

- 70.00 MHz IF SAW Filter / 20.68 MHz Bandwidth
- Revision 0: 22 Aug. 2011

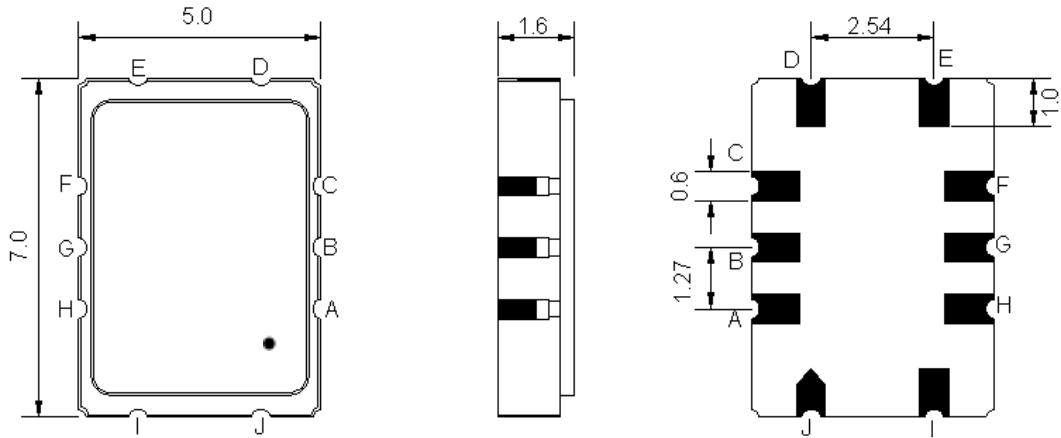
## Electrical Characteristics

| MAXIMUM RATING                                 |                 |         |           |         |
|--|-----------------|---------|-----------|---------|
| PARAMETERS DESCRIPTION                         | UNIT            | MINIMUM | TYPICAL   | MAXIMUM |
| Operation Temperature Range                    | °C              | -30     | -         | 80      |
| Storage Temperature Range                      | °C              | -40     | -         | 85      |
| 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                            | S               |         |           |         |
| Length x Width                                 | mm <sup>2</sup> | -       | 7.0 x 5.0 | -       |
| Height   | mm              | -       | -         | 1.6     |

| ELECTRICAL SPECIFICATION              |        |         |         |         |
|---------------------------------------|--------|---------|---------|---------|
| PARAMETERS DESCRIPTION                | UNIT   | MINIMUM | TYPICAL | MAXIMUM |
| Center Frequency (Fo)                 | MHz    | -       | 70.00   | -       |
| Insertion Loss at Fo                  | dB     | -       | 13.00   | 15.00   |
| Group Delay Variation (Fo±9.32MHz)    | nsec   | -       | 28      | 60      |
| Absolute Delay at Fo                  | usec   | -       | 0.73    | 0.90    |
| Passband Ripple Variation(Fo±9.32MHz) | dB     | -       | 0.45    | 1.00    |
| Bandwidth at -1dB                     | MHz    | 20.40   | 20.68   | -       |
| Bandwidth at -3dB                     | MHz    | -       | 22.40   | -       |
| Bandwidth at -40dB                    | MHz    | -       | 28.67   | 28.90   |
| Out Band Rejection (Fo±5.0MHz)        | dB     | 20      | 32      | -       |
| Temperature Coefficient               | ppm/°C | -       | -86     | -       |

**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.

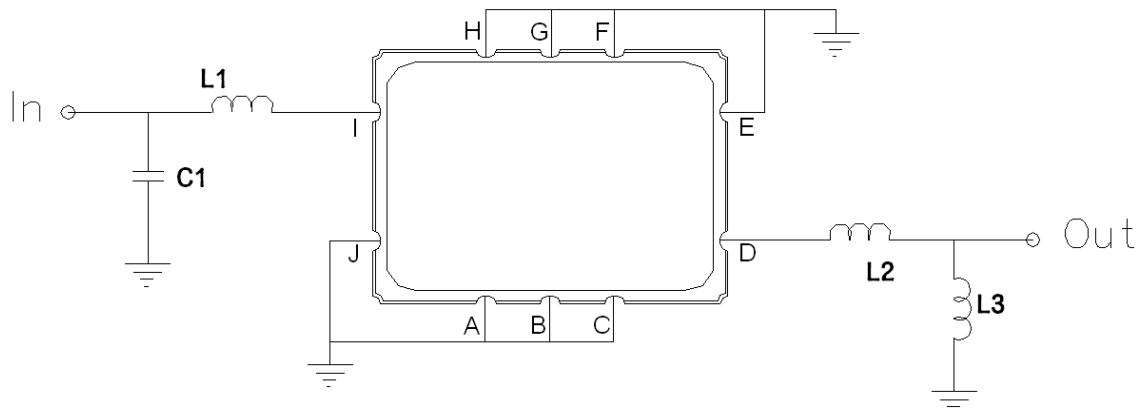
## Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL07022A:** Model Name
- ③ **X :** Date Code (Year)
- ④ **Y :** Date Code (Month)
- ⑤ **Z :** Date Code (Date)
- : Index Dot

