



SAW Components

Data Sheet B7827

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a bright, circular highlight in the center of each, giving them a three-dimensional appearance. They are set against a dark, textured background that includes a faint, glowing globe and circuitry patterns, suggesting a high-tech or electronic theme.



SAW Components

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Low-Loss Filter for Mobile Communication

2140,0 MHz

Data Sheet



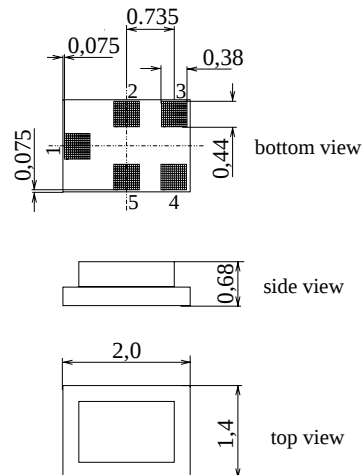
Chip sized SAW package QCS5E

Features

- Low-loss RF filter for mobile telephone W-CDMA system, receive path
- Low amplitude ripple
- Very low insertion loss
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transform from 50 Ω to 100 Ω
- Package for **Surface Mount Technology (SMT)**
- Chip Sized Package (CSSP)

Terminals

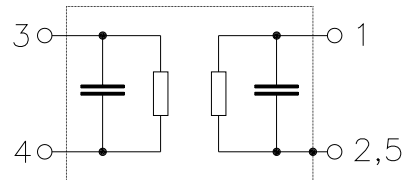
- Ni, gold-plated



Dimensions in mm, approx. weight 0,007 g

Pin configuration

- | | |
|-----|-------------------|
| 1 | Input, unbalanced |
| 3,4 | Output, balanced |
| 2,5 | Case ground |



Type	Ordering code	Marking and Package according to	Packing according to
B7827	B39212-B7827-K410	C61157-A7-A131	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	$^{\circ}\text{C}$	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40 / + 85	$^{\circ}\text{C}$	
ESD voltage	$V_{\text{MM}}^{1)}$	50	V	
DC voltage	V_{DC}	5	V	
Source Power	P_{S}	13	dBm	source impedance 50 Ω load impedance 100 Ω

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



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Characteristics

Operating Temperature Range:

$$T = 25^{\circ}\text{C}$$

Terminating source impedance:

$$Z_S = 50\Omega$$

Terminating load impedance:

$$Z_L = 100\Omega \parallel 18\text{ nH}$$

		min.	typ.	max.	
Center frequency	f_C	—	2140,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
	2110,0 ... 2170,0 MHz		1,5	1,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	2110,0 ... 2170,0 MHz	—	0,5	0,8	dB
Input VSWR					
	2110,0 ... 2170,0 MHz	—	1,8	2,2	
Output VSWR					
	2110,0 ... 2170,0 MHz	—	1,8	2,2	
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)					
	2110,0 ... 2170,0 MHz	-10	-2 ... 2	10	degree
Output amplitude balance ($ S_{31}/S_{21} $)					
	2110,0 ... 2170,0 MHz	-1,0	-0,7 ... 0,5	1,0	dB
Attenuation	α				
	0,0 ... 1920,0 MHz	35	43	—	dB
	1920,0 ... 1980,0 MHz	40	51	—	dB
	1980,0 ... 2025,0 MHz	32	42	—	dB
	2025,0 ... 2050,0 MHz	20	32	—	dB
	2250,0 ... 2350,0 MHz	20	27	—	dB
	2350,0 ... 6000,0 MHz	30	35	—	dB



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Characteristics

Operating Temperature Range: $T = -30$ to $+85^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50\Omega$
Terminating load impedance: $Z_L = 100\Omega \parallel 18\text{nH}$

		min.	typ.	max.	
Center frequency	f_C	—	2140,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	1,7	2,1	dB
2110,0 ... 2170,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,7	1,2	dB
2110,0 ... 2170,0 MHz					
Input VSWR		—	1,8	2,2	
2110,0 ... 2170,0 MHz					
Output VSWR		—	1,8	2,2	
2110,0 ... 2170,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-10	-2 ... 2	10	degree
2110,0 ... 2170,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-1,0	-0,7 ... 0,6	1,0	dB
2110,0 ... 2170,0 MHz					
Attenuation	α				
0,0 ... 1920,0 MHz		35	43	—	dB
1920,0 ... 1980,0 MHz		40	51	—	dB
1980,0 ... 2025,0 MHz		32	37	—	dB
2025,0 ... 2050,0 MHz		20	26	—	dB
2250,0 ... 2350,0 MHz		20	27	—	dB
2350,0 ... 6000,0 MHz		30	35	—	dB



