



SAW Components

Preliminary Data B4236





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B4236

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

769,0/809,5 MHz

Preliminary Data

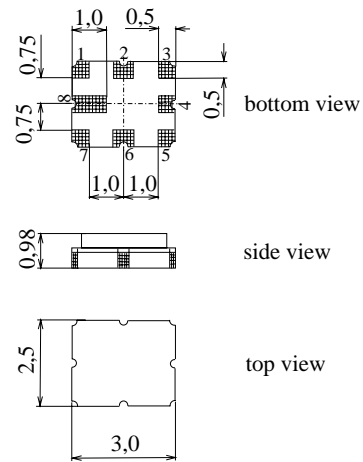
Features

- Low-loss '2 in 1' RF filter for Trunked Radio
- Device with two integrated Rx filters
- Low amplitude ripple
- Usable passband filter 1: 31,0 MHz
- Usable passband filter 2: 14,0 MHz
- No matching network required for operation at 50 Ω
- Package for **Surface Mounted Technology (SMT)**
- RoHS Compliant

Terminals

- Ni, gold-plated

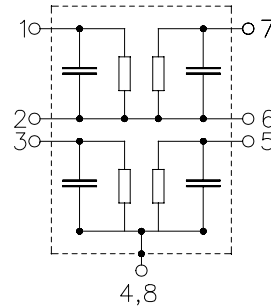
Ceramic package QCC8E



Dimensions in mm, approx. weight 27mg

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
B4236	B39811-B4236-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



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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	—	809,5	—	MHz
Maximum insertion attenuation	α_{max}				
	794,0 ... 825,0 MHz	—	2,3	2,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	794,0 ... 825,0 MHz	—	0,9	1,4	dB
Group delay ripple (p-p)	$\Delta\tau$				
	794,0 ... 825,0 MHz	—	27,0	50,0	ns
Return loss (Input and Output)					
	794,0 ... 825,0 MHz	8,0	9,0	—	dB
Absolute attenuation	α_{abs}				
	0,0 ... 777,0 MHz	20	28	—	dB
	851,0 ... 1564,5 MHz	20	39	—	dB
	1564,5 ... 1594,5 MHz	30	43	—	dB
	2326,5 ... 2371,5 MHz	36	41	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



Preliminary Data

Characteristics filter 1

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

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

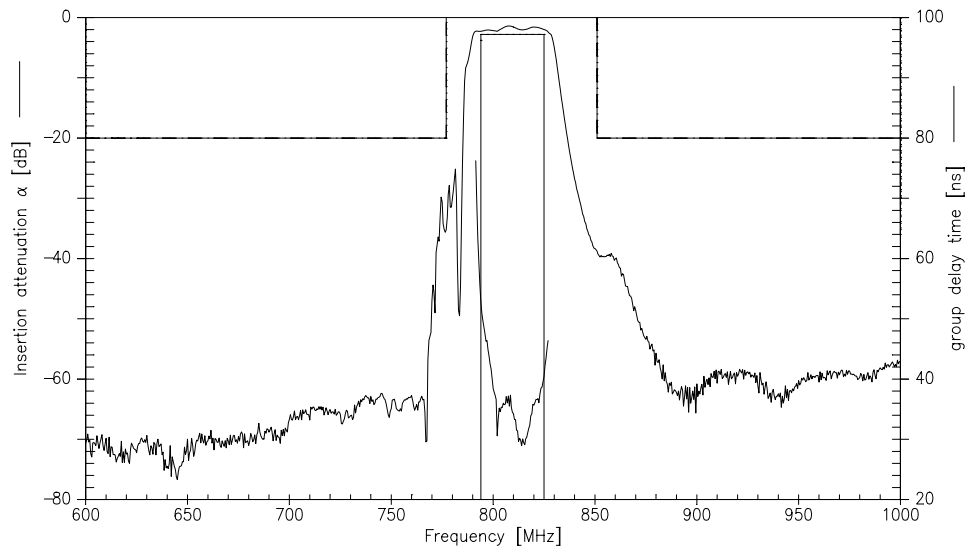
Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	809,5	—	MHz
Maximum insertion attenuation	α_{max}				
794,0 ... 825,0 MHz		—	2,3	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
794,0 ... 825,0 MHz		—	0,9	1,9	dB
Group delay ripple (p-p)	$\Delta\tau$				
794,0 ... 825,0 MHz		—	40,0	75,0	ns
Return loss (Input and Output)					
794,0 ... 825,0 MHz		8,0	9,0	—	dB
Absolute attenuation	α_{abs}				
0,0 ... 777,0 MHz		20	27	—	dB
851,0 ... 1564,5 MHz		20	37	—	dB
1564,5 ... 1594,5 MHz		30	43	—	dB
2326,5 ... 2371,5 MHz		36	41	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K

