



SAW Components

Data Sheet B4832





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B4832

Low-Loss Filter for Mobile Communication

400,0 MHz

Data Sheet



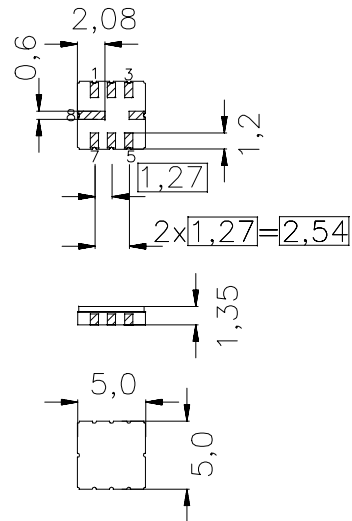
SMD ceramic package QCC8C

Features

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

Terminals

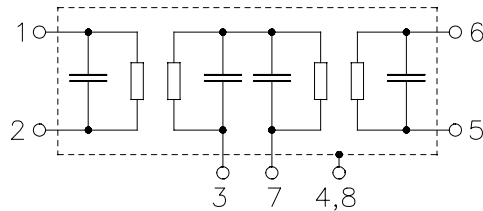
- Gold-plated Ni



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

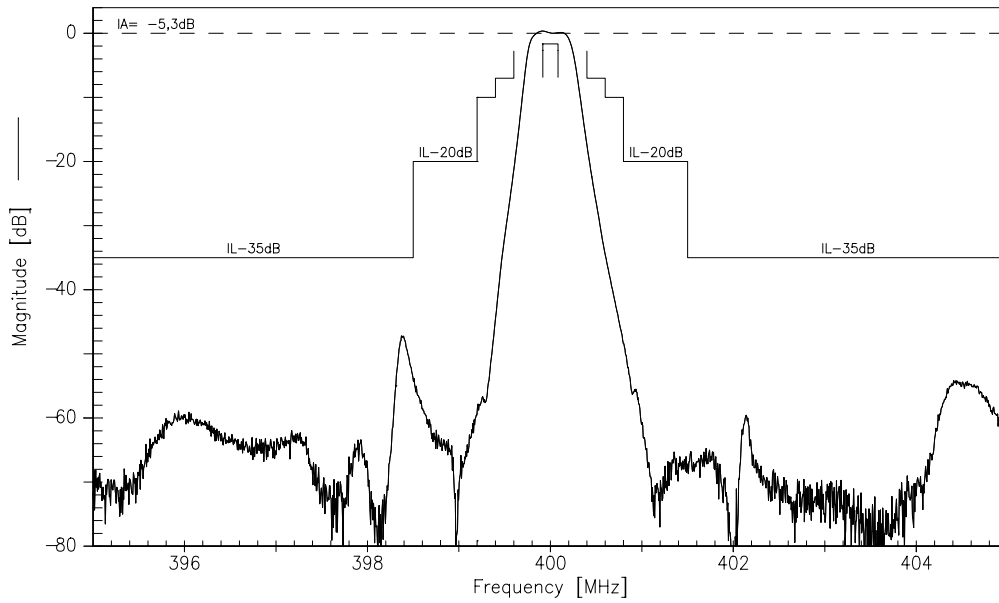
Operating temperature range: $T = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 600\ \Omega \parallel 90\ \text{nH}$
 Terminating load impedance: $Z_L = 600\ \Omega \parallel 90\ \text{nH}$
 External Coil: $L_c = 47\ \text{nH}$

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

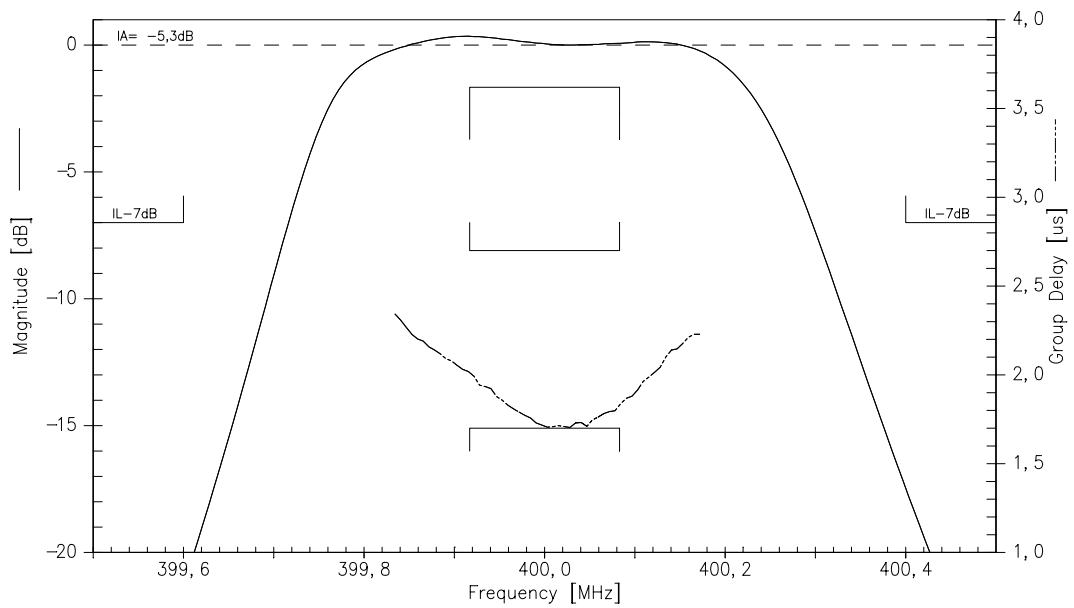
¹⁾ Temperature dependence of f_c : $f_c(T) = f_c(T_0)(1 + TC_f(T - T_0)^2)$



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

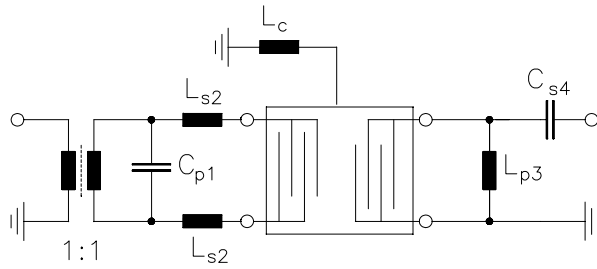


Transfer function (pass band, including losses of matching elements and balun):

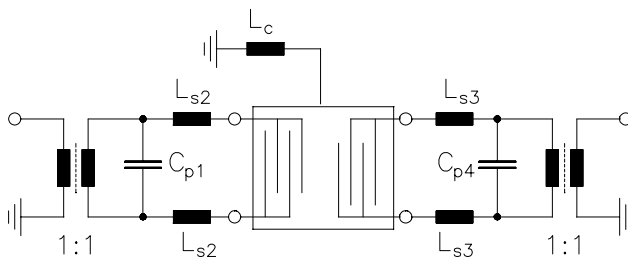




Test matching network to 50 Ω (element values depend on PCB layout, balun TOKO B5FL):



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



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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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