EPCOS

SAW Components

Data Sheet B1706

Preliminary Data

SMD

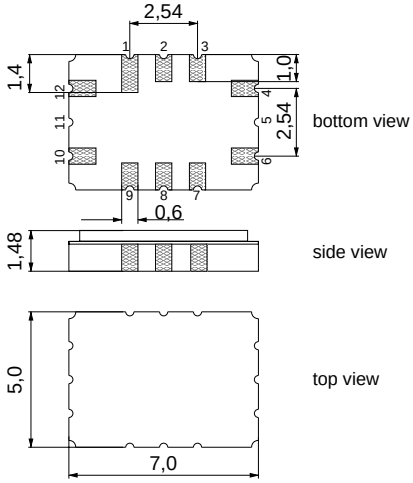
SMD ceramic package **QCC12C**

Features

- IF filter for digital satellite radio
- Constant group delay
- Ceramic package for **S**urface **M**ounted **T**echnology **(SMT)**

Terminals

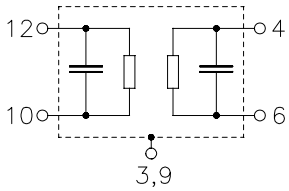
- Ni, gold-plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

10	Input
12	Input
4	Output
6	Output
3,9	Case – ground
1,7	To be grounded
2,8	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B1706	B39261-B1706-H310	C61157-A7-A95	F61074-V8170-Z000

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

Maximum ratings

Operable temperature range	T_A	–40 /+85	˚C	
Storage temperature range	T_{stg}	–40 /+85	˚C	
DC voltage	V_{DC}	0	V	between any terminals
Source power	P_S	0	dBm	

Preliminary Data

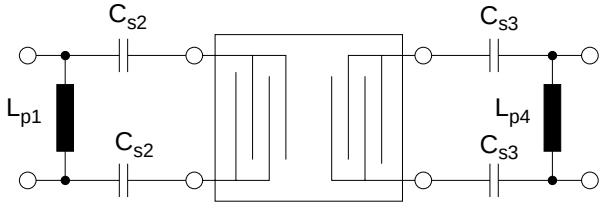
SMD

Characteristics

Operating temperature range: T = –40 ˚C ... 85 ˚C
Terminating source impedance: Z_S = 150 Ω and matching network
Terminating load impedance: Z_L = 150 Ω and matching network

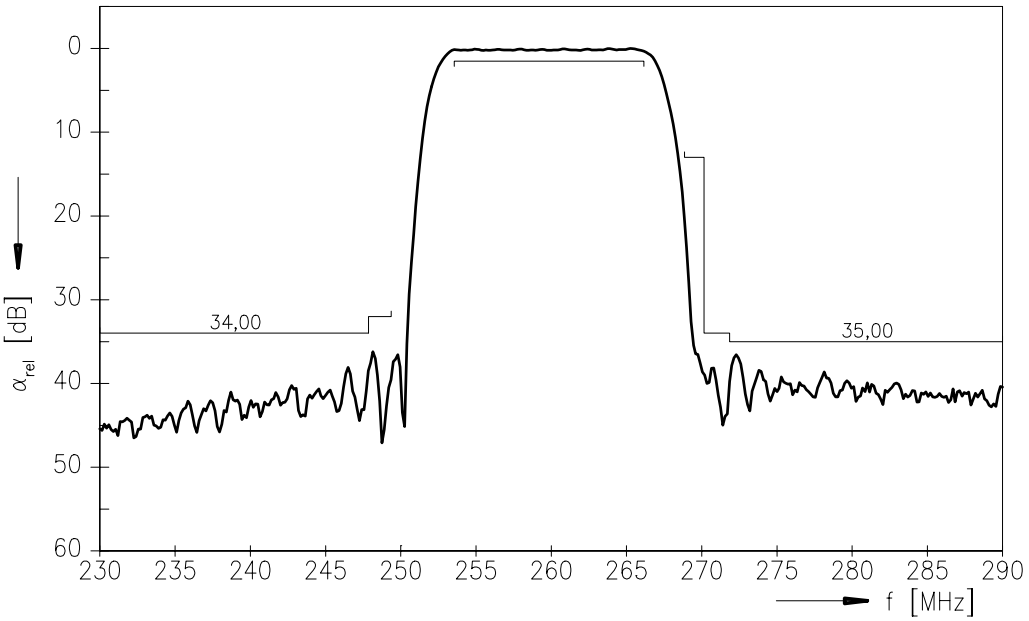
		min.	typ.	max.	
Nominal frequency	f_N	—	259,86	—	MHz
Minimum insertion attenuation	α_{min}	—	14,5	15,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
253,61 ...266,11 MHz		—	0,8	1,4	dB
253,61 ...255,47 MHz		—	0,3	0,8	dB
255,47 ...257,33 MHz		—	0,3	0,8	dB
257,33 ...259,84 MHz		—	0,3	0,8	dB
259,89 ...262,40 MHz		—	0,3	0,8	dB
262,40 ...264,25 MHz		—	0,3	0,8	dB
264,25 ...266,11 MHz		—	0,7	1,0	dB
Pass bandwidth					
$\alpha_{rel} \le$ 1,5 dB	$B_{1,5dB}$	12,5	14,1	15,0	MHz
$\alpha_{rel} \le$ 3 dB	B_{3dB}	14,4	14,9	15,4	MHz
$\alpha_{rel} \le$15 dB	B_{15dB}	—	17,4	—	MHz
Attenuation (relative to α_{min})	α_{rel}				
Lower sidelobe 230,00 ...f_N –12,00 MHz		34,0	36,0	—	dB
f_N –12,00 ...f_N –10,50 MHz		32,0	36,0	—	dB
Upper sidelobe f_N + 9,00 ...f_N +10,30 MHz		13,0	16,0	—	dB
f_N +10,30 ...f_N +12,00 MHz		34,0	36,0	—	dB
f_N +12,00 ... 290,00 MHz		35,0	37,0	—	dB
Group delay ripple (p–p)	$\Delta\tau$				
$f_N \pm$ 6,24 MHz		—	50	70	ns
Temperature coefficient of frequency	TC_f	—	–18	—	ppm/K