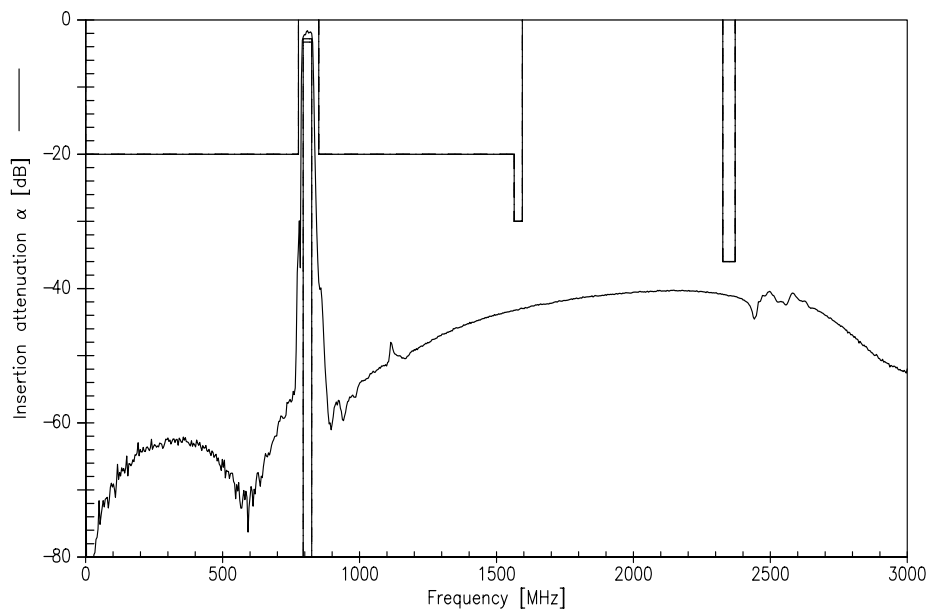


Preliminary Data

Transfer function filter 1 (narrow band)



Transfer function filter 1 (wide band)





Preliminary Data

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	13,5	—	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	58	—	dB
	690,0 ... 733,0 MHz	20	52	—	dB
	733,0 ... 752,0 MHz	9	22	—	dB
	804,0 ... 847,0 MHz	25	36	—	dB
	847,0 ... 892,7 MHz	30	52	—	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
	1524,0 ... 1554,0 MHz	30	42	—	dB
	2286,0 ... 2331,0 MHz	30	39	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



Preliminary Data

Characteristics filter 2

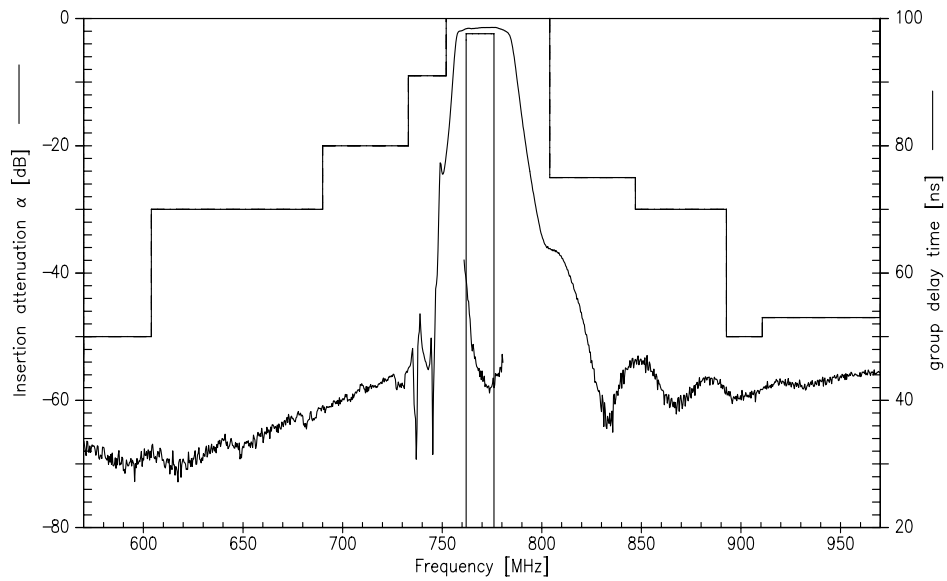
Operating temperature range: $T = -30 \dots +70 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		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	13,5	—	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	58	—	dB
	690,0 ... 733,0 MHz	20	52	—	dB
	733,0 ... 752,0 MHz	9	18	—	dB
	804,0 ... 847,0 MHz	25	36	—	dB
	847,0 ... 892,7 MHz	30	52	—	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
	1524,0 ... 1554,0 MHz	30	42	—	dB
	2286,0 ... 2331,0 MHz	30	39	—	dB
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K

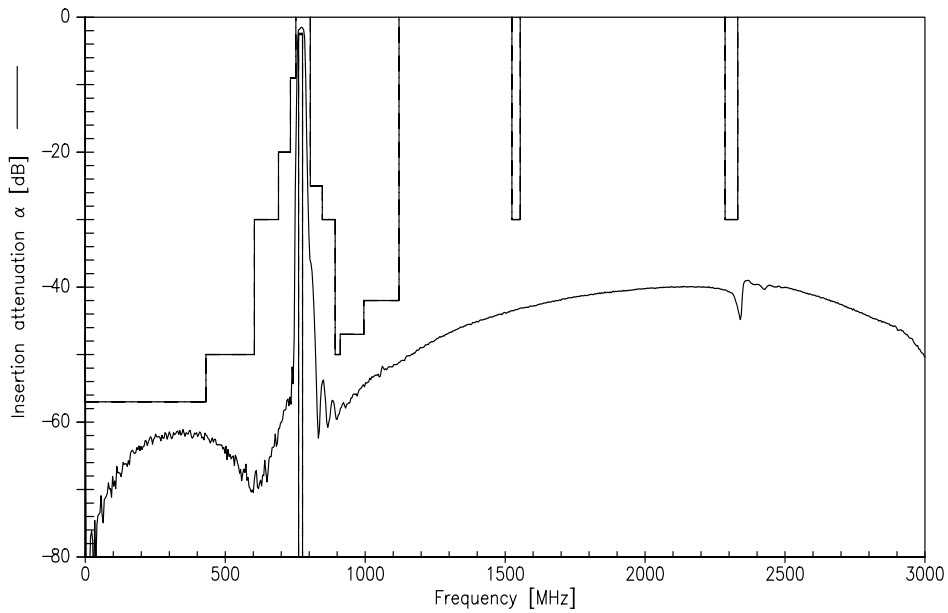


Preliminary Data

Transfer function filter 2 (narrow band)



Transfer function filter 2 (wide band)





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