



Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

B4006
959.5 MHz
914.5 MHz

Data Sheet

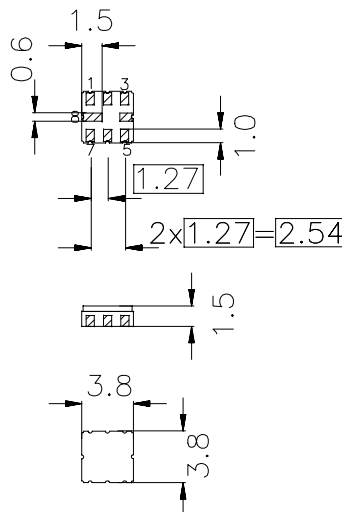
Features

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

Terminals

- Ni, gold-plated

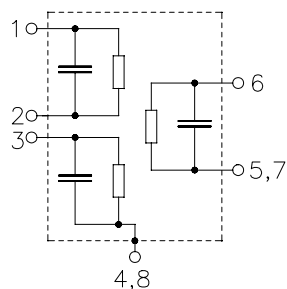
Ceramic package QCC 8B



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	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	- 40/+ 85	$^{\circ}\text{C}$
DC voltage	V_{DC}	3	V
Input power	P_{IN}	17	dBm



Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

B4006
959.5 MHz
914.5 MHz

Data Sheet

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



Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

B4006
959.5 MHz
914.5 MHz

Data Sheet

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



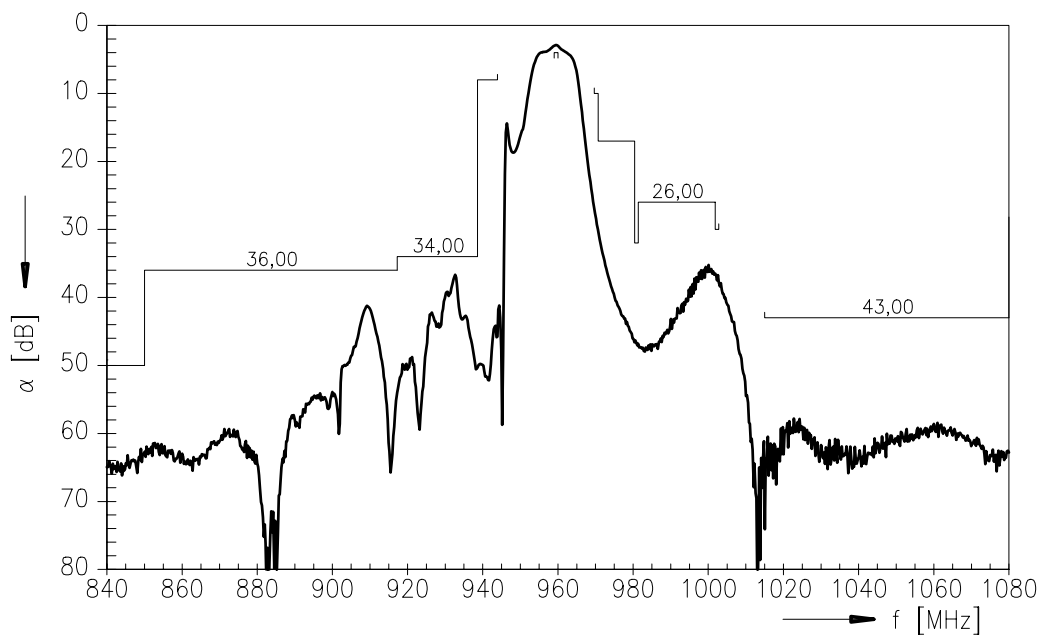
Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

