



Total Solution Provider in Saw Device

SA8302AV

83.0625MHz IF SAW Filter

2.17MHz Bandwidth

Revision 0: 29. NOV. 2007



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- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
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□ Electrical Characteristics

Maximum Ratings

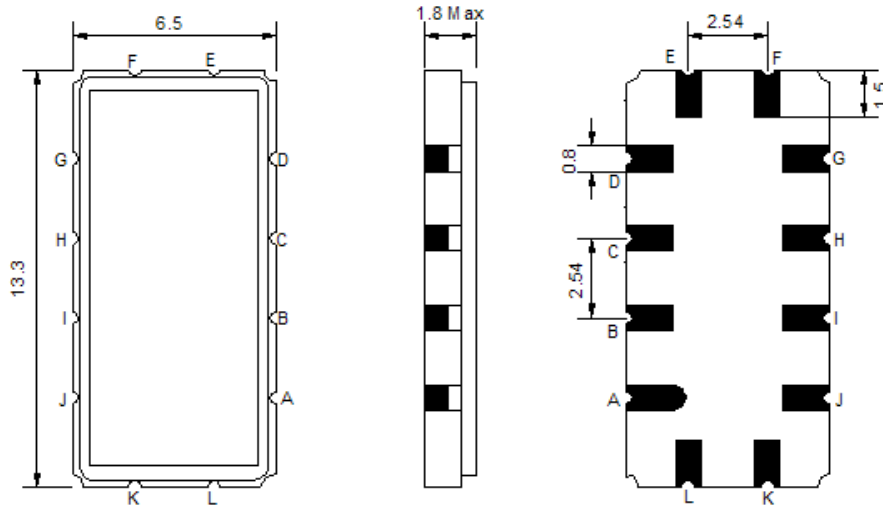
| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|-----------------|---------|------------|---------|
| Operation Temperature Range | °C | 0 | - | 60 |
| Storage Temperature Range | °C | -20 | - | 70 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 10 |
| Source Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |
| Load Impedance (single ended) ⁽¹⁾ | Ω | - | 50 | - |
| Package type & size | V | | | |
| Length x Width | mm ² | - | 13.3 x 6.5 | - |
| Height | mm | - | - | 1.8 |

Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--------------------------------------|------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 83.0625 | - |
| Insertion Loss at Fo | dB | - | 21.6 | 23.5 |
| Group Delay Variation (Fo±0.9375MHz) | ns | - | 50 | 100 |
| Absolute Delay | us | - | 1.81 | - |
| Passband Ripple (Fo±0.9375MHz) | dB | - | 0.2 | 1.00 |
| Bandwidth at -1dB | MHz | 1.875 | 2.79 | - |
| Bandwidth at -30dB | MHz | - | 3.78 | - |
| Bandwidth at -40dB | MHz | - | 3.92 | 4.62 |
| Ultimate Rejection | dB | - | 48 | - |
| Relative Attenuation Fo±2.1625MHz | dB | 30 | 50 | |

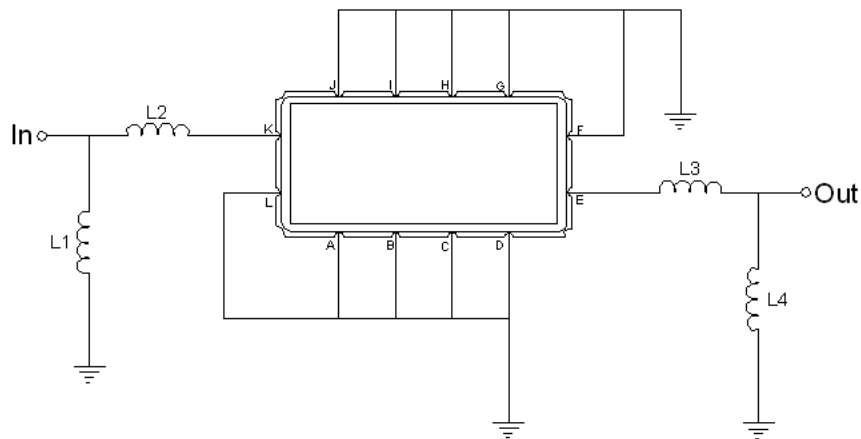
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Package Dimensions



| Pin Description | |
|------------------------------|--------|
| A, B, C, D, F, G, H, I, J, L | Ground |
| K | Input |
| E | Output |

