



SAW Components

Data Sheet B4232





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B4232

Low-Loss '2 in 1' Filter for Mobile Communication

769,0/860,5 MHz

Data Sheet

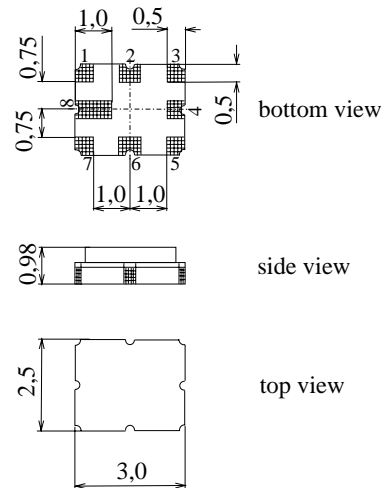
Features

- Low-loss '2 in 1' RF filter for Trunked Radio
- Device with two integrated Rx filters
- Low amplitude ripple
- Usable passband filter 1: 19,0 MHz
- Usable passband filter 2: 14,0 MHz
- No matching network required for operation at 50 Ω
- Package for **Surface Mounted Technology (SMT)**

Terminals

- Ni, gold-plated

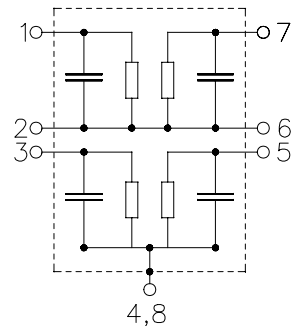
Ceramic package QCC8E



Dimensions in mm, approx. weight 0,027g

Pin configuration

- 1 Input (filter 1)
- 7 Output (filter 1)
- 3 Input (filter 2)
- 5 Output (filter 2)
- 2,6 Ground
- 4,8 Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B4232	B39861-B4232-H410	C61157-A7-A92	F61074-V8174-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40 / + 85	°C	Machine Model, 10 pulses source and load impedance 50 Ω
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V^*_{ESD}	100	V	
Source power (cw)	P_S	15	dBm	

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



Data Sheet

Characteristics filter 1

Operating temperature range: $T = 25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ }\Omega$
 Terminating load impedance: $Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	860,5	—	MHz
Maximum insertion attenuation	α_{max}				
	851,0 ... 870,0 MHz	—	2,1	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	851,0 ... 870,0 MHz	—	0,7	1,1	dB
Group delay ripple (p-p)	$\Delta\tau$				
	851,0 ... 870,0 MHz	—	20,0	50,0	ns
Return loss (Input and Output)					
	851,0 ... 870,0 MHz	10,0	11,5	—	dB
Absolute attenuation	α_{abs}				
	0,1 ... 483,0 MHz	57	60	—	dB
	483,0 ... 676,0 MHz	50	60	—	dB
	676,0 ... 724,0 MHz	40	64	—	dB
	741,4 ... 773,0 MHz	30	59	—	dB
	804,0 ... 822,0 MHz	20	42	—	dB
	880,0 MHz	7	11	—	dB
	898,0 ... 918,0 MHz	20	40	—	dB
	946,0 ... 967,0 MHz	30	59	—	dB
	1040,0 ... 1070,0 MHz	46	54	—	dB
	1070,0 ... 1256,0 MHz	43	50	—	dB
	1256,0 ... 2000,0 MHz	30	40	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



