EPCOS

SAW Components

Data Sheet B4959

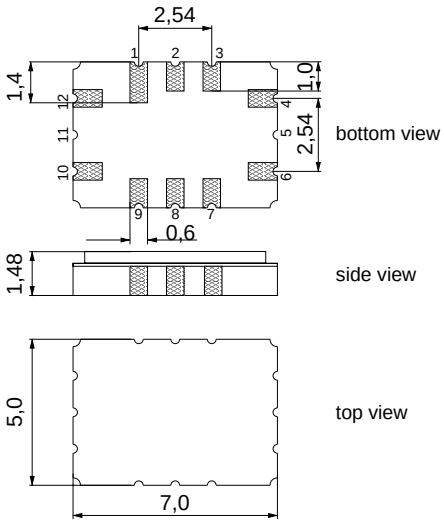
Features

- IF filter for mobile telephone
- Channel selection in CDMA systems
- Balanced or unbalanced
- High rejection, very small size
- Low amplitude ripple
- Package for **S**urface **M**ounted **T**echnology (**SMT**)
- Filter surface passivated

Terminals

- Ni, gold plated

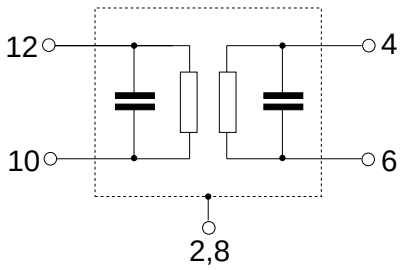
SMD ceramic package **QCC12C**



Dimensions in mm, approx. weight 0,155 g

Pin configuration

6	Input
4	Balanced input or ground
12	Balanced output
10	Balanced output
1, 2, 3, 7, 8, 9	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4959	B39131-B4959-H310	C61157-A7-A95	F61074-V8170-Z000

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

Maximum ratings

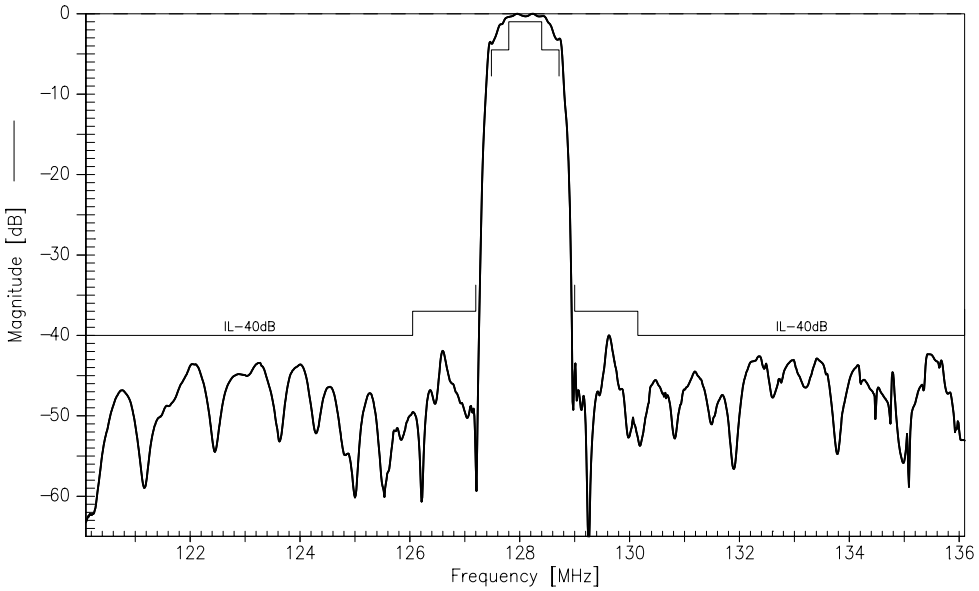
Operable temperature range	T	– 40/+ 85	˚C
Storage temperature range	T_{stg}	– 40/+ 85	˚C
DC voltage	V_{DC}	5	V
Source power	P_s	10	dBm

