



SAW Components

Data Sheet B7824

Data Sheet

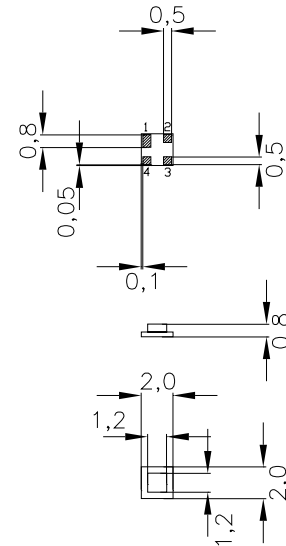
A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, sans-serif font, appearing to be part of a curved, metallic-looking structure. The background is dark and textured, suggesting a globe or a complex surface.


Chip Sized SAW Package DCS4A
Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- No matching network required for operation at 50 Ω
- Suitable for GPRS class 1 to 12
- Package for **Surface Mounted Technology (SMT)**

Terminals

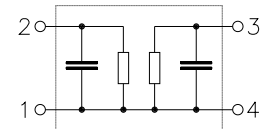
- Ni, gold-plated



Dimensions in mm, approx. weight 0,01 g

Pin configuration

- | | |
|---|-----------------|
| 2 | Input |
| 1 | Input - ground |
| 3 | Output |
| 4 | Output - ground |



Type	Ordering code	Marking and Package according to	Packing according to
B7824	B39202-B7824-A510	C61157-A7-A63	F61074-V8154-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

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



Data Sheet



Characteristics

Operating temperature range: $T = +25 \pm 2^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	1930,0 ... 1990,0 MHz	—	2,7	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1930,0 ... 1990,0 MHz	—	1,3	1,9	dB
Input VSWR		1930,0 ... 1990,0 MHz	—	1,85	2,0	
Output VSWR		1930,0 ... 1990,0 MHz	—	1,85	2,0	
Attenuation	α					
		10,0 ... 1500,0 MHz	19,0	21,0	—	dB
		1500,0 ... 1800,0 MHz	23,0	27,0	—	dB
		1800,0 ... 1910,0 MHz	13,0	22,0	—	dB
		2010,0 ... 2070,0 MHz	11,0	18,0	—	dB
		2070,0 ... 2800,0 MHz	21,0	23,0	—	dB
		2800,0 ... 6000,0 MHz	16,0	18,0	—	dB



SAW Components

B7824

Low-Loss Filter for Mobile Communication

1960,00 MHz

Data Sheet



Characteristics

Operating temperature range: $T = -10$ to $+80^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	1930,0 ... 1990,0 MHz	—	3,2	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1930,0 ... 1990,0 MHz	—	1,7	2,5	dB
Input VSWR		1930,0 ... 1990,0 MHz	—	1,85	2,0	
Output VSWR		1930,0 ... 1990,0 MHz	—	1,85	2,0	
Attenuation	α					
		10,0 ... 1500,0 MHz	19,0	21,0	—	dB
		1500,0 ... 1800,0 MHz	23,0	27,0	—	dB
		1800,0 ... 1910,0 MHz	8,0	15,0	—	dB
		2010,0 ... 2070,0 MHz	8,0	14,0	—	dB
		2070,0 ... 2800,0 MHz	21,0	23,0	—	dB
		2800,0 ... 6000,0 MHz	16,0	18,0	—	dB