Data Sheet

Characteristics filter 1

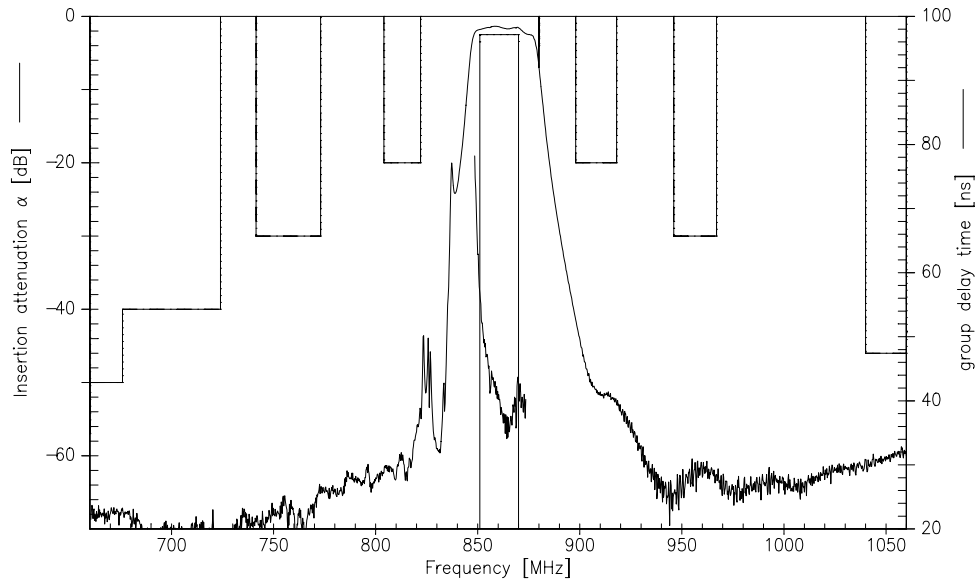
Operating temperature range: $T = -30 \dots +70 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ }\Omega$
 Terminating load impedance: $Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	860,5	—	MHz
Maximum insertion attenuation	α_{max}				
	851,0 ... 870,0 MHz	—	2,4	2,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	851,0 ... 870,0 MHz	—	1,0	1,3	dB
Group delay ripple (p-p)	$\Delta\tau$				
	851,0 ... 870,0 MHz	—	30,0	50,0	ns
Return loss (Input and Output)					
	851,0 ... 870,0 MHz	10,0	11,0	—	dB
Absolute attenuation	α_{abs}				
	0,1 ... 483,0 MHz	57	60	—	dB
	483,0 ... 676,0 MHz	50	60	—	dB
	676,0 ... 724,0 MHz	40	64	—	dB
	741,4 ... 773,0 MHz	30	59	—	dB
	804,0 ... 822,0 MHz	20	42	—	dB
	880,0 MHz	4	7	—	dB
	898,0 ... 918,0 MHz	20	38	—	dB
	946,0 ... 967,0 MHz	30	59	—	dB
	1040,0 ... 1070,0 MHz	46	54	—	dB
	1070,0 ... 1256,0 MHz	43	50	—	dB
	1256,0 ... 2000,0 MHz	30	40	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K

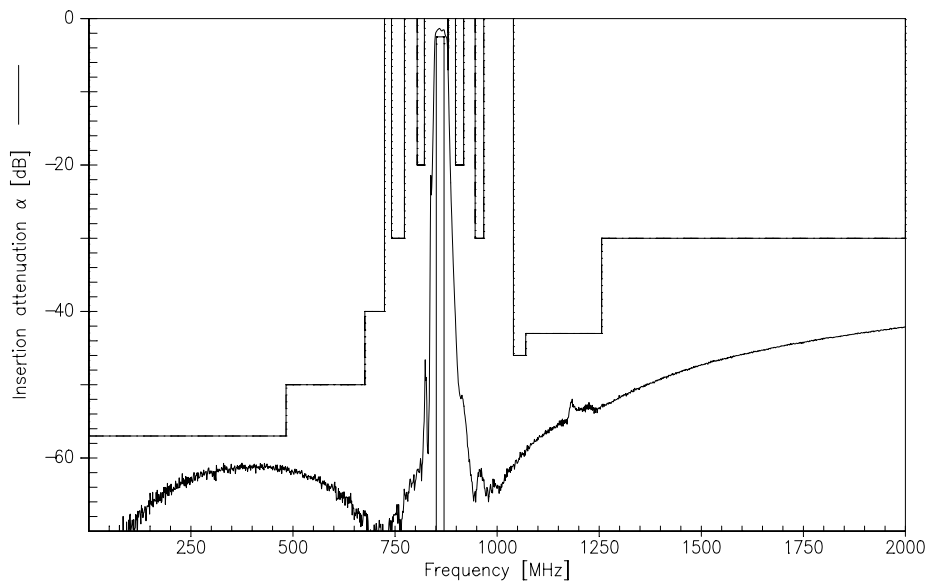


Data Sheet

Transfer function filter 1 (narrow band)



Transfer function filter 1 (wide band)





Data Sheet

Characteristics filter 2

Operating temperature range: $T = 25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	769,0	—	MHz
Maximum insertion attenuation	α_{max}				
	762,0 ... 776,0 MHz	—	1,7	2,4	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	762,0 ... 776,0 MHz	—	0,4	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
	762,0 ... 776,0 MHz	—	22,0	50,0	ns
Return loss (Input and Output)					
	762,0 ... 776,0 MHz	12,0	13,0	—	dB
Absolute attenuation	α_{abs}				
	0,0 ... 431,0 MHz	57	60	—	dB
	431,0 ... 604,0 MHz	50	60	—	dB
	604,0 ... 690,0 MHz	30	62	—	dB
	690,0 ... 733,0 MHz	20	56	—	dB
	733,0 ... 752,0 MHz	9	18	—	dB
	804,0 ... 847,0 MHz	25	36	—	dB
	847,0 ... 892,7 MHz	30	54	—	dB
	892,7 ... 910,7 MHz	50	56	—	dB
	910,7 ... 995,3 MHz	47	54	—	dB
	995,3 ... 1121,0 MHz	42	52	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



