



# SAW filters for infrastructure systems

## Series/Type: B3849

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39361B3849U310	B39361B5215H810	2009-09-25	2009-12-31	2010-03-31

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SAW Components

B3849

Low-Loss Filter

357,1 MHz

Data Sheet

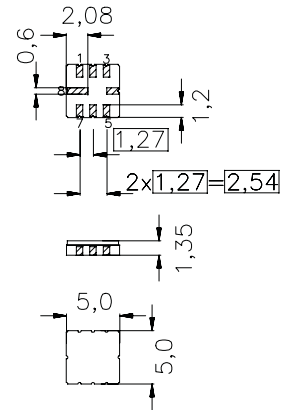
Ceramic package QCC8C

**Features**

- Low-loss IF filter for UMTS base stations
- 20 MHz usable bandwidth
- Constant group delay
- Ceramic SMD package

**Terminals**

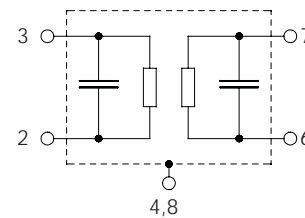
- Gold plated



Dimensions in mm, approx. weight 0,1 g

**Pin configuration**

- |      |                |
|------|----------------|
| 3    | Input          |
| 2    | Input ground   |
| 7    | Output         |
| 6    | Output ground  |
| 4, 8 | Case ground    |
| 1, 5 | To be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B3849	B39361-B3849-U310	C61157-A7-A56	F61074-V8169-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	-40 / +85	°C	
Storage temperature range	$T_{stg}$	-40 / +85	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_s$	10	dBm	


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**Low-Loss Filter**
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**Characteristics**

Operating temperature range:  $T = -35 \dots 85 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$  and matching network  
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$  and matching network  
 Group delay aperture: 200 kHz

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	357,1	—	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	9,7	11,0	dB
<b>Amplitude ripple (p-p)</b> 347,1 ... 367,1 MHz	$\Delta\alpha$	—	0,6	1,0	dB
<b>Pass bandwidth</b> $\alpha_{\text{rel}} \leq 1,0 \text{ dB}$	$B_{1,0\text{dB}}$	—	32	—	MHz
<b>Relative attenuation (relative to <math>\alpha_{\min}</math>)</b> 1,0 ... 332,1 MHz	$\alpha_{\text{rel}}$	35	50	—	dB
382,1 ... 1000,0 MHz		35	42	—	dB
<b>Group delay ripple (p-p)</b> 347,1 ... 367,1 MHz	$\Delta\tau$	—	25	70	ns
<b>Absolute group delay</b>	$\tau$	—	0,5	0,6	$\mu\text{s}$
<b>1 dB compression</b> 347,1 ... 367,1 MHz		12	—	—	dBm
<b>Input IP3</b> 347,1 ... 367,1 MHz		32	—	—	dBm
<b>Temperature coefficient of frequency</b>	$TC_f$	—	- 87	—	ppm/K



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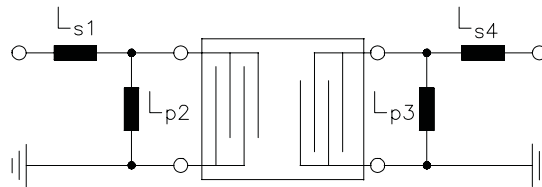
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**Matching network** (element values may depend on pcb layout)

