

- 153.50 MHz IF SAW Filter / 11.20 MHz Bandwidth
- Revision 0: 04 May 2011

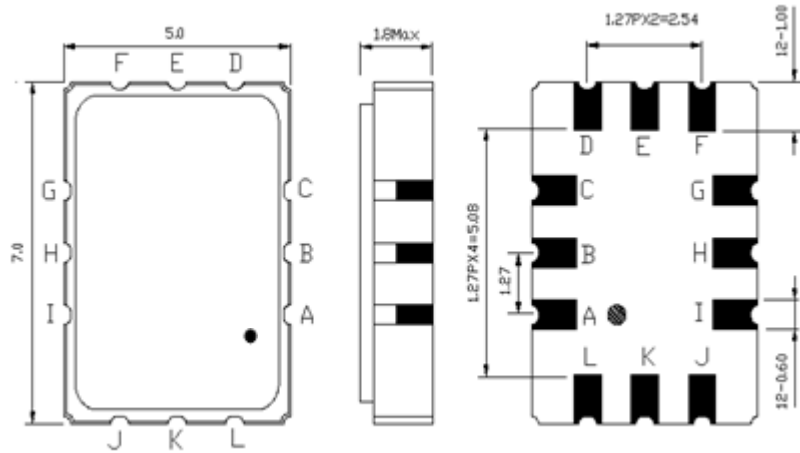
Electrical Characteristics

| MAXIMUM RATING | | | | |
|--|-----------------|---------|-----------|---------|
| PARAMETERS DESCRIPTION | UNIT | MINIMUM | TYPICAL | MAXIMUM |
| Operation Temperature Range | °C | -40 | - | 85 |
| Storage Temperature Range | °C | -40 | - | 85 |
| Maximum DC Voltage | V | - | - | 10 |
| Maximum Input Power | dBm | - | - | 10 |
| Source Impedance (Balanced) ⁽¹⁾ | Ω | - | 50 | - |
| Load Impedance (Balanced) ⁽¹⁾ | Ω | - | 50 | - |
| Package type & size | S1 | | | |
| Length x Width | mm ² | - | 7.0 x 5.0 | - |
| Height | mm | - | - | 1.8 |

| ELECTRICAL SPECIFICATION | | | | |
|---------------------------------------|-------------------|---------|---------|---------|
| PARAMETERS DESCRIPTION | UNIT | MINIMUM | TYPICAL | MAXIMUM |
| Center Frequency (Fo) | MHz | - | 153.50 | - |
| Insertion Loss at Fo | dB | - | 14.70 | 17.00 |
| Amplitude Ripple at Fo ± 4.50MHz | dB _{p-p} | - | 0.40 | 1.0 |
| Group Delay Variation at Fo ± 4.50MHz | ns | - | 26 | 60 |
| Absolute Delay at Fo | μs | - | 0.72 | - |
| Temperature Coefficient | ppm/°C | - | -20 | - |
| Bandwidth at -1.0 dB | MHz | 11.00 | 11.20 | - |
| Bandwidth at -3.0 dB | MHz | - | 12.30 | - |
| Bandwidth at -40.0 dB | MHz | - | 16.75 | 17.00 |
| Ultimate Rejection | dB | - | 43 | - |

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.

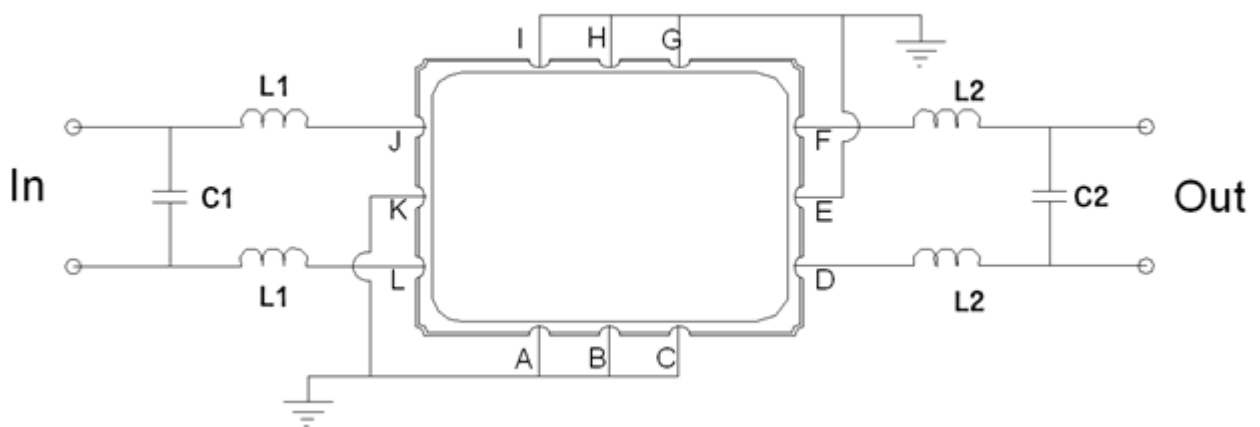
Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL15311A:** 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, I, K, L | Ground |
| J | Input + |
| L | Input - |
| D | Output + |
| F | Output - |