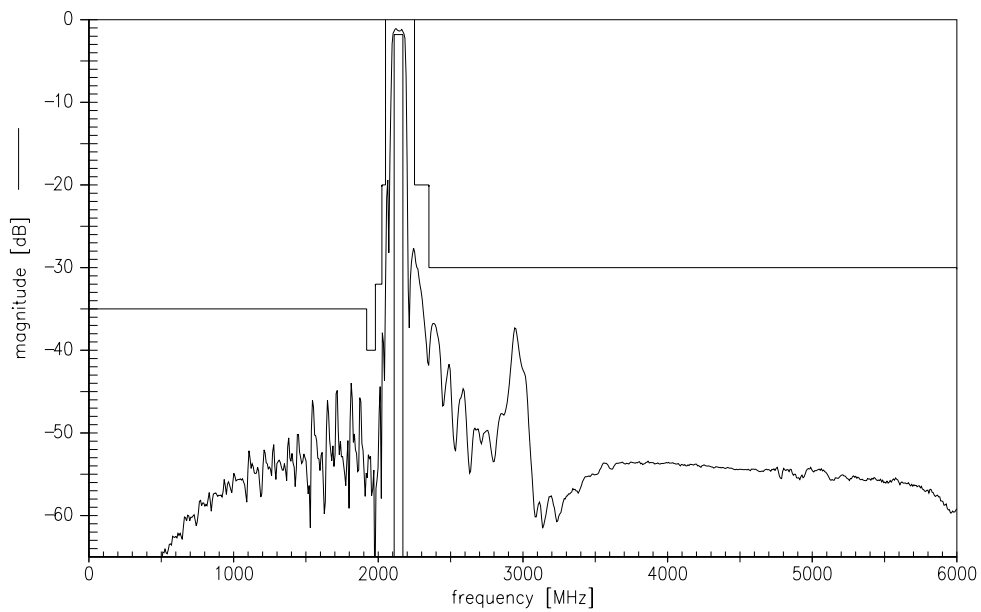
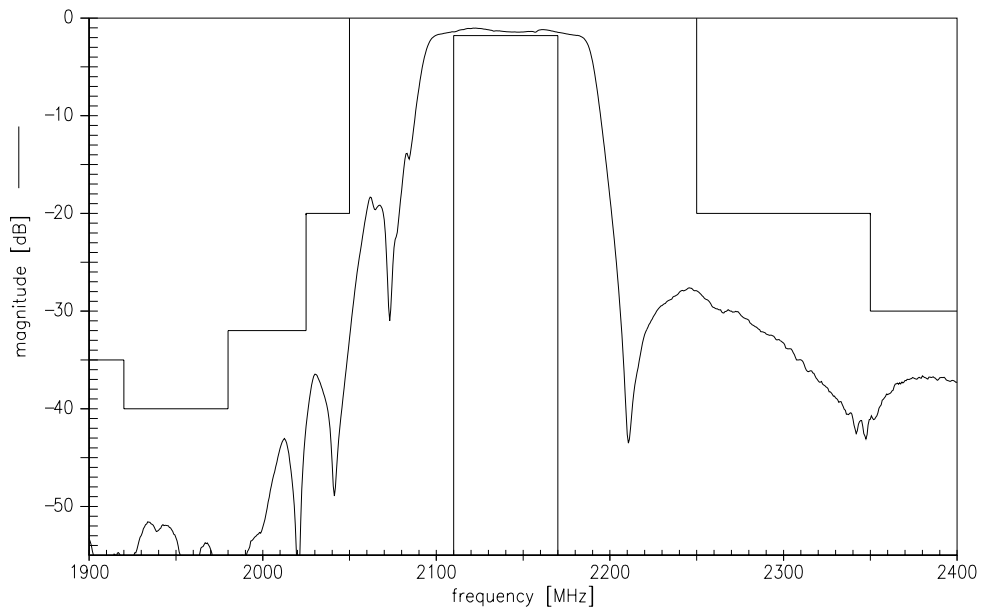
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SAW Components	B7827
Low-Loss Filter for Mobile Communication	2140,0 MHz
Data Sheet	SMD

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

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