Siemens Matsushita Components

SAW Components
Low Loss Filter for Mobile Communication

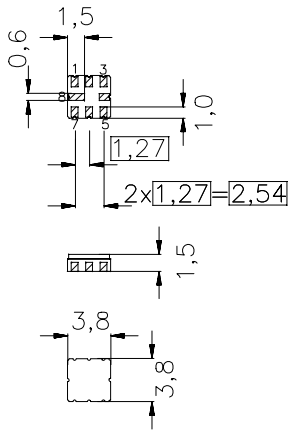
B4697
902,5 MHz

Data Sheet

Ceramic package **QCC8B**

Features

- Low-loss RF filter for mobile telephone, transmit path
- Low amplitude ripple
- Usable passband 25 MHz
- No matching network required for operation at 50 Ω
- Unbalanced or balanced Operation
- Ceramic package for **S**urface **M**ounted **T**echnology (**SMT**)



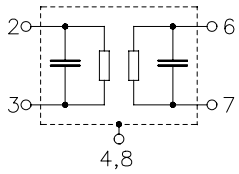
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,07 g

Pin configuration

2	Input or balanced Input
3	Input - ground or balanced Input
6	Output or balanced Output
7	Output - ground or balanced Output
4,8	Case - ground
1,5	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4697	B39901-B4697-Z810	C61157-A7-A46	F61074-V8037-Z000

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

Maximum ratings

Operable temperature range	T	– 25 / + 75	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	3	V	
Input power Max.	P_s	10	dBm	source and load impedance 50 Ω
890 ... 915 MHz				peak power of GSM signal duty cycle 1:8
elsewhere		0	dbm	0

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Operating temperature: 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		—	902,5	—	MHz
Maximum insertion attenuation	α_{max}					
890,0 ... 915,0	MHz		—	2,4	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
890,0 ... 915,0	MHz		—	0,7	1,3	dB
Attenuation	α_{min}					
0,0 ... 600,0	MHz		60,0	70,0	—	dB
600,0 ... 700,0	MHz		50,0	55,0	—	dB
700,0 ... 813,0	MHz		45,0	55,0	—	dB
813,0 ... 850,0	MHz		40,0	50,0	—	dB
850,0 ... 870,0	MHz		30,0	36,0	—	dB
925,0 ... 935,0	MHz		8,0	13,0	—	dB
935,0 ... 980,0	MHz		25,0	27,0	—	dB
980,0 ...1200,0	MHz		45,0	51,0	—	dB
1200,0 ...1700,0	MHz		35,0	45,0	—	dB
1700,0 ...2400,0	MHz		14,0	16,0	—	dB

