



*Total Solution Provider in Saw Device*

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# SA07530AD1

75.0 MHz IF SAW Filter  
29.97 MHz Bandwidth  
Revision 0: 17. June. 2008



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

### Maximum Ratings

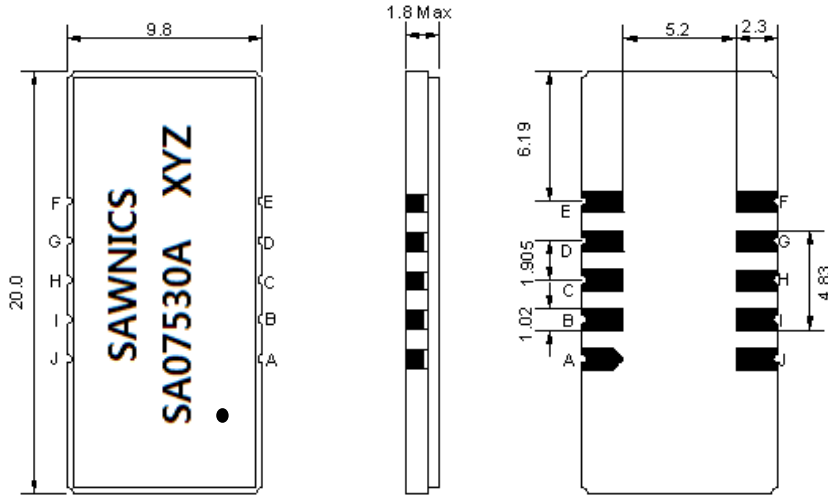
| Parameters Description                         | Unit            | Minimum | Typical    | Maximum |
|--|-----------------|---------|------------|---------|
| Operation Temperature Range                    | °C              | 0       | -          | 60      |
| Storage Temperature Range                      | °C              | -30     | -          | 80      |
| Maximum DC Voltage                             | V               | -       | -          | 10      |
| Maximum Input Power                            | dBm             | -       | -          | 10      |
| Source Impedance (single ended) <sup>(1)</sup> | Ω               | -       | 50         | -       |
| Load Impedance (single ended) <sup>(1)</sup>   | Ω               | -       | 50         | -       |
| Package type & size                            | D1              |         |            |         |
| Length x Width                                 | mm <sup>2</sup> | -       | 20.0 x 9.8 | -       |
| Height   | mm              | -       | -          | 1.8     |

### Electrical Specification

| Parameters Description             | Unit   | Minimum | Typical | Maximum |
|------------------------------------|--------|---------|---------|---------|
| Center Frequency (Fo)              | MHz    | 74.90   | 75.00   | 75.10   |
| Insertion Loss at Fo               | dB     | -       | 27.5    | 30.0    |
| Group Delay Variation (Fo±14.5MHz) | ns     | -       | 30      | 80      |
| Absolute Delay                     | us     | -       | 2.03    | -       |
| Passband Ripple (Fo±14.5MHz)       | dB     | -       | 0.8     | -       |
| Bandwidth at -1dB                  | MHz    | 29.85   | 29.97   | -       |
| Bandwidth at -3dB                  | MHz    | -       | 30.36   | -       |
| Bandwidth at -40dB                 | MHz    | -       | 32.08   | 32.15   |
| Ultimate Rejection                 | dB     | -       | 50      | -       |
| 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.

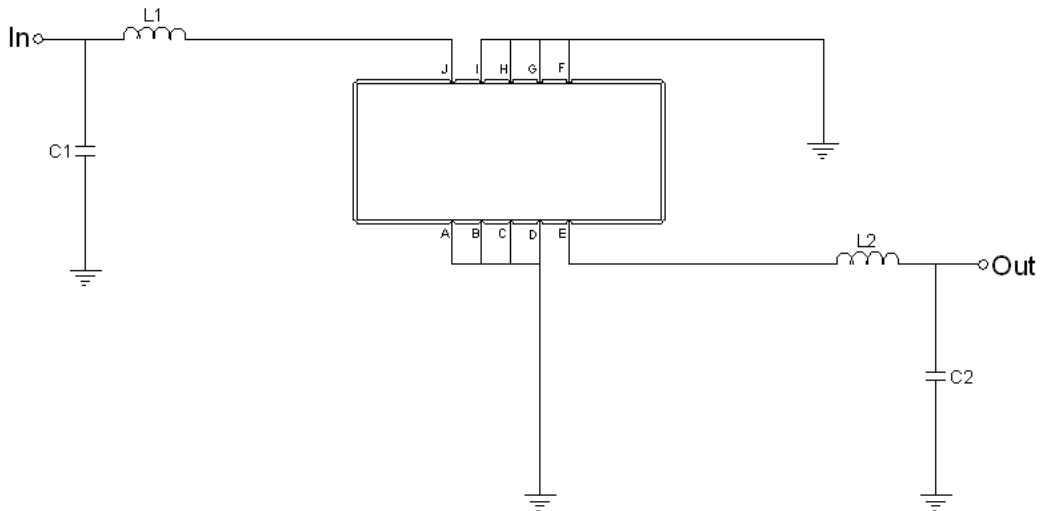
**□ Package Dimensions**



- ① SAWNICS: Brand
- ② SA07530A: 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**

