



SAW Components
Low-Loss Duplexer for Mobile Communication

B4006
959.5 MHz
914.5 MHz

Data Sheet

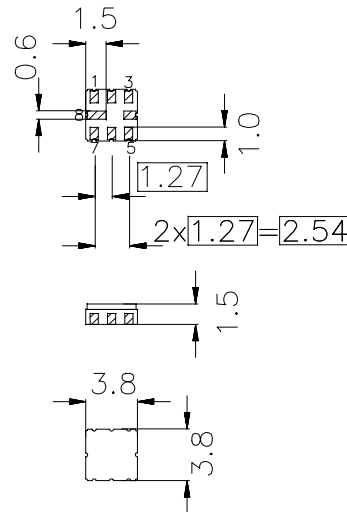
Ceramic package **QCC 8B**

Features

- Compact RF duplexer for cordless telephone CT1
- No matching network required for operation at 50 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**

Terminals

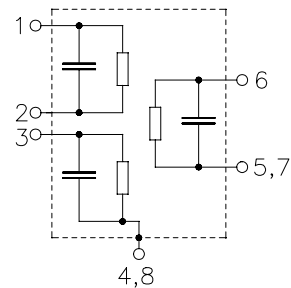
- Ni, gold-plated



Dimensions in mm, approx. weight 0.07 g

Pin configuration

- | | |
|------|------------------------|
| 6 | Ant |
| 1 | Port 1 |
| 3 | Port 2 |
| 5, 7 | Ant - ground |
| 2 | Port 1 - ground |
| 4, 8 | Case / Port 2 - ground |



Type	Ordering code	Marking and Package according to	Packing according to
B4006	B39961-B4006-Z810	C61157-A7-A46	F61074-V8037-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T_A	0 /+ 60	°C
Storage temperature range	T_{stg}	- 40/+ 85	°C
DC voltage	V_{DC}	3	V
Input power	P_{IN}	17	dBm



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Characteristics channel 1 (Port 1 - Ant)

Operable temperature range: $T_A = 0$ to $+60^\circ\text{C}$
 Ant term. impedance $Z_{\text{Ant}} = 50 \Omega$
 Port 1 term. impedance $Z_{\text{Port 1}} = 50 \Omega$
 Port 2 term. impedance $Z_{\text{Port 2}} = 50 \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	959.5	—	MHz
Maximum insertion attenuation	α_{max}	—	3.3	4.0	dB
	959.00 ... 960.00 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.7	2.0	dB
	959.00 ... 960.00 MHz				
Absolute attenuation	α				
	450.00 ... 850.00 MHz	50	61	—	dB
	850.00 ... 917.20 MHz	36	39	—	dB
	917.20 ... 938.60 MHz	32	35	—	dB
	938.60 ... 949.30 MHz	8	18	—	dB
	969.70 ... 970.70 MHz	10	25	—	dB
	970.70 ... 980.40 MHz	17	27	—	dB
	980.40 ... 981.40 MHz	32	40	—	dB
	981.40 ... 1001.80 MHz	26	32	—	dB
	1001.80 ... 1002.80 MHz	30	36	—	dB
	1015.00 ... 1050.00 MHz	50	54	—	dB
	1050.00 ... 1350.00 MHz	43	48	—	dB
	1350.00 ... 1850.00 MHz	26	29	—	dB
	1850.00 ... 2000.00 MHz	21	26	—	dB



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Characteristics channel 2 (Port 2 - Ant)

Operable temperature range: $T_A = 0$ to $+60^\circ\text{C}$
 Ant term. impedance $Z_{\text{Ant}} = 50 \Omega$
 Port 1 term. impedance $Z_{\text{Port 1}} = 50 \Omega$
 Port 2 term. impedance $Z_{\text{Port 2}} = 50 \Omega$

		min.	typ.	max.	
Center frequency	f_c	—	914.5	—	MHz
Maximum insertion attenuation	α_{max}	—	3.0	4.0	dB
	914.00 ... 915.00 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.7	2.0	dB
	914.00 ... 915.00 MHz				
Absolute attenuation	α				
	450.00 ... 850.00 MHz	50	54	—	dB
	850.00 ... 872.20 MHz	45	53	—	dB
	872.20 ... 893.60 MHz	28	39	—	dB
	893.60 ... 904.30 MHz	6	18	—	dB
	924.70 ... 925.70 MHz	12	27	—	dB
	925.70 ... 935.40 MHz	20	30	—	dB
	935.40 ... 936.40 MHz	32	38	—	dB
	936.40 ... 956.80 MHz	27	32	—	dB
	956.80 ... 959.00 MHz	32	38	—	dB
	959.00 ... 1000.00 MHz	37	44	—	dB
	1000.00 ... 1350.00 MHz	42	47	—	dB
	1350.00 ... 1850.00 MHz	32	35	—	dB
	1850.00 ... 2000.00 MHz	27	32	—	dB

