



SAW filters for infrastructure systems

Series/Type: **B5071**

The following products presented in this data sheet are being withdrawn.

| Ordering Code | Substitute Product | Date of Withdrawal | Deadline Last Orders | Last Shipments |
|-----------------|--------------------|--------------------|----------------------|----------------|
| B39211B5071H810 | | 2012-01-13 | 2012-12-31 | 2013-03-30 |

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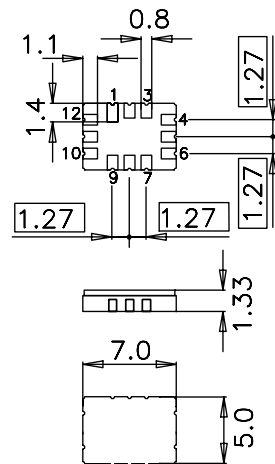
Application

- Low-loss IF filter for WCDMA and CDMA2000 base stations
- Usable passband 19 MHz
- Balanced or unbalanced operation possible



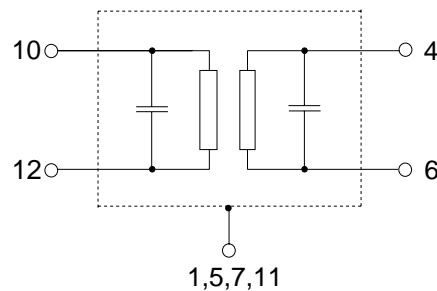
Features

- Package size 7.0 x 5.0 x 1.33 mm³
- Package code QCC12E
- RoHS compatible
- Approx. weight 0.25 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 10 Input
- 12 Input ground or input balance
- 4 Output
- 6 Output ground or output balance
- 2, 3, 8, 9 To be grounded
- 1, 5, 7, 11 Case ground





SAW Components

B5071

SAW IF filter

211.0 MHz

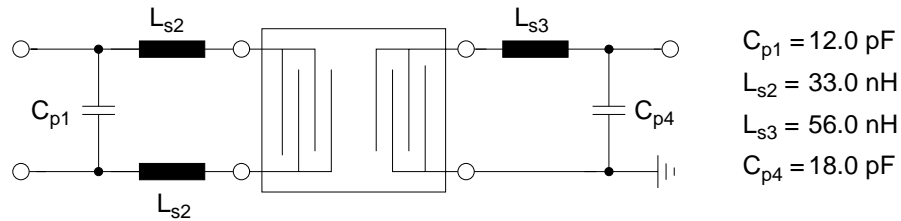
Data sheet



Characteristics

Operating temperature range: $T = -40$ to 85 °C
 Terminating source impedance: $Z_S = 200 \Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \Omega$ and matching network

| | | min. | typ. @ 25 °C | max. | | |
|--|---|-------------------|-----------------|-------|-------|-----|
| Nominal frequency | f_N | — | 211.0 | — | MHz | |
| Minimum insertion attenuation (including matching network) | α_{min} | — | 8.1 | 10.0 | dB | |
| Passband width | | | | | | |
| | $\alpha_{rel} \leq 1.0$ dB | B_{1dB} | 19.0 | 24.5 | — | MHz |
| Amplitude ripple (p-p) | | | | | | |
| | $\Delta\alpha$ | | | | | |
| | $f_N \pm 9.5$ MHz | — | 0.4 | 0.8 | dB | |
| Phase linearity (p-p) | | | | | | |
| | $\Delta\phi$ | | | | | |
| | $f_N \pm 9.5$ MHz | — | 3.0 | 8.0 | deg | |
| Group delay ripple (p-p) | | | | | | |
| | $\Delta\tau$ | | | | | |
| | $f_N \pm 9.5$ MHz | — | 25 | 60 | ns | |
| | $f_N \pm 9.5$ MHz (within a contig. 5 MHz span) | — | 25 | 60 | ns | |
| VSWR | | | | | | |
| | Input | $f_N \pm 9.5$ MHz | — | 1.4:1 | 2.0:1 | |
| | Output | $f_N \pm 9.5$ MHz | — | 1.4:1 | 2.0:1 | |
| Input IP3 | | | | | | |
| | | | 40 | — | — | dBm |
| Relative attenuation (relative to α_{min}) | α_{rel} | | | | | |
| | 10.0 MHz ... $f_N - 43.0$ MHz | 45 | 55 | — | dB | |
| | $f_N + 39.0$ MHz ... 2000.0 MHz | 50 | 60 | — | dB | |
| Temperature coefficient of frequency | TC_f | — | -87 | — | ppm/K | |

