



Total Solution Provider in Saw Device

SA16026AD1

160.0 MHz IF SAW Filter
26.25 MHz Bandwidth
Revision 0: 07. May. 2009



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

SAWNICS Inc.

460 Cheonheung-ri, Seonggeo-eup, Cheonan-si, Chungcheongnam-do, 330-836 / Korea.
Tel: +82 41 550 9372 / Fax: +82 41 550 9399 / www.sawnics.com

□ Electrical Characteristics

Maximum Ratings

| Parameters Description | Unit | Minimum | Typical | Maximum |
|--|-----------------|---------|------------|---------|
| Operation Temperature Range | °C | -5 | - | 80 |
| 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 | D1 | | | |
| Length x Width | mm ² | - | 20.0 x 9.8 | - |
| Height | mm | - | - | 1.8 |

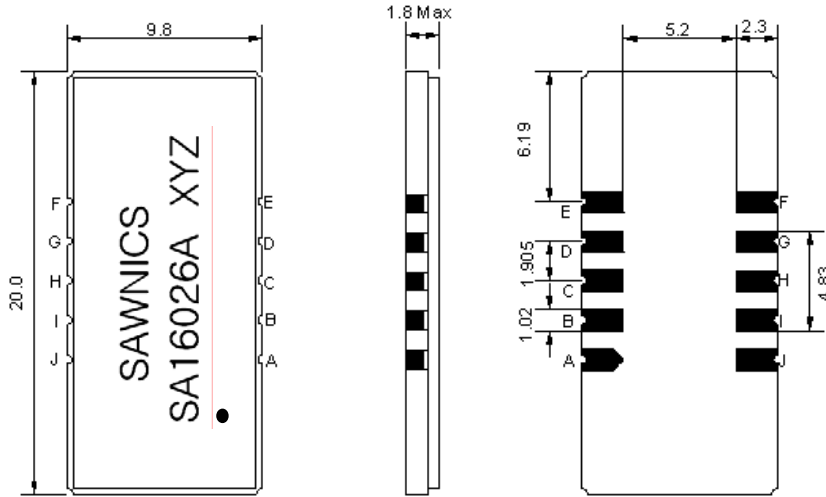
Electrical Specification

| Parameters Description | Unit | Minimum | Typical | Maximum |
|-------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo) | MHz | - | 160.0 | - |
| Insertion Loss at Fo | dB | - | 24.35 | 26.00 |
| Group Delay Variation (Fo±12.50MHz) | nsec | - | 37 | 70 |
| Absolute Delay | usec | - | 2.24 | 2.50 |
| Passband Ripple (Fo±12.50MHz) | dB | - | 0.60 | 1.00 |
| Bandwidth at -1dB | MHz | 26.10 | 26.25 | - |
| Bandwidth at -3dB | MHz | - | 26.55 | - |
| Bandwidth at -40dB | MHz | - | 27.93 | - |
| Bandwidth at -50dB | MHz | - | 28.05 | 28.30 |
| Ultimate Rejection | dB | - | 53 | - |
| 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.

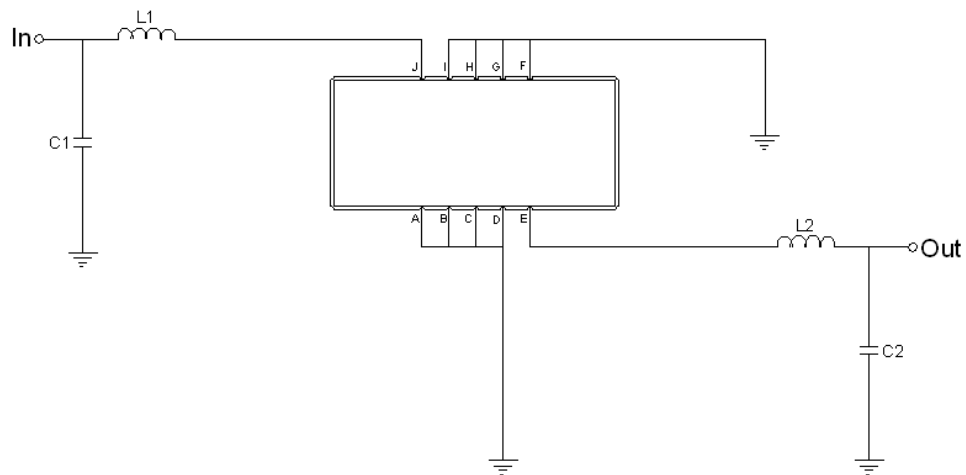
Package Dimensions



- ① SAWNICS: Brand
- ② SA16026A: 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 | Ground |
| J | Input |
| E | Output |

