



SAW Components

Data Sheet B4124





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Low-Loss Filter for Mobile Communication

942,5 MHz

Data Sheet



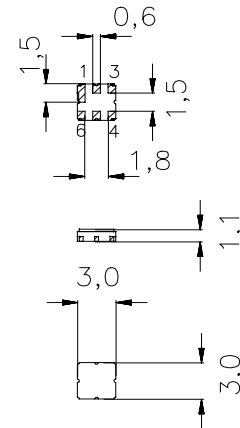
Ceramic package DCC6C

Features

- Low-loss RF filter for EGSM mobile systems
- Low amplitude ripple
- Usable passband 35 MHz
- Ceramic package for **Surface Mounted Technology (SMT)**

Terminals

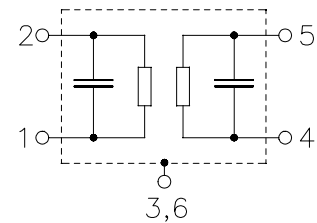
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

- 2 Input
- 1 Input ground
- 5 Output
- 4 Output ground
- 1, 3, 4, 6 To be grounded
- 1, 3, 4, 6 Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B4124	B39941-B4124-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40 / +85	°C	machine model, 10 pulses source and load impedance 50 Ω continuous wave, 85 °C
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	100 ¹⁾	V	
Input power max.				
925,0 ... 960,0 MHz	P_{IN}	11	dBm	

1) acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}				
	925,0 ... 960,0 MHz	—	3,0	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	925,0 ... 960,0 MHz	—	1,3	2,3	dB
Input VSWR					
	925,0 ... 960,0 MHz		2,3	2,5	
Output VSWR					
	925,0 ... 960,0 MHz		2,3	2,5	
Attenuation	α				
	0,0 ... 800,0 MHz	50	60	—	dB
	800,0 ... 880,0 MHz	40	52	—	dB
	880,0 ... 905,0 MHz	35	45	—	dB
	905,0 ... 915,0 MHz	24	28	—	dB
	980,0 ... 1005,0 MHz	23	25	—	dB
	1005,0 ... 1025,0 MHz	30	42	—	dB
	1025,0 ... 1760,0 MHz	40	50	—	dB
	1760,0 ... 2500,0 MHz	30	40	—	dB
	2500,0 ... 3120,0 MHz	20	27	—	dB
	3120,0 ... 4000,0 MHz	18	25	—	dB
	4000,0 ... 6000,0 MHz	—	8	—	dB
Input reflection coefficient @1842,5 MHz					
	Phase	-150	-140	-130	$^{\circ}$



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	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}	—	3,2	4,5	dB
925,0 ... 960,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,5	2,8	dB
925,0 ... 960,0	MHz				
Input VSWR			2,3	2,5	
925,0 ... 960,0	MHz				
Output VSWR			2,3	2,5	
925,0 ... 960,0	MHz				
Attenuation	α				
0,0 ... 800,0	MHz	50	60	—	dB
800,0 ... 880,0	MHz	40	52	—	
880,0 ... 905,0	MHz	35	45	—	dB
905,0 ... 915,0	MHz	20	28	—	
980,0 ... 1005,0	MHz	20	23	—	dB 1)
980,0 ... 1005,0	MHz	23	27	—	
980,0 ... 982,0	MHz	20	23	—	dB
982,0 ... 1005,0	MHz	23	27	—	
1005,0 ... 1025,0	MHz	30	42	—	dB
1025,0 ... 1760,0	MHz	40	50	—	
1760,0 ... 2500,0	MHz	30	40	—	dB
2500,0 ... 3120,0	MHz	20	27	—	
3120,0 ... 4000,0	MHz	18	25	—	dB
4000,0 ... 6000,0	MHz	—	8	—	
Input reflection coefficient @1842,5 MHz					
	Phase	-150	-140	-130	°

1) specification valid for $T < 25$ °C

2) specification valid for $T \geq 25$ °C



Characteristics

Operating temperature range: $T = -30$ to $+80$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