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Characteristics filter 2

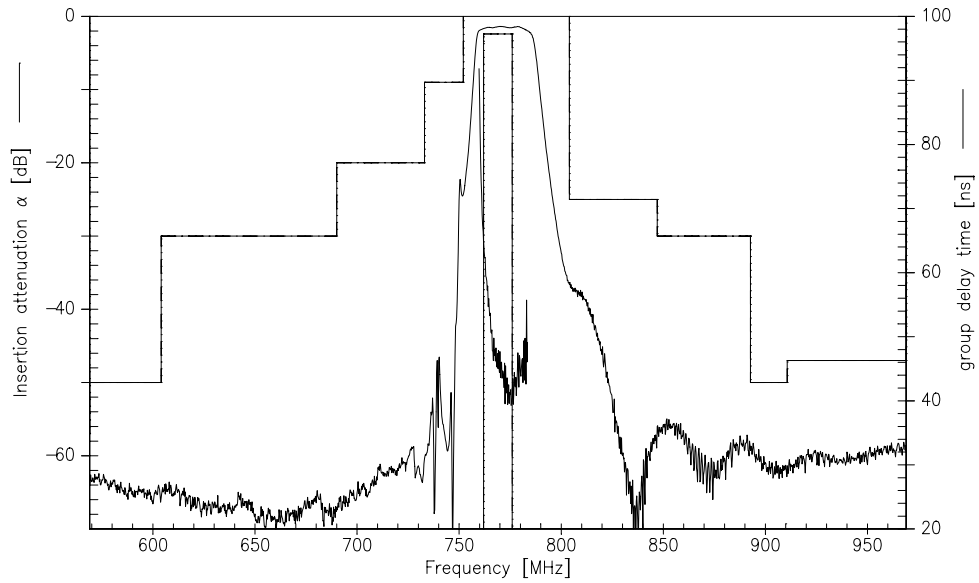
Operating temperature range: $T = -30 \dots +70 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	769,0	—	MHz
Maximum insertion attenuation	α_{\max}				
	762,0 ... 776,0 MHz	—	1,8	2,6	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	762,0 ... 776,0 MHz	—	0,5	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
	762,0 ... 776,0 MHz	—	30,0	50,0	ns
Return loss (Input and Output)					
	762,0 ... 776,0 MHz	12,0	13,0	—	dB
Absolute attenuation	α_{abs}				
	0,0 ... 431,0 MHz	57	60	—	dB
	431,0 ... 604,0 MHz	50	60	—	dB
	604,0 ... 690,0 MHz	30	62	—	dB
	690,0 ... 733,0 MHz	20	56	—	dB
	733,0 ... 752,0 MHz	9	16	—	dB
	804,0 ... 847,0 MHz	25	34	—	dB
	847,0 ... 892,7 MHz	30	54	—	dB
	892,7 ... 910,7 MHz	50	56	—	dB
	910,7 ... 995,3 MHz	47	54	—	dB
	995,3 ... 1121,0 MHz	42	52	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K

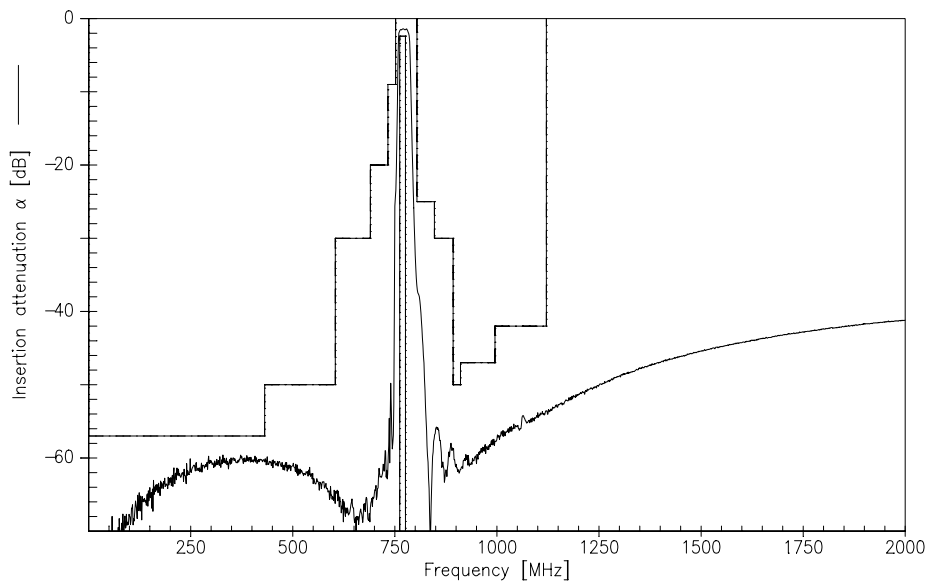


Data Sheet

Transfer function filter 2 (narrow band)



Transfer function filter 2 (wide band)





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