Testing Environment

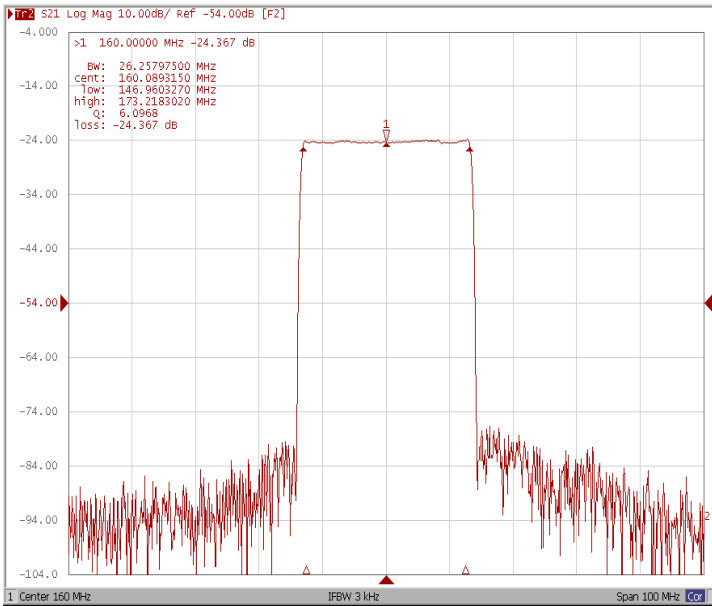


| Test Fixture & Values | |
|-----------------------|------------------|
| Input | L1=47nH, C1=20pF |
| Output | L2=56nH, C2=18pF |
| Source/Load Impedance | 50 Ω |