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

## Testing Environment



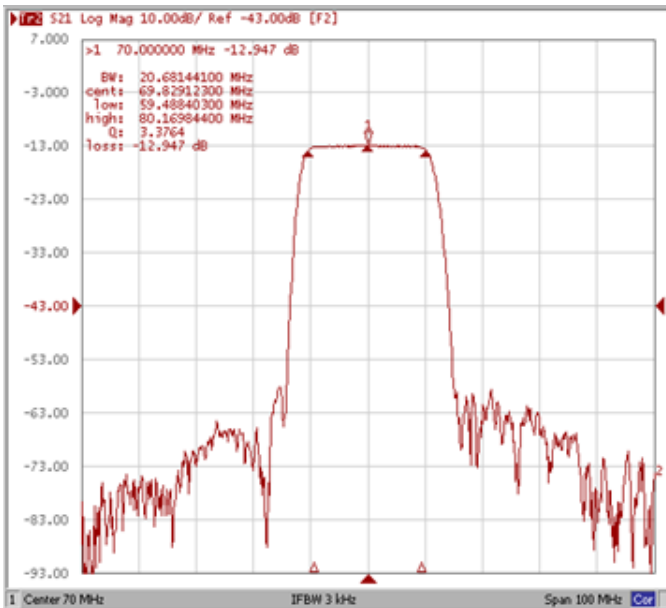
| Test Fixture & Values |                         |
|-----------------------|-------------------------|
| Input                 | L1 = 180 nH, C1 = 20 pF |
| Output                | L2 = 150 nH, L3 = 270nH |
| Source/Load Impedance | 50 Ω                    |

