



SAW Components

Data Sheet B7733

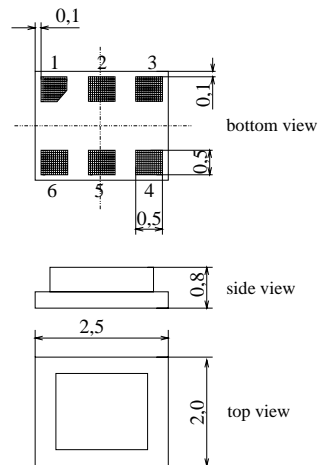




Features

- Low-loss RF filter for mobile telephone cellular system, receive path
- Low amplitude ripple
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 100 Ω
- Package for **Surface Mounted Technology (SMT)**

Chip Size SAW package DCS6I



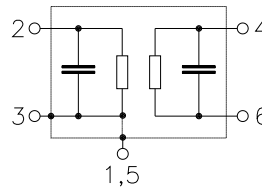
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,014g

Pin configuration

- 2 Input
- 4 Balanced output
- 6 Balanced output
- 1,3,5 Ground, to be grounded



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B7733 | B39881-B7733-C610 | C61157-A7-A76 | F61074-V8153-Z000 |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| | | | | |
|----------------------------|-----------|-------------|-----|--------------------------------------|
| Operable temperature range | T | - 40 / + 85 | °C | source impedance 50 Ω CDMA signal |
| Storage temperature range | T_{stg} | - 40 / + 85 | °C | |
| DC voltage | V_{DC} | 5 | V | |
| Input power max. | P_{IN} | 0 | dBm | |



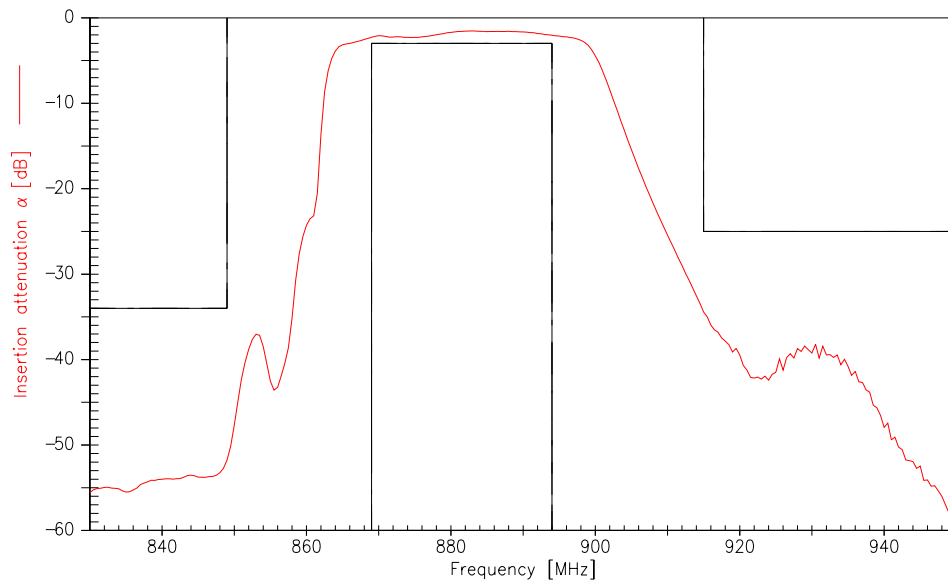
Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 100 \Omega$ (balanced)

