



SAW Components

Data Sheet B7827





SAW Components

B7827

Low-Loss Filter for Mobile Communication

2140,0 MHz

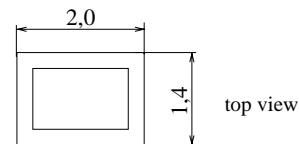
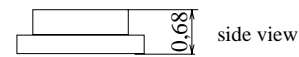
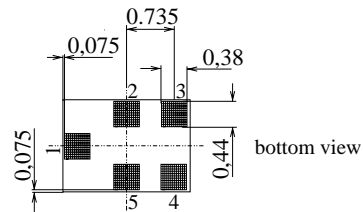
Data Sheet



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)



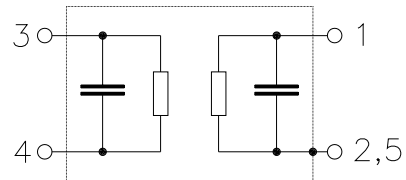
Terminals

- 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	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40 / + 85	°C	
ESD voltage	$V_{MM}^{1)}$	50	V	
DC voltage	V_{DC}	5	V	
Source Power	P_S	13	dBm	source impedance 50Ω load impedance 100Ω

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



SAW Components

B7827

Low-Loss Filter for Mobile Communication

2140,0 MHz

Data Sheet



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	α_{\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



SAW Components

B7827

Low-Loss Filter for Mobile Communication

2140,0 MHz

Data Sheet



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	α_{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



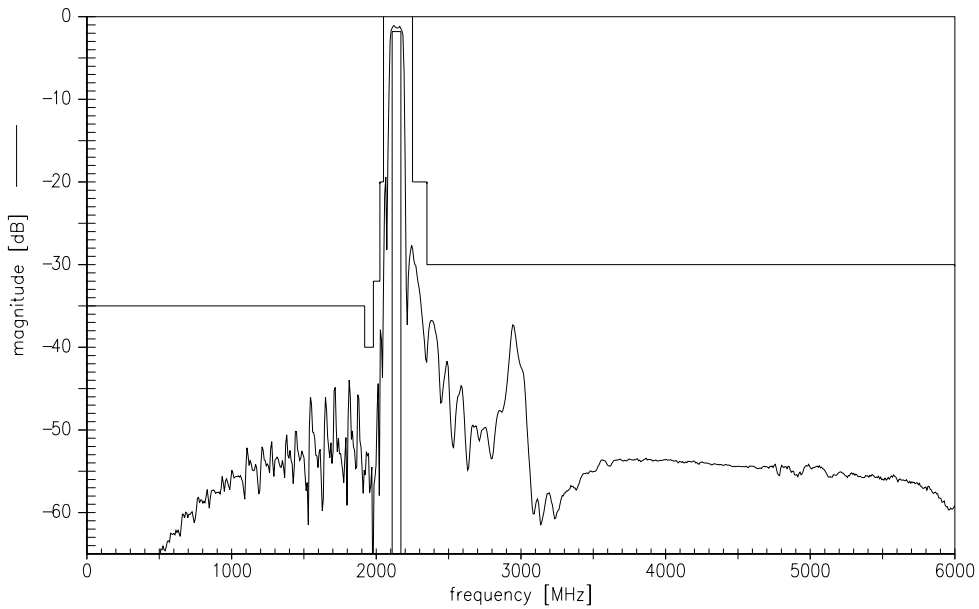
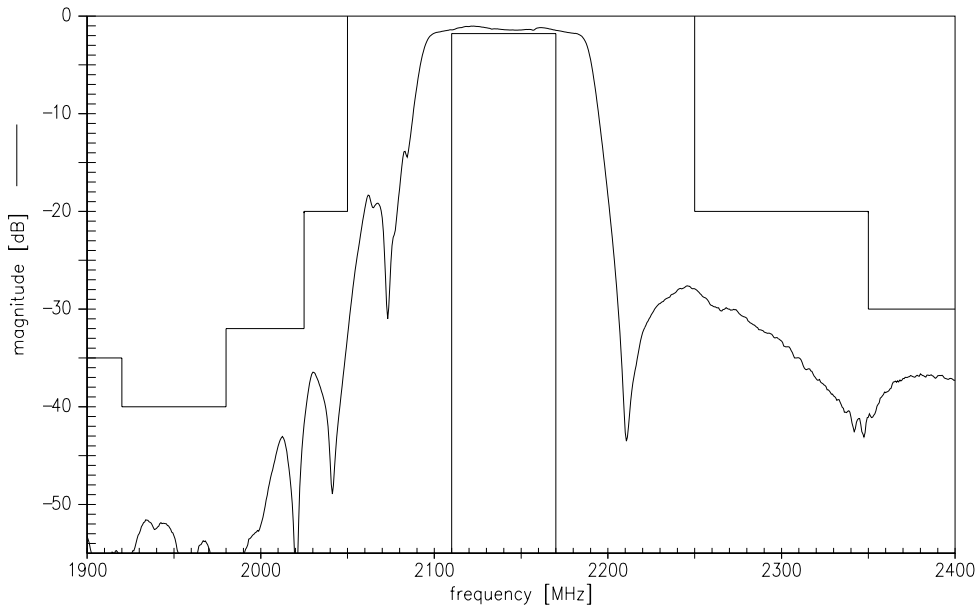
SAW Components

B7827

Low-Loss Filter for Mobile Communication

2140,0 MHz

Data Sheet





SAW Components

B7827

Low-Loss Filter for Mobile Communication

2140,0 MHz

Data Sheet



Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2003. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.