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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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SAW Components

Data Sheet B7844

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the top of the EPCOS logo triangle. The background is dark and textured, with a faint map of the world visible.



SAW Components

B7844

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



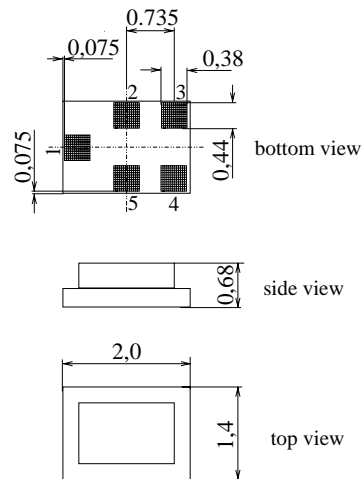
Chip sized SAW package QCS5E

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 75 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 150 Ω
- Suitable for GPRS class 1 to 12
- Package for **Surface Mount Technology (SMT)**
- Pb-free

Terminals

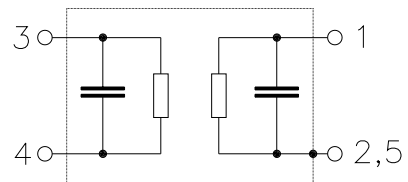
- Ni, gold-plated



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
B7844	B39182-B7844-K410	C61157-A7-A131	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 75	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50*	V	
Input Power at				peak power of GSM signal, duty cycle 4:8
GSM850, GSM900	P_{IN}	15	dBm	
GSM1800, GSM1900	P_{IN}	12	dBm	
Tx bands				

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



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Data Sheet



Characteristics

Operating temperature range: $T = 25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 150 \Omega \parallel 15 \text{ nH (balanced)}$

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}	1805,0 ... 1880,0 MHz	—	1,9	2,1	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1805,0 ... 1880,0 MHz	—	0,6	1,0	dB
Input VSWR		1805,0 ... 1880,0 MHz	—	2,1	2,6	
Output VSWR		1805,0 ... 1880,0 MHz	—	2,0	2,6	
Output amplitude balance (S_{31}/S_{21})		1805,0 ... 1880,0 MHz	-1,0	-0,5 / +0,5	1,0	dB
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		1805,0 ... 1880,0 MHz	-10	-1 / +3	10	°
Attenuation	α					
		0,0 ... 902,0 MHz	30	50	—	dB
		902,0 ... 940,0 MHz	45	50	—	dB
		940,0 ... 1705,0 MHz	28	33	—	dB
		1705,0 ... 1785,0 MHz	12	16	—	dB
		1920,0 ... 1980,0 MHz	15	18	—	dB
		1980,0 ... 2030,0 MHz	24	28	—	dB
		2030,0 ... 2400,0 MHz	28	32	—	dB
		2400,0 ... 2500,0 MHz	32	37	—	dB
		2500,0 ... 2775,0 MHz	27	30	—	dB
		2775,0 ... 2880,0 MHz	40	47	—	dB
		2880,0 ... 3610,0 MHz	28	46	—	dB
		3610,0 ... 3760,0 MHz	40	46	—	dB
		3760,0 ... 5415,0 MHz	28	47	—	dB
		5415,0 ... 5640,0 MHz	35	44	—	dB
		5640,0 ... 6000,0 MHz	28	44	—	dB