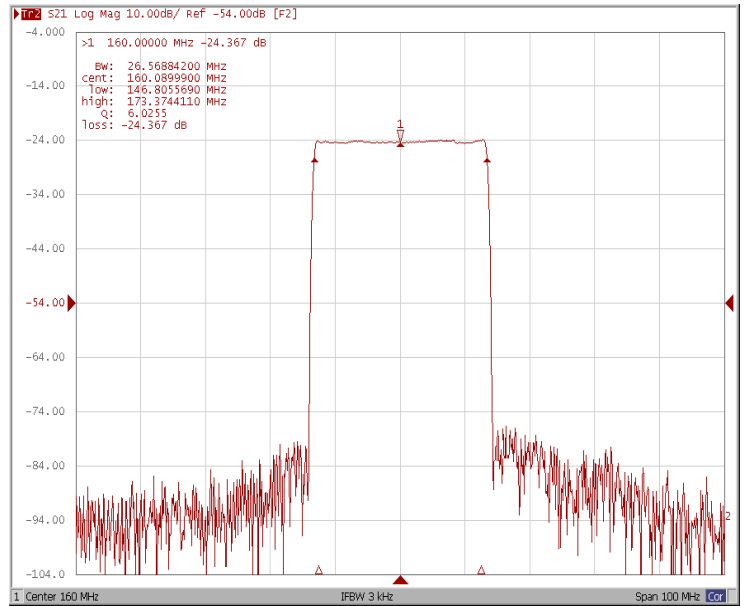
Frequency Characteristics

Frequency Response

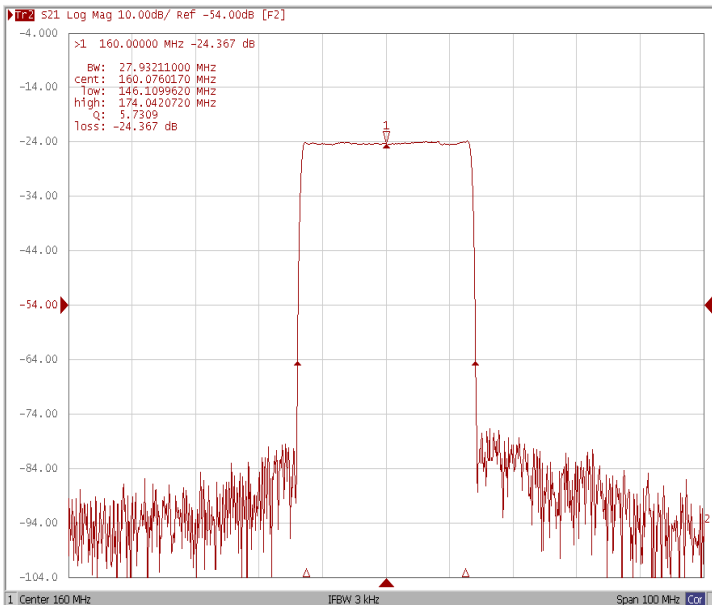
Bandwidth at -1.0 dB



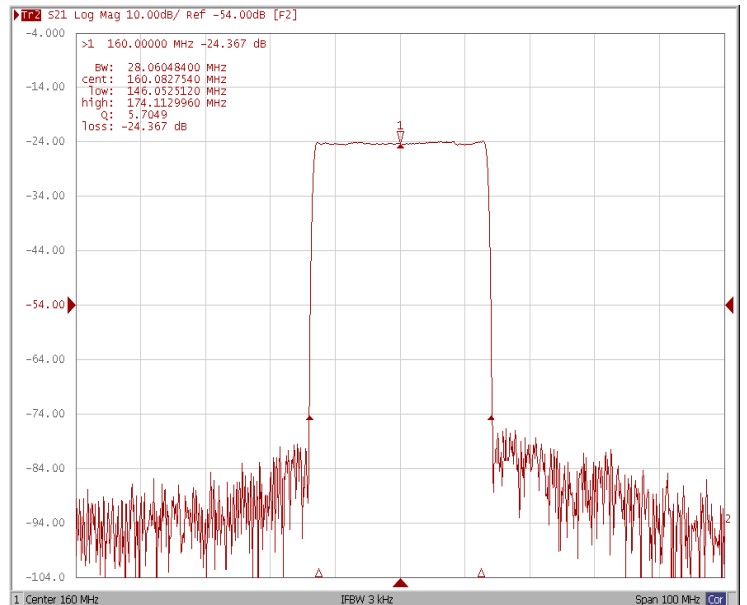
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Bandwidth at -50.0 dB

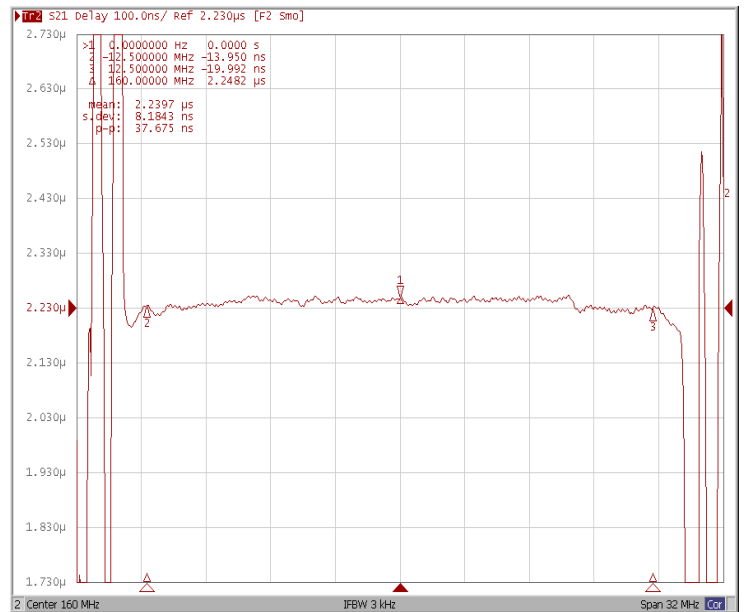
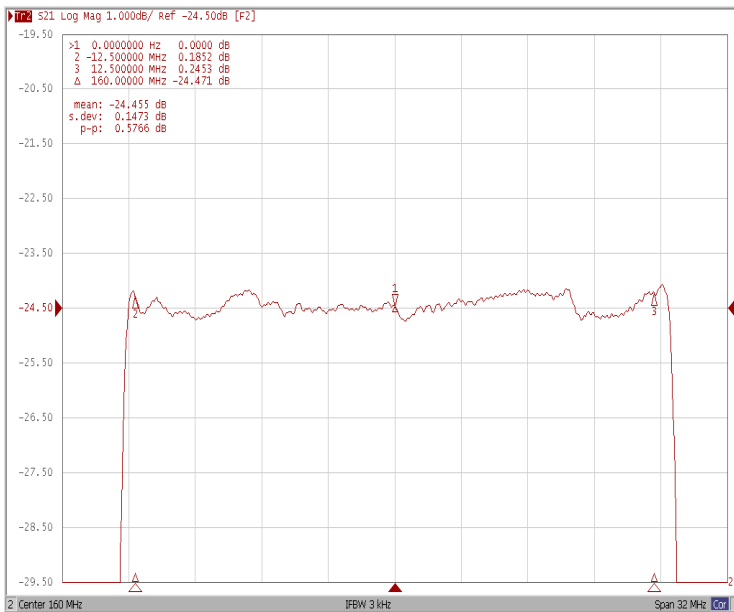


Frequency Characteristics

Frequency Response

Ripple Variation $Fo \pm 12.50\text{MHz}$

Group Delay Variation $Fo \pm 12.50\text{MHz}$



Smith Chart

VSWR

