



SAW Components

Data Sheet B4232

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid of latitude and longitude lines. Overlaid on the globe is a large, stylized, 3D-effect word "EPCOS" in a light gray color. The word is tilted and appears to be floating or emerging from the globe. The background is dark and textured with some light streaks and a sense of motion.

EPCOS



SAW Components

B4232

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

769,0/860,5 MHz

Data Sheet

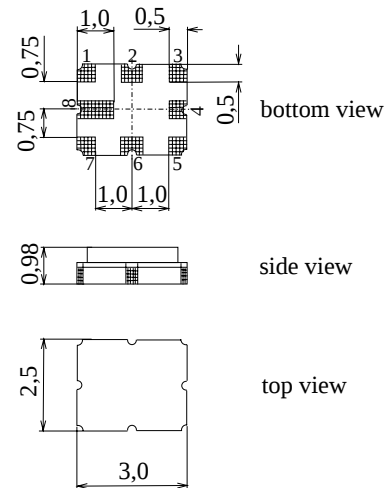
Features

- 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

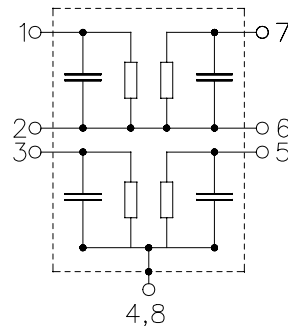
Ceramic package QCC8E



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	$^{\circ}\text{C}$	Machine Model, 10 pulses source and load impedance 50 Ω
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
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



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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	$\alpha_{\max}$				
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 ... 918,0 MHz		7	11	—	dB
898,0 ... 967,0 MHz		20	40	—	dB
946,0 ... 1070,0 MHz		30	59	—	dB
1040,0 ... 1256,0 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



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

769,0/860,5 MHz

Data Sheet

Characteristics filter 1

Operating temperature range: $T = -30 \dots +70 \text{ }^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50 \text{ } \Omega$

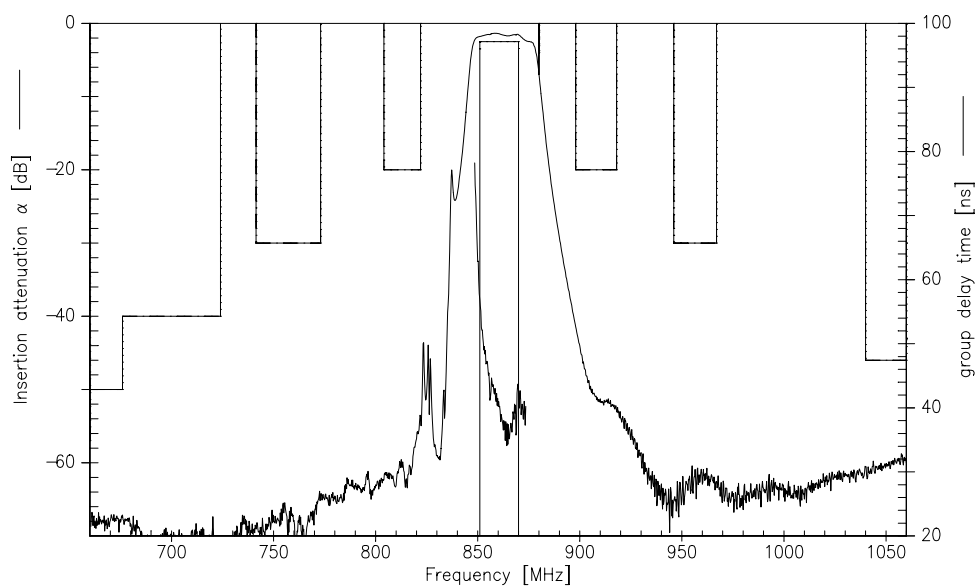
Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	860,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
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 ... 918,0 MHz		4	7	—	dB
898,0 ... 967,0 MHz		20	38	—	dB
946,0 ... 1070,0 MHz		30	59	—	dB
1040,0 ... 1256,0 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

