Siemens Matsushita Components

SAW Components
Bandpass Filter

B4832
400,0 MHz

Data Sheet

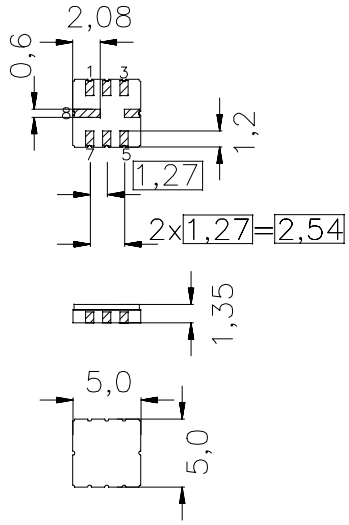
ceramic package **QCC 8C**

Features

- Low-loss IF filter for mobile telephone
- Channel selection in GSM/PCN-systems
- Ceramic SMD package

Terminals

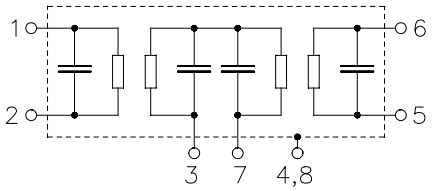
- Gold-plated



Dimensions in mm, approx. weight 0,07 g

Pin configuration

1	Input
2	Input ground or balanced input
5	Output
6	Output ground or balanced output
7	External coupling coil
4, 8	Case – ground
3	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4832	B39401-B4832-U310	C61157-A7-A53	F61074-V8070-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	10	dBm	

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Characteristics

Operating temperature range: T = -40 ˚C to + 85 ˚C
Terminating source impedance: Z_S = 600 Ω || 90 nH
Terminating load impedance: Z_L = 600 Ω || 90 nH
External coil: L_c = 47 nH

		min.	typ.	max.	
Nominal frequency	f_N	—	400,0	—	MHz
Maximum insertion attenuation (excluding losses in matching network) f_N-0,083...f_N+0,083 MHz		—	3,7	6,0	dB
(including losses in matching network)	α_{max}				
f_N-0,083... f_N+0,083 MHz		—	5,2	7,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
f_N-0,083... f_N+0,083 MHz		—	1,0	2,0	dB
Relative attenuation (relative to α_{max})	α_{rel}				
f_N-100,0 ... f_N-1,5 MHz		35,0	48,0	—	dB
f_N-1,5 ... f_N-0,8 MHz		20,0	51,0	—	dB
f_N-0,8 ... f_N-0,6 MHz		10,0	45,0	—	dB
f_N-0,6 ... f_N-0,4 MHz		7,0	15,0	—	dB
f_N+0,4 ... f_N+0,6 MHz		7,0	15,0	—	dB
f_N+0,6 ... f_N+0,8 MHz		10,0	30,0	—	dB
f_N+0,8 ... f_N+1,5 MHz		20,0	40,0	—	dB
f_N+1,5 ...f_N+100,0 MHz		35,0	54,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
f_N-0,083... f_N+0,083 MHz		—	0,55	1,0	µs
Temperature coefficient of frequency [1]	TC_f	—	–0,036	—	ppm/K^2
Frequency inversion point	T_0	—	20	—	˚C

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

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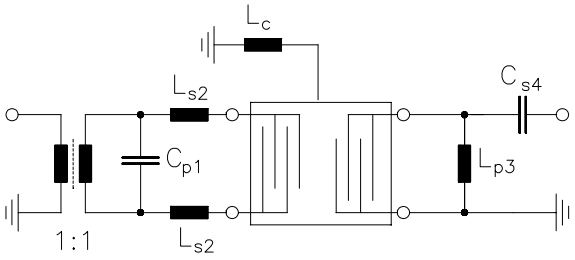
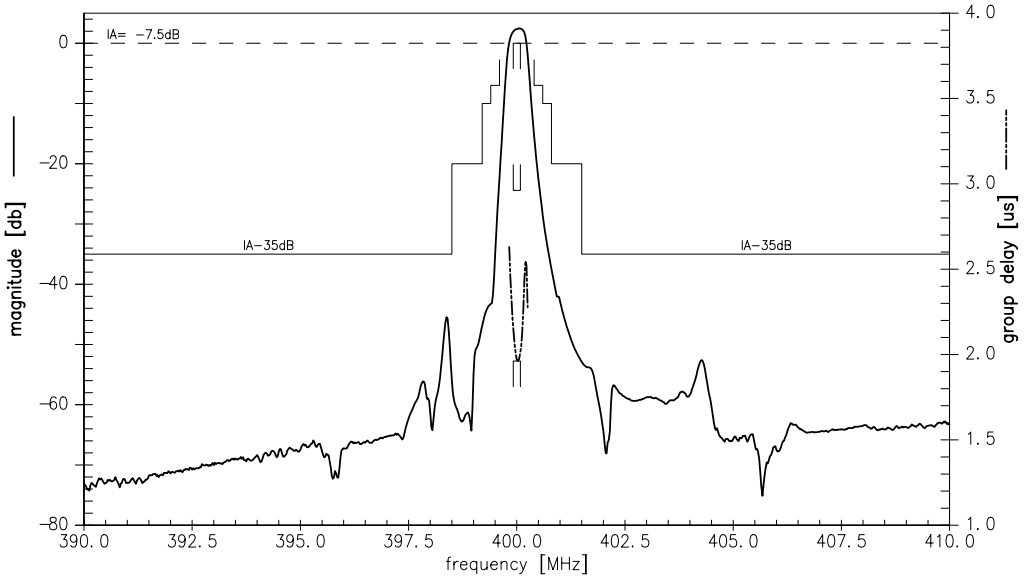
Test matching network to 50 Ω (element values depend on PCB layout):



C_{p1} = 1,0pF
L_{s2} = 39nH
L_c = 47nH
L_{p3} = 39nH
C_{s4} = 2,7pF

Transfer function (including losses of matching elements and balun):



Transfer function (pass band, including losses of matching elements and balun):