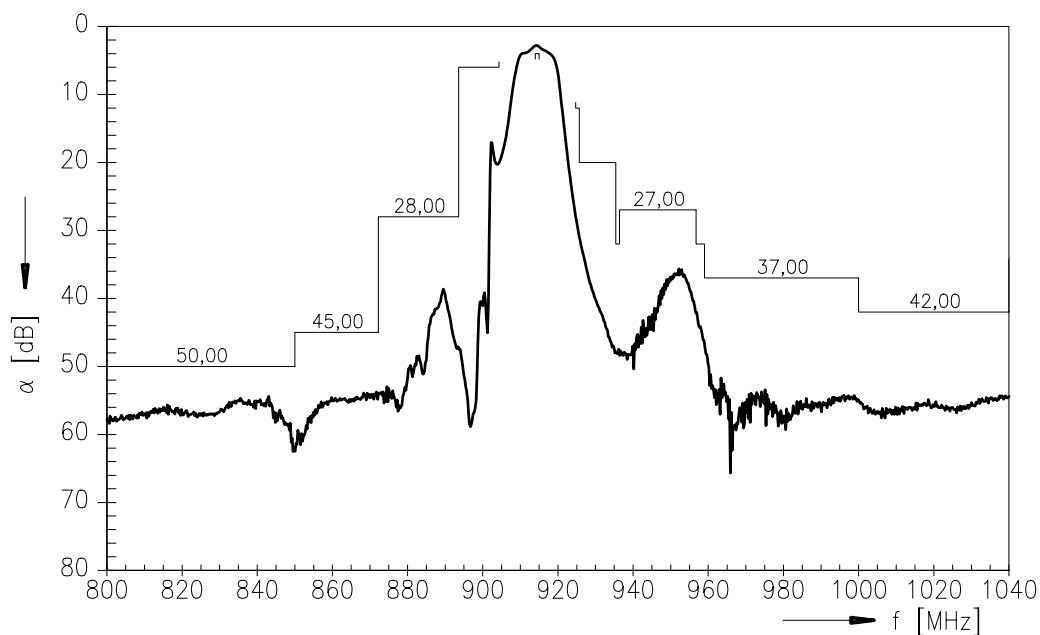
B4006
959.5 MHz
914.5 MHz

Data Sheet

Frequency response channel 1 :



Frequency response channel 2 :





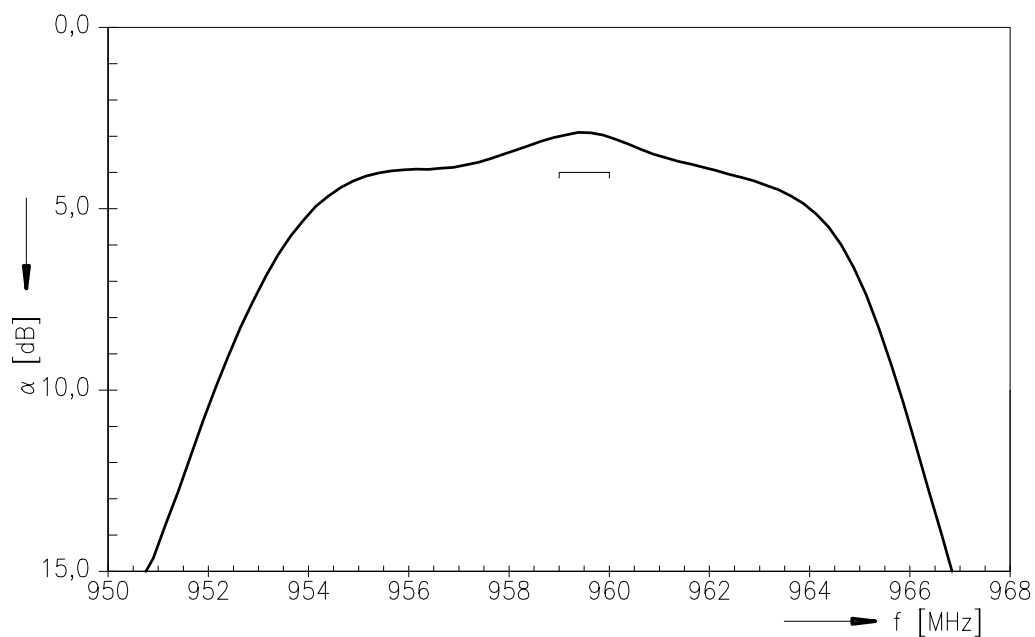
Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

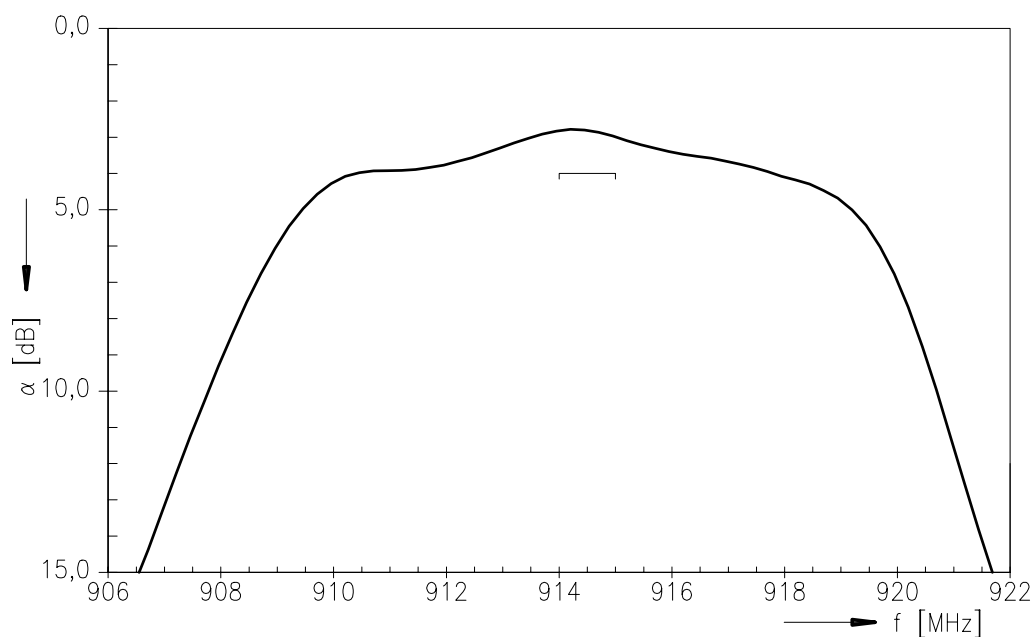
B4006
959.5 MHz
914.5 MHz

Data Sheet

Frequency response channel 1 : (passband)



