Siemens Matsushita Components

# SAW Components
# Low Loss Filter for Mobile Communication

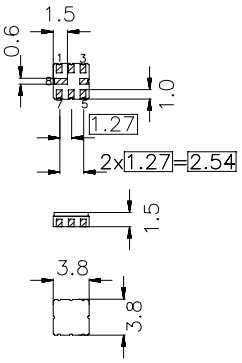
**B4207**
**1865,00 MHz**
**1895,00 MHz**

**Data Sheet**

Ceramic package **QCC8B**

## Features

- Low-loss '2in1' RF filter for mobile telephone PCS system , transmit path
- Device with two integrated Tx-filter
- Usable passband of Tx-filter 1 30 MHz
- Usable passband of Tx-filter 2 30 MHz
- No matching network required for operation at 50 Ω
- Package for **S**urface **M**ounted **T**echnology (**SMT**)



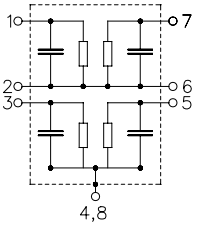

## Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,07 g

## Pin configuration

| | |
|---|---|
| 1 | Input Tx-filter 1 |
| 7 | Output Tx-filter 1 |
| 2,6 | Ground Tx-filter 1 |
| 3 | Input Tx-filter 2 |
| 5 | Output Tx-filter 2 |
| 4,8 | Case - ground |




| Type | Ordering code | Marking and Package according to | Packing according to |
|---|---|---|---|
| B4207 | B39192-B4207-Z810 | C61157-A7-A41 | F61064-V8030-Z000 |

**E**lectrostatic **S**ensitive **D**evice (**ESD**)

## Maximum ratings

| | | | | |
|---|---|---|---|---|
| Operable temperature range | $T$ | – 30 / + 80 | °C | |
| Storage temperature range | $T_{stg}$ | – 40 / + 85 | °C | |
| DC voltage | $V_{DC}$ | 0 | V | |
| Source power | $P_s$ | 5 | dBm | source impedance 50 Ω |

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## Characteristics of Tx-filter 1

Operating temperature range: $T$ = -30 to +80˚C
Terminating source impedance: $Z_S$ = 50 Ω
Terminating load impedance: $Z_L$ = 50 Ω

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** | $f_c$ | — | 1865,0 | — | MHz |
| **Maximum insertion attenuation** | $\alpha_{max}$ | | | | |
| 1850,0 ...1880,0 MHz | | — | 2,5 | 3,0 | dB |
| **Amplitude ripple** (p-p) | $\Delta\alpha$ | | | | |
| 1850,0 ...1880,0 MHz | | — | 1,2 | 1,7 | dB |
| **Attenuation** | $\alpha$ | | | | |
| 10,0 ...1500,0 MHz | | 25,0 | 27,0 | — | dB |
| 1500,0 ...1750,0 MHz | | 15,0 | 31,0 | — | dB |
| 1930,0 ...1960,0 MHz | | 32,0 | 40,0 | — | dB |
| 2200,0 ...2400,0 MHz | | 20,0 | 30,0 | — | dB |
| 2700,0 ...3000,0 MHz | | 10,0 | 13,0 | — | dB |

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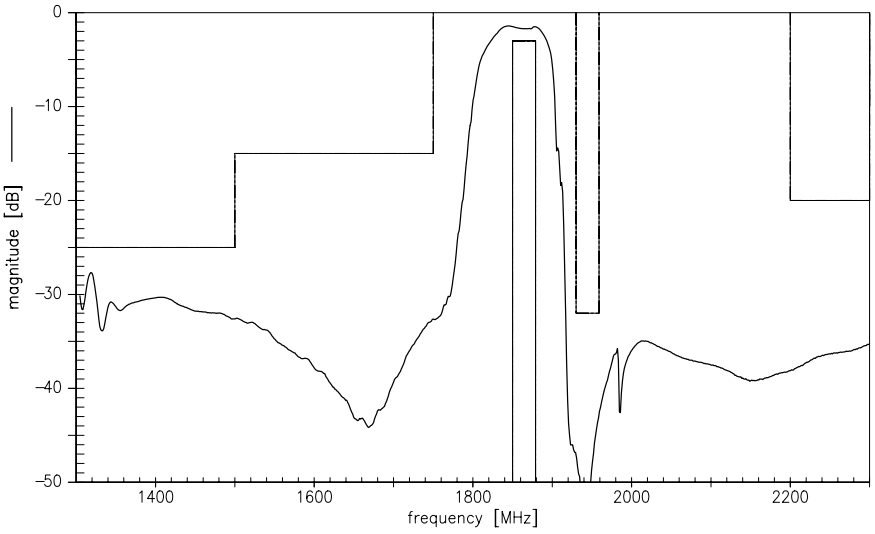
## Characteristics of Tx-filter 2

