



Total Solution Provider in Saw Device

SA07014DV

70.0 MHz IF SAW Filter
14.90 MHz Bandwidth
Revision 0: 09. JAN. 2009



- 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 | - | 25 | - |
| Storage Temperature Range | °C | -40 | - | 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 |

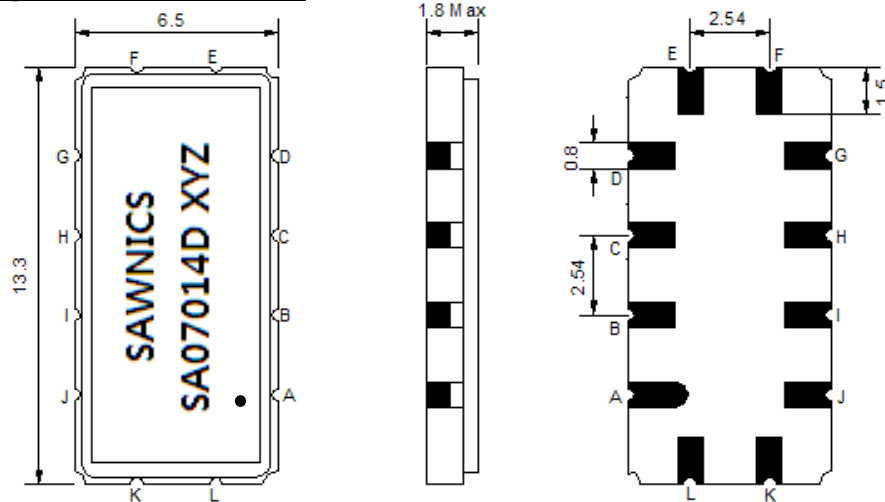
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|---------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 70.0 | - |
| Insertion Loss at Fo | dB | - | 23.3 | 25.0 |
| Group Delay Variation(Fo±7.15MHz) | nsec | - | 30 | 70 |
| Absolute Delay at Fo | usec | - | 1.65 | - |
| Passband Ripple Variation(Fo±7.15MHz) | dB | - | 0.63 | 1.0 |
| Bandwidth at -1dB | MHz | 14.80 | 14.90 | - |
| Bandwidth at -3dB | MHz | | 15.33 | - |
| Bandwidth at -40dB | MHz | - | 17.20 | 17.45 |
| Ultimate Rejection | dB | 45 | 48 | - |
| Relative attenuation | | | | |
| Fo±8.3MHz | dB | 15 | 17 | - |
| 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.

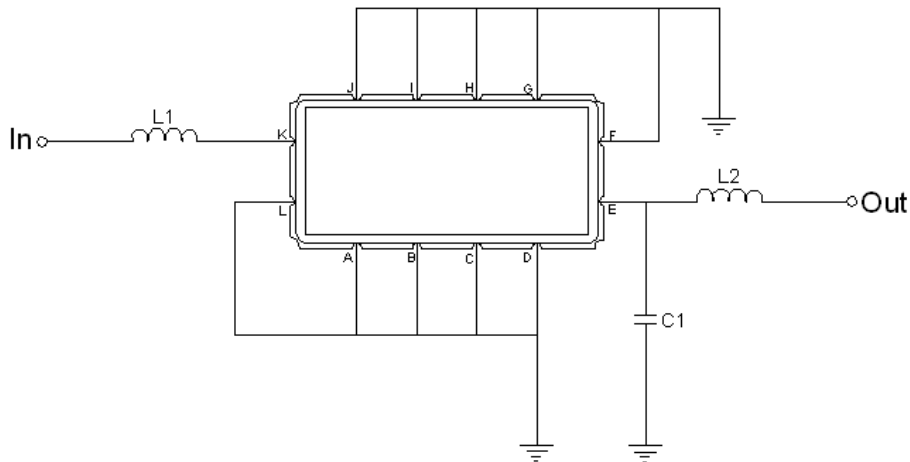
Package Dimensions



- ① SAWNICS: Brand
- ② SA07014D: 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



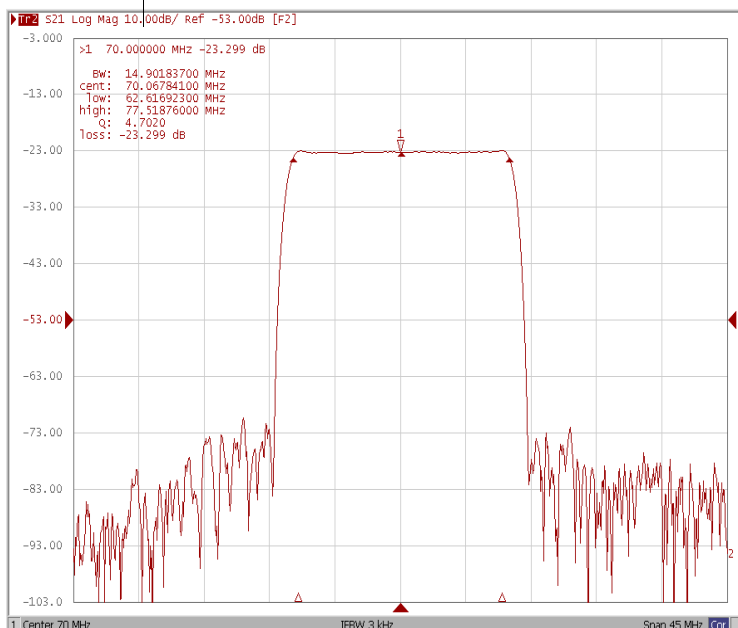
| Test Fixture & Values | |
|-----------------------|----------------------|
| Input | L1 = 220 nH |
| Output | L1 = 120 nH, C1=22pF |
| Source/Load Impedance | 50 Ω |



