



SAW Components

Data Sheet B7761





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Low-Loss Filter for Mobile Communication

836,5 MHz

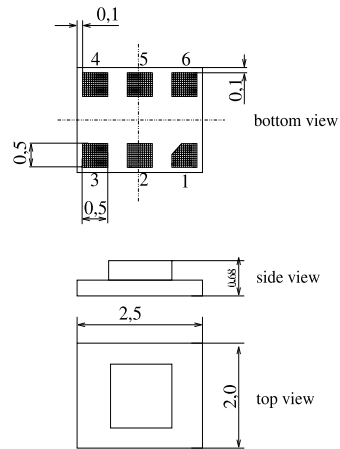
Data Sheet



Features

- Low-loss RF filter for mobile telephone GSM 850 systems, transmit path
- Low amplitude ripple
- Usable passband 25 MHz
- Balanced to unbalanced operation
- Impedance transformation from 100 Ω to 50 Ω
- Suitable for GPRS class 1 to 12
- Ceramic package for **Surface Mounted Technology (SMT)**

Chip sized SAW package DCS6P



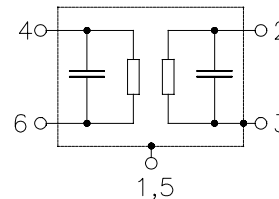
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,010 g

Pin configuration

- 4 Balanced input
- 6 Balanced input
- 2 Output
- 1,3,5 Ground, to be grounded



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B7761 | B39841-B7761-E410 | C61157-A7-A101 | F61074-V8153-Z000 |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| | | | | |
|--|-----------|-------------|-----|--|
| Operable temperature range | T | - 30 / + 85 | °C | |
| Storage temperature range | T_{stg} | - 40 / + 85 | °C | |
| DC voltage | V_{DC} | 5 | V | |
| ESD voltage | V_{ESD} | 50 | V | |
| Input power at GSM850, GSM900, GSM1800, GSM1900 Tx bands | P_{IN} | 15 | dBm | |



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Characteristics

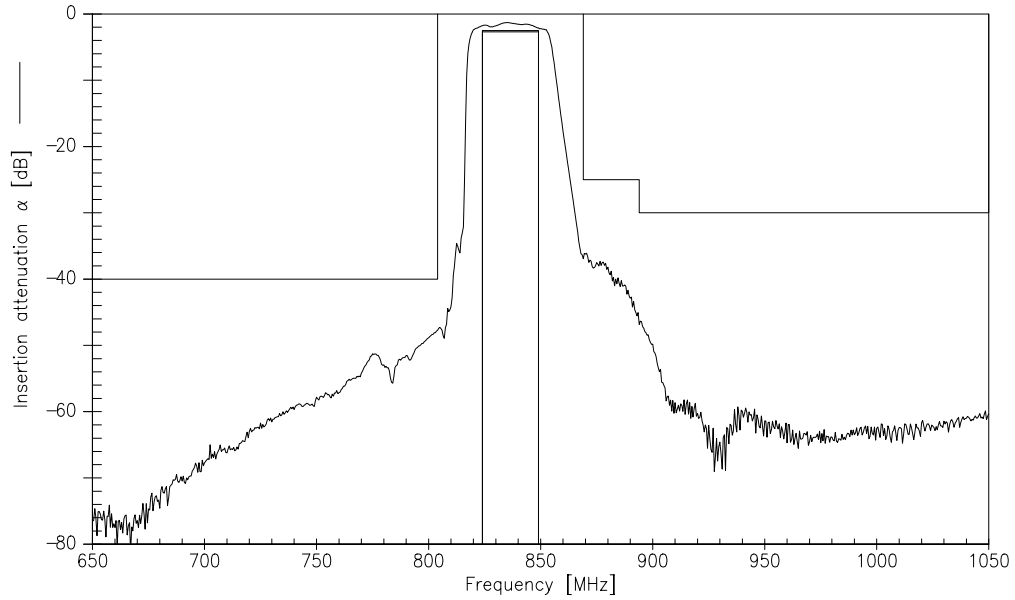
Operating temperature range: $T = -10$ to $+85$ °C
 Terminating source impedance: $Z_S = 100$ Ω
 Terminating load impedance: $Z_L = 50$ Ω