Testing Environment



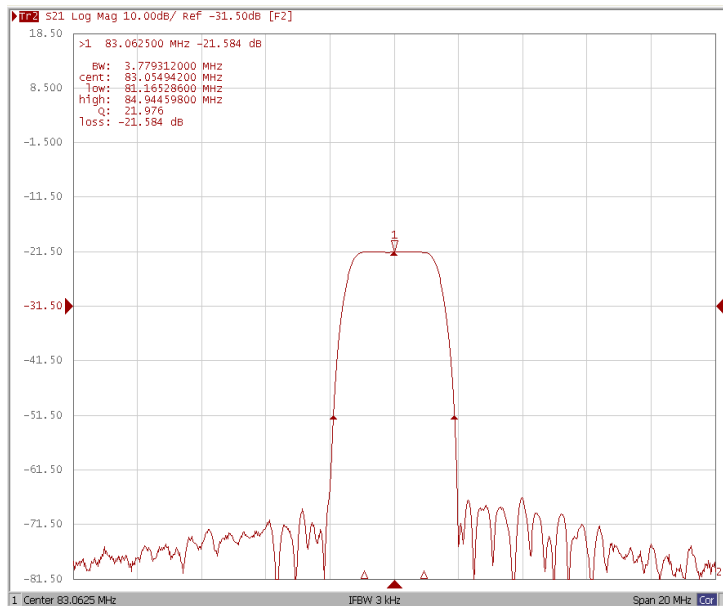
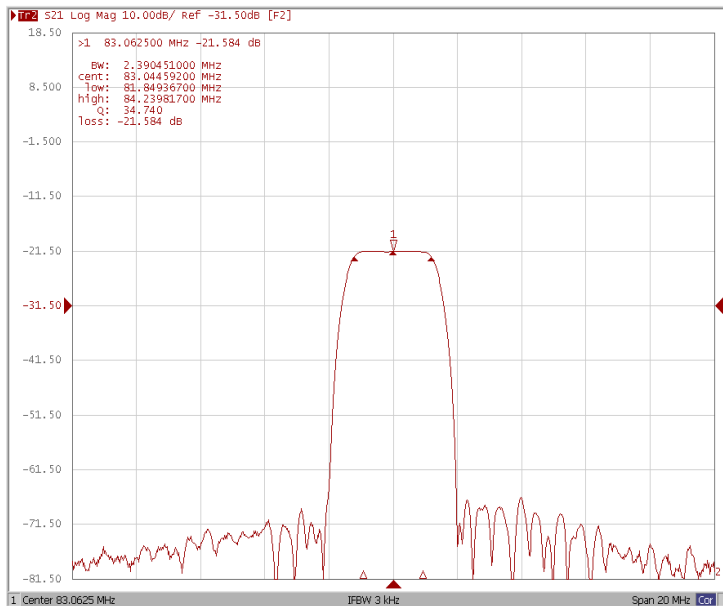
| Test Fixture & Values | |
|-----------------------|-------------------|
| Input | L1=68nH, L2=220nH |
| Output | L3=180nH, L4=68nH |
| Source/Load Impedance | 50 Ω |

□ Frequency Characteristics

Frequency Response

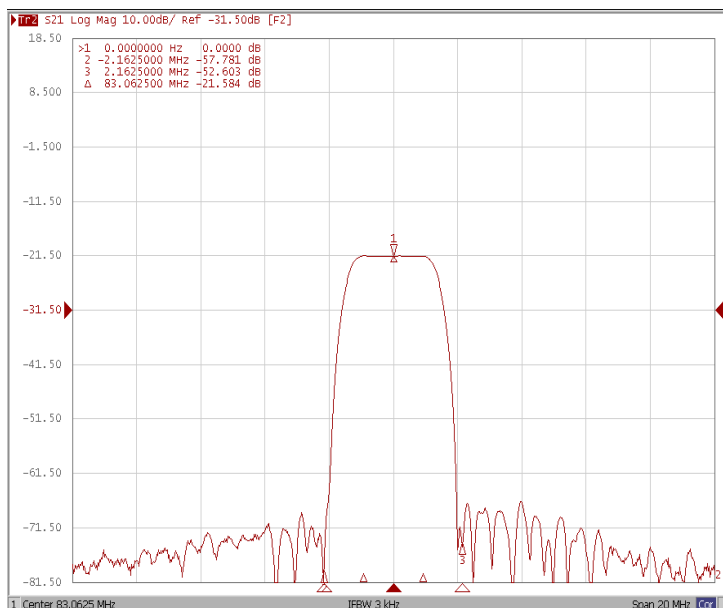
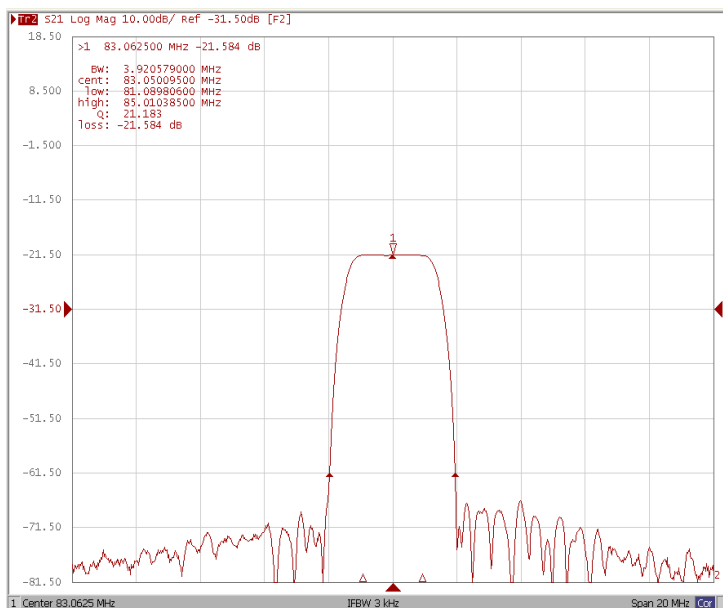
Bandwidth at -1.0 dB