SAW Components

B7824

Low-Loss Filter for Mobile Communication

1960,00 MHz

Data Sheet



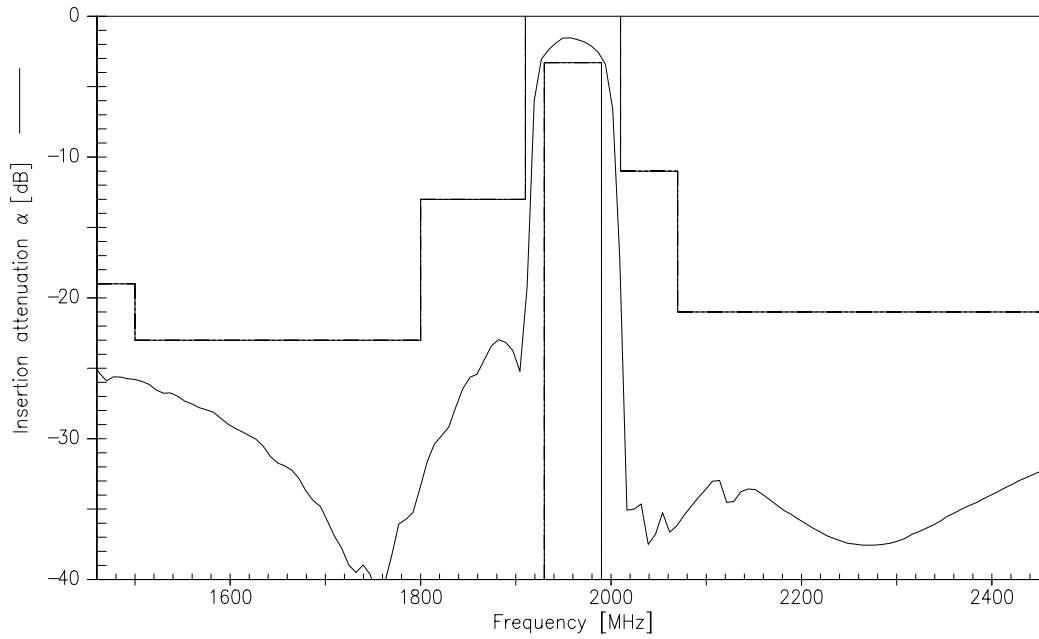
Characteristics

Operating temperature range: $T = -30$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

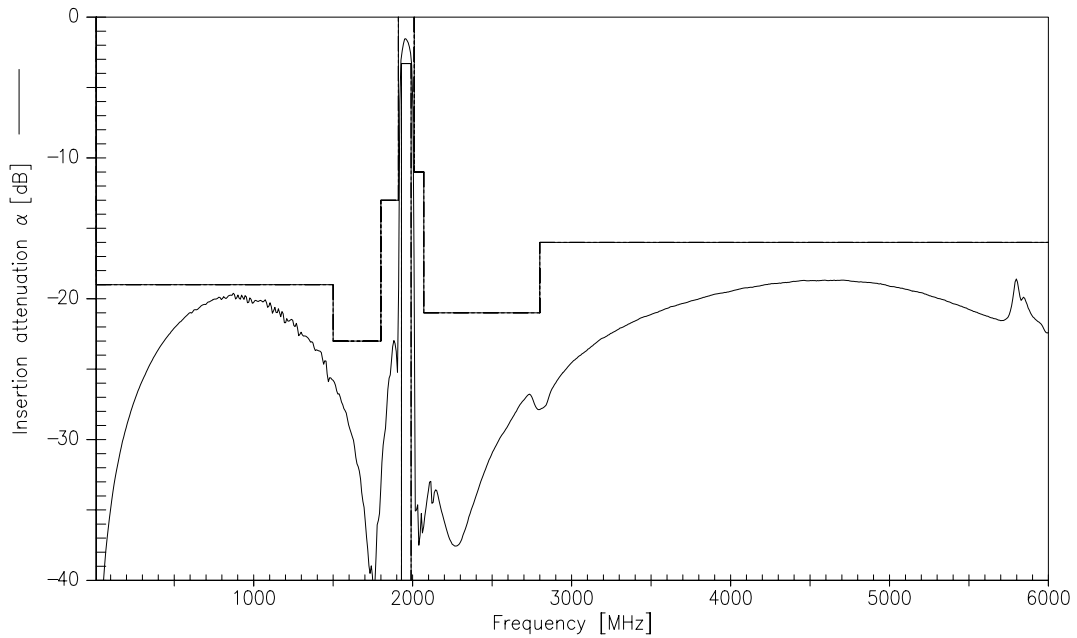
				min.	typ.	max.	
Center frequency		f_c		—	1960,0	—	MHz
Maximum insertion attenuation	1930,0 ... 1990,0	α_{\max}	MHz	—	3,3	4,3	dB
Amplitude ripple (p-p)	1930,0 ... 1990,0	$\Delta\alpha$	MHz	—	1,7	2,7	dB
Input VSWR	1930,0 ... 1990,0		MHz	—	1,85	2,0	
Output VSWR	1930,0 ... 1990,0		MHz	—	1,85	2,0	
Attenuation		α					
	10,0 ... 1500,0		MHz	19,0	21,0	—	dB
	1500,0 ... 1800,0		MHz	23,0	27,0	—	dB
	1800,0 ... 1910,0		MHz	7,5	14,0	—	dB
	2010,0 ... 2070,0		MHz	7,0	12,0	—	dB
	2070,0 ... 2800,0		MHz	21,0	23,0	—	dB
	2800,0 ... 6000,0		MHz	16,0	18,0	—	dB