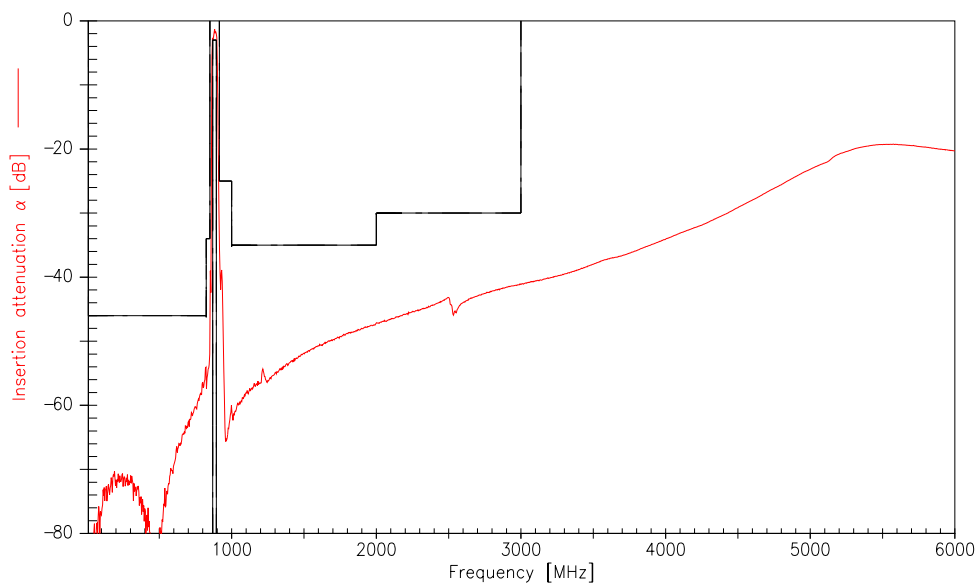
| | | min. | typ. | max. | |
|----------------------------------------------------------------------------------|----------------|------|-------|------|--------|
| Center frequency | f_C | — | 881,5 | — | MHz |
| Maximum insertion attenuation | α_{max} | | | | |
| 869,0 ... 894,0 MHz | | — | 2,7 | 3,0 | dB |
| Amplitude ripple (p-p) | $\Delta\alpha$ | | | | |
| 869,0 ... 894,0 MHz | | — | 1,2 | 1,5 | dB |
| Input VSWR | | | | | |
| 869,0 ... 894,0 MHz | | — | 2,0 | 2,1 | |
| Output VSWR | | | | | |
| 869,0 ... 894,0 MHz | | — | 2,0 | 2,1 | |
| Output amplitude imbalance (S_{31}/S_{21}) | | | | | |
| 869,0 ... 894,0 MHz | | -1,5 | — | 2,0 | dB |
| Output phase imbalance ($\phi(S_{31})-\phi(S_{21})+180^\circ$) | | | | | |
| 869,0 ... 894,0 MHz | | -5,0 | — | 7,0 | degree |
| Attenuation | α | | | | |
| 0,0 ... 824,0 MHz | | 46,0 | 53,0 | — | dB |
| 824,0 ... 849,0 MHz | | 34,0 | 41,0 | — | dB |
| 915,0 ... 1000,0 MHz | | 25,0 | 30,0 | — | dB |
| 1000,0 ... 2000,0 MHz | | 35,0 | 47,0 | — | dB |
| 2000,0 ... 3000,0 MHz | | 30,0 | 40,0 | — | dB |



Transfer function



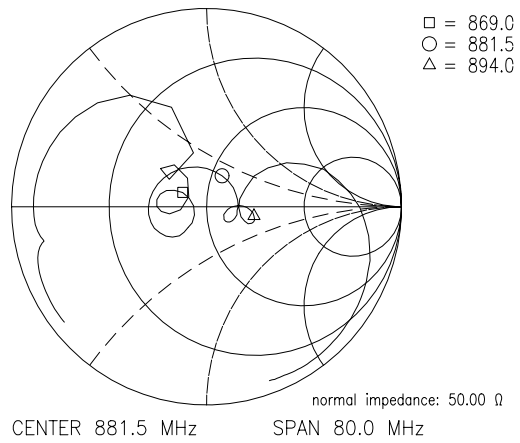
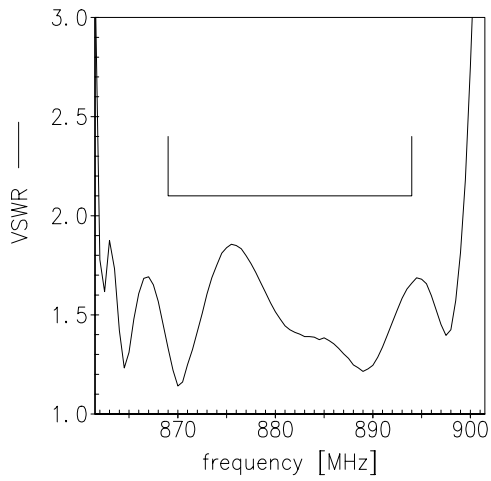
Transfer function (wideband)



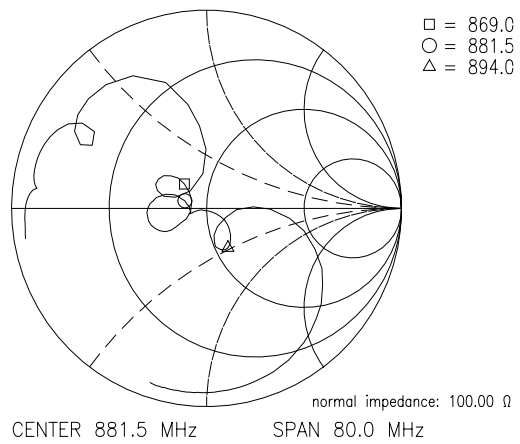
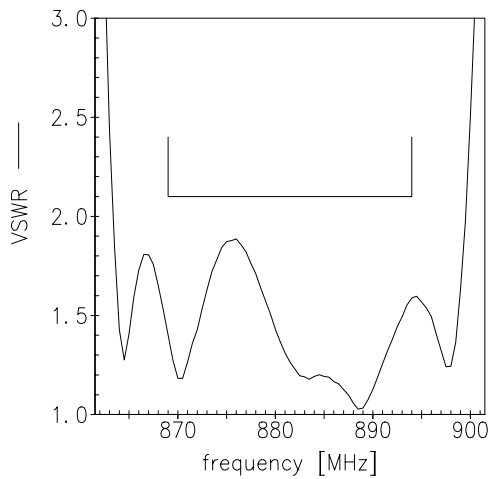


