Siemens Matsushita Components

SAW Components
Low Loss Filter for Mobile Communication

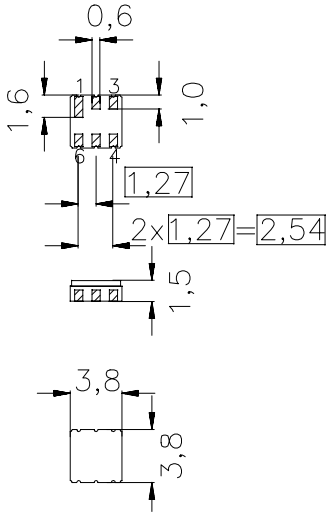
B4703
942,50 MHz

Data Sheet

Ceramic package **DCC6**

Features

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)



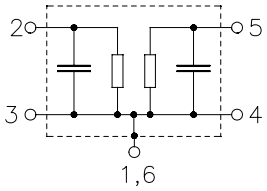
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,07 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B4703	B39941-B4703-Z610	C61157-A7-A41	F61074-V8030-Z000

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

Maximum ratings

Operable temperature range	T	– 20 / + 80	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.	P_{IN}			source and load impedance 50 Ω
880...915 MHz		20	dBm	peak power of GSM signal, duty cycle 1 : 8
elsewhere		5	dBm	continuous wave

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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	—	942,50	—	MHz
Maximum insertion attenuation	α_{max}				
925,0 ... 960,0 MHz		—	2,3	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,0	1,8	dB
Input Return Loss					
925,0 ... 960,0 MHz		10,0	11,0	—	dB
Output Return Loss					
925,0 ... 960,0 MHz		9,0	10,0	—	dB
Attenuation	α				
0,0 ... 880,0 MHz		15,0	18,0	—	dB
880,0 ... 905,0 MHz		20,0	25,0	—	dB
905,0 ... 915,0 MHz		20,0	25,0	—	dB
980,0 ...1000,0 MHz		20,0	27,0	—	dB
1000,0 ...1300,0 MHz		19,0	21,0	—	dB
1300,0 ...1475,0 MHz		22,0	24,0	—	dB
1475,0 ...1597,0 MHz		26,0	29,0	—	dB
1597,0 ...1710,0 MHz		30,0	33,0	—	dB
1710,0 ...2500,0 MHz		13,0	15,0	—	dB
2500,0 ...3000,0 MHz		5,0	8,0	—	dB

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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		—	942,50	—	MHz
Maximum insertion attenuation	α_{max}					
925,0 ... 960,0	MHz		—	2,7	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
925,0 ... 960,0	MHz		—	1,4	2,4	dB
Input Return Loss						
925,0 ... 960,0	MHz		10,0	11,0	—	dB
Output Return Loss						
925,0 ... 960,0	MHz		9,0	10,0	—	dB
Attenuation	α					
0,0 ... 880,0	MHz		15,0	18,0	—	dB
880,0 ... 905,0	MHz		20,0	25,0	—	dB
905,0 ... 915,0	MHz		9,0	22,0	—	dB
980,0 ...1000,0	MHz		20,0	27,0	—	dB
1000,0 ...1300,0	MHz		19,0	21,0	—	dB
1300,0 ...1475,0	MHz		22,0	24,0	—	dB
1475,0 ...1597,0	MHz		26,0	29,0	—	dB
1597,0 ...1710,0	MHz		30,0	33,0	—	dB
1710,0 ...2500,0	MHz		13,0	15,0	—	dB
2500,0 ...3000,0	MHz		5,0	8,0	—	dB

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Operating temperature range: T = -20 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_c		—	942,50	—	MHz
Maximum insertion attenuation	α_{max}					
925,0 ... 960,0	MHz		—	2,8	3,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
925,0 ... 960,0	MHz		—	1,5	2,5	dB
Input Return Loss						
925,0 ... 960,0	MHz		10,0	11,0	—	dB
Output Return Loss						
925,0 ... 960,0	MHz		9,0	10,0	—	dB
Attenuation	α					
0,0 ... 880,0	MHz		15,0	18,0	—	dB
880,0 ... 905,0	MHz		20,0	25,0	—	dB
905,0 ... 915,0	MHz		9,0	22,0	—	dB
980,0 ...1000,0	MHz		20,0	27,0	—	dB
1000,0 ...1300,0	MHz		19,0	21,0	—	dB
1300,0 ...1475,0	MHz		22,0	24,0	—	dB
1475,0 ...1597,0	MHz		26,0	29,0	—	dB
1597,0 ...1710,0	MHz		30,0	33,0	—	dB
1710,0 ...2500,0	MHz		13,0	15,0	—	dB
2500,0 ...3000,0	MHz		5,0	8,0	—	dB