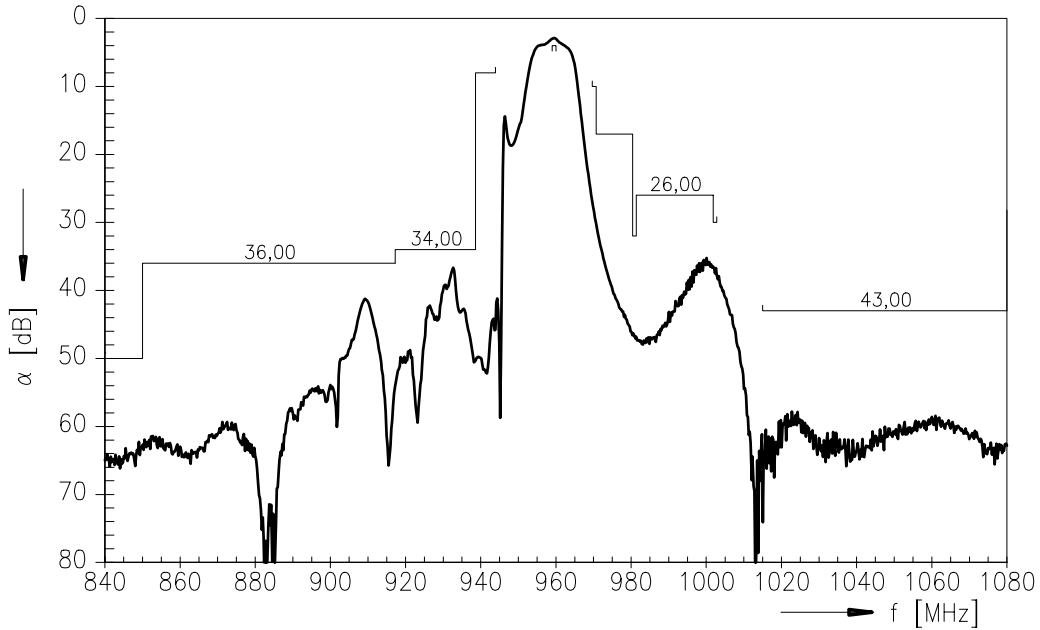


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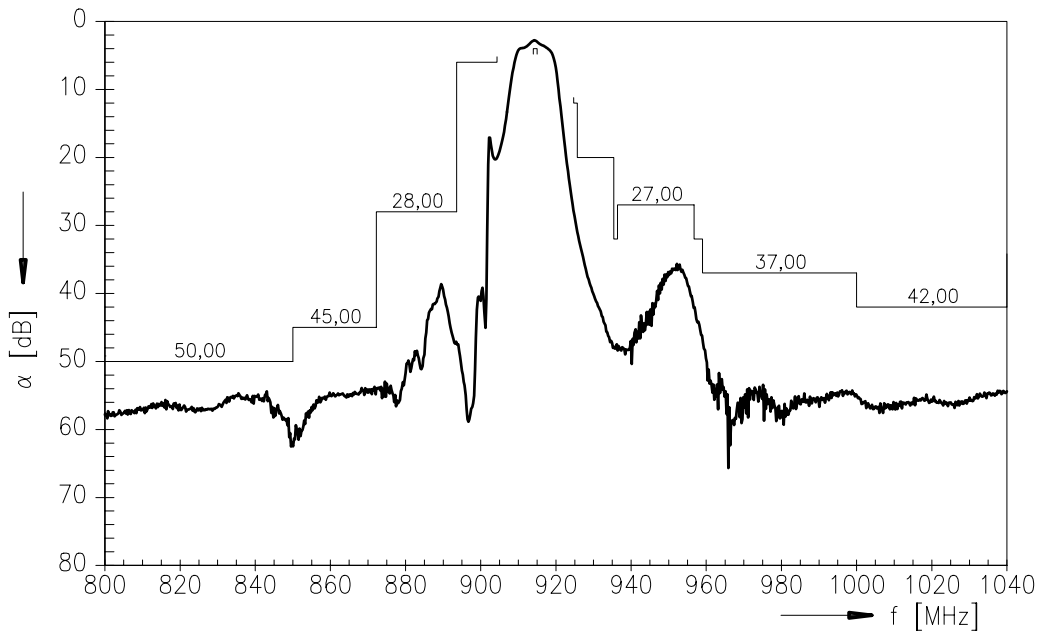
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Data Sheet

Frequency response channel 1 :



Frequency response channel 2 :



