



SAW Components

Data Sheet B7824





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B7824

Low-Loss Filter for Mobile Communication

1960,00 MHz

Data Sheet



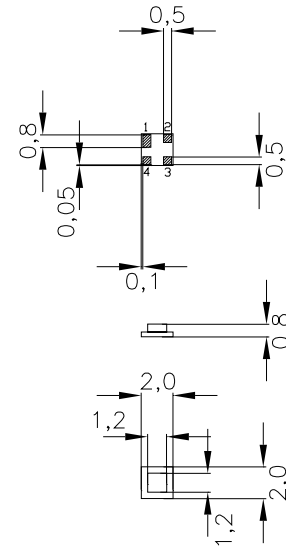
Chip Sized SAW Package DCS4A

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

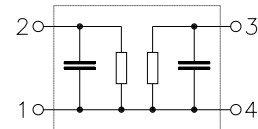
- Ni, gold-plated



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				



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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



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



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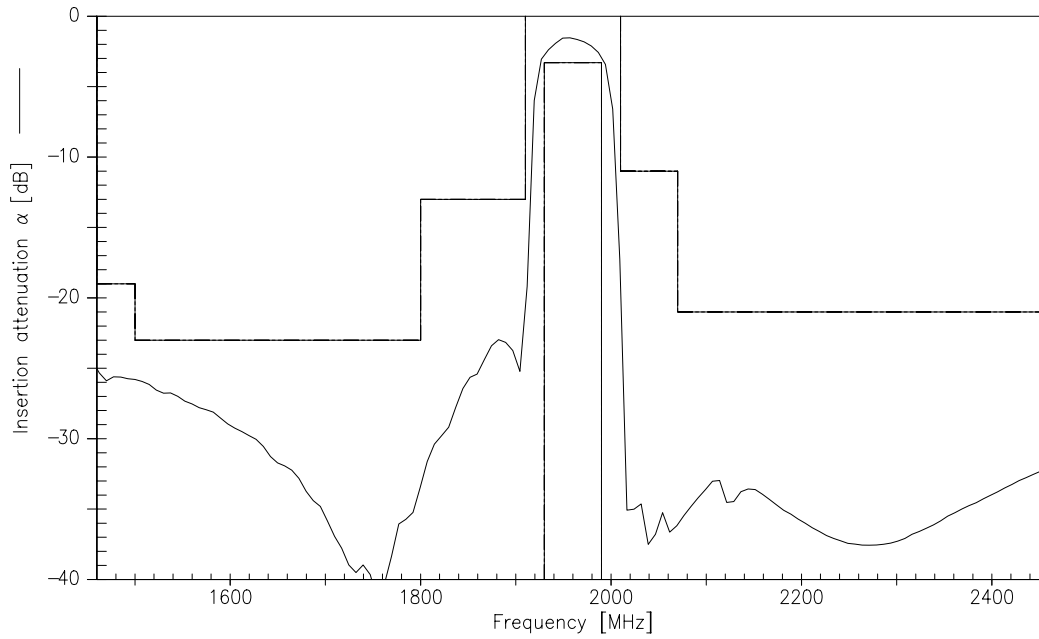
Characteristics

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

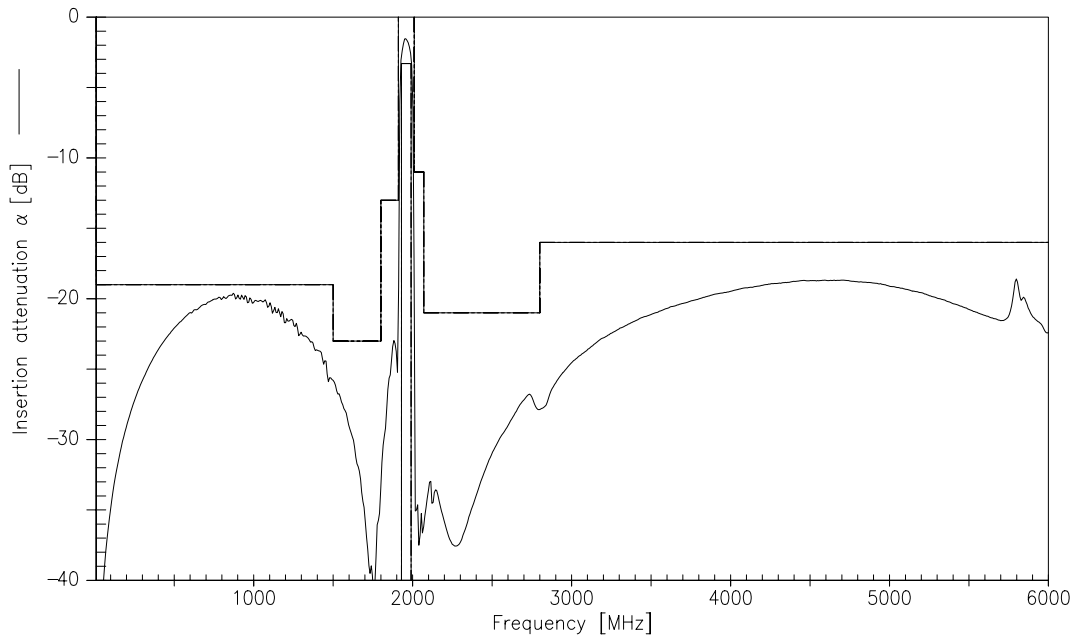
				min.	typ.	max.	
Center frequency		f_c		—	1960,0	—	MHz
Maximum insertion attenuation	1930,0 ... 1990,0	α_{\max}	MHz	—	3,3	4,3	dB
Amplitude ripple (p-p)	1930,0 ... 1990,0	$\Delta\alpha$	MHz	—	1,7	2,7	dB
Input VSWR	1930,0 ... 1990,0		MHz	—	1,85	2,0	
Output VSWR	1930,0 ... 1990,0		MHz	—	1,85	2,0	
Attenuation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

