EPCOS

SAW Components

Data Sheet B7824

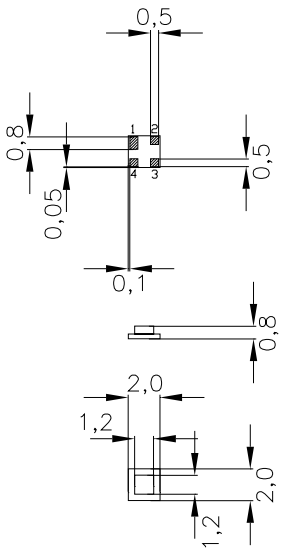
Chip **S**ized **S**AW **P**ackage **DCS4A**

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 **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

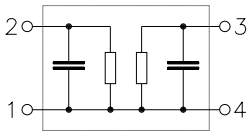
- Ni, gold-plated



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 **S**ensitive **D**evice (**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,
GSM1800, GSM1900	P_{IN}	12	dBm	duty cycle 4:8
Tx bands				

Data Sheet SMD

Characteristics

Operating temperature range: T = +25 +- 2˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			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

Data Sheet SMD

Characteristics

Operating temperature range: T = -10 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

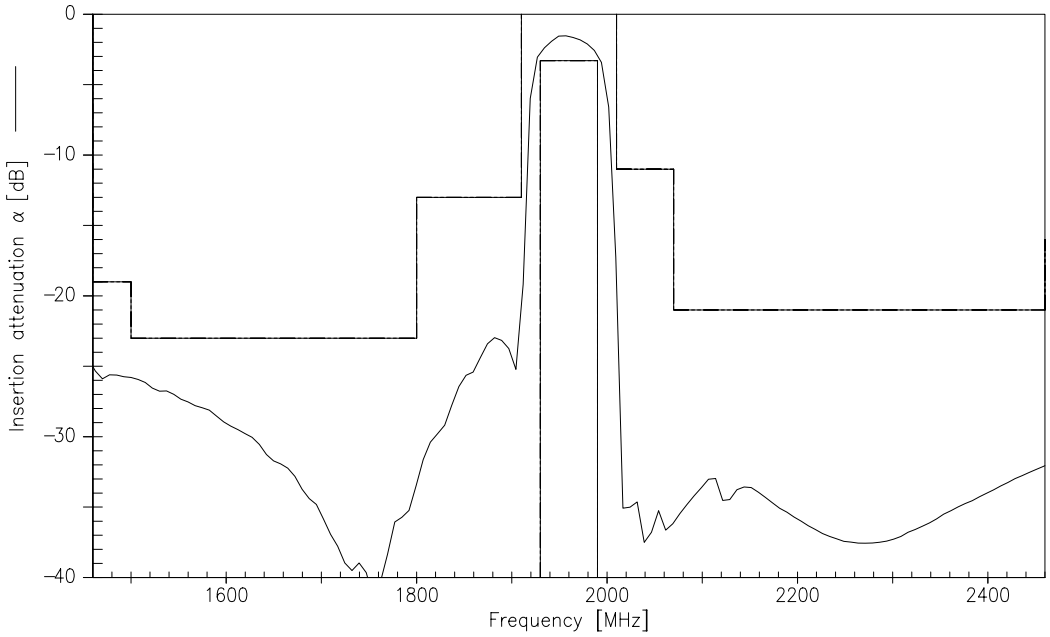
			min.	typ.	max.	
Center frequency	f_c		—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}					
1930,0 ...1990,0	MHz		—	3,2	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1930,0 ...1990,0	MHz		—	1,7	2,5	dB
Input VSWR						
1930,0 ...1990,0	MHz		—	1,85	2,0	
Output VSWR						
1930,0 ...1990,0	MHz		—	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

Characteristics

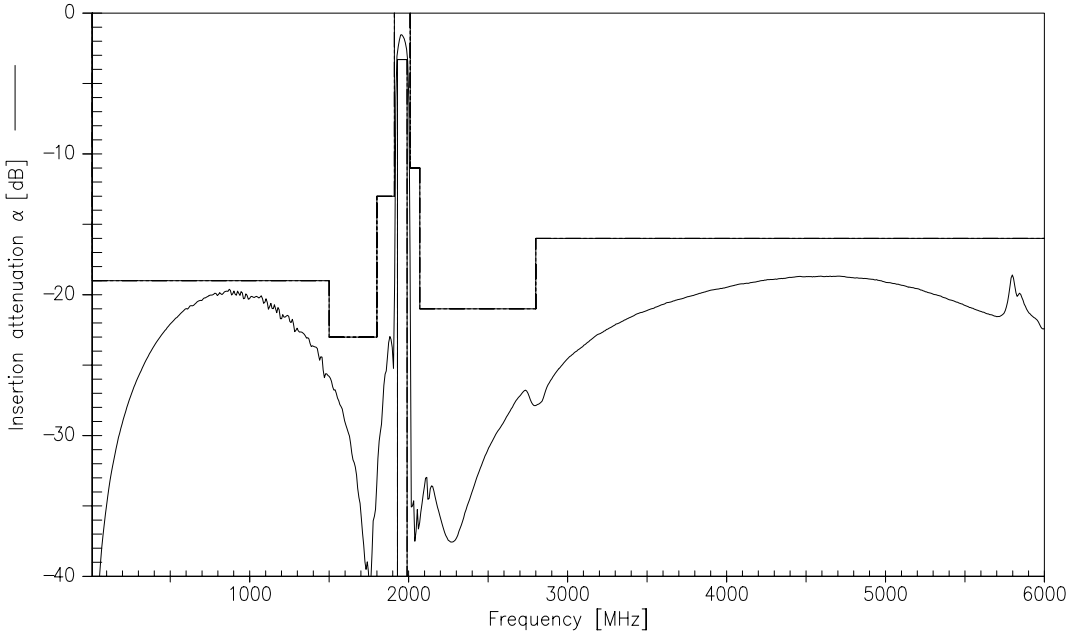
Operating temperature range: T = -30 to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency		f_c	—	1960,0	—	MHz
Maximum insertion attenuation		α_{max}				
	1930,0 ...1990,0 MHz		—	3,3	4,3	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	1930,0 ...1990,0 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