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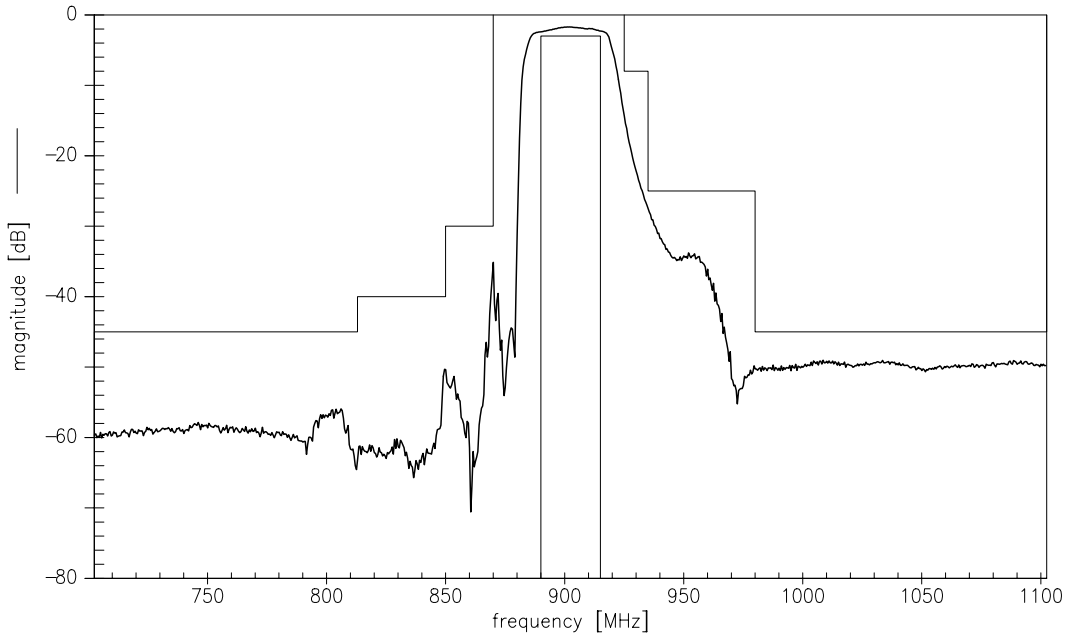
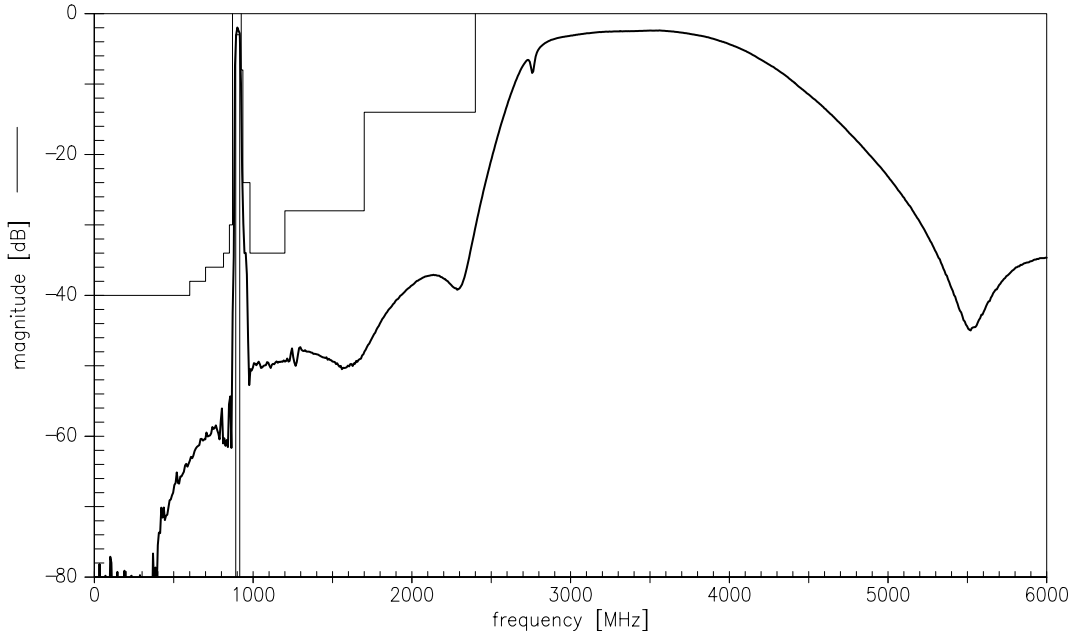
Operating temperature: T = - 25 to + 75˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_C		—	902,5	—	MHz
Maximum insertion attenuation	α_{max}					
890,0 ... 915,0 MHz			—	2,6	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
890,0 ... 915,0 MHz			—	0,9	1,8	dB
Attenuation	α_{min}					
0,0 ... 600,0 MHz			60,0	70,0	—	dB
600,0 ... 700,0 MHz			50,0	55,0	—	dB
700,0 ... 813,0 MHz			45,0	55,0	—	dB
813,0 ... 850,0 MHz			40,0	50,0	—	dB
850,0 ... 870,0 MHz			30,0	36,0	—	dB
925,0 ... 935,0 MHz			8,0	11,0	—	dB
935,0 ... 980,0 MHz			25,0	26,0	—	dB
980,0 ...1200,0 MHz			45,0	51,0	—	dB
1200,0 ...1700,0 MHz			35,0	45,0	—	dB
1700,0 ...2400,0 MHz			14,0	16,0	—	dB

Transfer function



Transfer function (wideband)