Matching network (based on four port measurement, quality factors Q_L = 40, Q_C = 90)

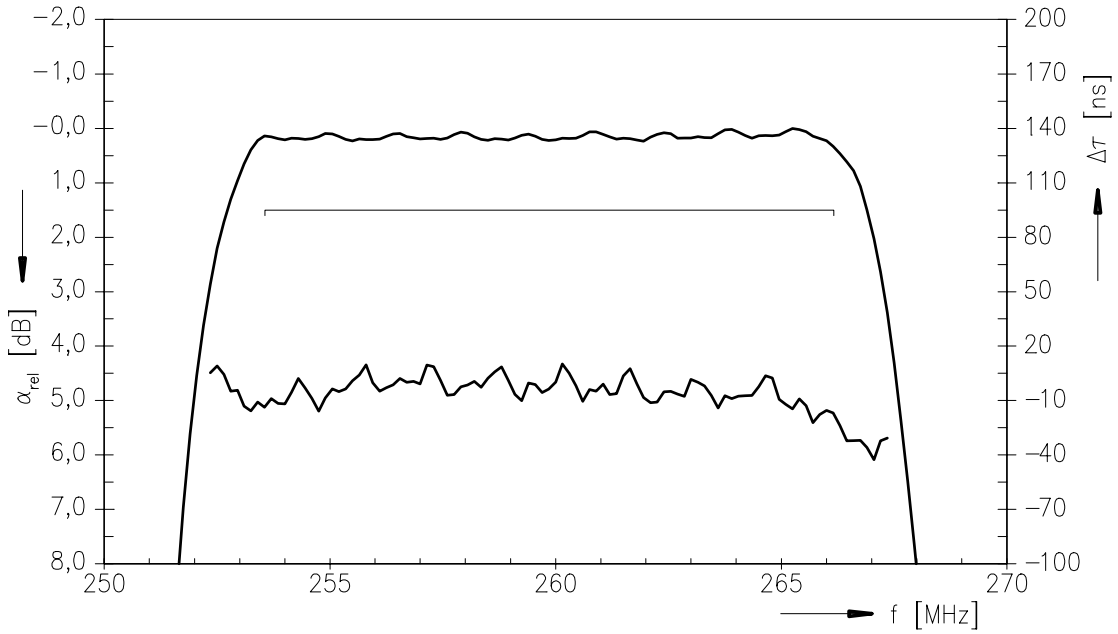


L_{p1} = 22 nH
C_{s2} = 120 pF
C_{s3} = 68 pF
L_{p4} = 22 nH

Transfer function



Transfer function (passband)



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