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1842,5 MHz

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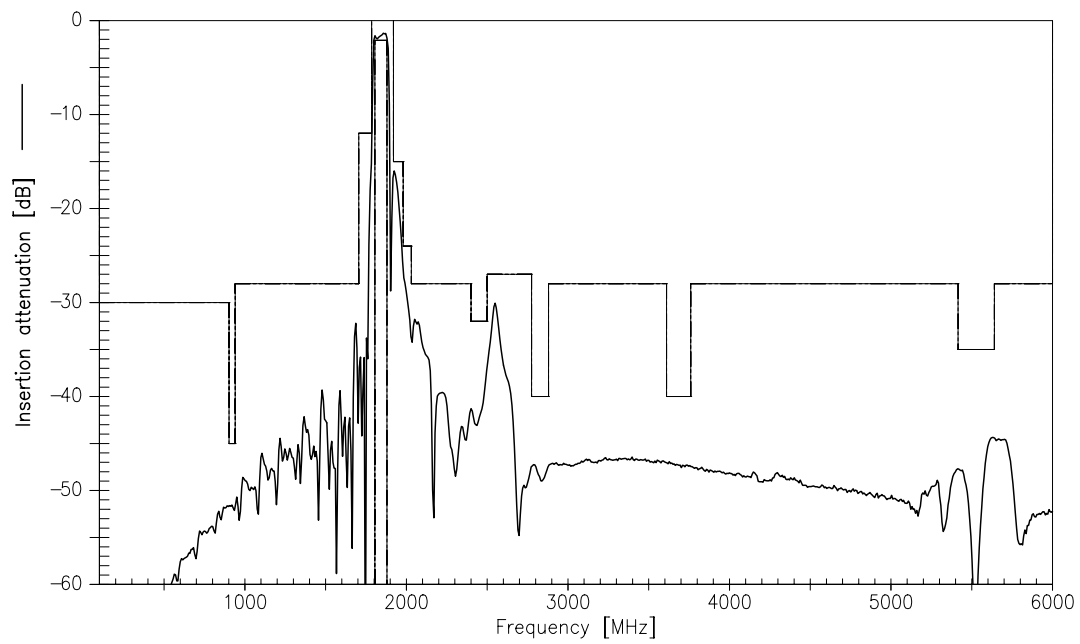
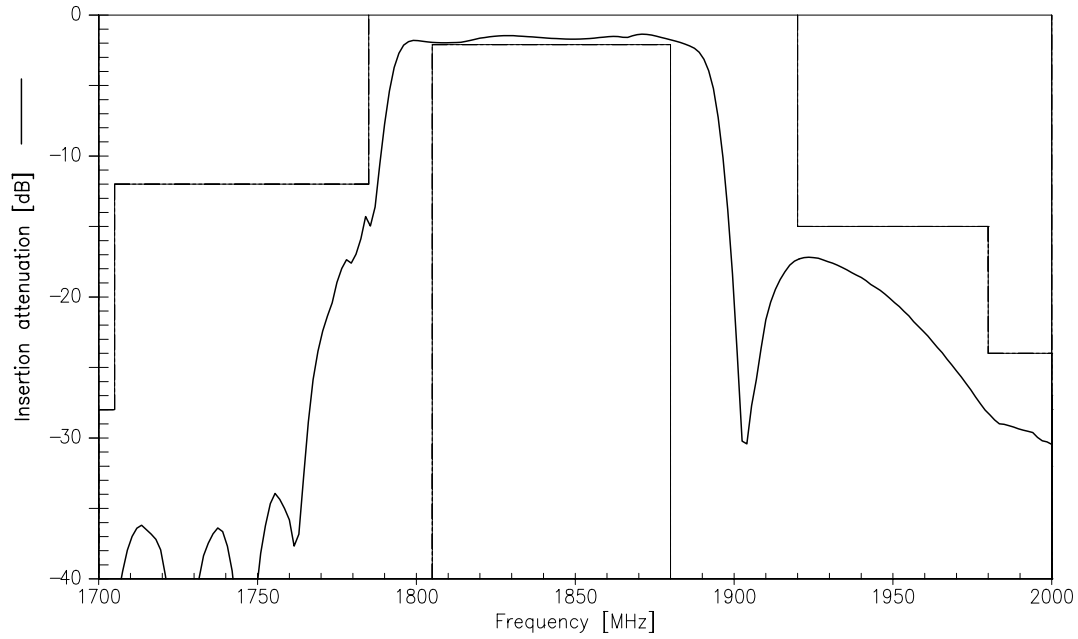
Characteristics

Operating temperature range: $T = -20$ to $+75$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 150 \Omega \parallel 15$ nH (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}	—	1,9	2,3	dB
1805,0 ... 1880,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,6	1,3	dB
1805,0 ... 1880,0 MHz					
Input VSWR		—	2,1	2,6	
1805,0 ... 1880,0 MHz					
Output VSWR		—	2,0	2,6	
1805,0 ... 1880,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-1,0	-0,7 / +0,5	1,0	dB
1805,0 ... 1880,0 MHz					
Output phase balance ($\phi(S_{31})-\phi(S_{21})+180^\circ$)		-10	-1 / +4	10	°
1805,0 ... 1880,0 MHz					
Attenuation	α				
0,0 ... 902,0 MHz		30	50	—	dB
902,0 ... 940,0 MHz		45	50	—	dB
940,0 ... 1705,0 MHz		28	33	—	dB
1705,0 ... 1785,0 MHz		10	14	—	dB
1920,0 ... 1980,0 MHz		15	18	—	dB
1980,0 ... 2030,0 MHz		23	28	—	dB
2030,0 ... 2400,0 MHz		28	32	—	dB
2400,0 ... 2500,0 MHz		32	37	—	dB
2500,0 ... 2775,0 MHz		27	30	—	dB
2775,0 ... 2880,0 MHz		40	47	—	dB
2880,0 ... 3610,0 MHz		28	46	—	dB
3610,0 ... 3760,0 MHz		40	46	—	dB
3760,0 ... 5415,0 MHz		28	47	—	dB
5415,0 ... 5640,0 MHz		35	44	—	dB
5640,0 ... 6000,0 MHz		28	44	—	dB



Transfer function





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