**50  $\Omega$  unbalanced:**



$$L_{s1} = 47 \text{ nH}$$

$$L_{p2} = 47 \text{ nH}$$

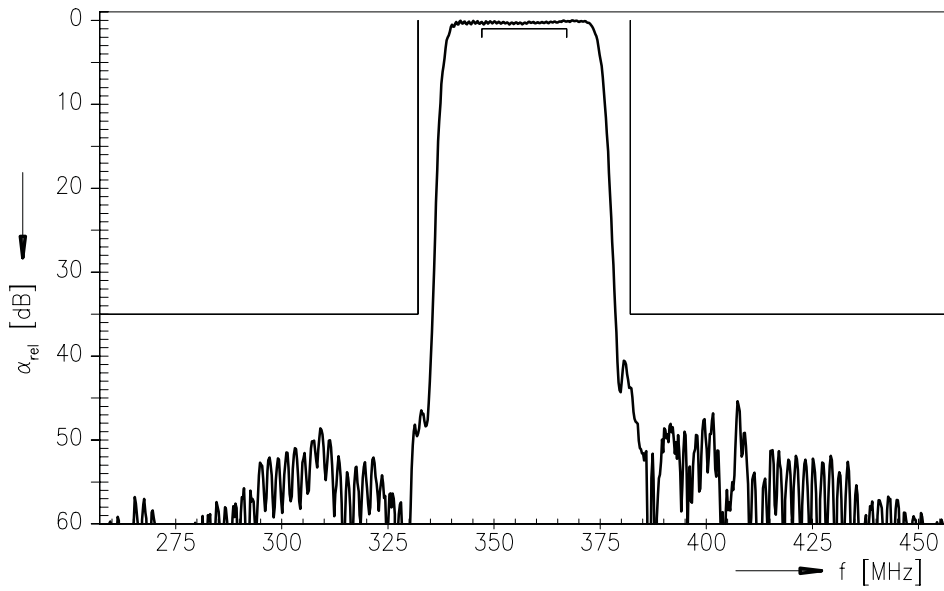
$$L_{p3} = 39 \text{ nH}$$

$$L_{s4} = 39 \text{ nH}$$

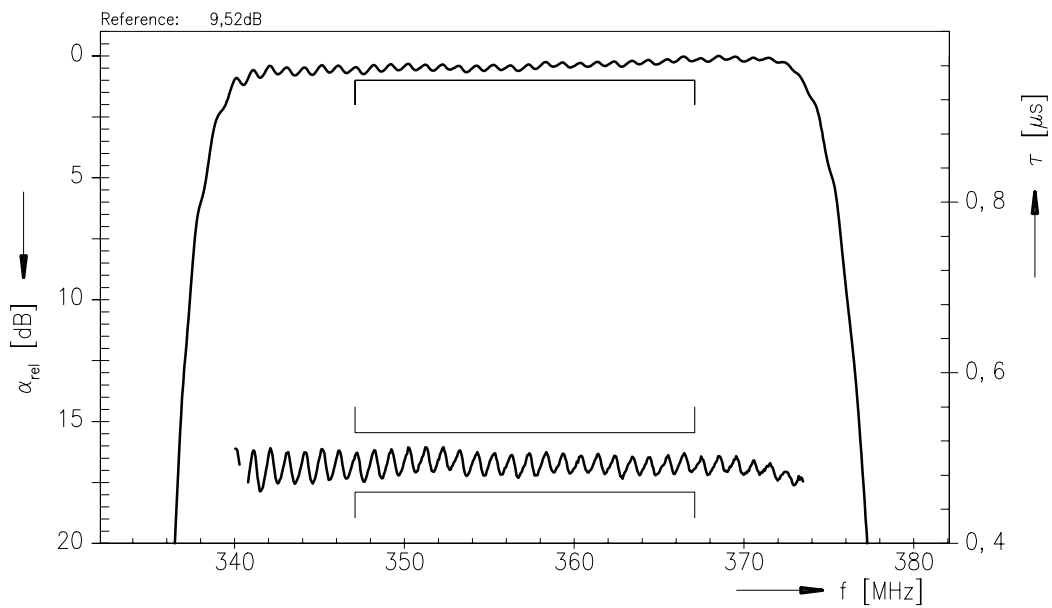


Data Sheet

Normalized frequency response



Normalized frequency response (pass band)





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**Low-Loss Filter**

**357,1 MHz**

Data Sheet

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