



SAW Components

Data Sheet B4832





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Low-Loss Filter for Mobile Communication

400,0 MHz

Data Sheet



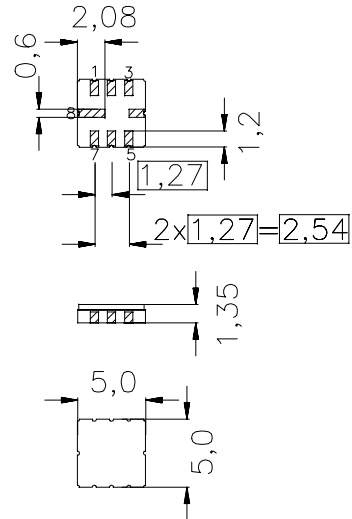
SMD ceramic package QCC8C

Features

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

Terminals

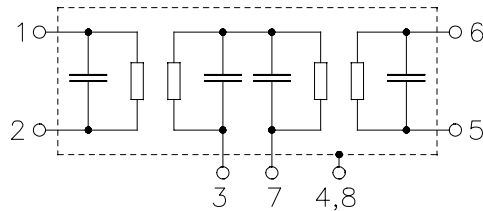
- Gold-plated Ni



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 Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40 / +85	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40 / +85	°C	
ESD voltage	V_{ESD}^*	100	V	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

*-acc. to JESD22-A115A(Machine Model), 10 negative & 10 positive pulses



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Characteristics

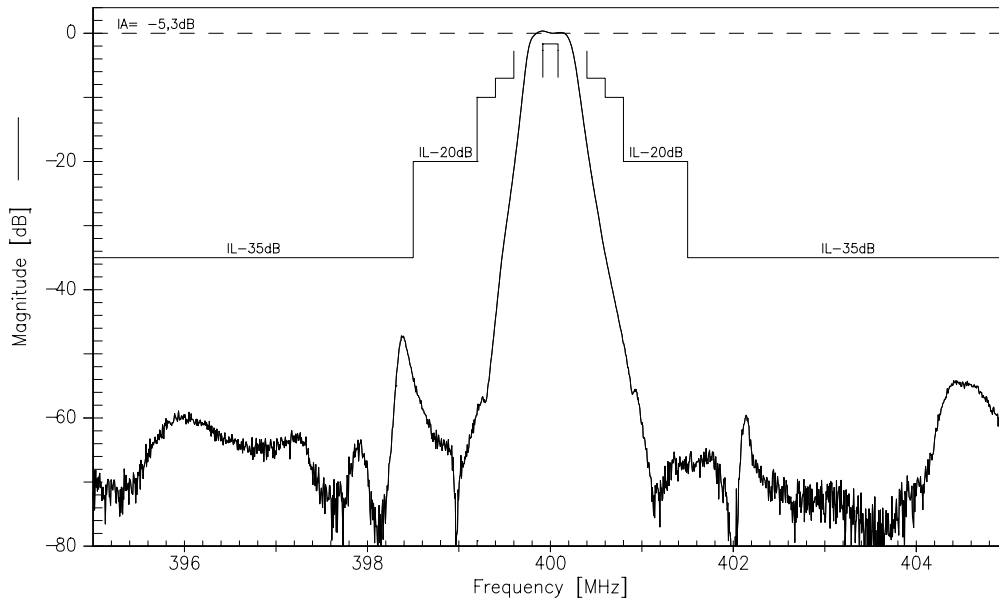
Operating temperature range:	T = -40° C to +85° C
Terminating source impedance:	Z _S = 600 Ω 90 nH
Terminating load impedance:	Z _L = 600 Ω 90 nH
External Coil:	L _c = 47 nH

		min.	typ.	max.	
Nominal frequency	f _N	—	400,0	—	MHz
Maximum insertion attenuation (excluding loss in matching elements)	f _N -0,083 ... f _N +0,083	—	3,7	6,0	dB
(including loss in matching elements)	f _N -0,083 ... f _N +0,083	—	5,2	7,5	dB
Amplitude ripple (p-p)	f _N -0,083 ... f _N +0,083	—	1,0	2,0	dB
Relative attenuation (relative to α_{max})	f _N -100,0 ... f _N -1,5	35,0	48,0	—	dB
	f _N -1,5 ... f _N -0,8	20,0	51,0	—	dB
	f _N -0,8 ... f _N -0,6	10,0	45,0	—	dB
	f _N -0,6 ... f _N -0,4	7,0	15,0	—	dB
	f _N +0,4 ... f _N +0,6	7,0	15,0	—	dB
	f _N +0,6 ... f _N +0,8	10,0	30,0	—	dB
	f _N +0,8 ... f _N +1,5	20,0	40,0	—	dB
	f _N +1,5 ... f _N +100,0	35,0	54,0	—	dB
Group delay ripple (p-p)	f _N -0,083 ... f _N +0,083	—	0,55	1,0	μs
Temperature coefficient of frequency ¹⁾	TC _f	—	-0,036	—	ppm/K ²
Frequency inversion point	T ₀	—	20	—	°C

