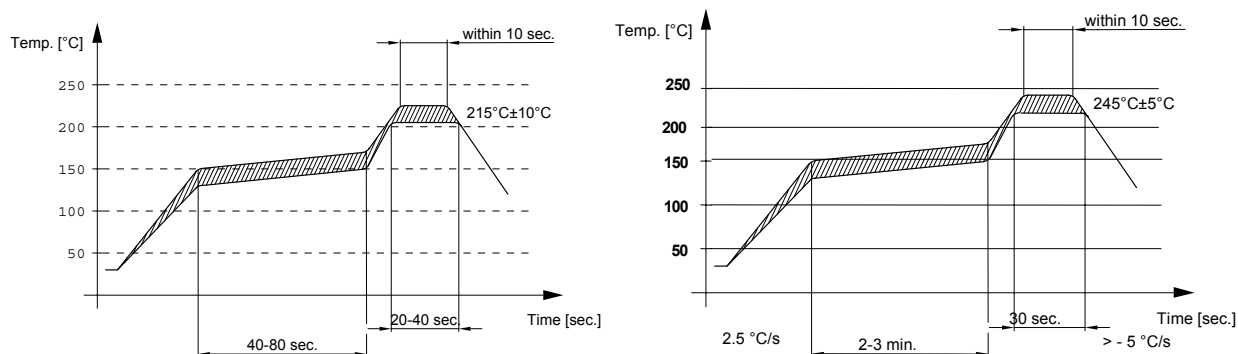
**Typical passband characteristic**


**Preliminary data sheet**
**Processing information**

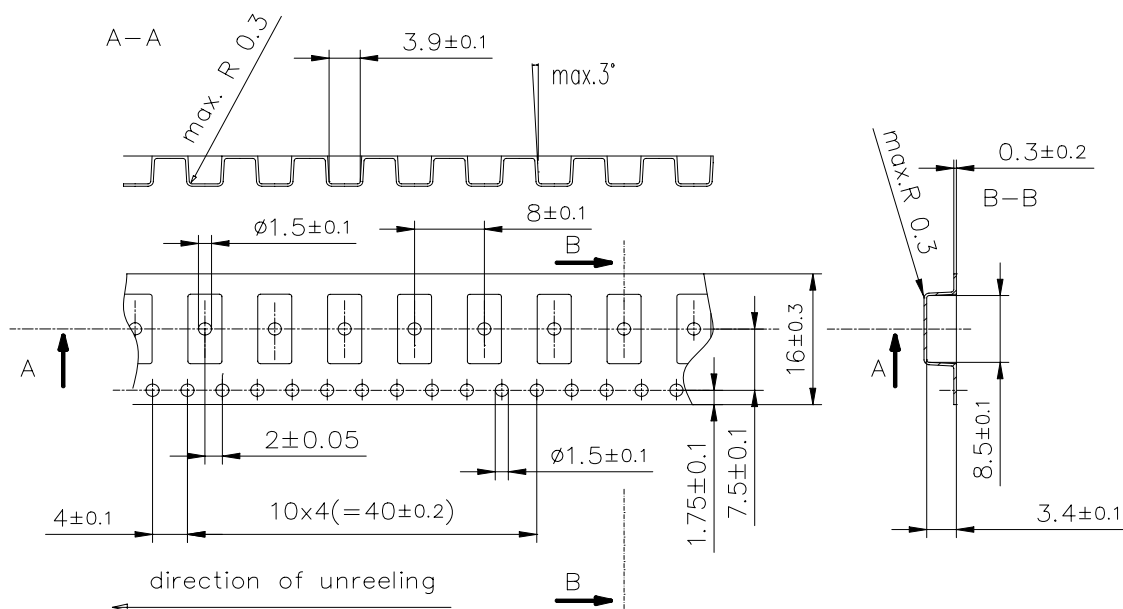
- Wettability acc. to IEC 68-2-58:  $\geq 75\%$  (after aging)

**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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