EPCOS

SAW Components

Preliminary Data B7801

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Low-Loss Filter for Mobile Communication **1960,00 MHz**

Preliminary Data SMD
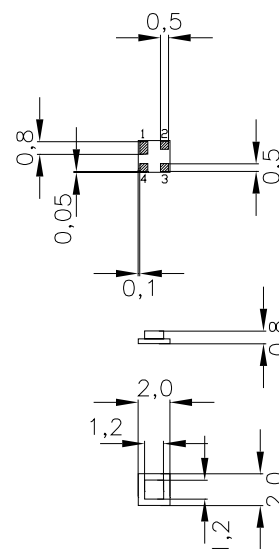
Chip sized

Dimensions in mm, approx. weight 0,01 g

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
■ Ceramic package for **S**urface **M**ounted technology (**SMT**)
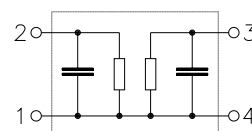
Terminals

■ Ni, gold-plated

Pin configuration

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

Type	Ordering code	Marking and Package according to	Packing according to
B7801		C61157-A7-A63	F61074-V8099-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 30/+ 80	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω
	P_{IN}	5	dBm	peak power of GSM signal, duty cycle 1 : 8
		0	dBm	CDMA signal

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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		—	3,1	3,7	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	1930,0 ...1990,0 MHz		—	1,2	1,8	dB
Input VSWR						
	1930,0 ...1990,0 MHz		—	1,7	2,0	
Output VSWR						
	1930,0 ...1990,0 MHz		—	1,7	2,0	
Attenuation		α				
	10,0 ...1500,0 MHz		19,0	21,0	—	dB
	1500,0 ...1830,0 MHz		23,0	27,0	—	dB
	1830,0 ...1910,0 MHz		17,0	22,0	—	dB
	2030,0 ...2070,0 MHz		15,0	28,0	—	dB
	2070,0 ...2800,0 MHz		21,0	23,0	—	dB
	3000,0 ...6000,0 MHz		16,0	18,0	—	dB

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Characteristics

Operating temperature range: T = -30 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	—	3,6	4,0	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
	1930,0	...1990,0	MHz	—	1,8	2,2	dB
Input VSWR							
	1930,0	...1990,0	MHz	—	1,7	2,0	
Output VSWR							
	1930,0	...1990,0	MHz	—	1,7	2,0	
Attenuation			α				
	10,0	...1500,0	MHz	18,0	20,0	—	dB
	1500,0	...1830,0	MHz	23,0	27,0	—	dB
	1830,0	...1910,0	MHz	10,0	19,0	—	dB
	2030,0	...2070,0	MHz	15,0	28,0	—	dB
	2070,0	...2800,0	MHz	21,0	23,0	—	dB
	3000,0	...6000,0	MHz	16,0	18,0	—	dB

