S+M COMPONENTS **Siemens Matsushita Components**

SAW Components
Low-Loss Filter

B4687
902,5 MHz

**Data Sheet**

SMD ceramic package **QCC8B**

Features

- Low loss RF filter for GSM mobile phone TX
- Low insertion attenuation
- Usable passband 25 MHz
- No matching network required for operation at 50 Ω (input) and 200 Ω (output)
- Unbalanced input, balanced output
- Ceramic Package for **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

- Ni, gold-plated
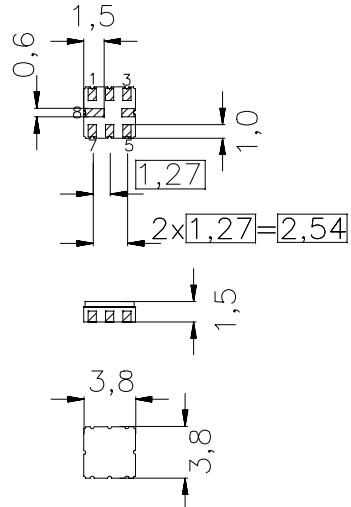
Dimensions in mm, approx. weight 0,07 g

Pin configuration

2	Input (50 Ω)
4	Input ground
5	Balanced output (200 Ω)
7	Balanced output (200 Ω)
1,3	To be grounded
6	N.C.
4,8	Case - ground
	Filter is reciprocal
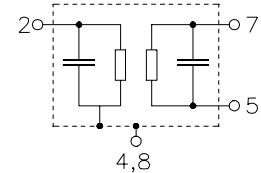
Type	Ordering code	Marking and Package according to	Packing according to
B4687	B39901-B4687-Z810	C61157-A7-A46	F61074-V8037-Z000

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

Maximum ratings

Operable temperature range	T	– 20/+ 75	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 50 Ω

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Characteristics

Operating temperature range: T = 25 +-2 ˚C
Terminating source impedance: Z_S = 50 Ω unbalanced
Terminating load impedance: Z_L = 200 Ω ‖ 80nH balanced

			min.	typ.	max.	
Center frequency	f_c		—	902,5	—	MHz
(center frequency between 3 dB points)						
Maximum insertion attenuation	α_{max}					
890,0 MHz ... 915,0 MHz			—	3,0	3,5	dB
Reference level for the following data						
Amplitude ripple in passband (p-p)	$\Delta\alpha$					
890,0 MHz ... 915,0 MHz			—	0,8	1,0	dB
Relative attenuation (relative to α_{max})	α_{rel}					
0,0 MHz ... 600,0 MHz			40	75	—	dB
600,0 MHz ... 870,0 MHz			25	35	—	dB
925,0 MHz ... 935,0 MHz			7	15	—	dB
935,0 MHz ... 990,0 MHz			20	27	—	dB
990,0 MHz ... 1500,0 MHz			40	55	—	dB
1500,0 MHz ... 3000,0 MHz			20	39	—	dB

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Page 2 of 4

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Nov 21, 1997

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Characteristics

Operating temperature range: T = -20 ˚C ... 75 ˚C
Terminating source impedance: Z_S = 50 Ω unbalanced
Terminating load impedance: Z_L = 200 Ω ‖ 80nH balanced

		min.	**typ.**	**max.**	
Center frequency (center frequency between 3 dB points)	f_c	—	902,5	—	MHz
Maximum insertion attenuation 890,0 MHz ... 915,0 MHz Reference level for the following data	α_{max}	—	3,5	4,0	dB
Amplitude ripple in passband (p-p) 890,0 MHz ... 915,0 MHz	$\Delta\alpha$	—	1,0	1,5	dB
Relative attenuation (relative to α_{max})	α_{rel}				
0,0 MHz ... 600,0 MHz		40	74	—	dB
600,0 MHz ... 870,0 MHz		25	34	—	dB
925,0 MHz ... 935,0 MHz		3,5	10	—	dB
935,0 MHz ... 990,0 MHz		20	26	—	dB
990,0 MHz ... 1500,0 MHz		40	54	—	dB
1500,0 MHz ... 3000,0 MHz		20	38	—	dB

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Page 3 of 4

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Nov 21, 1997

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Low-Loss Filter

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902,5 MHz

Data Sheet

Transfer function
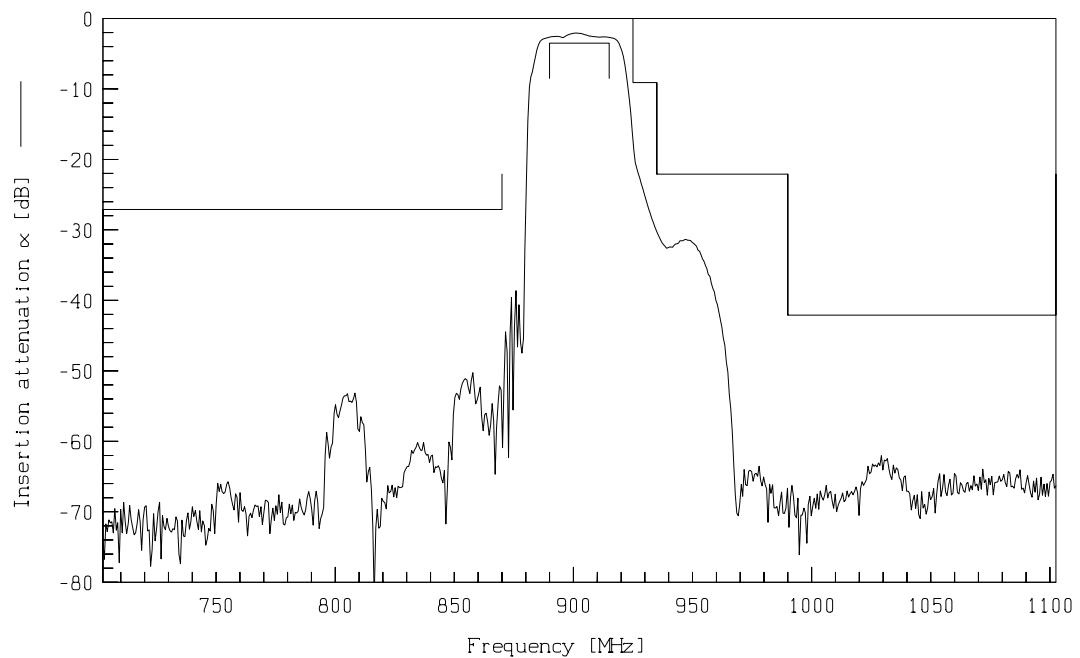
Transfer function (wideband)

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