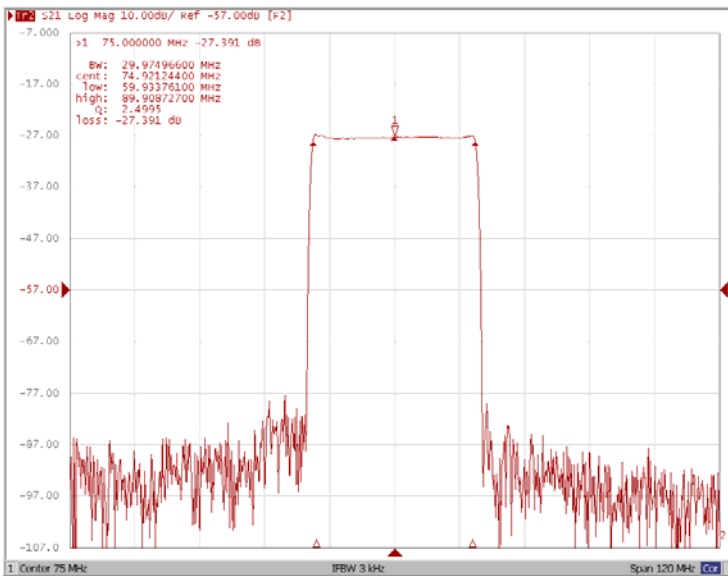


| Test Fixture & Values |                  |
|-----------------------|------------------|
| Input                 | L1=82nH, C1=10pF |
| Output                | L2=82nH, C2=24pF |
| Source/Load Impedance | 50 Ω             |

### □ Frequency Characteristics

#### Frequency Response

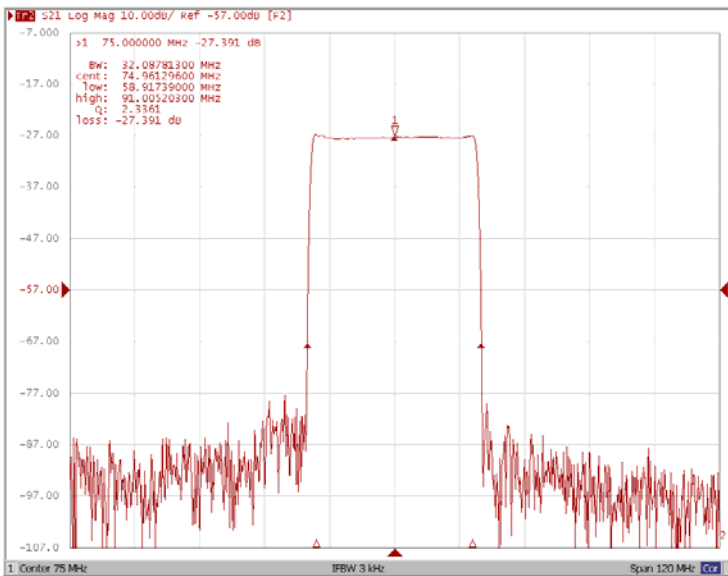
Bandwidth at -1.0 dB



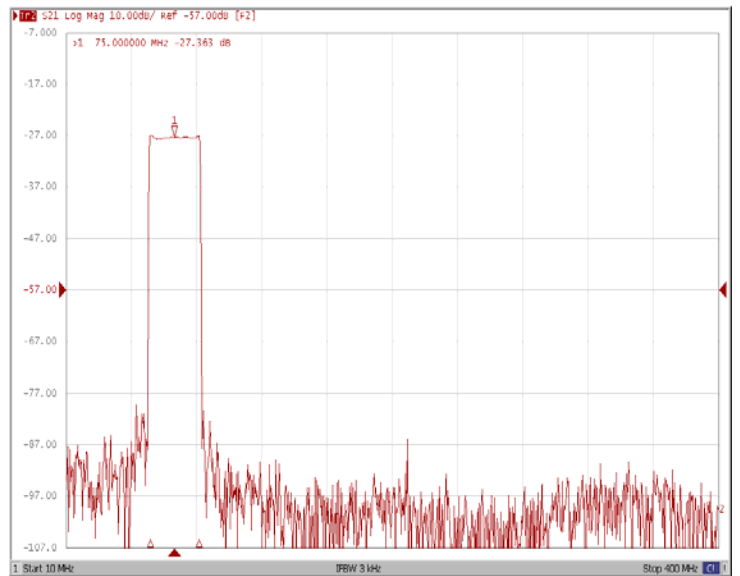
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



