



SAW Components

SAW filter

LTE

| | |
|-----------------------|------------------------|
| Series/type: | B5128 |
| Ordering code: | B39142B5128U410 |
| Date: | February 01, 2010 |
| Version: | 2.0 |

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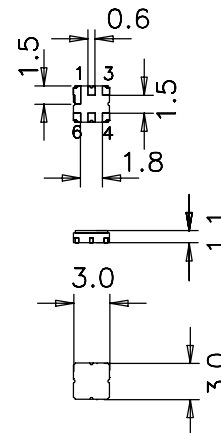
Application

- Low-loss RF filter for BTS systems
- Low amplitude ripple
- Usable passband of 37.1 MHz
- Unbalanced to unbalanced operation
- No matching required for operation at 50 Ω



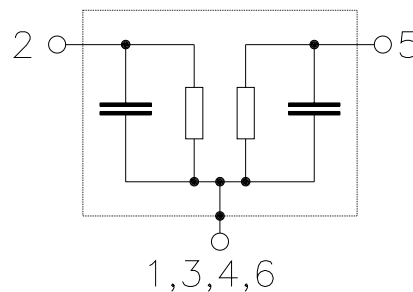
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Electrostatic Sensitive Device (ESD)



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Case grounded



Please read *cautions and warnings and important notes* at the end of this document.



Data sheet



Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

| | | min. | typ. @ 25 °C | max. | |
|--------------------------------------|----------------|------|-----------------|------|-----|
| Center frequency | f_C | — | — | — | MHz |
| Maximum insertion attenuation | α_{max} | — | 2.5 | 3.0 | dB |
| 1427.9 ... 1465.0 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0.8 | 1.3 | dB |
| 1427.9 ... 1465.0 MHz | | | | | |
| Input Return loss | | 10.0 | 13.0 | — | dB |
| 1427.9 ... 1465.0 MHz | | | | | |
| Output Return loss | | 8.0 | 10.0 | — | dB |
| 1427.9 ... 1465.0 MHz | | | | | |
| Attenuation | α | 20 | 29 | — | dB |
| 1110.0 ... 1398.0 MHz | | 5 | 24 | — | |
| 1398.0 ... 1408.0 MHz | | 30 | 54 | — | |
| 1600.0 ... 1650.0 MHz | | | | | |



SAW Components

B5128

SAW filter

1446.45 MHz

Data sheet



Maximum ratings

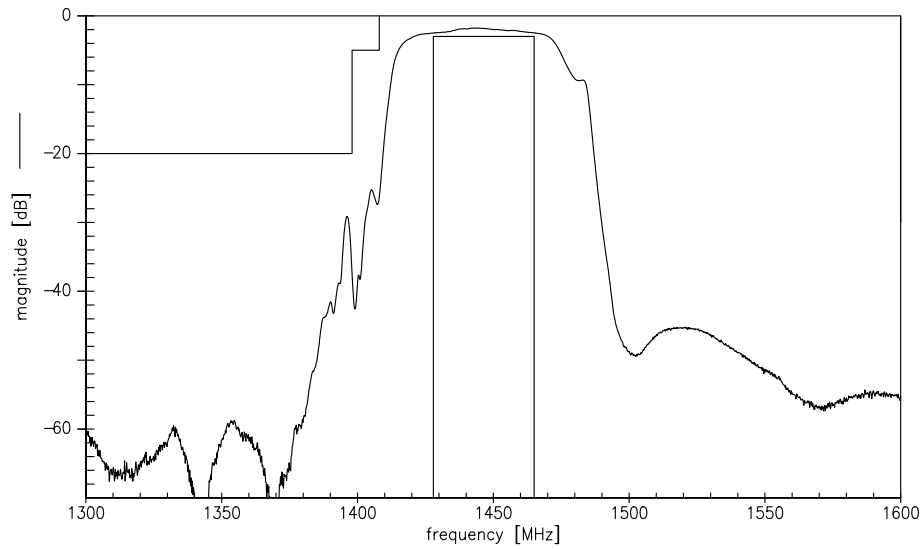
| | | | | |
|-------------------------------------|------------------|------------------|-----|------------------------|
| Operable temperature range | T | -40/+85 | °C | |
| Storage temperature range | T _{stg} | -40/+85 | °C | |
| DC voltage | V _{DC} | 0 | V | |
| ESD voltage | V _{ESD} | 50 ¹⁾ | V | machine model, 1 pulse |
| Input power at 1427.9 ... 1465.0 | P _{IN} | 10 | dBm | CW |

¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

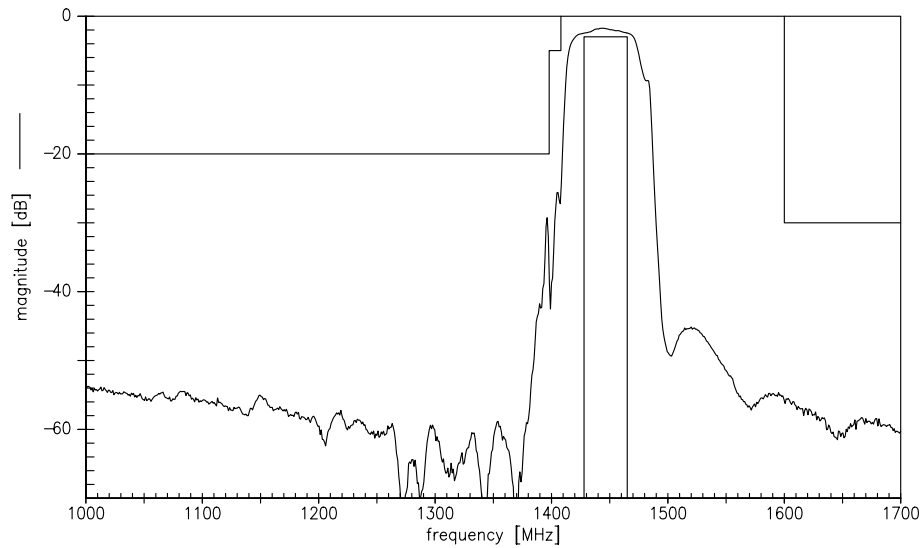
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Transfer function



Transfer function (wideband)



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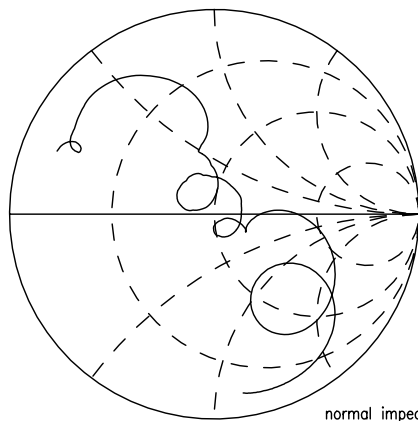


Data sheet

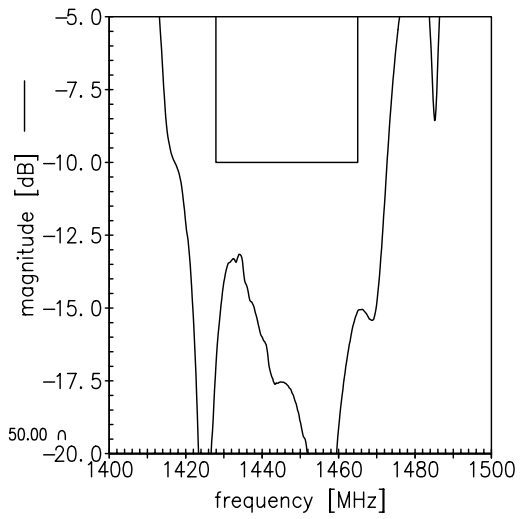


Smith charts

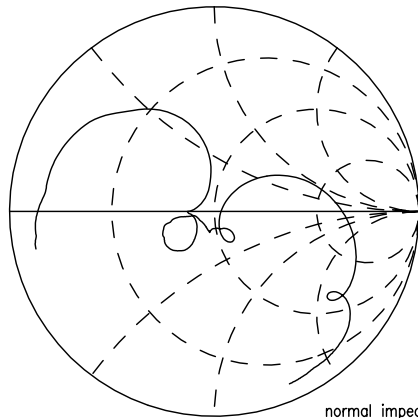
S₁₁ function



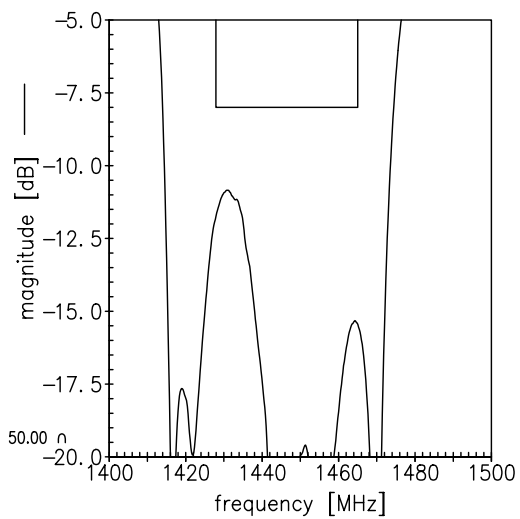
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



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SAW Components **B5128**

SAW filter **1446.45 MHz**

Data sheet



References

| | |
|----------------------------|--|
| Type | B5128 |
| Ordering code | B39142B5128U410 |
| Marking and package | C61157-A7-A67 |
| Packaging | F61074-V8168-Z000 |
| Date codes | L_1126 |
| S-parameters | B5128_NB.s2p B5128_WB.s2p See file header for port/pin assignment table |
| 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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