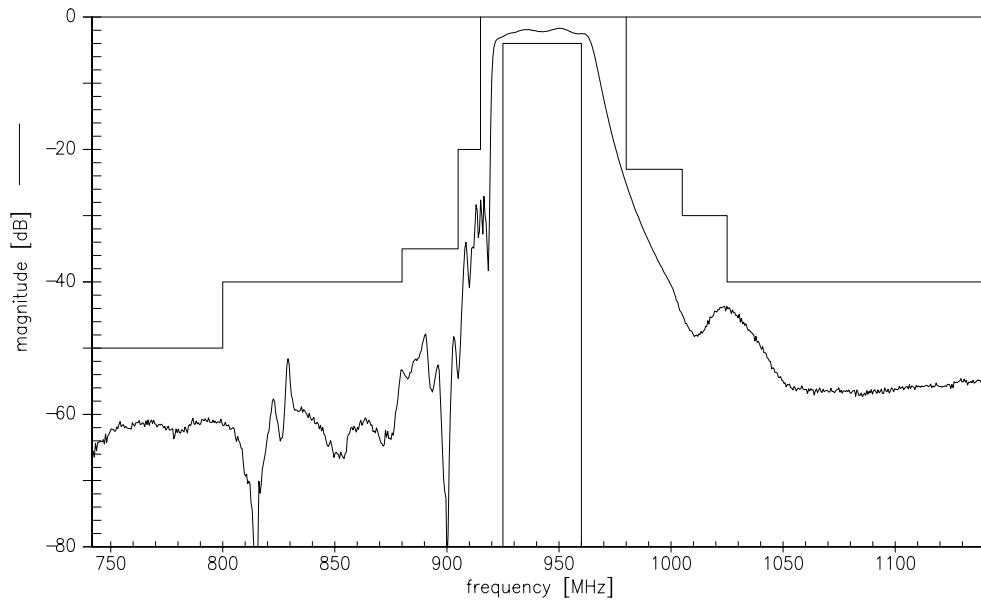
		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	α_{max}	—	3,2	4,5	dB
	925,0 ... 960,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,5	2,8	dB
	925,0 ... 960,0 MHz				
Input VSWR			2,3	2,5	
	925,0 ... 960,0 MHz				
Output VSWR			2,3	2,5	
	925,0 ... 960,0 MHz				
Attenuation	α				
	0,0 ... 800,0 MHz	50	60	—	dB
	800,0 ... 880,0 MHz	40	52	—	dB
	880,0 ... 905,0 MHz	35	45	—	dB
	905,0 ... 915,0 MHz	15	28	—	dB
	980,0 ... 1005,0 MHz	20	23	—	dB 1)
	980,0 ... 1005,0 MHz	23	27	—	dB 2)
	980,0 ... 982,0 MHz	20	23	—	dB
	982,0 ... 1005,0 MHz	23	27	—	dB
	1005,0 ... 1025,0 MHz	30	42	—	dB
	1025,0 ... 1760,0 MHz	40	50	—	dB
	1760,0 ... 2500,0 MHz	30	40	—	dB
	2500,0 ... 3120,0 MHz	20	27	—	dB
	3120,0 ... 4000,0 MHz	18	25	—	dB
	4000,0 ... 6000,0 MHz	—	8	—	dB
Input reflection coefficient @1842,5 MHz					
	Phase	-150	-140	-130	°