Bandwidth at -30.0 dB



Bandwidth at -40.0 dB

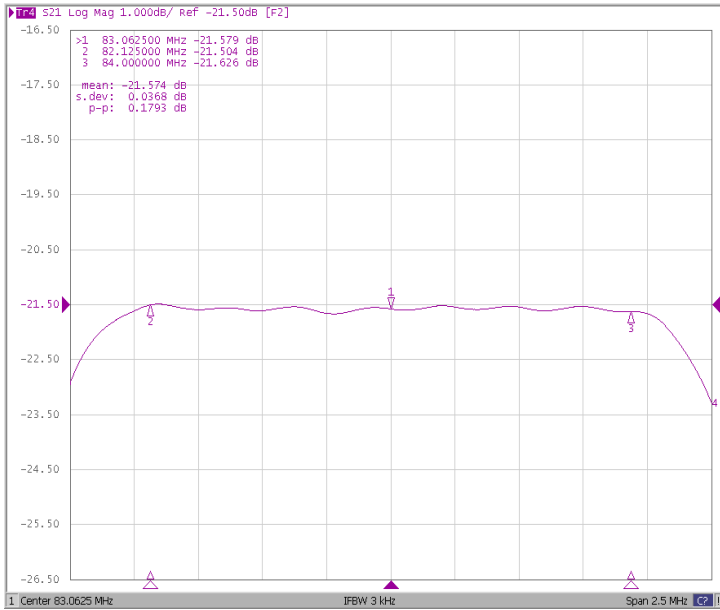
Relative Attenuation $F_o \pm 2.1625$ MHz



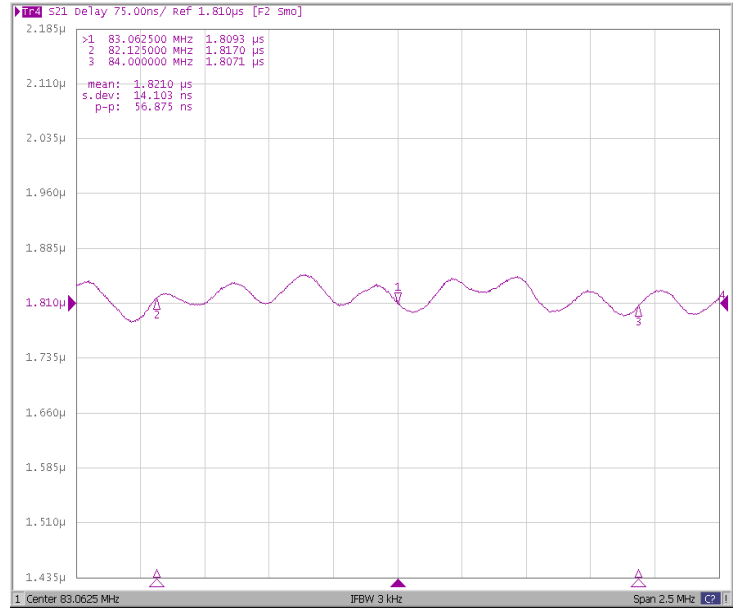
□ Frequency Characteristics

Frequency Response

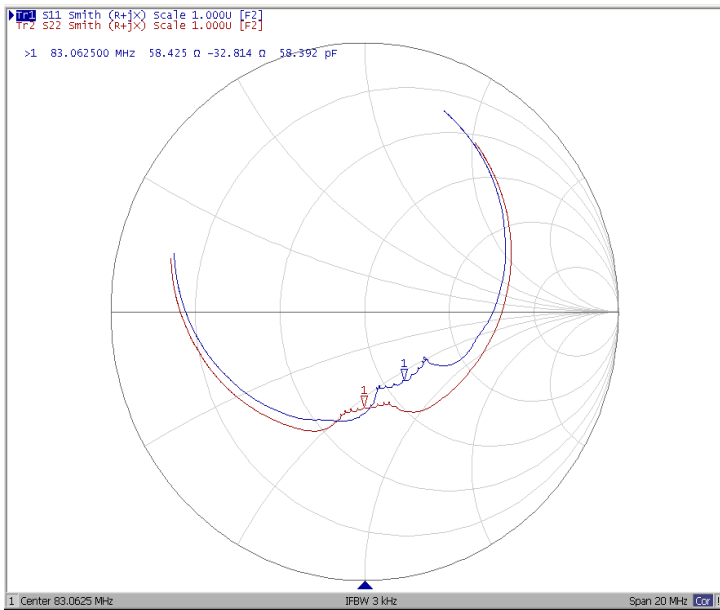
Ripple Variation $F_o \pm 0.9375$



Group Delay Variation $F_o \pm 0.9375$



Smith Chart



VSWR

