



SAW Components

Data Sheet B4943





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Low-Loss Filter for Mobile Communication

85,38 MHz

Data Sheet



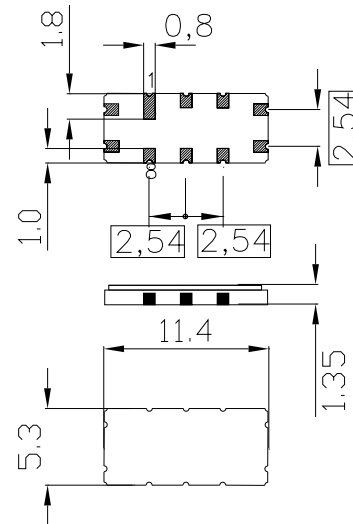
Features

- IF filter for mobile telephone
- Channel selection in CDMA systems
- Balanced or unbalanced operation possible
- High rejection, small size
- Low amplitude ripple
- Filter surface passivated
- Package for **Surface Mounted Technology (SMT)**

Terminals

- Ni, gold plated

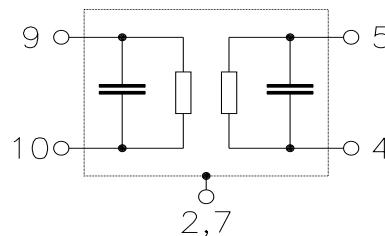
SMD ceramic package **QCC10C**



Dimensions in mm, approx. weight 0,24 g

Pin configuration

- 10 Input
- 9 Balanced input or input ground
- 5 Output
- 4 Balanced output or output ground
- 2, 7 Case ground
- 1, 3, 6, 8 Not connected



Type	Ordering code	Marking and Package according to	Packing according to
B4943	B39850-B4943-U910	C61157-A7-A73	F61074-V8105-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}	13	V	
Source power	P_s	10	dBm	



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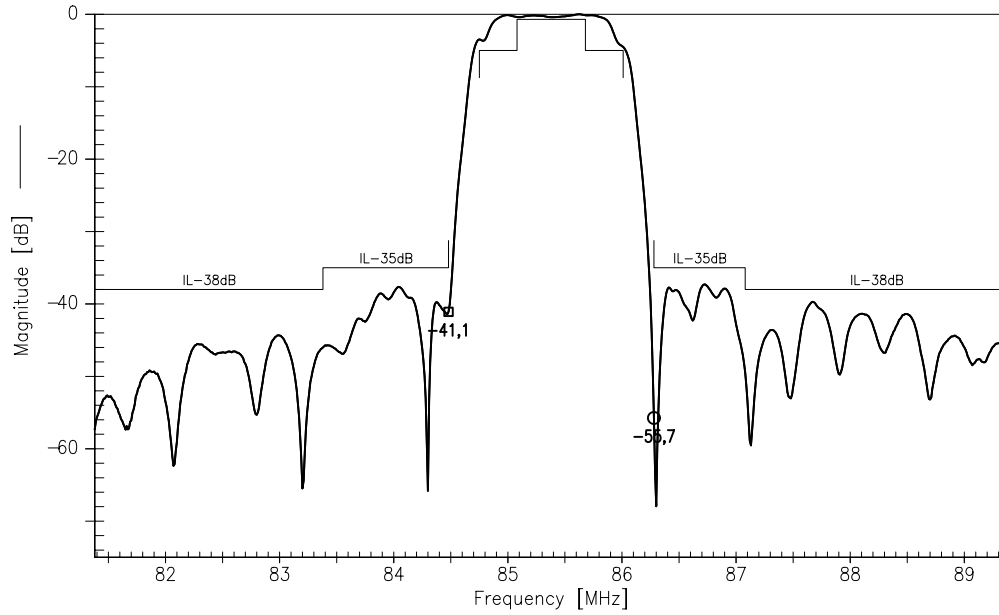
Characteristics

Operating temperature range: $T = -35^{\circ}\text{C} \dots +85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 1975 \Omega \parallel 340 \text{ nH}$
 Terminating load impedance: $Z_L = 1600 \Omega \parallel 350 \text{ nH}$

