



Total Solution Provider in Saw Device

SA7019AV

70.0 MHz IF SAW Filter
19.83 MHz Bandwidth
Revision 0: 21. NOV. 2007



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

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□ Electrical Characteristics

Maximum Ratings

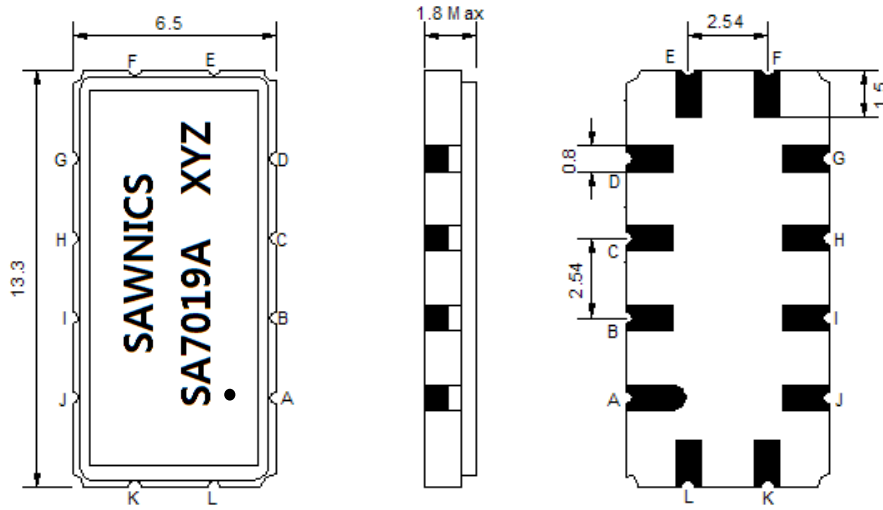
| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|-----------------|---------|------------|---------|
| Operation Temperature Range | °C | -40 | - | 85 |
| Storage Temperature Range | °C | -45 | - | 85 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 10 |
| 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 | - | 70.00 | - |
| Insertion Loss at Fo | dB | - | 26.0 | 28.0 |
| Group Delay Variation (Fo±9.22MHz) | ns | - | 20 | 50 |
| Absolute Delay | us | - | 1.61 | - |
| Passband Ripple (Fo±9.22MHz) | dB | - | 0.55 | 1.00 |
| Bandwidth at -1dB | MHz | - | 19.36 | - |
| Bandwidth at -3dB | MHz | 19.60 | 19.88 | - |
| Bandwidth at -40dB | MHz | - | 21.77 | 22.00 |
| Ultimate Rejection | dB | 45 | 50 | - |
| Relative Attenuation Fo±10.8MHz | dB | 20 | 33 | - |
| Temperature Coefficient | ppm/°C | - | -72 | - |

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.

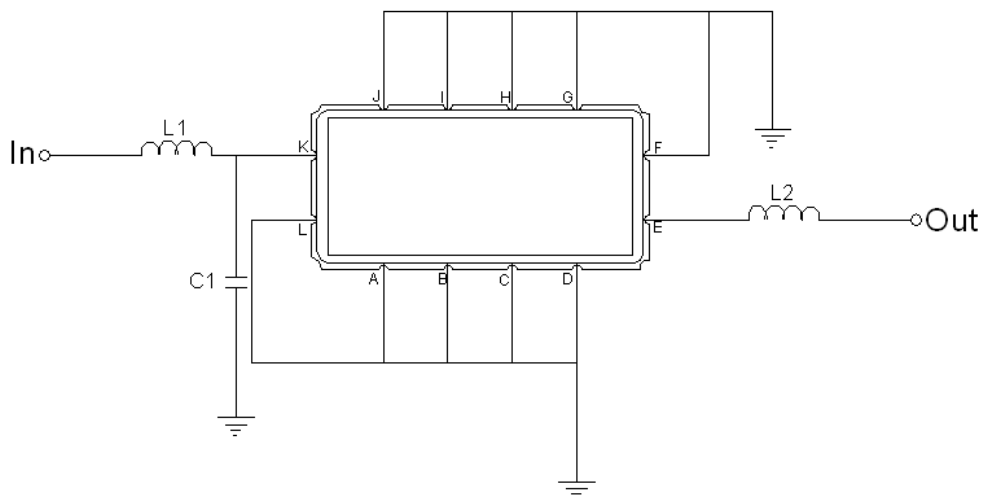
Package Dimensions



- ① SAWNICS: Brand
- ② SA7019A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