Transfer Function(25° C spec)

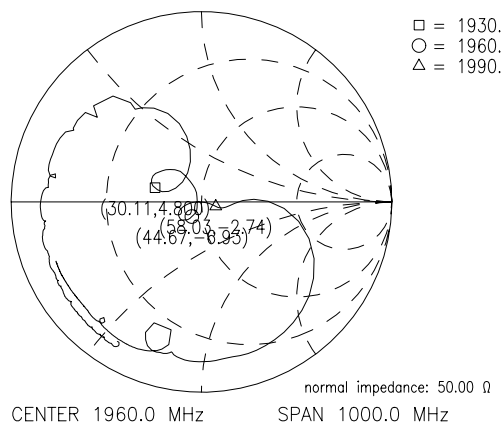
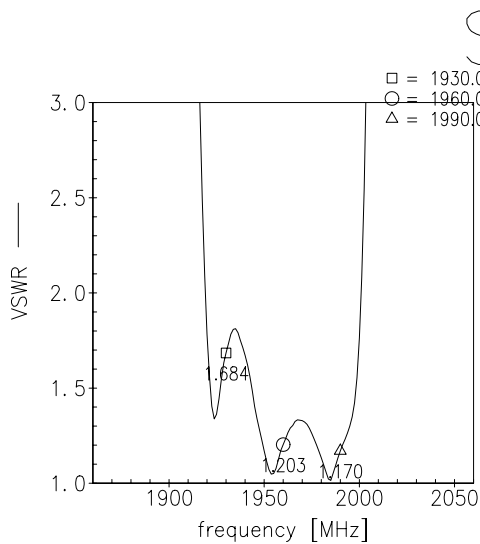
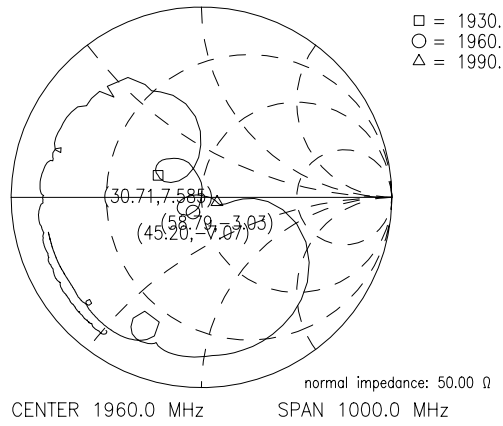
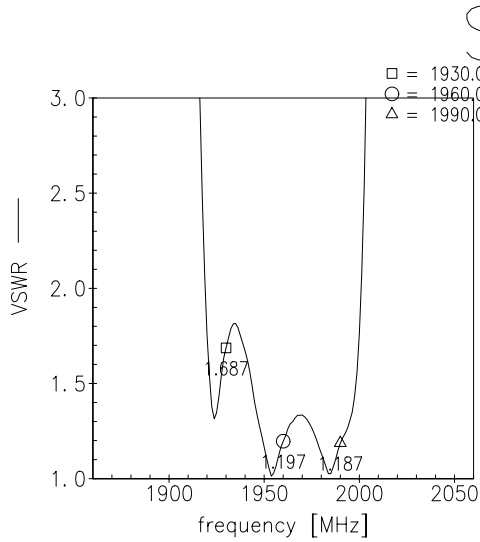


Transfer function (wideband)





Reflection functions





SAW Components

B7824

Low-Loss Filter for Mobile Communication

1960,00 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 2002. 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.