Characteristics

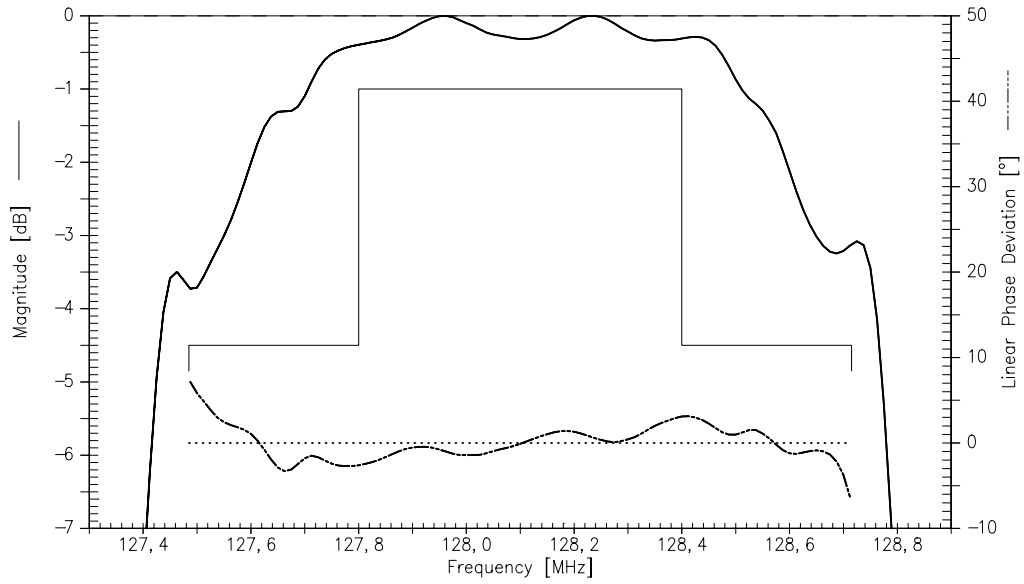
Specified temperature range: T = –30˚C .. +85 ˚C
Terminating source impedance: Z_S = 1270 Ω || 185 nH
Terminating load impedance: Z_L = 1840 Ω || 180 nH

		min.	typ.	max.	
Nominal frequency	f_N	—	128,1	—	MHz
Minimum insertion attenuation (with losses of matching network, without loss of balun)	α_{min}	—	10,4	12,0	dB
Amplitude ripple	$\Delta\alpha$				
f_N – 0,30 MHz ... f_N + 0,30 MHz		—	0,5	1,0	dB
Phase linearity (rms deviation)					
f_N – 0,615MHz ... f_N + 0,615 MHz		—	2,0	3,5	°
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm$ 0,615MHz		—	3,8	4,5	dB
f_N – 0,9 MHz		37	50	—	dB
f_N + 0,9 MHz		37	41	—	dB
f_N – 1,25 MHz		37	45	—	dB
f_N + 1,25 MHz		37	50	—	dB
f_N – 1,7 MHz		37	46	—	dB
f_N + 1,7 MHz		37	47	—	dB
f_N – 2,05 MHz		40	48	—	dB
f_N + 2,05 MHz		40	52	—	dB
10,0 MHz ... f_N – 2,05 MHz		40	43	—	dB
f_N – 2,05 MHz ... f_N – 0,9 MHz		37	42	—	dB
f_N + 0,9 MHz ... f_N + 2,05 MHz		37	40	—	dB
f_N + 2,05 MHz ... 200 MHz		40	43	—	dB
172,485 MHz ... 173,715 MHz		60	70	—	dB
207,485 MHz ... 208,715 MHz		45	47	—	dB

Normalized transfer function (measurement):

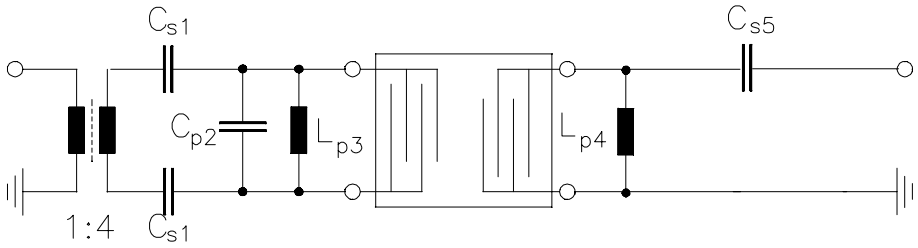


Normalized transfer function (measurement, passband):



Test matching network

(Element values depend on pcb layout)



C_{s1} = 5,6 pF
C_{p2} = not used
L_{p3} = 120 nH
L_{p4} = 100 nH
C_{s5} = 2,7 pF || 1,5 pF

all coils: Coilcraft 0603

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