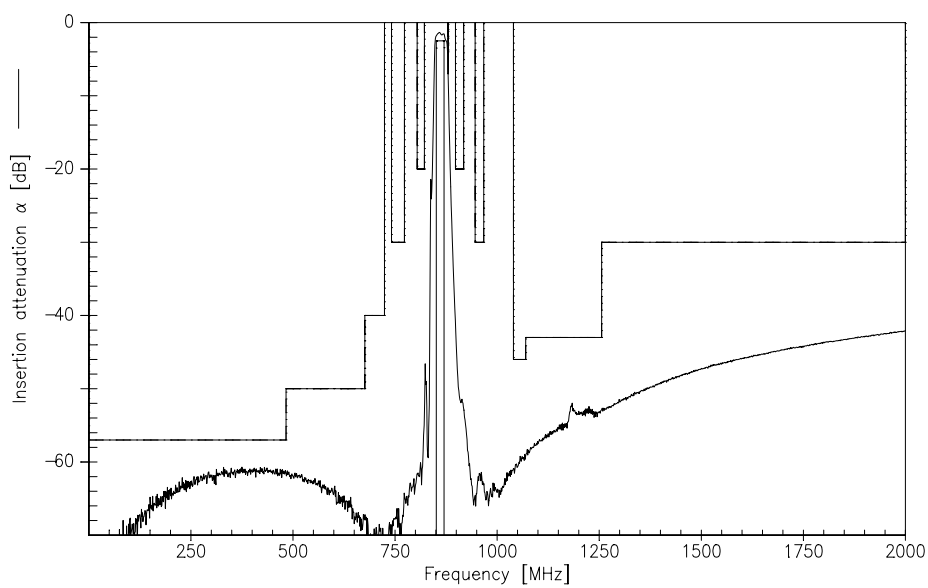


Data Sheet

Transfer function filter 1 (narrow band)



Transfer function filter 1 (wide band)





SAW Components

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

769,0/860,5 MHz

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	$\alpha_{\max}$				
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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Low-Loss '2 in 1' Filter for Mobile Communication

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Data Sheet

Characteristics filter 2

Operating temperature range: $T = -30 \dots +70 \text{ }^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50 \text{ }\Omega$

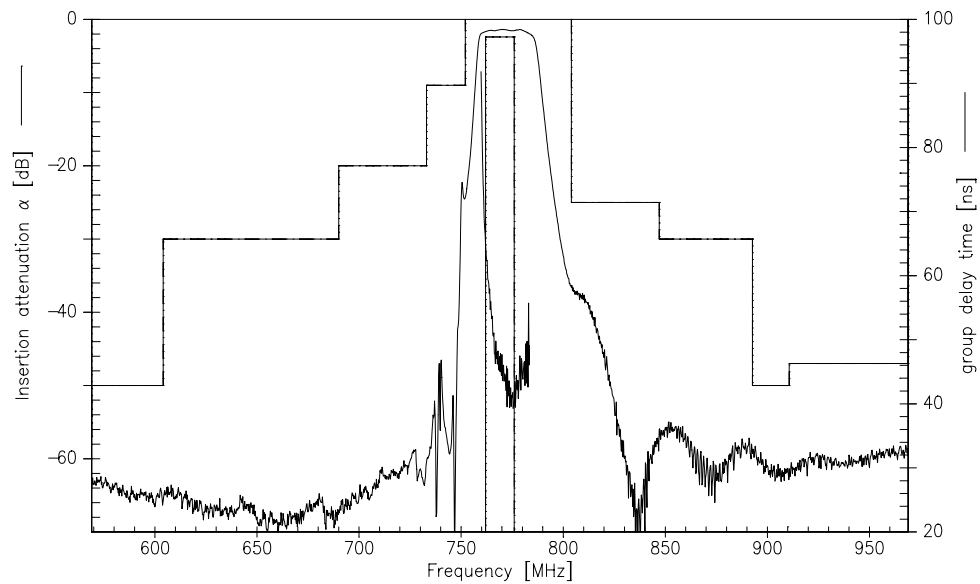
Terminating load impedance: $Z_L = 50 \text{ }\Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	769,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
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

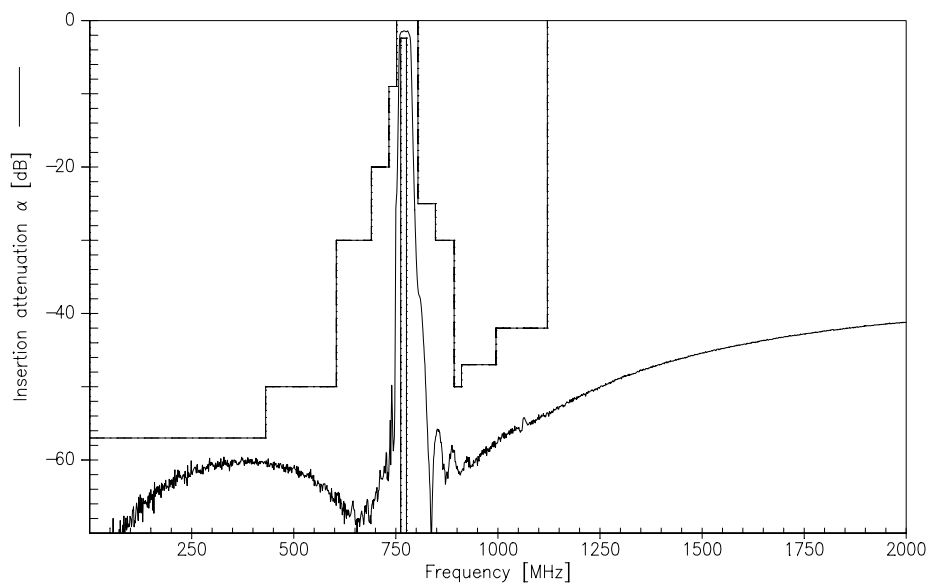


Data Sheet

Transfer function filter 2 (narrow band)



Transfer function filter 2 (wide band)





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