Testing Environment

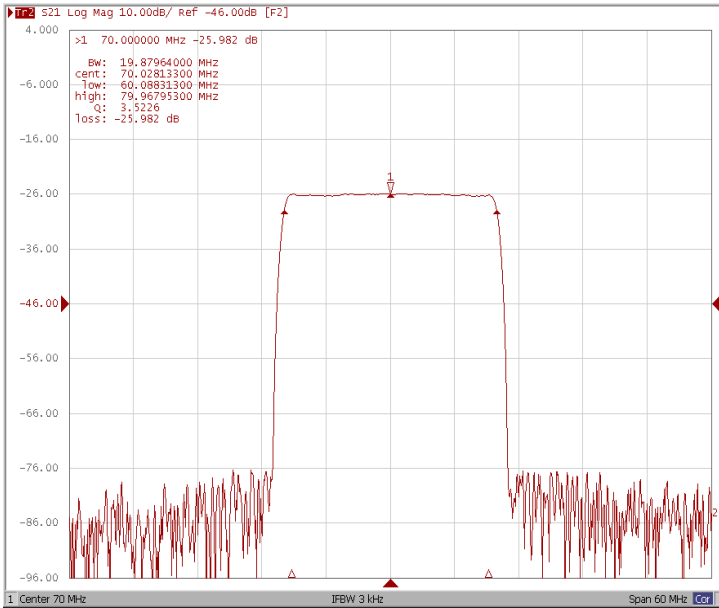


| Test Fixture & Values | |
|-----------------------|--------------------|
| Input | L1=180 nH, C1=12pF |
| Output | L2=150 nH |
| Source/Load Impedance | 50 Ω |