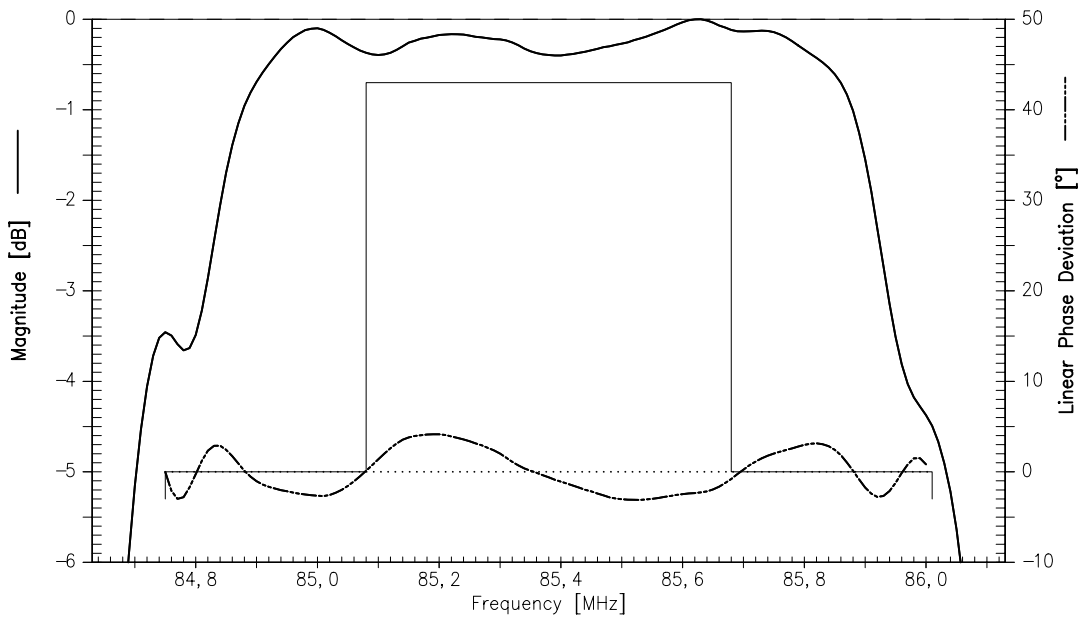
		min.	typ.	max.	
Nominal frequency	f_N	—	85,38	—	MHz
Minimum insertion attenuation (including loss in matching network without loss in balun)	α_{\min}	—	10,0	11,5	dB
Amplitude ripple	$\Delta\alpha$				
$f_N - 0,3 \text{ MHz} \dots f_N + 0,3 \text{ MHz}$		—	0,5	0,8	dB
Phase linearity (rms deviation)					
$f_N - 0,63 \text{ MHz} \dots f_N + 0,63 \text{ MHz}$		—	2,5	3,5	°
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N \pm 0,63 \text{ MHz}$		—	4,0	5,0	dB
$f_N - 0,9 \text{ MHz}$		35	41	—	dB
$f_N + 0,9 \text{ MHz}$		35	55	—	dB
$f_N - 1,7 \text{ MHz}$		35	39	—	dB
$f_N + 1,7 \text{ MHz}$		38	44	—	dB
$f_N - 9,0 \text{ MHz} \dots f_N - 2,0 \text{ MHz}$		38	—	—	dB
$f_N - 2,0 \text{ MHz} \dots f_N - 0,9 \text{ MHz}$		35	—	—	dB
$f_N + 0,9 \text{ MHz} \dots f_N + 1,7 \text{ MHz}$		35	—	—	dB
$f_N + 1,7 \text{ MHz} \dots f_N + 9,0 \text{ MHz}$		38	—	—	dB



Normalized transfer function (balanced/balanced)



Normalized transfer function (passband, balanced/balanced):





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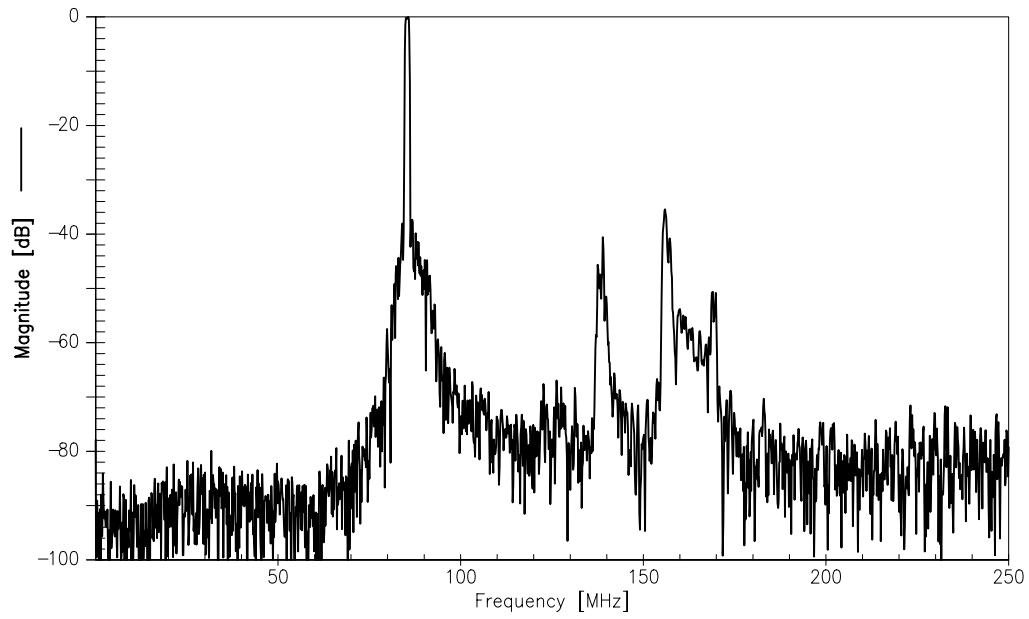
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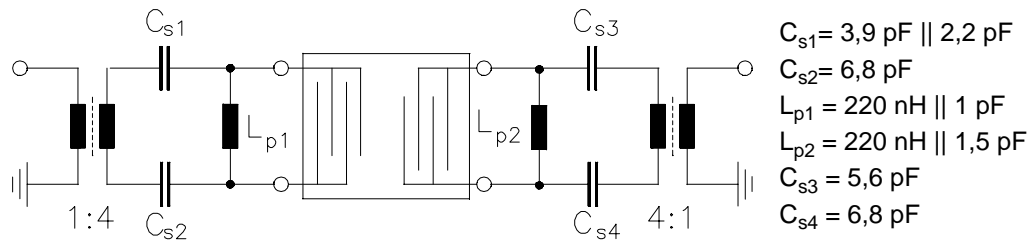


Normalized transfer function (wideband, balanced/balanced)



Test matching network to 200Ω / 200Ω

(Element values depend on pcb layout)


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