EPCOS

SAW Components

Data Sheet B3855

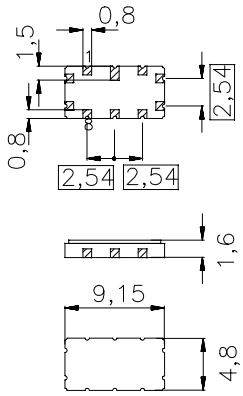
Ceramic package **QCC10B**

Features

- IF filter for WCDMA
- Low insertion loss
- Ceramic SMD package

Terminals

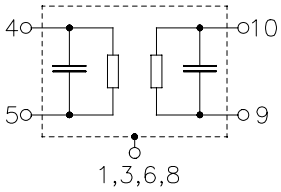
- Gold plated



Dimensions in mm, appr. weight 0,23 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3855	B39171-B3855-Z710	C61157-A7-A49	F61074-V8172-Z000

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

Maximum ratings

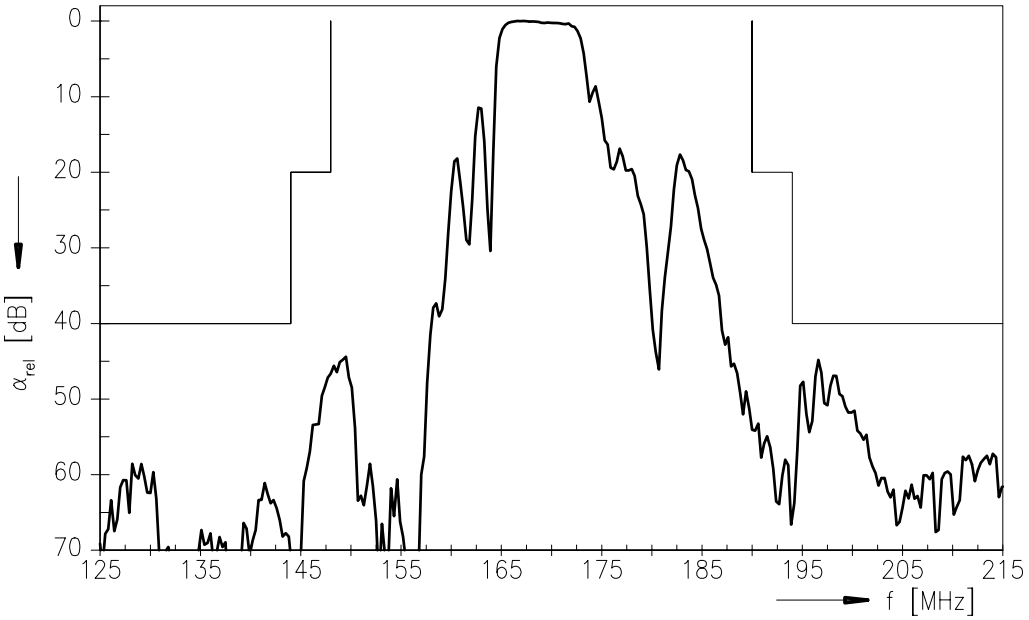
Operable temperature range	T_A	-40 / +85	˚C	
Storage temperature range	T_{stg}	-40 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

