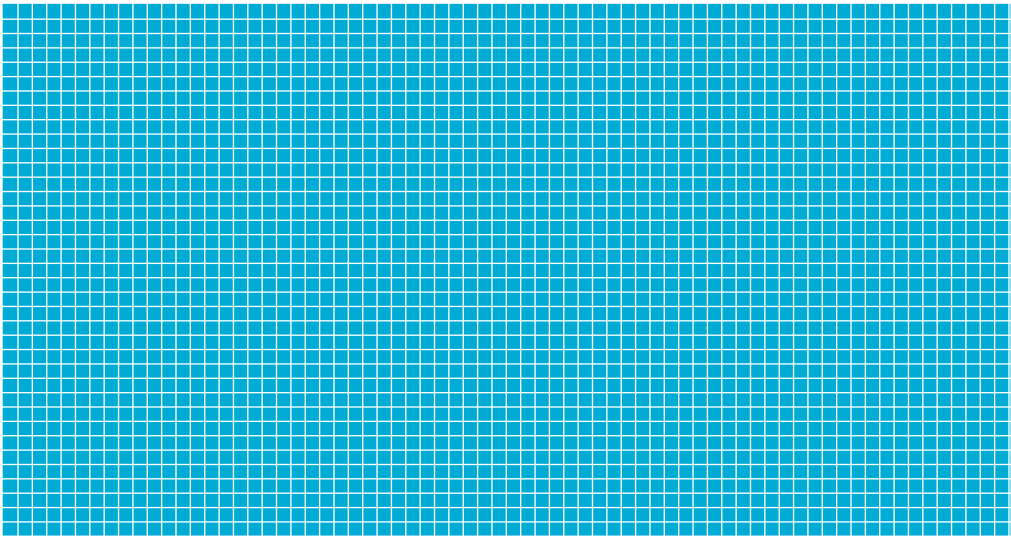
Siemens Matsushita Components



SAW Components

Low-Loss Filter for Mobile Communication
B 4539

Data Book Supplement

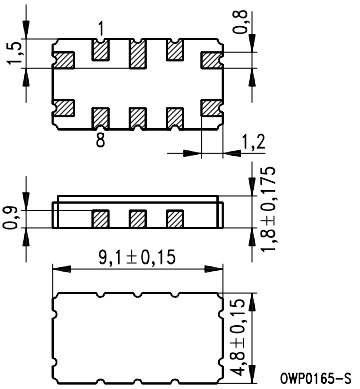
Features

- Low-loss IF filter for cordless telephone
- Channel selection in DECT systems
- Hermetically sealed ceramic SMD package

Terminals

- Gold-plated

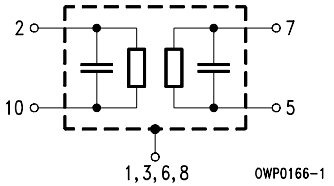
Ceramic package **QCC 10 B**



Dimensions in mm, approx. weight 0,23 g

Pin configuration

2, 10	Input (balanced or unbalanced)
5, 7	Output (balanced or unbalanced)
1, 3, 6, 8	Case – ground
4, 9	Not connected



Type	Ordering code	Marking
B 4539	B39111-B4539-Z710	Type, date code, pin 1

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

Maximum ratings

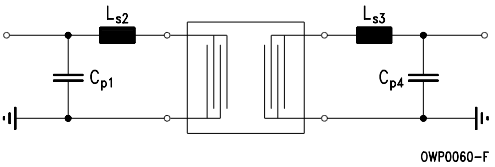
Ambient temperature	T_A	– 10/+ 70	˚C
Storage temperature	T_{stg}	– 40/+ 85	˚C
DC voltage	V_{DC}	0	V
Input power max.	P_{IN}	10	dBm

Characteristics

Ambient temperature T_A = 25 °C
Source impedance Z_S = 50 Ω and matching network
Load impedance Z_L = 50 Ω and matching network

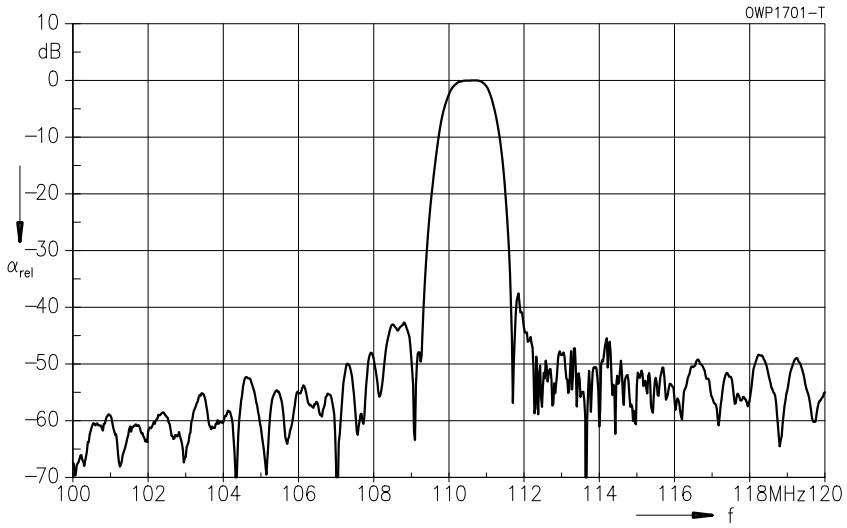
		min.	typ.	max.	
Nominal frequency	f_N	—	110,59	—	MHz
Minimum insertion attenuation	α_{min}	—	8	10	dB
Passband width $\alpha_{rel} \leq 3$ dB	B_{3dB}	—	1,07	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 450$ kHz		—	1,5	3	dB
Group delay ripple (p-p)	$\Delta\tau$				
$f_N \pm 450$ kHz		—	200	400	ns
Relative attenuation (relative to α_{min})	α_{rel}				
f_N – 30,0 MHz … f_N + 3,00 MHz		40	45	—	dB
f_N – 3,00 MHz … f_N + 1,70 MHz		35	40	—	dB
f_N – 1,70 MHz … f_N + 1,15 MHz		23	30	—	dB
f_N + 1,15 MHz … f_N + 1,70 MHz		23	30	—	dB
f_N + 1,70 MHz … f_N + 3,00 MHz		35	40	—	dB
f_N + 3,00 MHz … f_N + 30,0 MHz		40	45	—	dB
Impedance at 110,59 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	240 || 26	—	Ω || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	240 || 26	—	Ω || pF
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

Matching network:



C_{p1} = 47 pF
L_{s2} = 100 nH
L_{s3} = 100 nH
C_{p4} = 47 pF

Frequency response



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