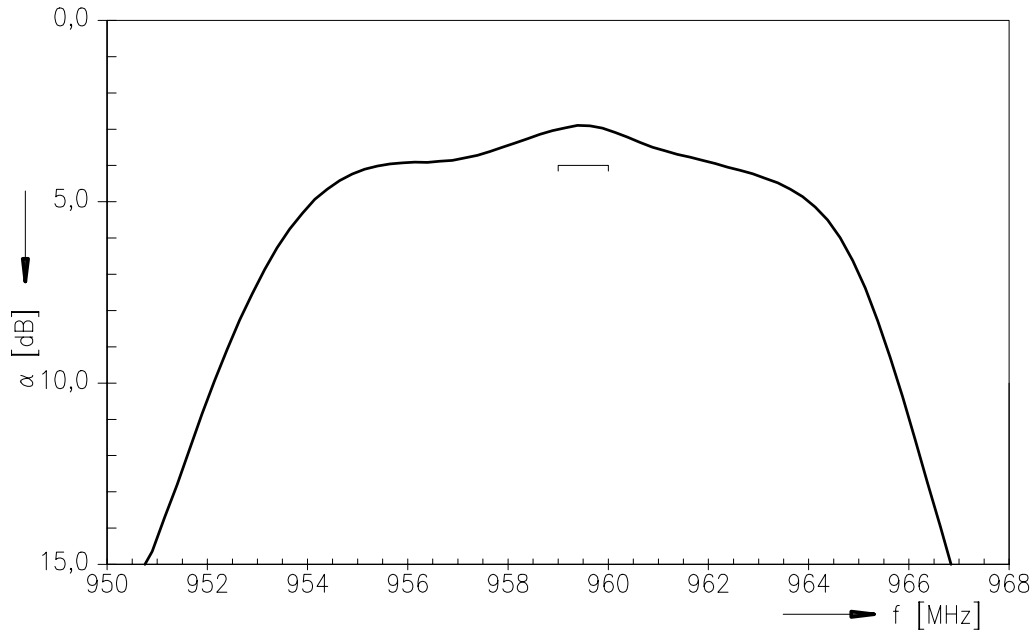


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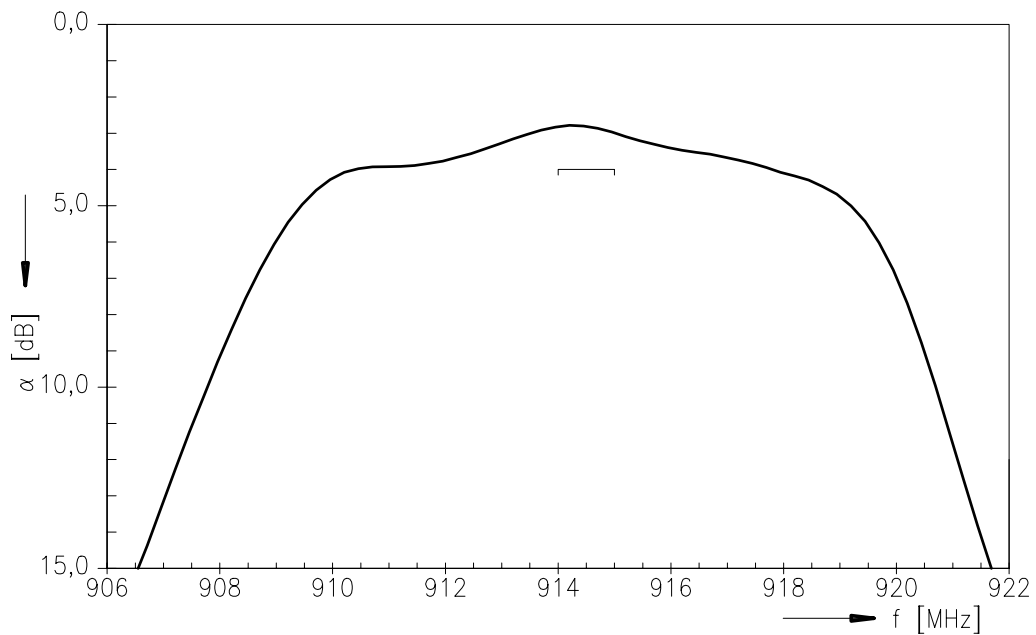
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Data Sheet

Frequency response channel 1 : (passband)



Frequency response channel 2 : (passband)



