Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

SAW Components

Data Sheet B3817

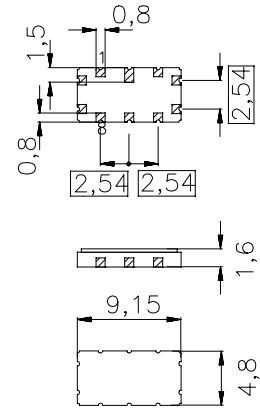| SAW Components	B3817
Low-Loss Filter	**208,0 MHz**

Data Sheet

Ceramic package **QCC10B**

Features

- IF low-loss filter for W-CDMA base station
- Temperature stable
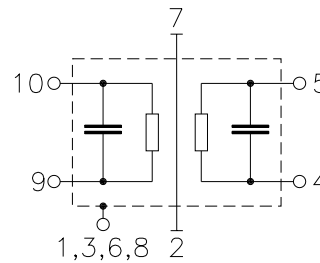- Usable bandwidth 3,84 MHz
- Ceramic SMD package

Terminals

- Gold plated

Dimensions in mm, appr. weight 0,23 g

Pin configuration

10	Input
9	Input ground
5, 4	Balanced output
1, 3, 6, 8	Case ground
2, 7	To be grounded

Type	Ordering code	Marking and Package according to	Packing according to
B3817	B39211-B3817-Z710	C61157-A7-A49	F61074-V8172-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}	0	V	
Source power	P_s	0	dBm	

Low-Loss Filter **208,0 MHz**

Data Sheet

Characteristics

Operating temperature range: T = 0 ... 70 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 200 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	208,0	—	MHz
Minimum insertion attenuation	α_{min}				
(including matching network) $f_N \pm 1{,}92$ MHz		—	11,7	13,0	dB
Passband width					
$\alpha_{rel} \le 1$ dB	B_{1dB}	—	4,2	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 1{,}92$ MHz		—	0,7	1,0	dB
Phase ripple (p-p)	$\Delta\varphi$				
$f_N \pm 1{,}92$ MHz		—	7	10	˚
Phase ripple (rms)	$\Delta\varphi$				
$f_N \pm 1{,}92$ MHz		—	1,1	—	˚ rms
Absolute group delay	τ_{mean}				
mean value within $f_N \pm 1{,}92$ MHz		790	795	800	ns
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm$ 2,53 MHz ... $f_N \pm$ 2,70 MHz		9	10	—	dB
$f_N \pm$ 2,70 MHz ... $f_N \pm$ 2,75 MHz		15	20	—	dB
$f_N \pm$ 2,75 MHz ... $f_N \pm$ 2,90 MHz		20	30	—	dB
$f_N \pm$ 2,90 MHz ... $f_N \pm$ 3,30 MHz		25	30	—	dB
$f_N \pm$ 3,30 MHz ... $f_N \pm$ 10 MHz		30	35	—	dB
$f_N \pm$ 10 MHz ... $f_N \pm$ 28 MHz		40	50	—	dB
$f_N \pm$ 28 MHz ... $f_N \pm$ 60 MHz		55	60	—	dB
Input IP3		40	—	—	dBm
Temperature coefficient of frequency[1]	TC_f	—	– 0,036	—	ppm/K^2
Turnover temperature	T_0	—	25	—	˚C

[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Data Sheet

Characteristics

Operating temperature range: T = -40 ... 85 ˚C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 200 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	208,0	—	MHz
Minimum insertion attenuation	α_{min}				
(including matching network) $f_N \pm 1{,}92$ MHz		—	11,7	13,5	dB
Passband width					
$\alpha_{rel} \leq 1$ dB B_{1dB}		—	4,2	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 1{,}92$ MHz		—	0,7	1,0	dB
Phase ripple (p-p)	$\Delta\varphi$				
$f_N \pm 1{,}92$ MHz		—	7	10	˚
Phase ripple (rms)	$\Delta\varphi$				
$f_N \pm 1{,}92$ MHz		—	1,1	—	˚ rms
Absolute group delay	τ_{mean}				
mean value within $f_N \pm 1{,}92$ MHz		790	795	800	ns
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm$ 2,53 MHz ... $f_N \pm$ 2,70 MHz		8	10	—	dB
$f_N \pm$ 2,70 MHz ... $f_N \pm$ 2,75 MHz		15	20	—	dB
$f_N \pm$ 2,75 MHz ... $f_N \pm$ 2,90 MHz		20	30	—	dB
$f_N \pm$ 2,90 MHz ... $f_N \pm$ 3,30 MHz		25	30	—	dB
$f_N \pm$ 3,30 MHz ... $f_N \pm$ 10 MHz		30	35	—	dB
$f_N \pm$ 10 MHz ... $f_N \pm$ 28 MHz		40	50	—	dB
$f_N \pm$ 28 MHz ... $f_N \pm$ 60 MHz		55	60	—	dB
Input IP3		40	—	—	dBm
Temperature coefficient of frequency[1]	TC_f	—	– 0,036	—	ppm/K²
Turnover temperature	T_0	—	25	—	˚C

[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Data Sheet

Matching network (element values depend on PCB layout):