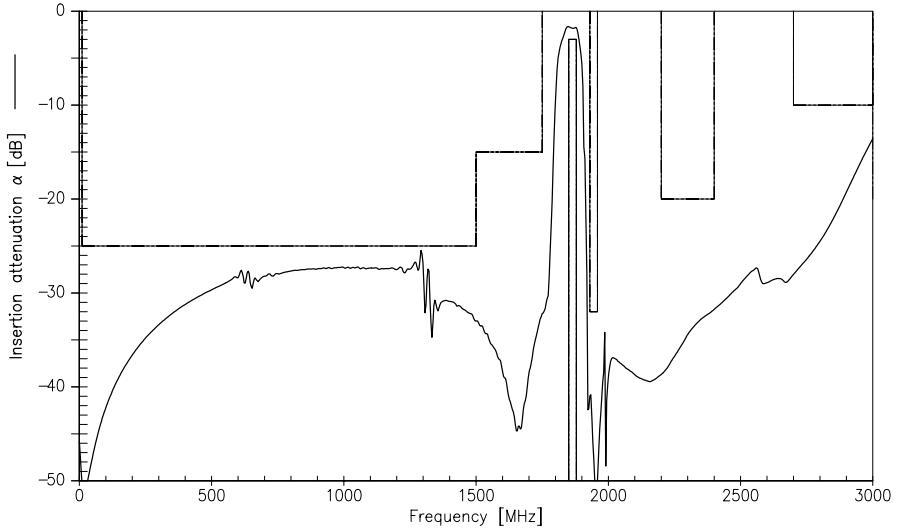
Operating temperature range: $T$ = -30 to +80˚C
Terminating source impedance: $Z_S$ = 50 Ω
Terminating load impedance: $Z_L$ = 50 Ω

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** | $f_c$ | — | 1895,0 | — | MHz |
| **Maximum insertion attenuation** | $\alpha_{max}$ | | | | |
| 1880,0 ...1910,0 MHz | | — | 2,5 | 3,0 | dB |
| **Amplitude ripple** (p-p) | $\Delta\alpha$ | | | | |
| 1880,0 ...1910,0 MHz | | — | 1,2 | 1,7 | dB |
| **Attenuation** | $\alpha$ | | | | |
| 10,0 ...1500,0 MHz | | 25,0 | 28,0 | — | dB |
| 1500,0 ...1750,0 MHz | | 15,0 | 21,0 | — | dB |
| 1960,0 ...1990,0 MHz | | 32,0 | 34,0 | — | dB |
| 2200,0 ...2400,0 MHz | | 20,0 | 27,5 | — | dB |
| 2700,0 ...3000,0 MHz | | 10,0 | 15,0 | — | dB |

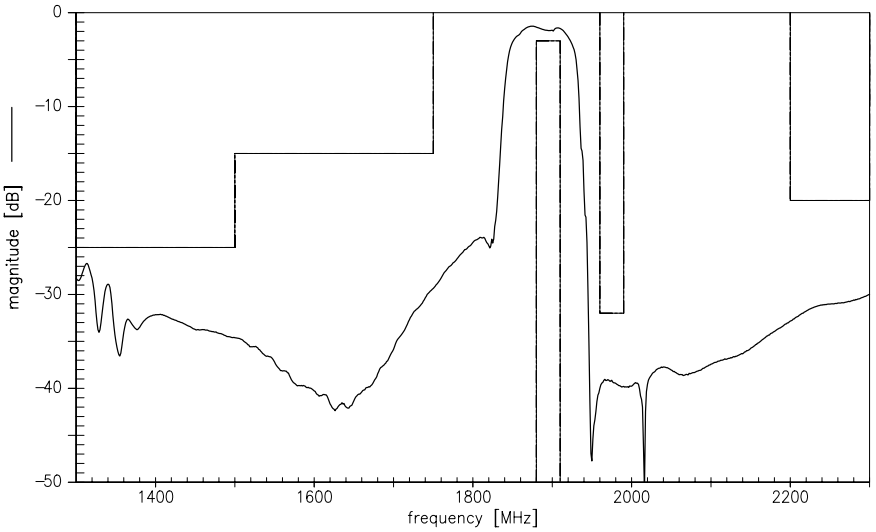
**Transfer function Tx-Filter 1**




**Transfer function Tx-Filter 1** (wideband)



**Transfer function Tx-Filter 2**




**Transfer function Tx-Filter 2** (wideband)