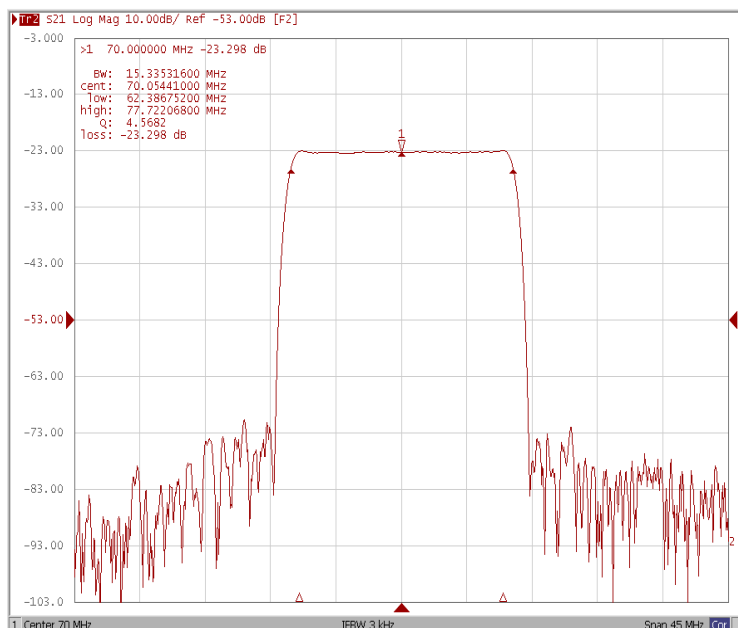
Frequency Characteristics

Frequency Response

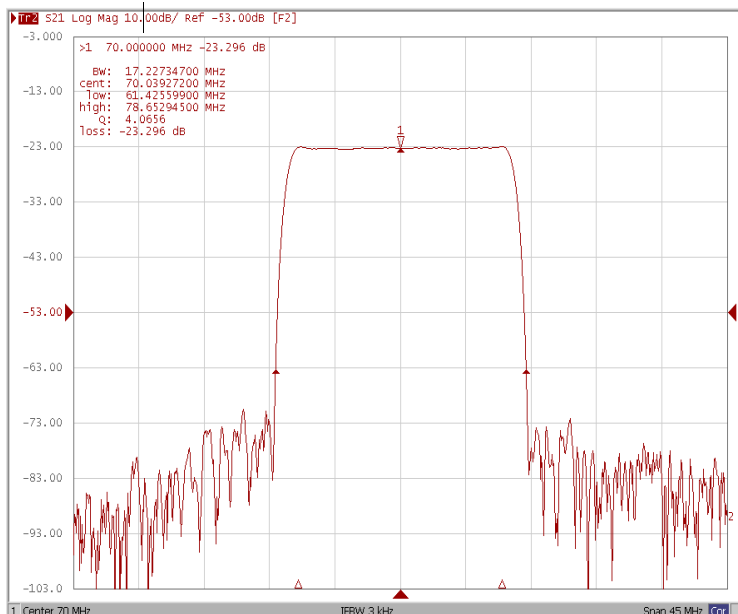
Bandwidth at -1.0 dB



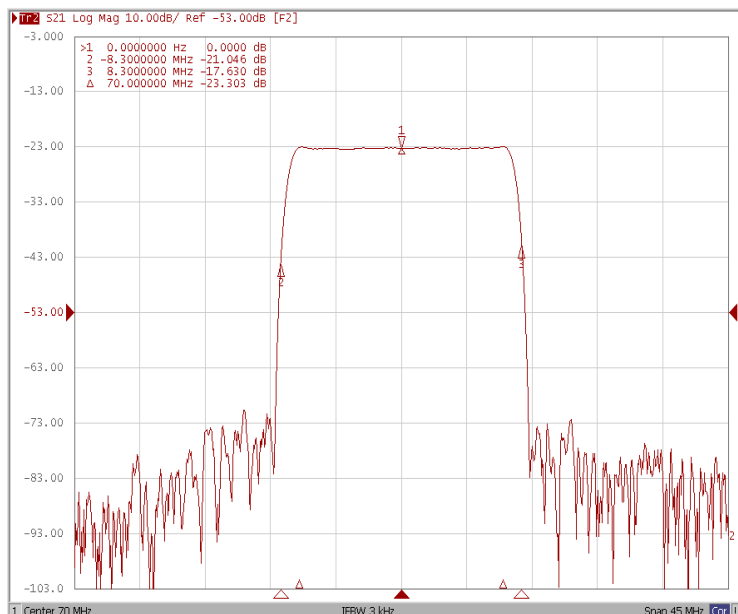
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Relative Attenuation