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Characteristics

Operating temperature: T = 25+-2 °C
Terminating source impedance: Z_S = 50 Ω (balanced)
Terminating load impedance: Z_L = 50 Ω (balanced)

			min.	typ.	max.	
Center frequency	f_C		—	902,5	—	MHz
Maximum insertion attenuation	α_{max}					
890,0 ... 915,0	MHz		—	2,6	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
890,0 ... 915,0	MHz		—	1,0	1,4	dB
Attenuation	α_{min}					
0,0 ... 600,0	MHz		40,0	43,0	—	dB
600,0 ... 700,0	MHz		38,0	41,0	—	dB
700,0 ... 813,0	MHz		36,0	39,0	—	dB
813,0 ... 850,0	MHz		34,0	39,0	—	dB
850,0 ... 870,0	MHz		30,0	33,0	—	dB
925,0 ... 935,0	MHz		8,0	13,0	—	dB
935,0 ... 980,0	MHz		24,0	27,0	—	dB
980,0 ...1200,0	MHz		34,0	36,0	—	dB
1200,0 ...1700,0	MHz		28,0	32,0	—	dB
1700,0 ...2400,0	MHz		14,0	30,0	—	dB

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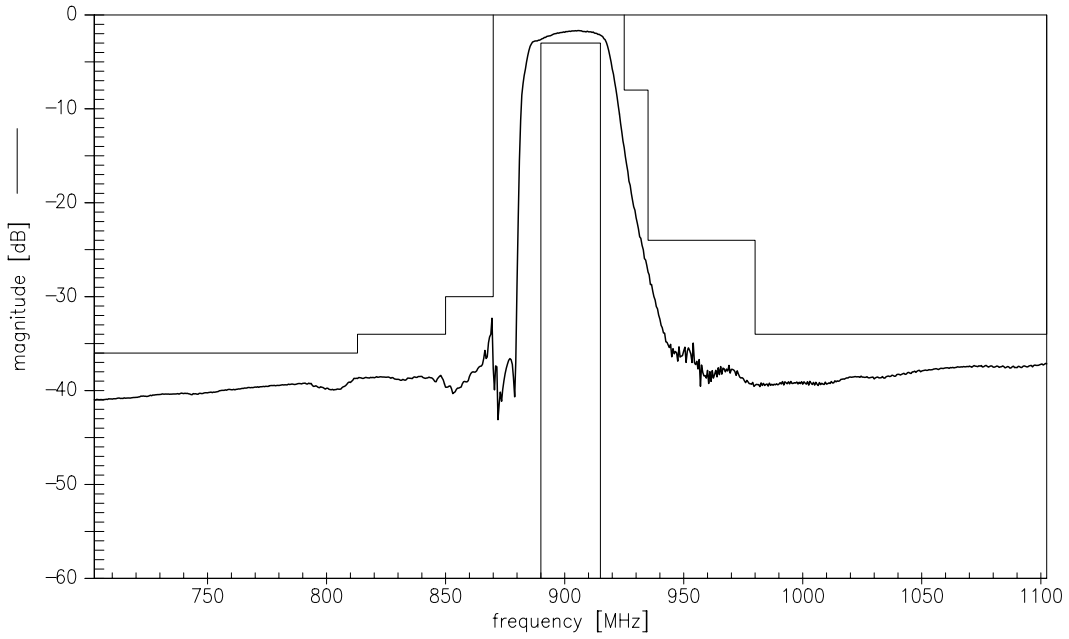
Operating temperature: T = - 25 to + 75˚C
Terminating source impedance: Z_S = 50 Ω (balanced)
Terminating load impedance: Z_L = 50 Ω (balanced)

				min.	typ.	max.	
Center frequency			f_C	—	902,5	—	MHz
Maximum insertion attenuation			α_{max}				
890,0	...	915,0	MHz	—	2,8	3,5	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
890,0	...	915,0	MHz	—	1,2	1,9	dB
Attenuation			α_{min}				
0,0	...	600,0	MHz	40,0	43,0	—	dB
600,0	...	700,0	MHz	38,0	41,0	—	dB
700,0	...	813,0	MHz	36,0	39,0	—	dB
813,0	...	850,0	MHz	34,0	39,0	—	dB
850,0	...	870,0	MHz	30,0	33,0	—	dB
925,0	...	935,0	MHz	8,0	11,0	—	dB
935,0	...	980,0	MHz	24,0	26,0	—	dB
980,0	...	1200,0	MHz	34,0	36,0	—	dB
1200,0	...	1700,0	MHz	28,0	32,0	—	dB
1700,0	...	2400,0	MHz	14,0	30,0	—	dB

Transfer function



Transfer function (wideband)