□ Frequency Characteristics

Frequency Response

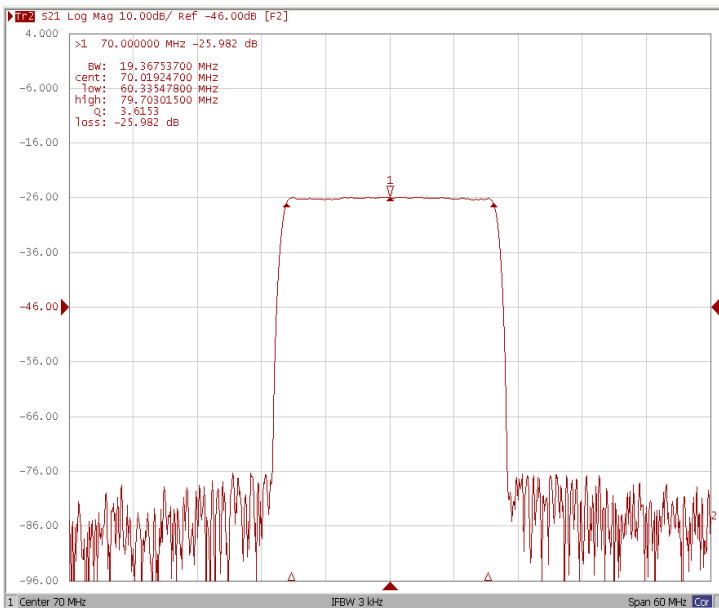
Bandwidth at -3.0 dB



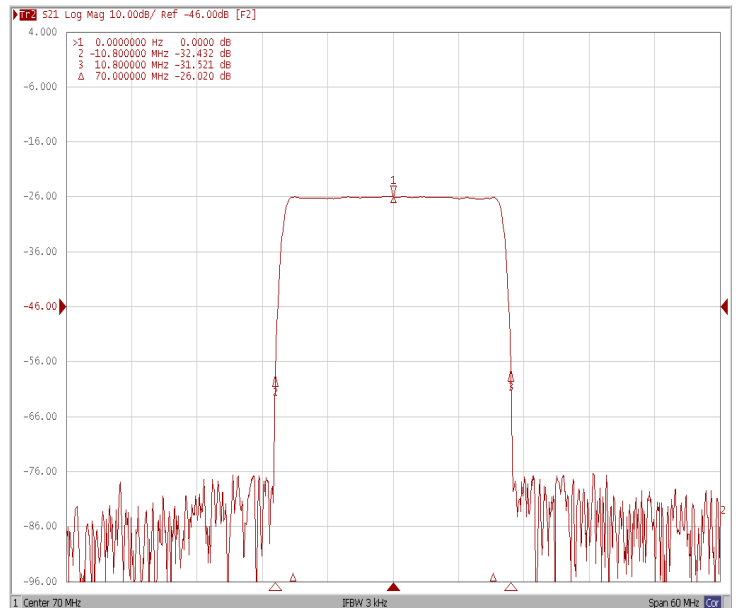
Bandwidth at -40.0 dB



Bandwidth at -1.0 dB



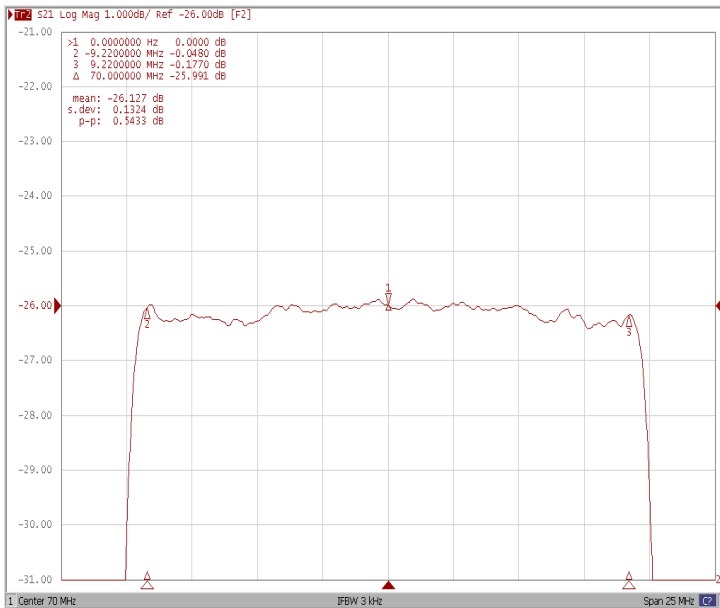
Relative Attenuation Fo±10.8MHz



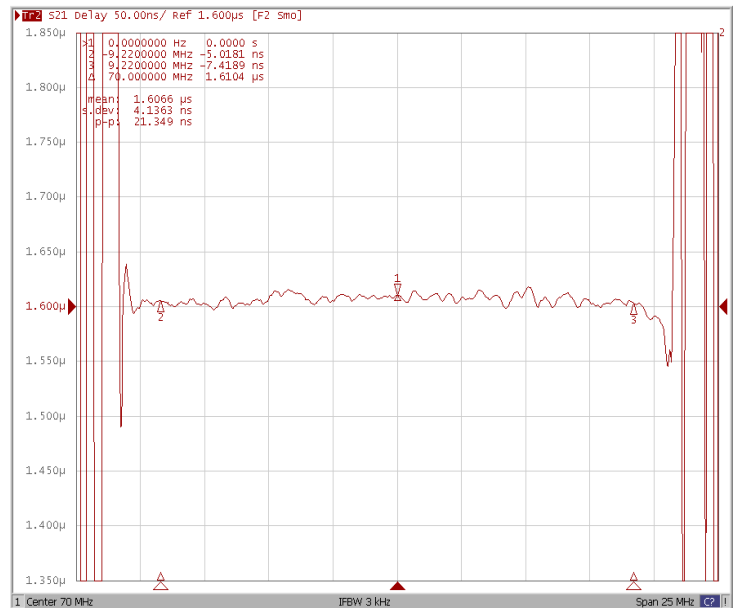
□ Frequency Characteristics

Frequency Response

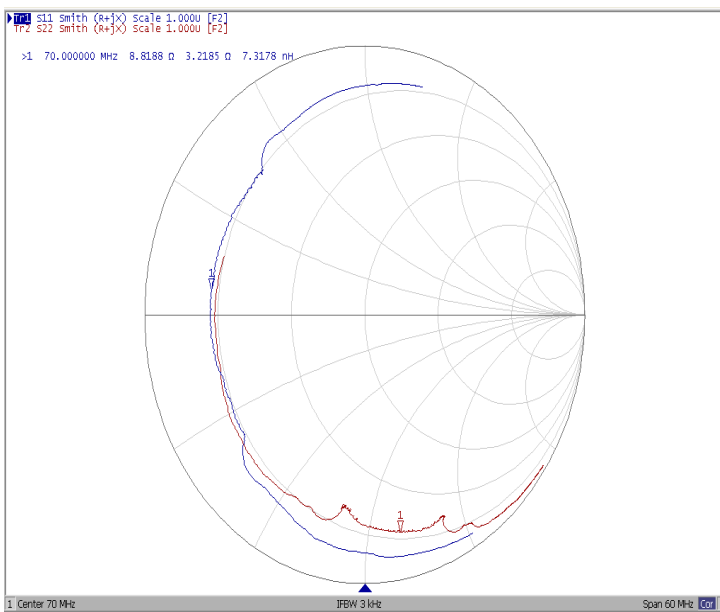
Ripple Variation



Group Delay Variation



Smith Chart



VSWR