| | | min. | typ. | max. | |
|--------------------------------------|-----------------------|-------|-------|-------------------|-----|
| Center frequency | f_C | — | 836,5 | — | MHz |
| Maximum insertion attenuation | α_{max} | | | | |
| | 824,0 ... 849,0 MHz | — | 2,3 | 2,7 ¹⁾ | dB |
| Amplitude ripple (p-p) | $\Delta\alpha$ | | | | |
| | 824,0 ... 849,0 MHz | — | 1,3 | 1,5 | dB |
| Input VSWR (balanced) | | | | | |
| | 824,0 ... 849,0 MHz | — | 1,9 | 2,2 | |
| Output VSWR (unbalanced) | | | | | |
| | 824,0 ... 849,0 MHz | — | 1,9 | 2,1 | |
| Attenuation | α | | | | |
| | 0,0 ... 804,0 MHz | 40,0 | 45,0 | — | dB |
| | 869,0 ... 894,0 MHz | 25,0 | 32,0 | — | dB |
| | 894,0 ... 1990,0 MHz | 30,0 | 42,0 | — | dB |
| | 1990,0 ... 3400,0 MHz | 25,0 | 35,0 | — | dB |
| | 3400,0 ... 6000,0 MHz | 20,0 | 27,0 | — | dB |
| Amplitude Imbalance | | - 1,5 | | 1,0 | dB |
| Phase Imbalance | | -10,0 | | 10,0 | deg |

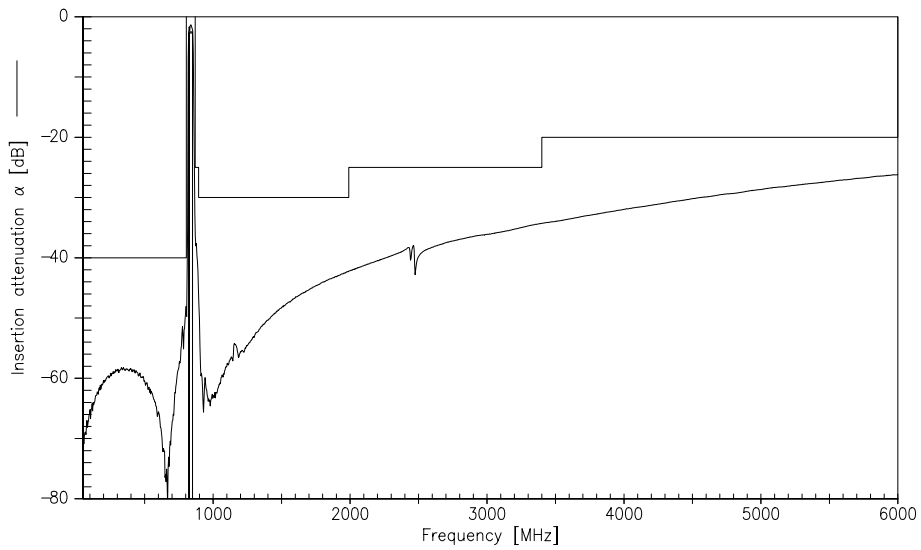
1) Maximum I.A from -30 to -10 °C is 3.0 dB



Transfer function



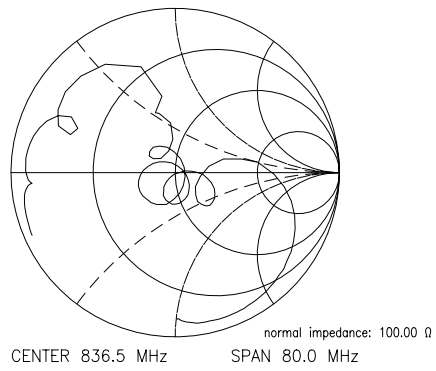
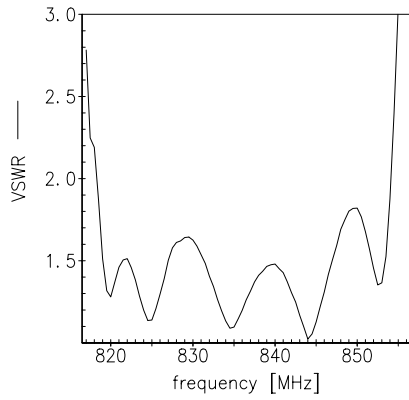
Transfer function (wide band)



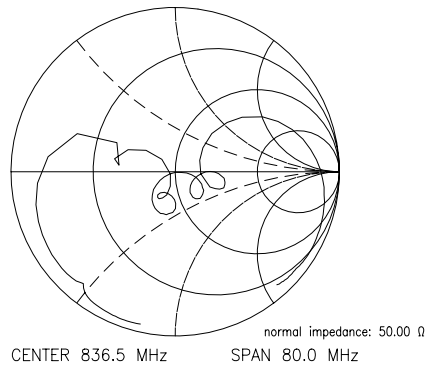
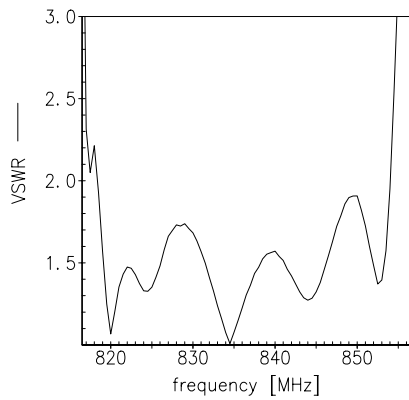


Reflection functions

S_{11}



S_{22}





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