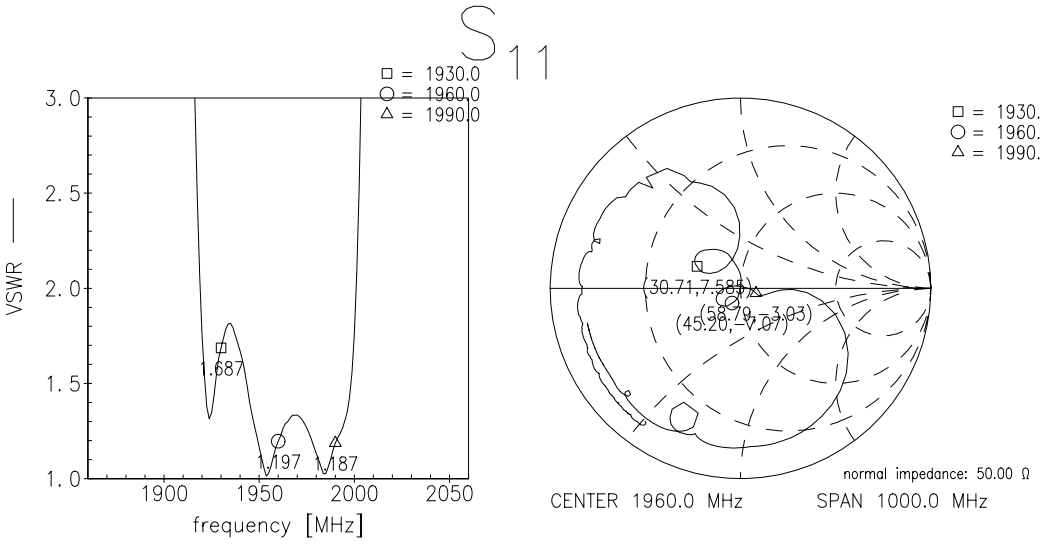
Transfer Function(25˚C spec)

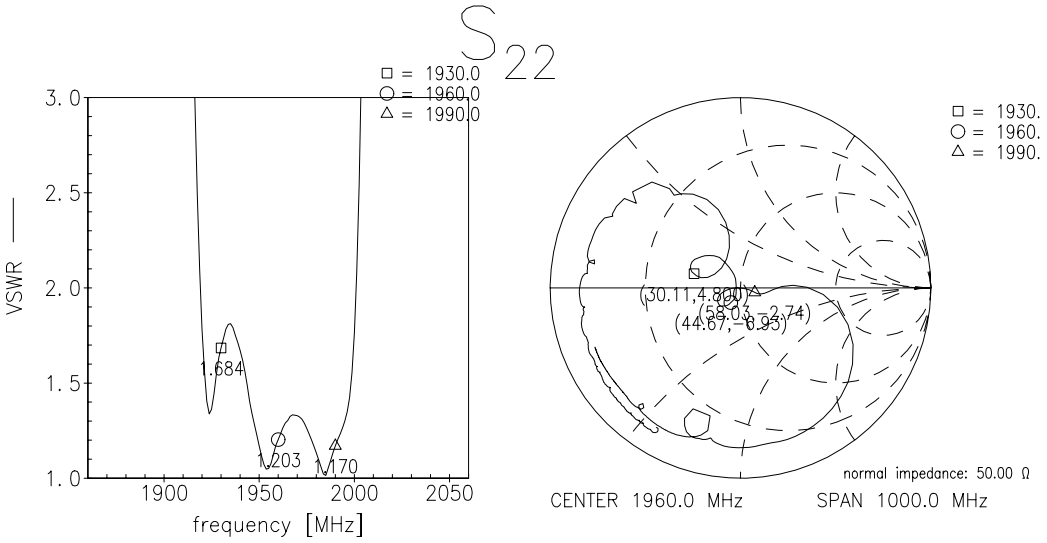


Transfer function (wideband)



Reflection functions





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