Testing Environment



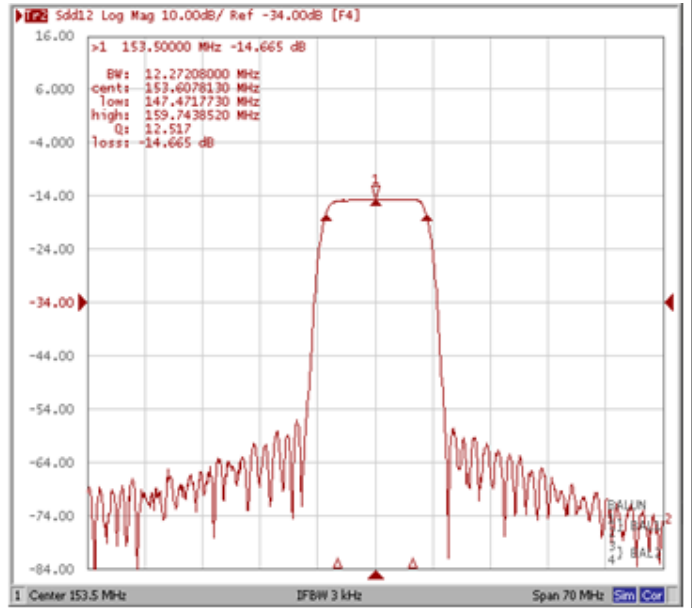
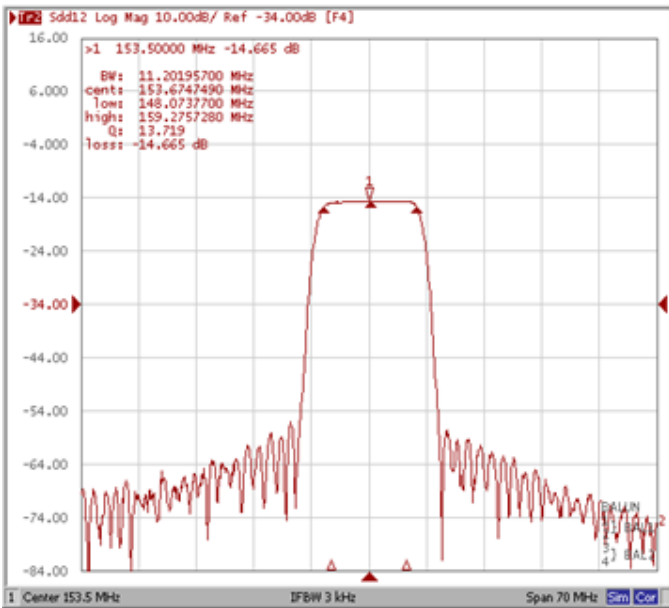
| Test Fixture & Values | |
|-----------------------|-------------------|
| Input | L1=39 nH, C1=27pF |
| Output | L2=47 nH, C2=24pF |
| Source/Load Impedance | 50 Ω |

Frequency Characteristics

Frequency Response

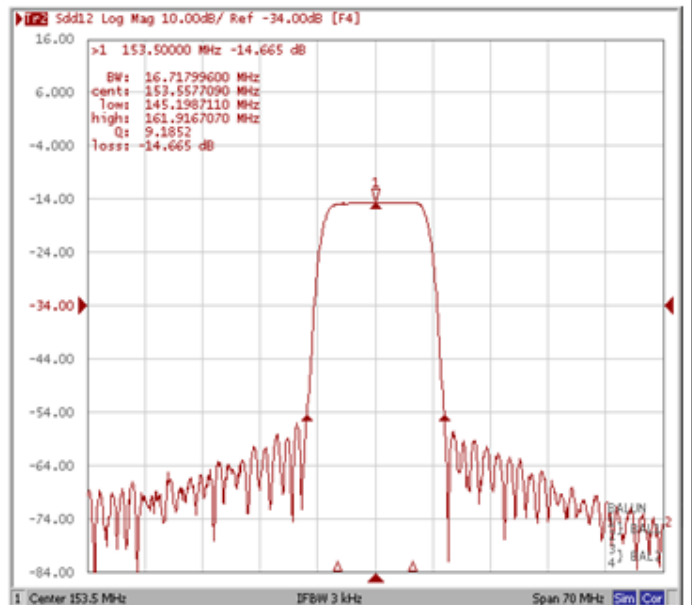
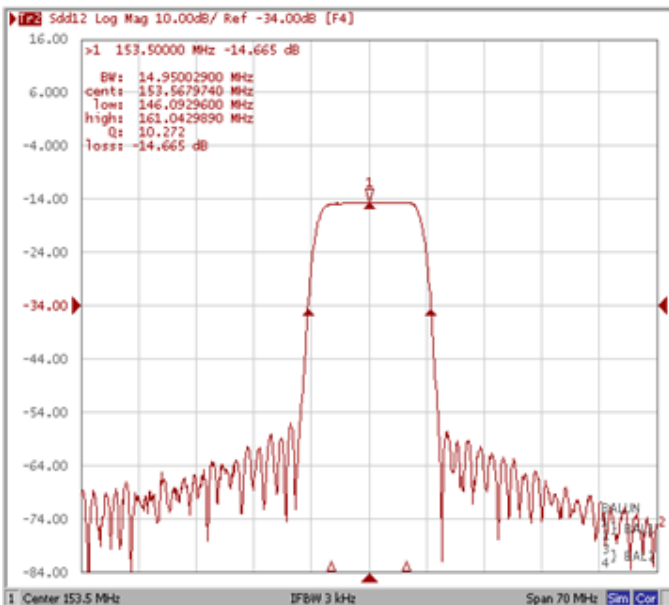
Bandwidth at -1.0 dB