Characteristics

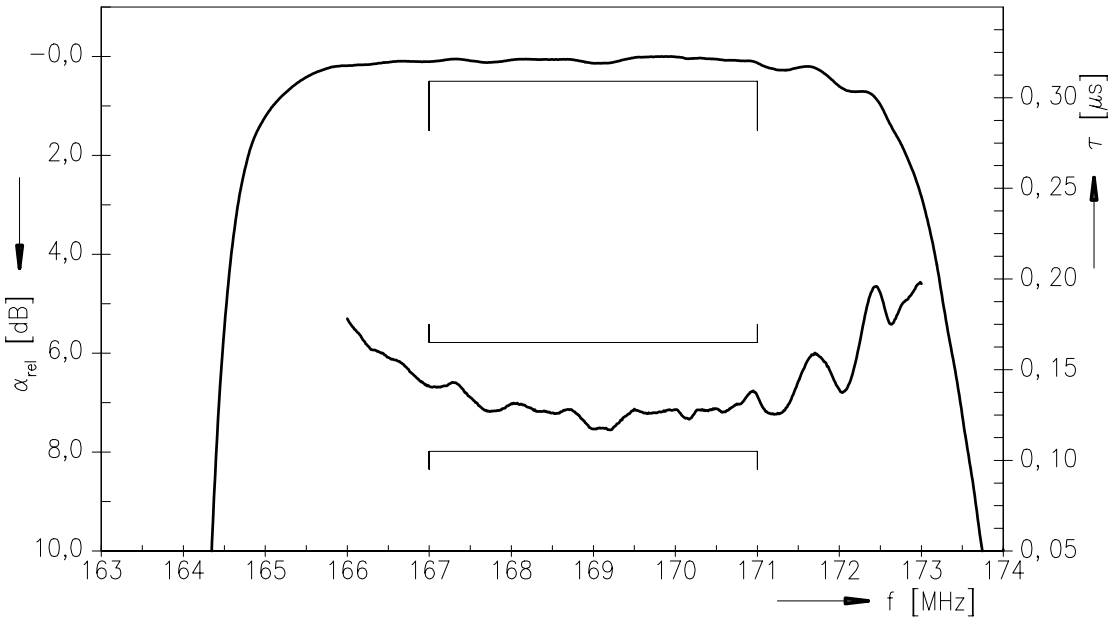
Operating temperature: T_A = -40 ... +85 °C
Terminating source impedance: Z_S = 200 Ω and matching network
Terminating load impedance: Z_L = 200 Ω and matching network
Group delay aperture: 150 kHz

		min.	typ.	max.	
Nominal frequency	f_N	—	169,00	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	1,5	2,0	3,5	dB
Passband width $\alpha_{rel} \leq 1$ dB	B_{1dB}	—	7,5	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 2{,}0$ MHz		—	0,2	0,5	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 2{,}0$ MHz		—	40	80	ns
Absolute group delay	τ				
mean value within $f_N \pm 2{,}0$ MHz		127	130	137	ns
Relative attenuation (relative to α_{min})	α_{rel}				
10 MHz ... 144 MHz		40	50	—	dB
144 MHz ... 148 MHz		20	40	—	dB
190 MHz ... 194 MHz		20	50	—	dB
194 MHz ... 2,0 GHz		40	45	—	dB
2,0 GHz ... 2,5 GHz		35	40	—	dB
VSWR		—	2,0:1	2,5:1	
Impedance at f_N (without matching)					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	690 || 1,3	—	Ω || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	580 || 1,1	—	Ω || pF
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

Normalized frequency response

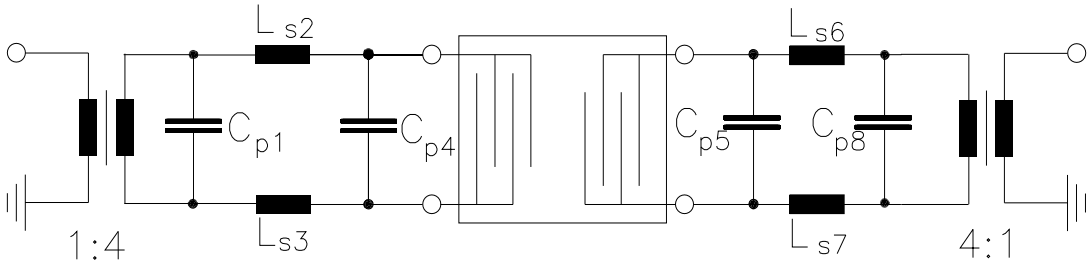


Normalized frequency response



Matching network

(Element values depend upon PCB layout)



C_{P1}=3,9 pF	C_{P5}=1,0 pF
L_{S2}=150 nH	L_{S6}=150 nH
L_{S3}=150 nH	L_{S7}=180 nH
C_{P4}=1,5 pF	C_{P8}=3,3 pF

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