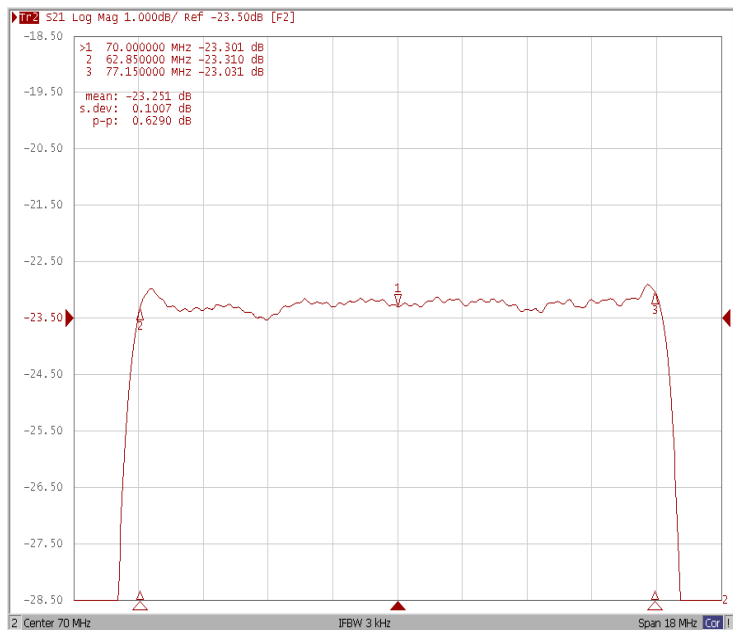




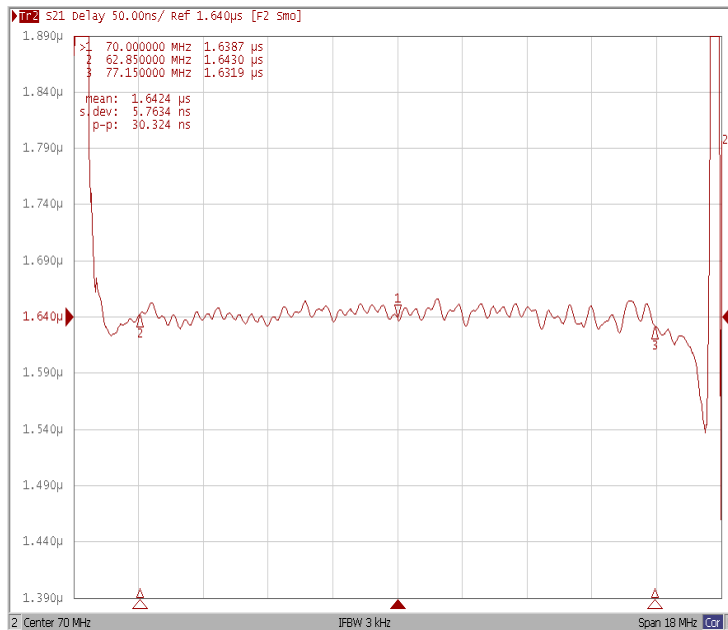
Frequency Characteristics

Frequency Response

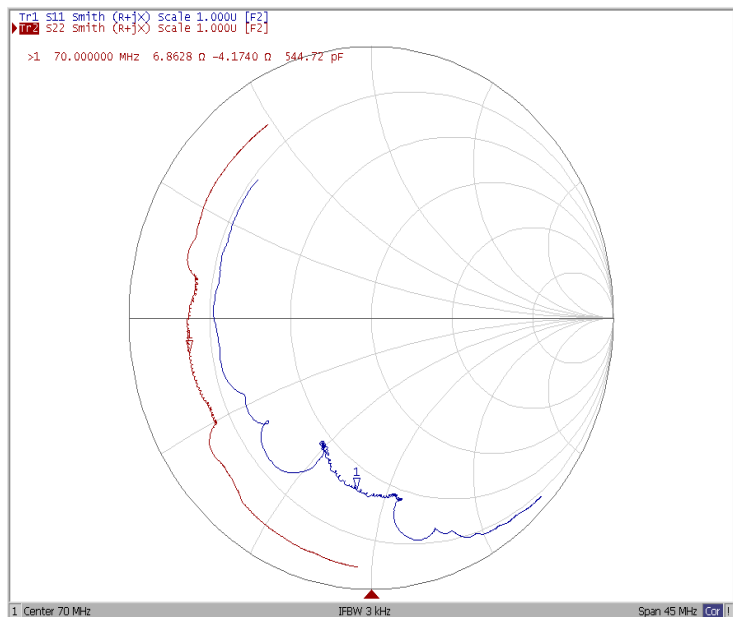
Ripple Variation Fo±7.15MHz



Group Delay Variation Fo±7.15MHz



Smith Chart



SWR