Bandwidth at -3.0 dB



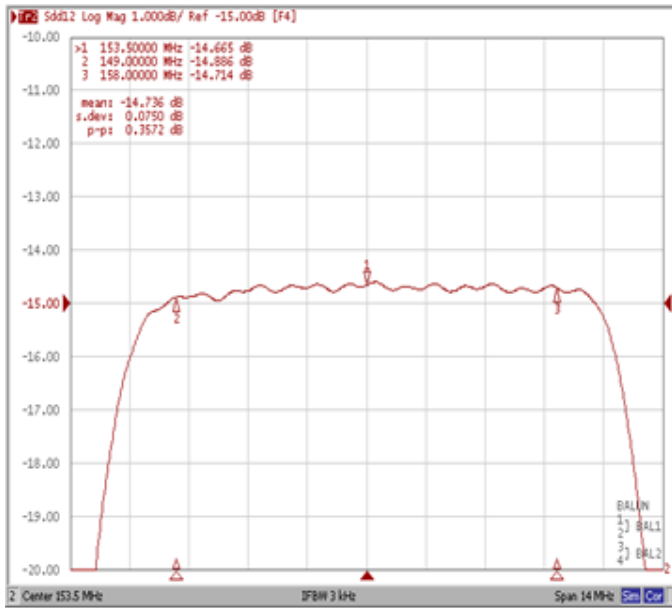
Bandwidth at -20.0 dB

Bandwidth at -40.0 dB

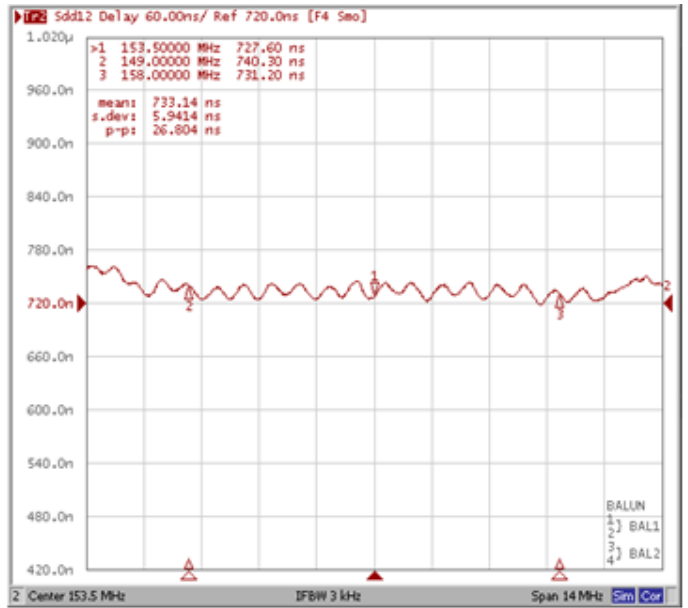


Frequency Response

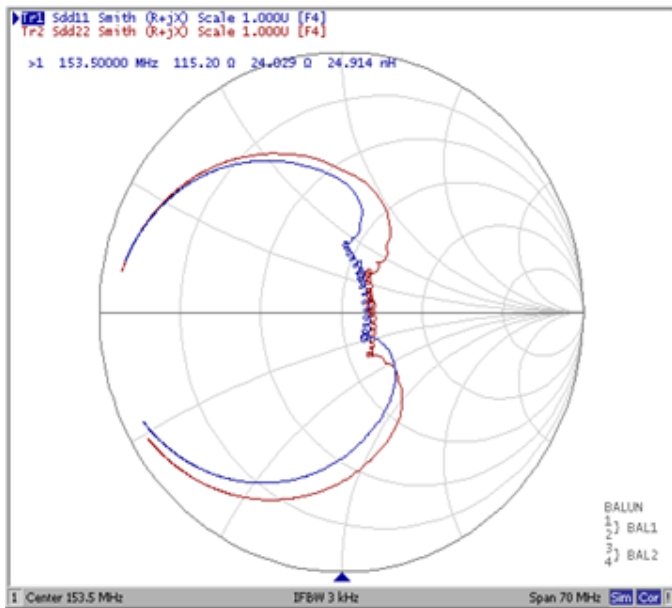
Ripple Variation at Fo ±4.50MHz



Group Delay Variation at Fo ±4.50MHz



Smith Chart



VSWR