Frequency response channel 2 : (passband)





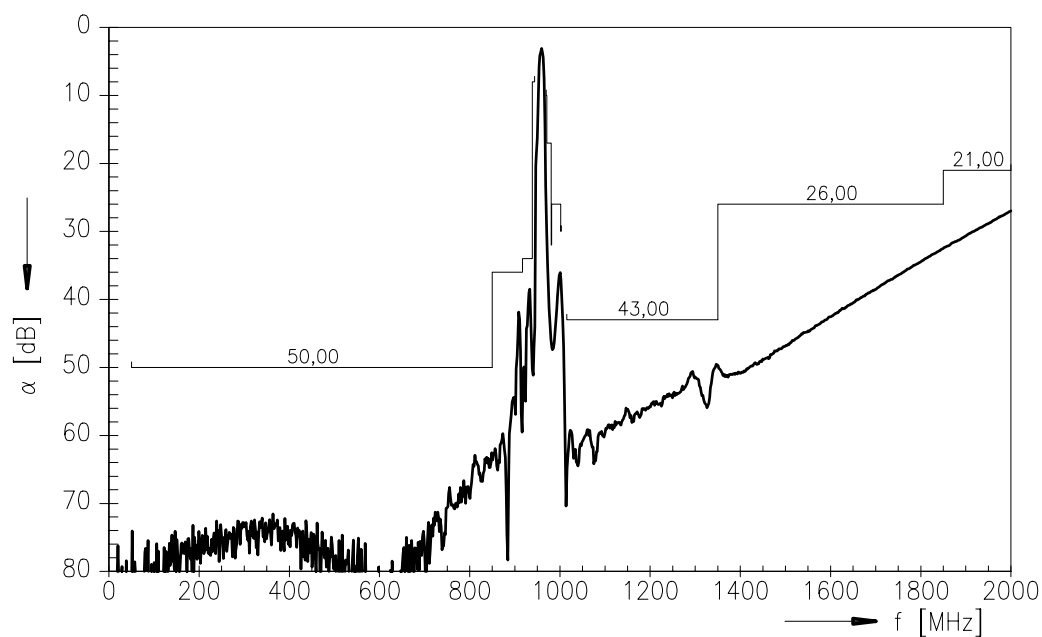
Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

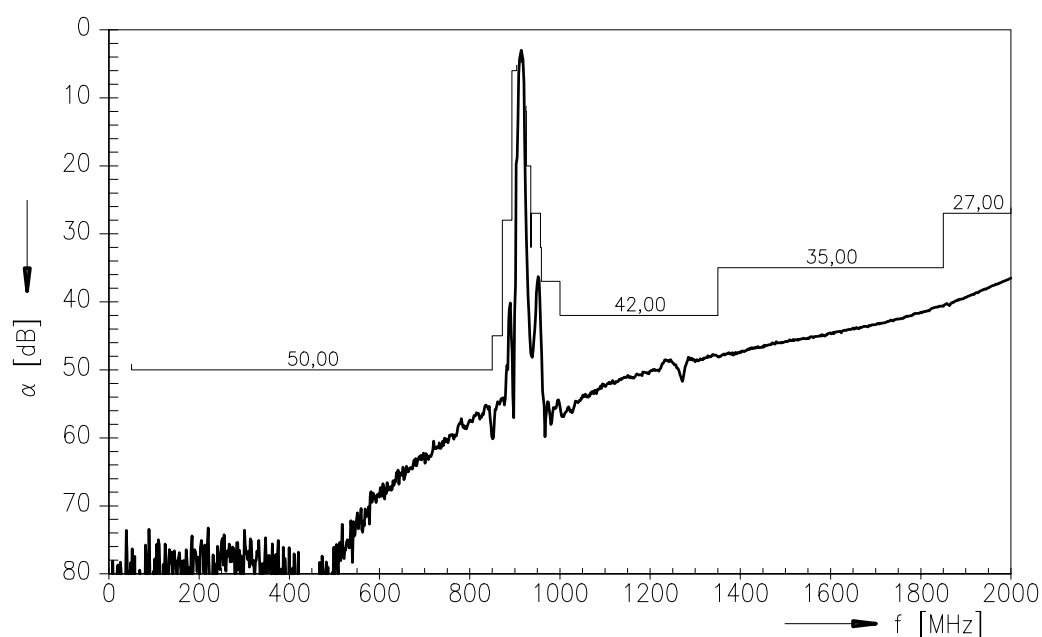
B4006
959.5 MHz
914.5 MHz

Data Sheet

Frequency response channel 1 : (wideband)



Frequency response channel 2 : (wideband)





Siemens Matsushita Components

SAW Components Low-Loss Duplexer for Mobile Communication

B4006
959.5 MHz
914.5 MHz

Data Sheet

Isolation between channel 1 and channel 2

Operating temperature range $T = 0 \text{ to } +60 \text{ }^{\circ}\text{C}$
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 :

