EPCOS

SAW Components

Data Sheet B4939

Preliminary Data Sheet SMD

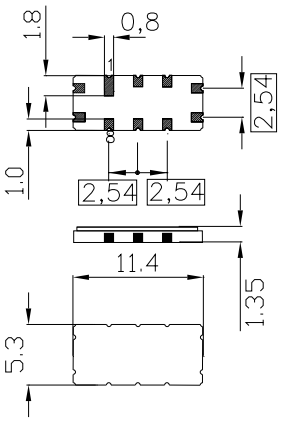
Ceramic package **QCC10C**

Features

- Low-loss IF filter for mobile telephone
- Channel selection in CDMA systems
- Very small size
- Low insertion attenuation
- Balanced and unbalanced operation possible
- Filter surface passivated
- Ceramic SMD package

Terminals

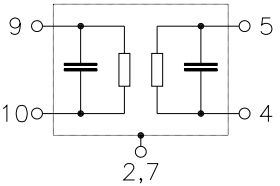
- Gold-plated Ni



Dimensions in mm, approx. weight 0,24 g

Pin configuration

10	Input
9	Input ground or balanced input
5	Output
4	Balanced output or output ground
2, 7	Case – ground
1, 3, 6, 8	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4939	B39111-B4939-U910	C61157-A7-A73	D6104-V8104-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operating temperature range	T	– 20/+ 75	˚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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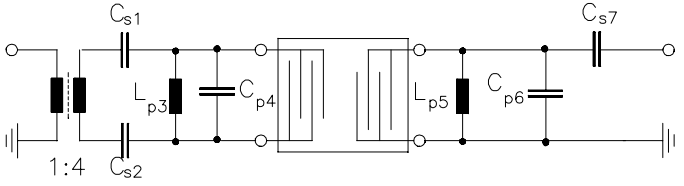
Characteristics

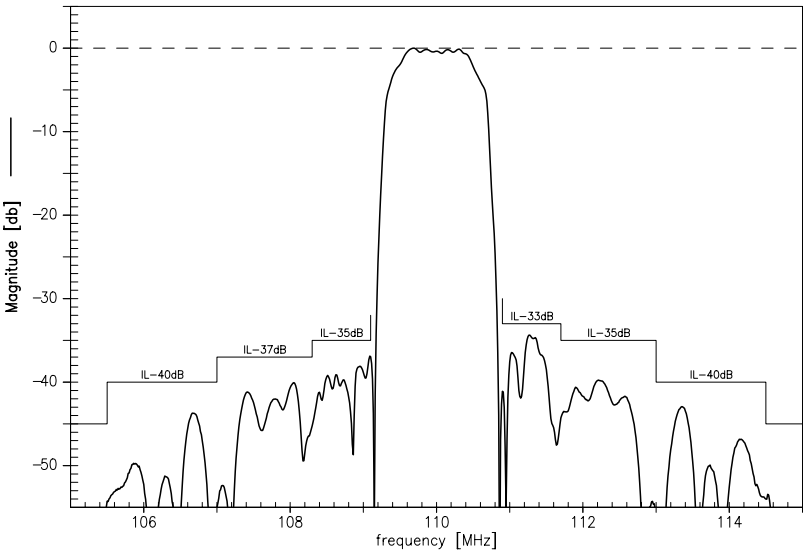
Operating temperature range: T = -20 ... +75 °C
Terminating source impedance: Z_S = 1070Ω || 130 nH
Terminating load impedance: Z_L = 1050 Ω || 110 nH

		min.	typ.	max.	
Nominal frequency	f_N	—	110,0	—	MHz
Minimum insertion attenuation					
(including losses in matching circuit)	α_{min}	—	8,6	10,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
f_N - 0,3 MHz ... f_N + 0,3 MHz		—	0,4	0,7	dB
Phase Linearity (rms)	$\Delta\tau$				
f_N - 0,614 MHz ... f_N + 0,614 MHz		—	1,5	3,0	°
Relative attenuation (relative to α_{min})	α_{rel}				
f_N - 0,614 MHz ... f_N + 0,614 MHz		—	4,0	5,0	dB
f_N - 30 MHz ... f_N - 4,5 MHz		45	55	—	dB
f_N - 4,5 MHz ... f_N - 3,0 MHz		40	45	—	dB
f_N - 3,0 MHz ... f_N - 1,7 MHz		37	40	—	dB
f_N - 1,7 MHz		40	43	—	dB
f_N - 1,7 MHz ... f_N - 0,9 MHz		35	37	—	dB
f_N - 0,9 MHz		35	37	—	dB
f_N + 0,9 MHz		35	37	—	dB
f_N + 0,9 MHz ... f_N + 1,7 MHz		33	35	—	dB
f_N + 1,7 MHz		40	43	—	dB
f_N + 1,7 MHz ... f_N + 3,0 MHz		35	39	—	dB
f_N + 3,0 MHz ... f_N + 4,5 MHz		40	43	—	dB
f_N + 4,5 MHz ... f_N + 30 MHz		45	50	—	dB