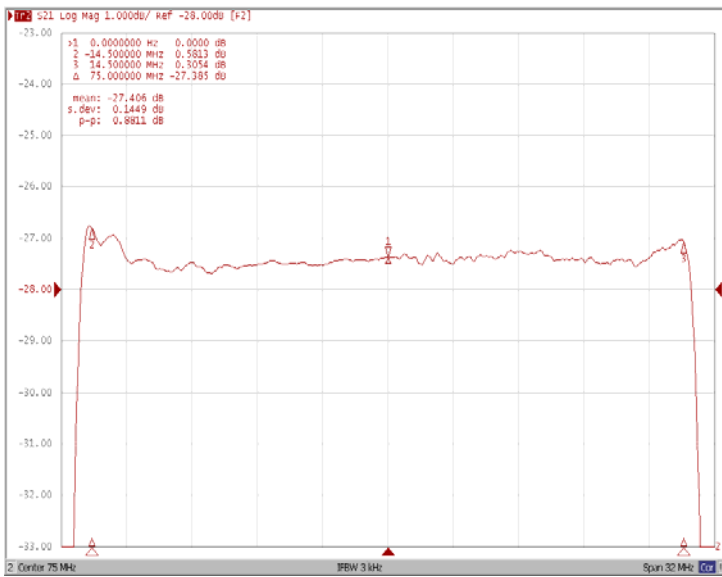
Wide Band



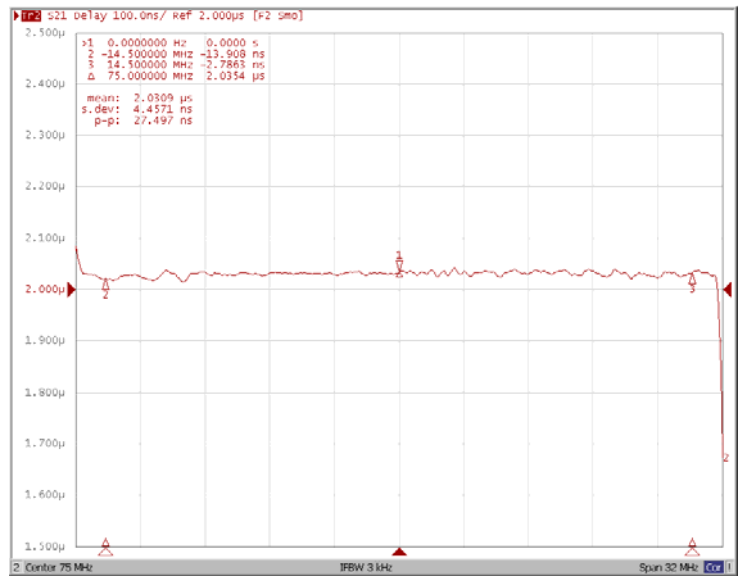
### Frequency Characteristics

#### Frequency Response

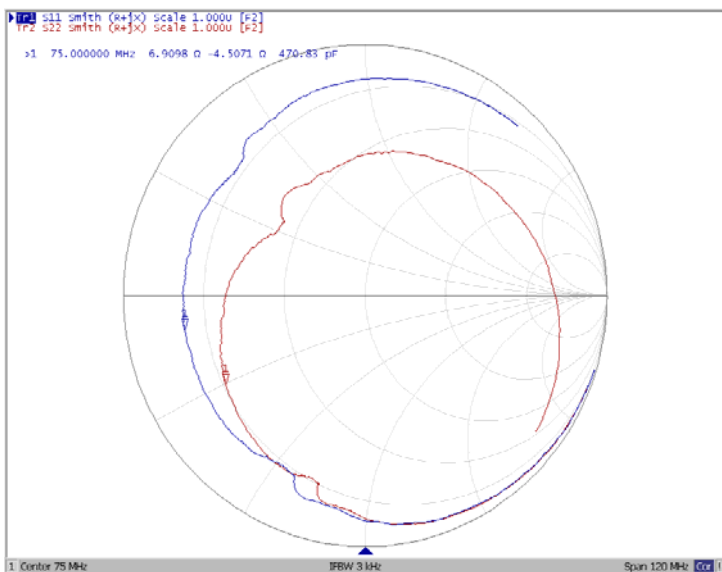
Ripple Variation  $Fo \pm 14.5\text{MHz}$



Group Delay Variation  $Fo \pm 14.5\text{MHz}$



Smith Chart



VSWR