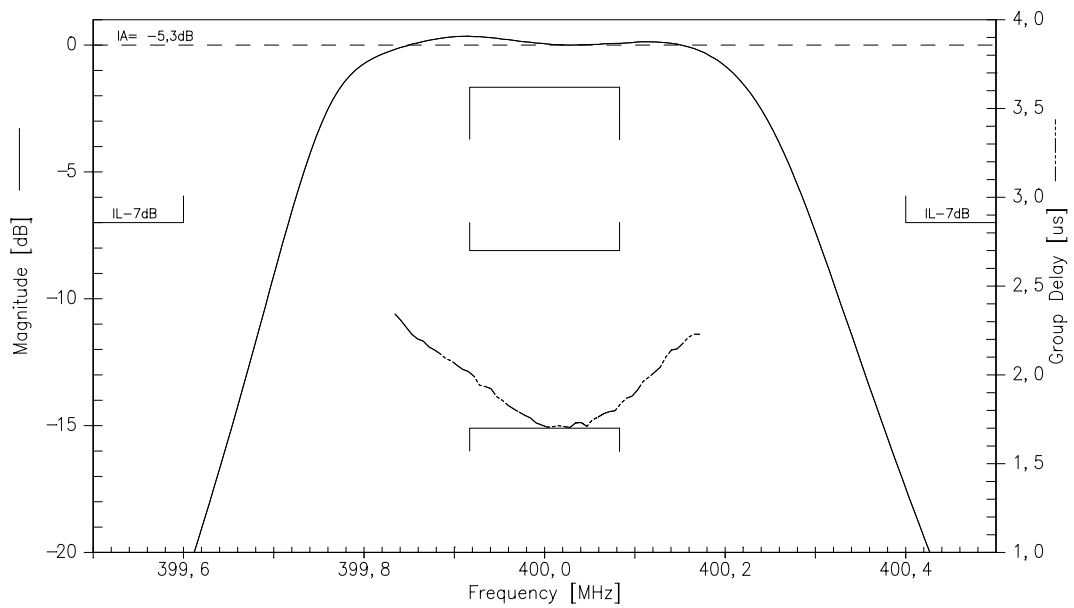
¹⁾ Temperature dependence of f_c: f_c(T) = f_c(T₀)(1 + TC_f(T - T₀)²)



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

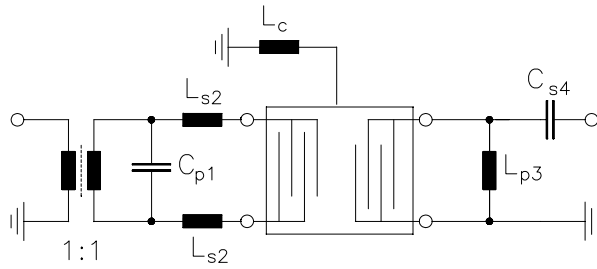


Transfer function (pass band, including losses of matching elements and balun):

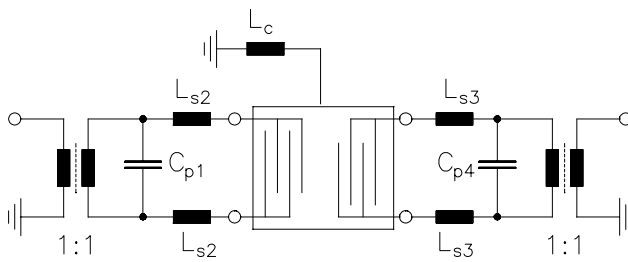




Test matching network to 50 Ω (element values depend on PCB layout, balun TOKO B5FL):



- $C_{p1} = 4,7\text{pF}$
- $L_{s2} = 39\text{nH}$
- $L_c = 47\text{nH}$
- $L_{p3} = 27\text{nH}$
- $C_{s4} = 2,7\text{pF}$



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- $L_{s2} = 39\text{nH}$
- $L_c = 47\text{nH}$
- $L_{s3} = 39\text{nH}$
- $C_{p4} = 4,7\text{pF}$



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