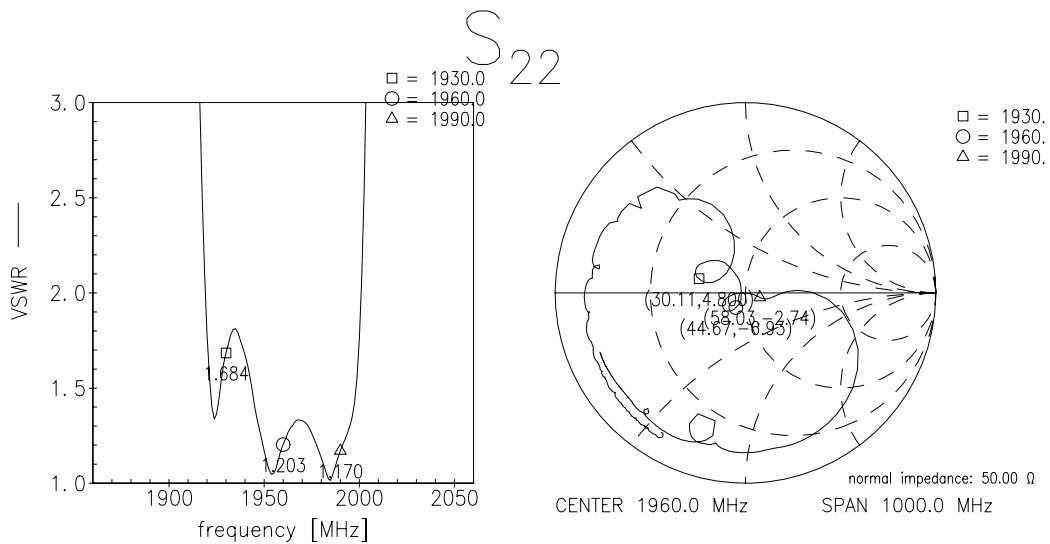
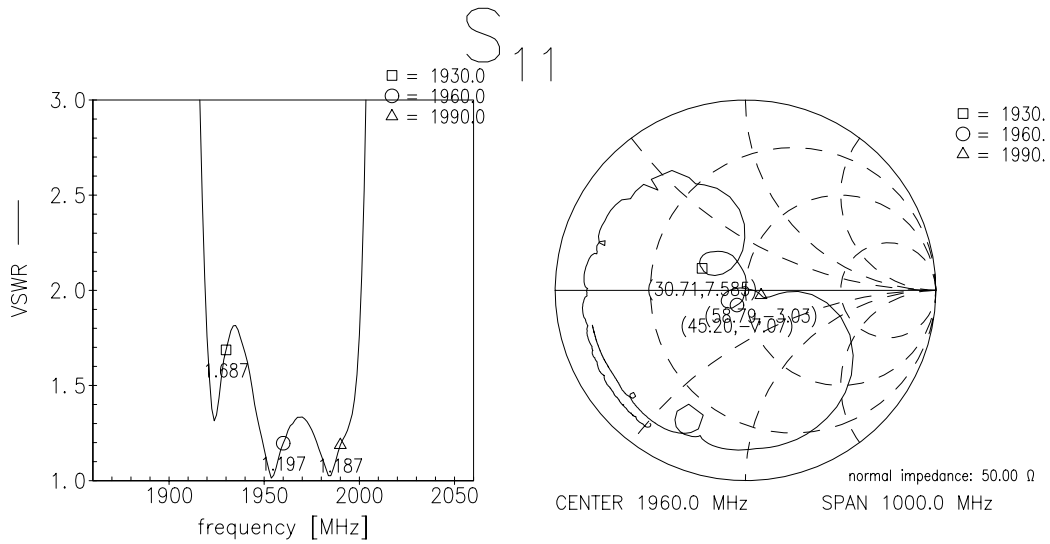


Transfer function (wideband)





Reflection functions





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