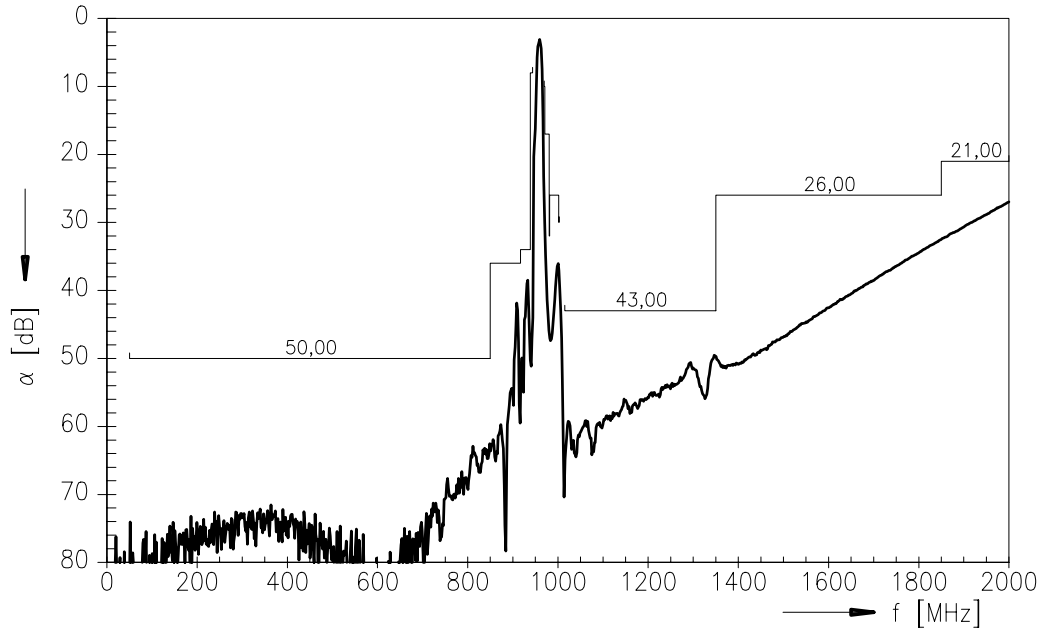


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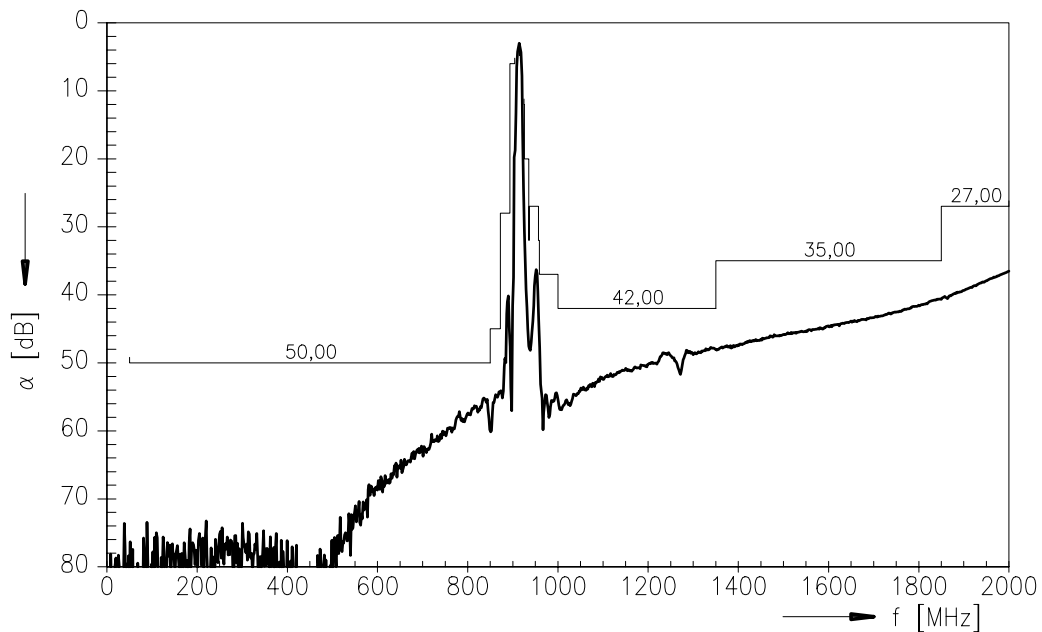
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Frequency response channel 1 : (wideband)



Frequency response channel 2 : (wideband)





Siemens Matsushita Components

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Isolation between channel 1 and channel 2

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 Ant term. impedance $Z_{\text{Ant}} = 50 \text{ } \Omega$
 Port 1 term. impedance $Z_{\text{Port 1}} = 50 \text{ } \Omega$
 Port 2 term. impedance $Z_{\text{Port 2}} = 50 \text{ } \Omega$

		min.	typ.	max.	
Absolute attenuation	α				
	959,00 ... 960,00 MHz	36	41	—	dB
	914,00 ... 915,00 MHz	39	51	—	dB

Isolation between channel 1 and channel 2 :