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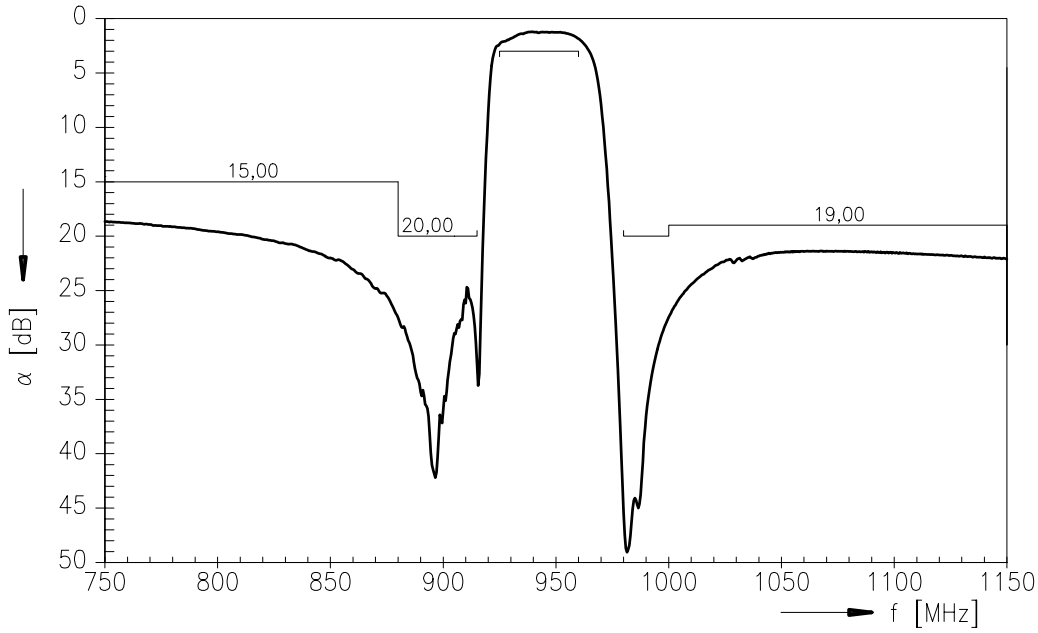
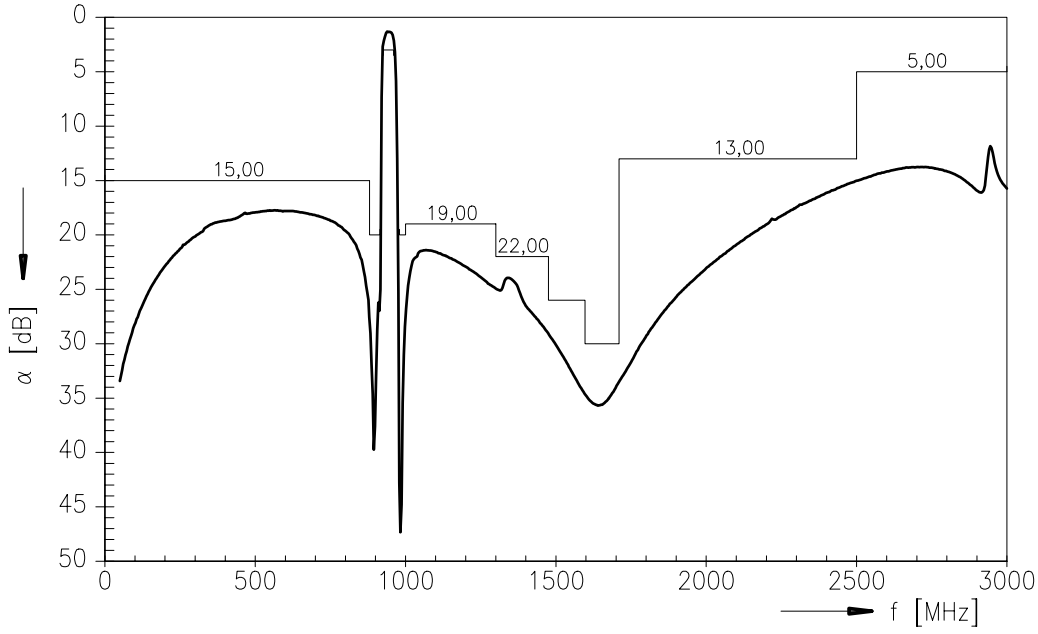
Transfer function (spec 25˚C)



Transfer function (wideband)



Preliminary format of data sheet.
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