Reflection functions

S_{11}

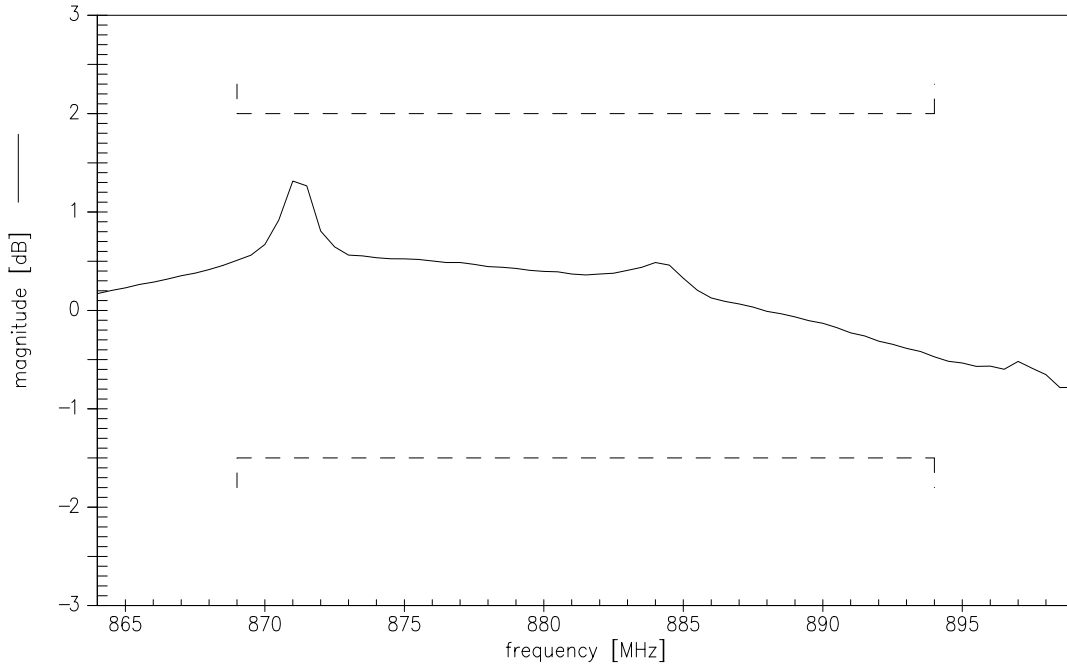


S_{22}

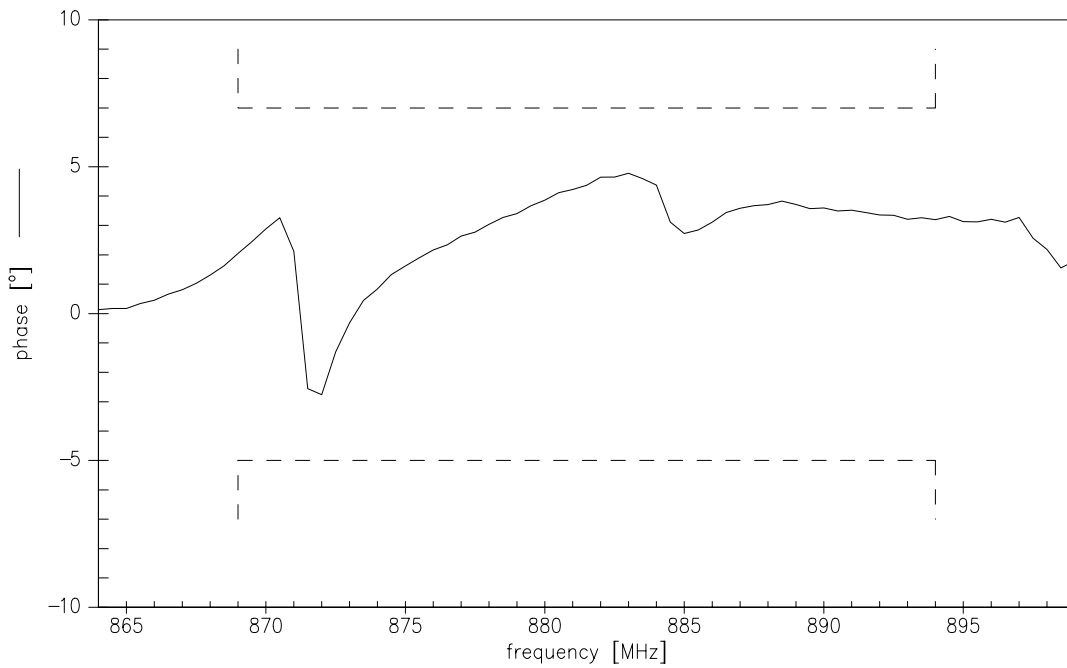




Output amplitude balance ($|S_{31}/S_{21}|$)



Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)





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Low-Loss Filter for Mobile Communication

881,5 MHz

Data Sheet



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