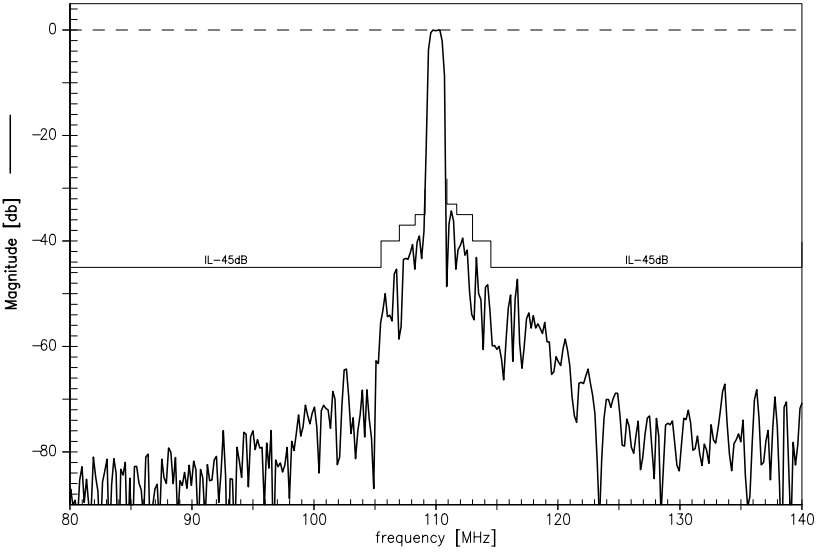
Test Matching Network to bal. 200Ω / unbal. 50Ω (element values depend on PCB layout)



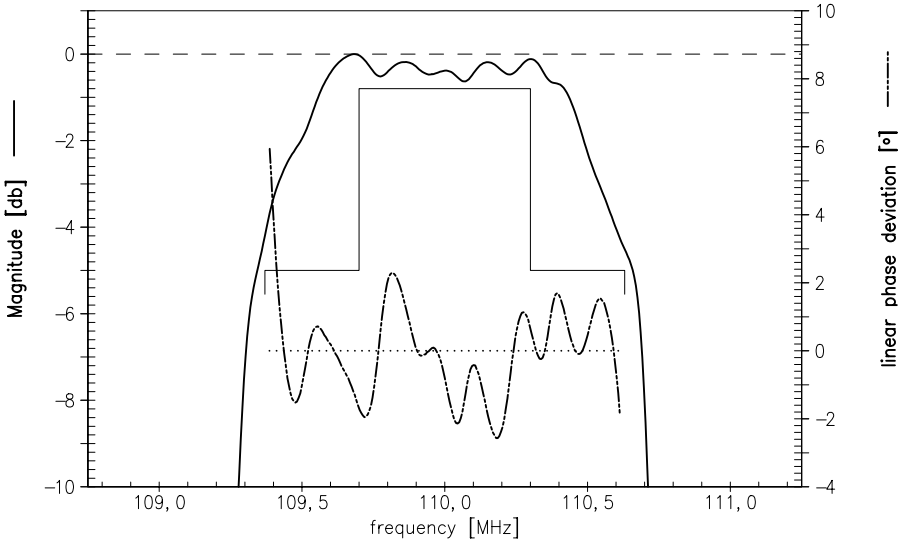
Transfer function (balanced - unbalanced):



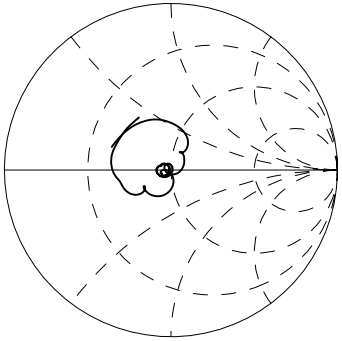
Transfer function (wideband):



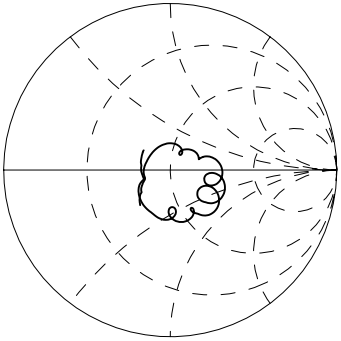
Transfer function (passband)



input reflection



output reflection



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