Preliminary Data

SMD

Transfer Function(25˚C spec)
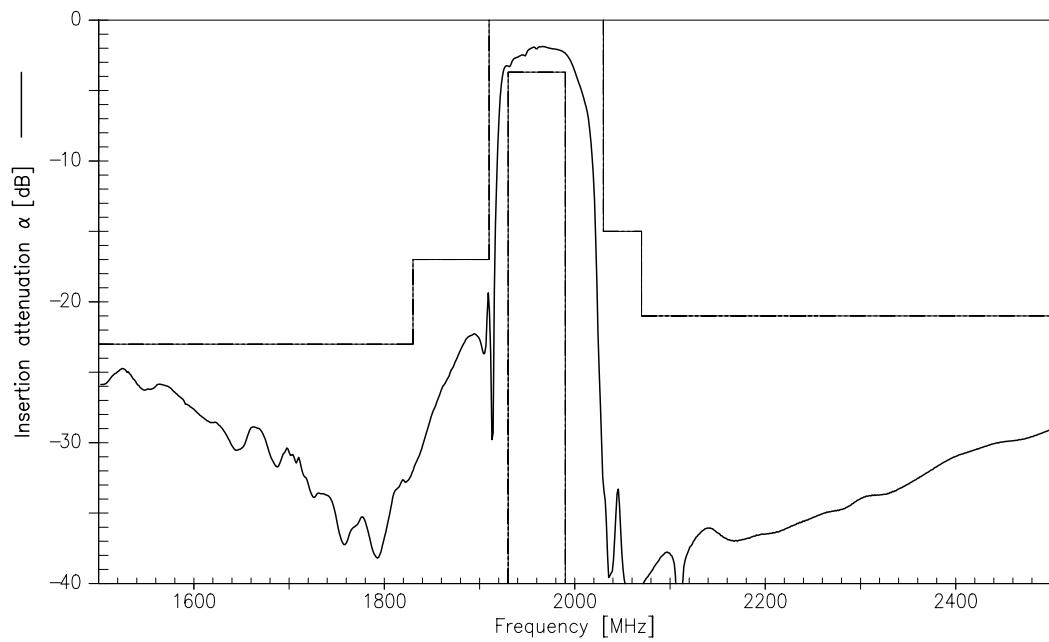
Transfer function (wideband)
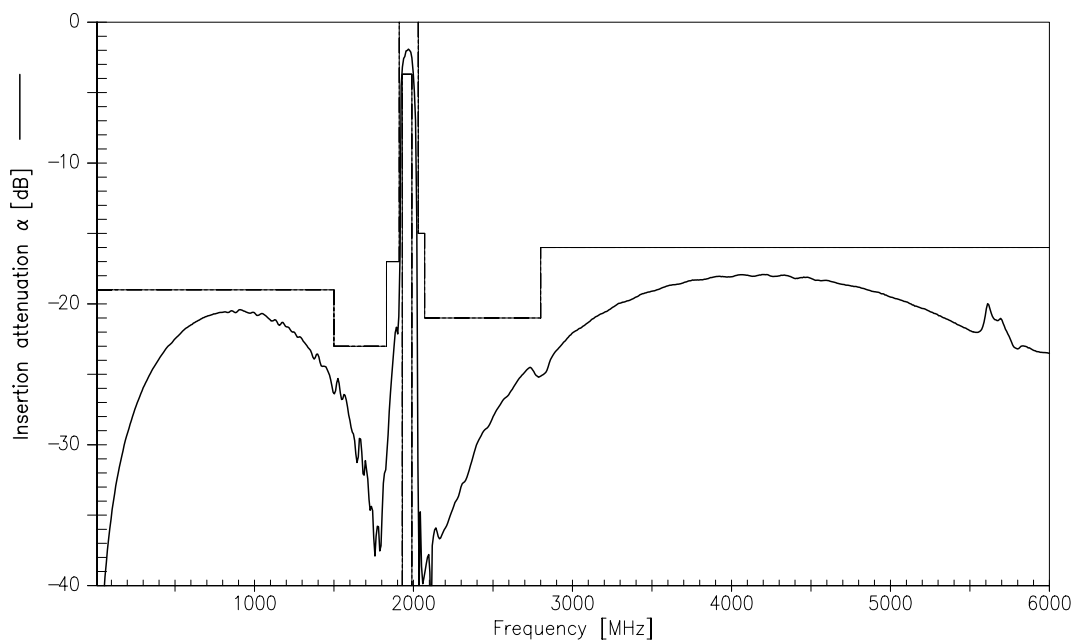
Reflection functions

S_{11}
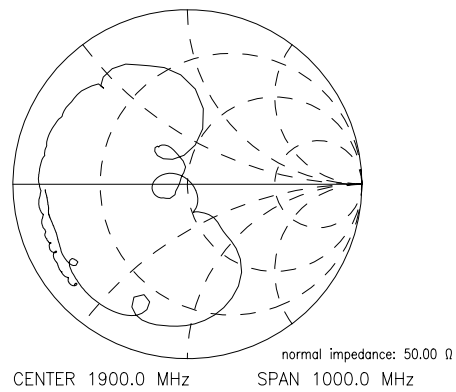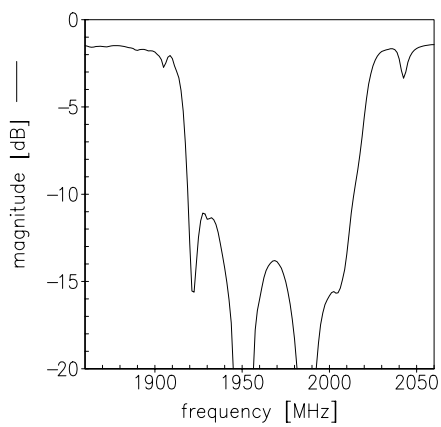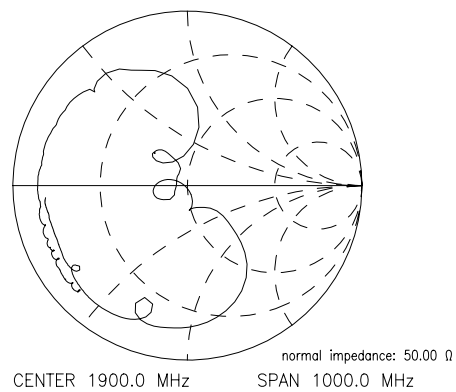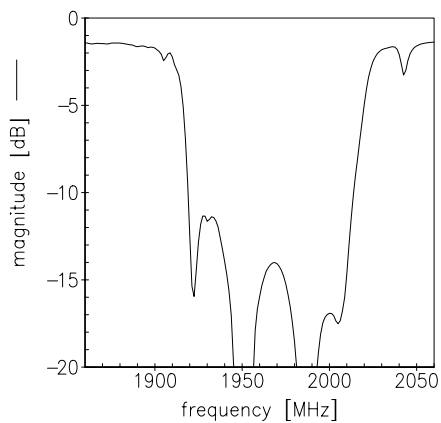
CENTER 1900.0 MHz   SPAN 1000.0 MHz

normal impedance: 50.00 Ω

S_{22}

CENTER 1900.0 MHz   SPAN 1000.0 MHz

normal impedance: 50.00 Ω

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