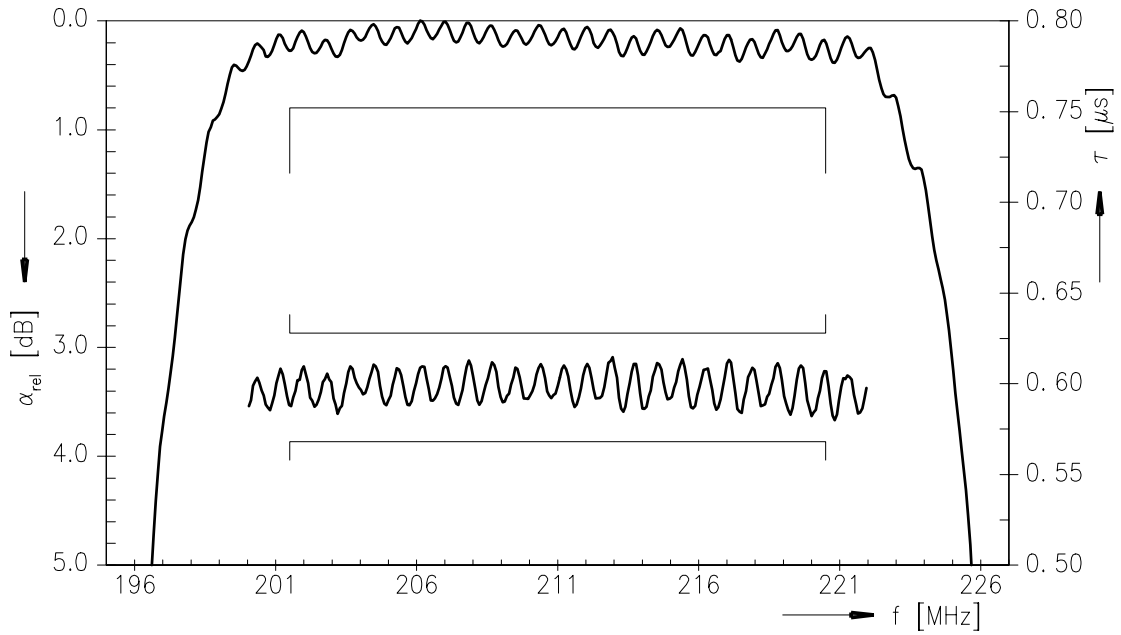
Matching network to 200 Ω balanced input, 50 Ω unbalanced output

Maximum ratings

| | | | | |
|----------------------------|------------------|-------------------|-----|------------------------|
| Operable temperature range | T | -40/+85 | °C | |
| Storage temperature range | T _{stq} | -40/+85 | °C | |
| DC voltage | V _{DC} | 0 | V | |
| ESD voltage | V _{ESD} | 200 ¹⁾ | V | machine model, 1 pulse |
| Input power | P _{IN} | 15 | dBm | 10 MHz to 2 GHz |

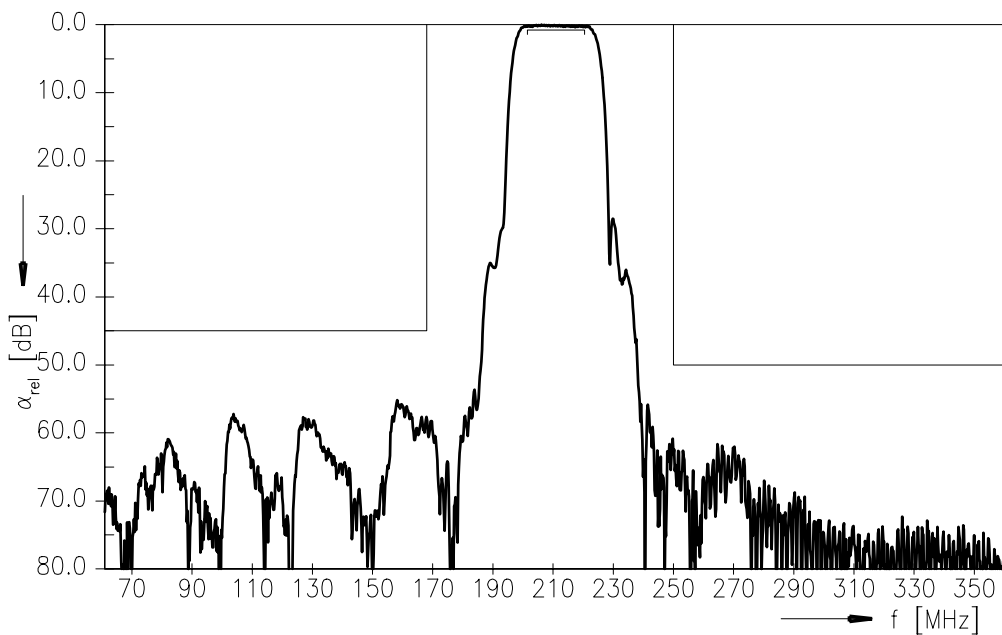
1) acc. to J-STD22A-0115A (machine model, 1 pulse +/-).



Transfer function



Transfer function (wideband)





SAW Components

B5071

SAW IF filter

211.0 MHz

Data sheet



References

| | |
|----------------------------|--|
| Type | B5071 |
| Ordering code | B39211-B5071-H810 |
| Marking and package | C61157-A7-A103 |
| Packaging | F61074-V8170-Z000 |
| Date codes | L_1126 |
| S-parameters | B5071_NB.s3p; B5071_WB.s3p; B5071_NB_UN.s4p; B5071_WB_UN.s4p |
| Soldering profile | S_6001 |
| RoHS compatible | defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment." |

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