Ls2   Ls4

=Cp1 Lp3   Cp5=

Ls4   4:1
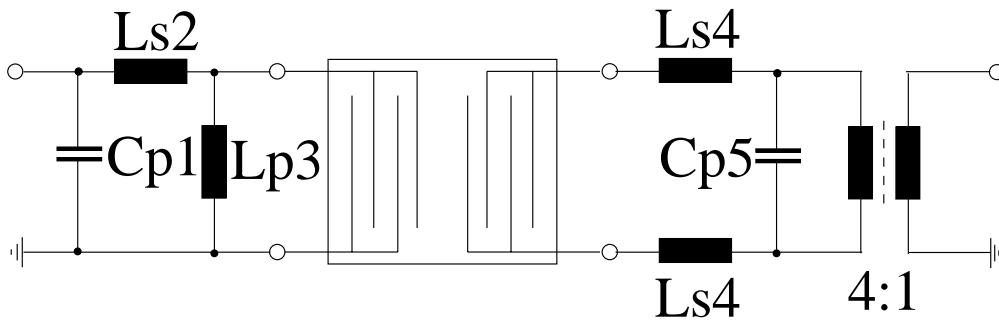
| C_{p1} = 39 pF | L_{p3} = 390 nH | C_{p5} = 22 pF |
| L_{s2} = 68 nH | L_{s4} = 47 nH | |

Data Sheet

Transfer function
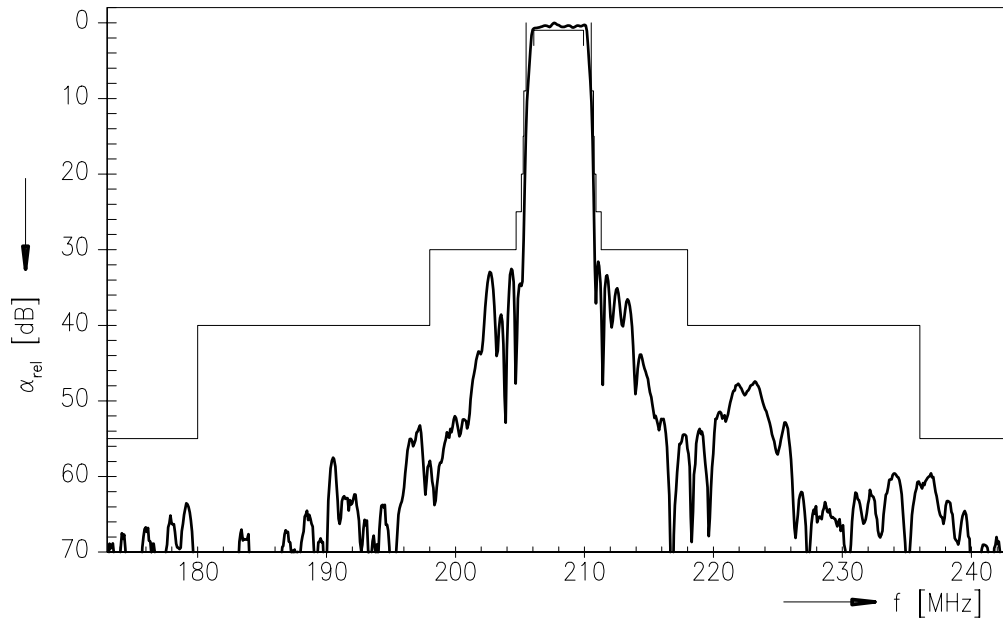
Transfer function (pass band)
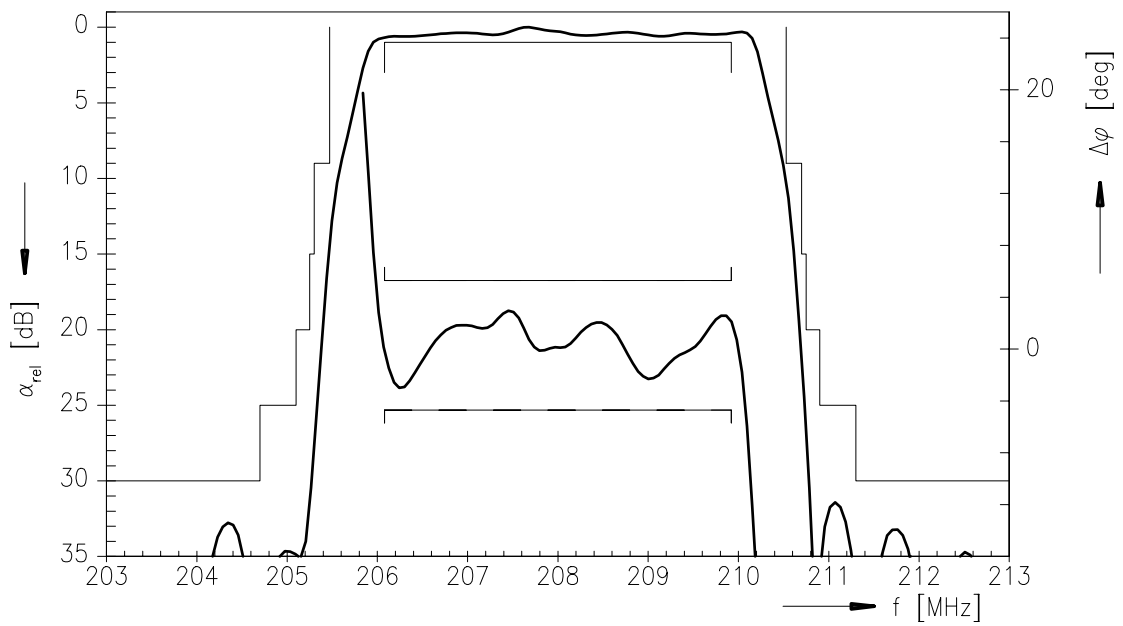
Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.