## Frequency Characteristics

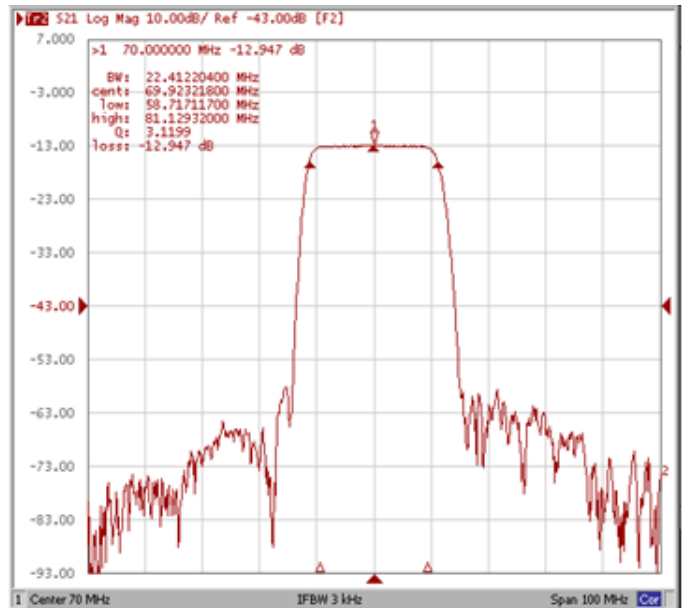
### Frequency Response

Room Temperature: +25°C

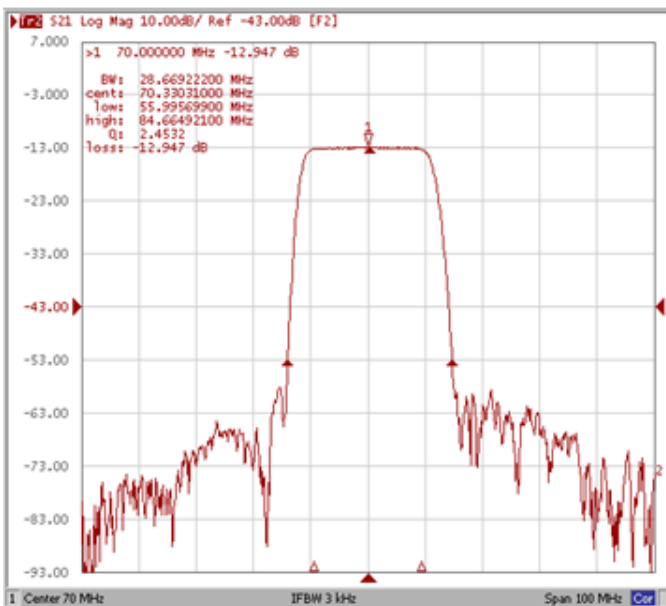
**Bandwidth at -1.0 dB**



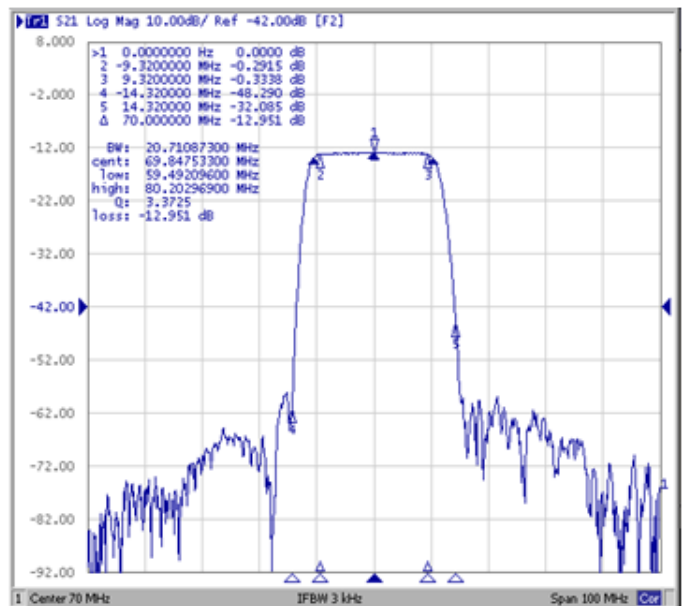
**Bandwidth at -3.0 dB**



**Bandwidth at -40.0 dB**

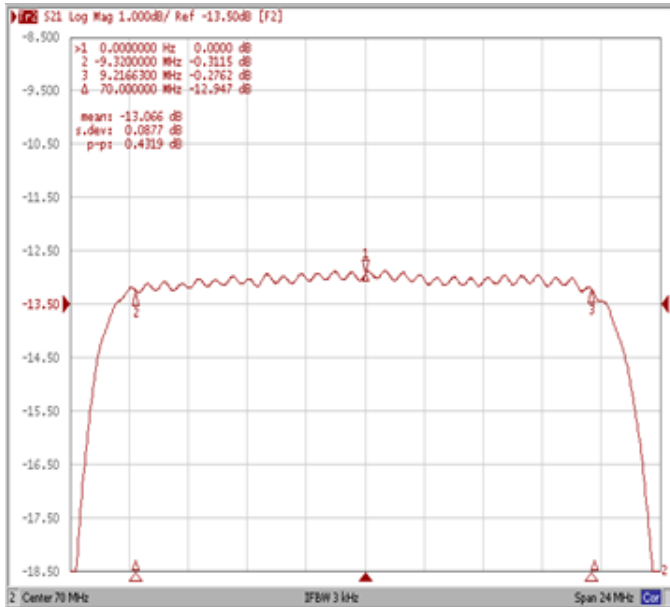


**Out Band Rejection Fo±5.0MHz**

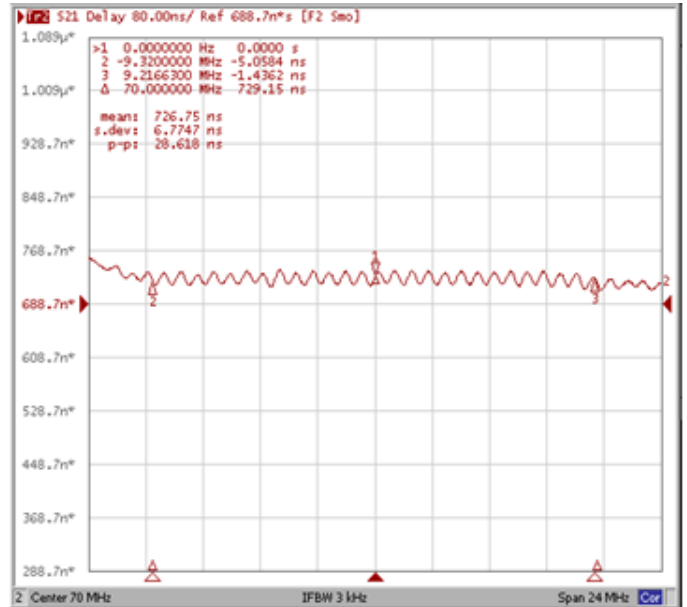


## Frequency Response

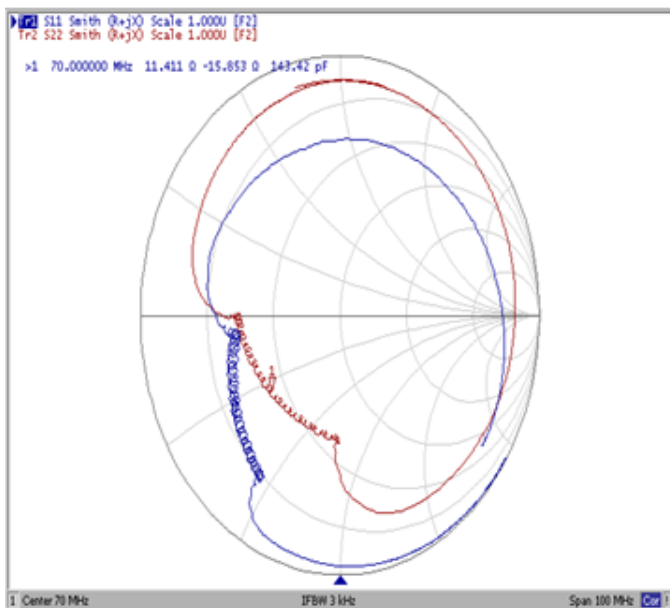
**Ripple Variation Fo±9.32MHz**



**Group Delay Variation Fo±9.32MHz**



**Smith Chart**



**VSWR**