1) specification valid for $T < 25$ °C

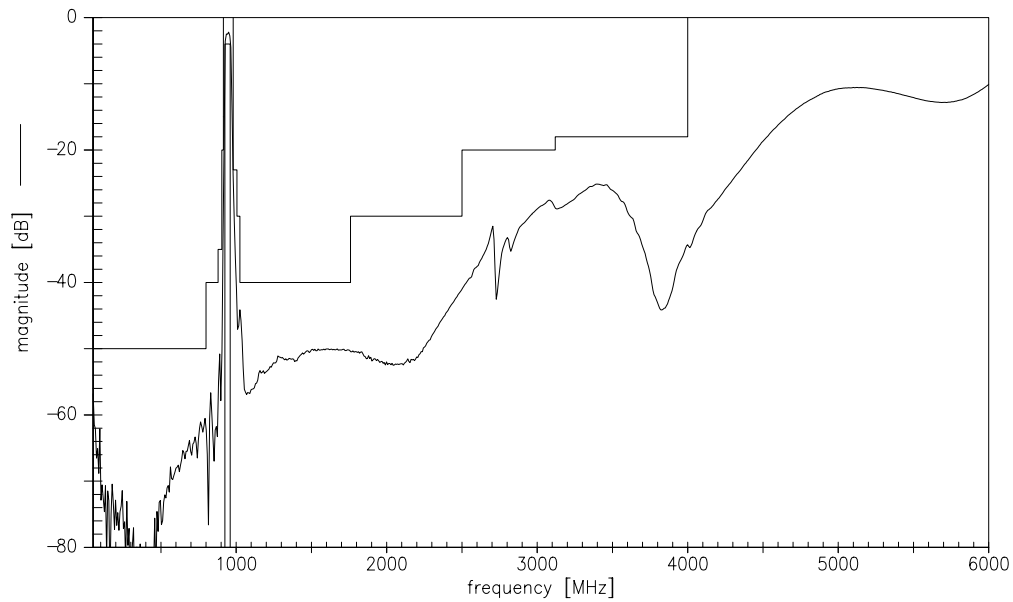
2) specification valid for $T \geq 25$ °C



Transfer function (drawn specification for +25°C)

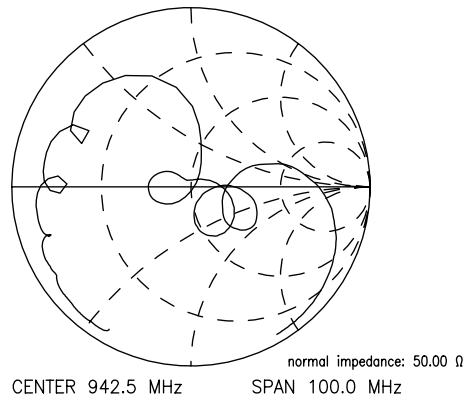
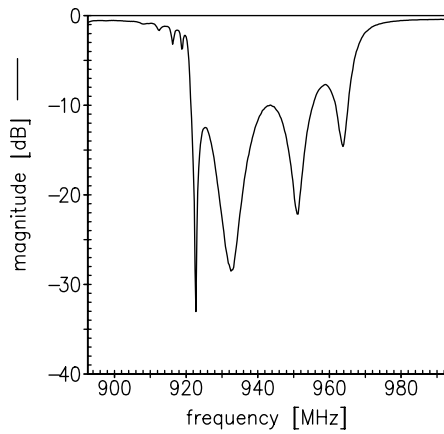


Transfer function (wideband)

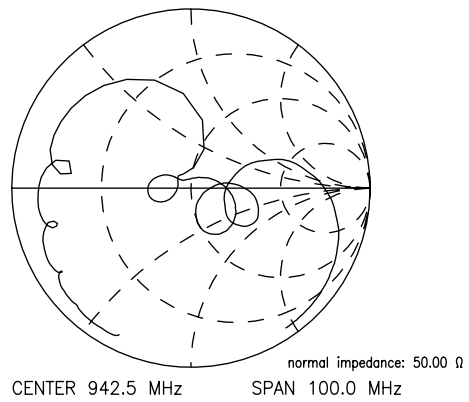
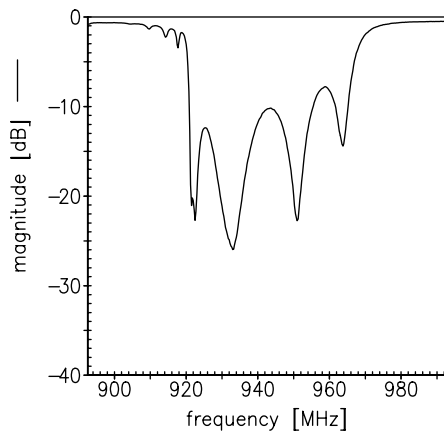




S_{11}



S_{22}





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