

- 307.36MHz IF SAW Filter / 20.05 MHz Bandwidth
- Revision 0: 23 Aug. 2012

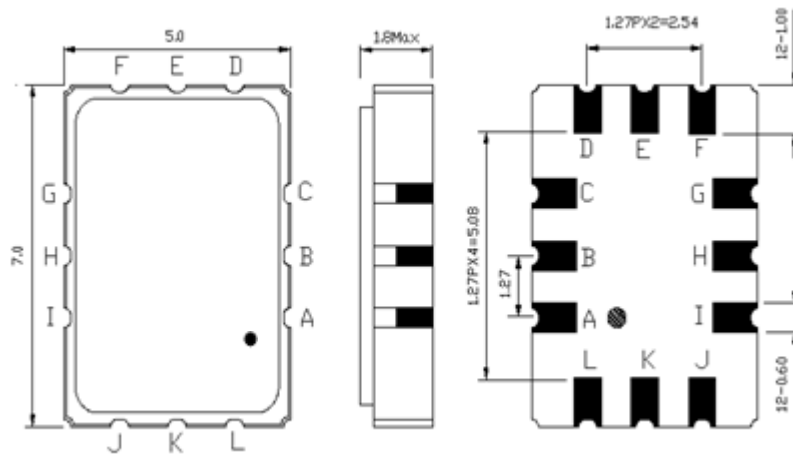
## Electrical Characteristics

| MAXIMUM RATING                                 |                 |         |           |         |
|--|-----------------|---------|-----------|---------|
| PARAMETERS DESCRIPTION                         | UNIT            | MINIMUM | TYPICAL   | MAXIMUM |
| Operation Temperature Range                    | °C              | -20     | -         | 85      |
| Storage Temperature Range                      | °C              | -40     | -         | 85      |
| Maximum DC Voltage                             | V               | -       | -         | -       |
| Maximum Input Power                            | dBm             | -       | -         | 5       |
| Source Impedance (Single-ended) <sup>(1)</sup> | Ω               | -       | 50        | -       |
| Load Impedance (Single-ended) <sup>(1)</sup>   | Ω               | -       | 50        | -       |
| Package type & size                            | S1              |         |           |         |
| Length x Width                                 | mm <sup>2</sup> | -       | 7.0 x 5.0 | -       |
| Height   | mm              | -       | -         | 1.8     |

| ELECTRICAL SPECIFICATION              |                   |         |         |         |
|---------------------------------------|-------------------|---------|---------|---------|
| PARAMETERS DESCRIPTION                | UNIT              | MINIMUM | TYPICAL | MAXIMUM |
| Center Frequency (Fo)                 | MHz               | -       | 307.36  | -       |
| Insertion Loss at Fo                  | dB                | -       | 12.5    | 15.0    |
| Amplitude Ripple at Fo ± 8.75MHz      | dB <sub>p-p</sub> | -       | 0.5     | 1.0     |
| Group Delay Variation at Fo ± 8.75MHz | nsec              | -       | 47      | 80      |
| Absolute Delay at Fo                  | µsec              | -       | 0.55    | 0.65    |
| Bandwidth at -1.0 dB                  | MHz               | 19.50   | 20.05   | -       |
| Bandwidth at -40.0 dB                 | MHz               | -       | 27.80   | 29.00   |
| Relative Attenuation:                 |                   |         |         |         |
| Fo ± 14.5MHz                          | dB                | 30      | 44      | -       |
| Fo ± 20.0MHz                          | dB                | 45      | 55      | -       |
| Fo ± 40.0MHz                          | dB                | 45      | 55      | -       |
| Temperature Coefficient               | ppm/°C            | -       | -20     | -       |

**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.

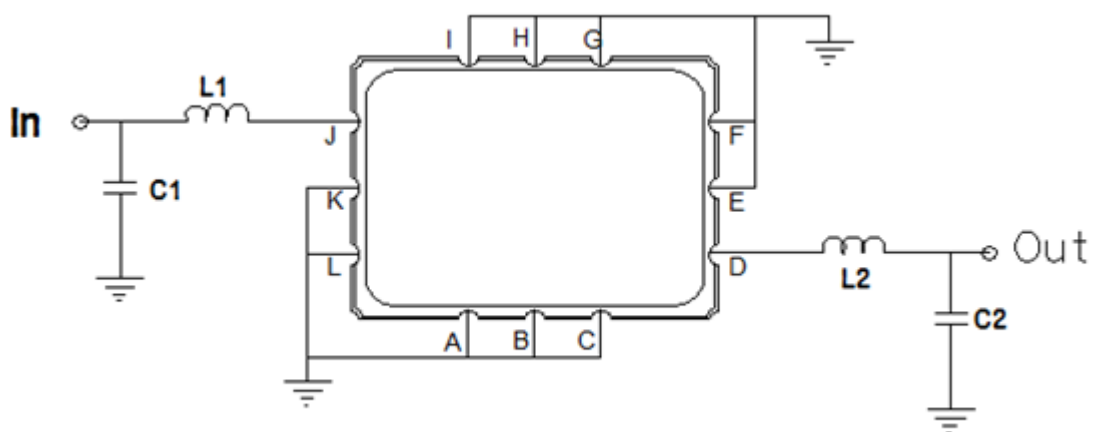
## Package Dimensions



- ① TRANSKO: Brand
- ② TL30719A: 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  |
| D                            | Output |

## Testing Environment



| Test Fixture & Values |                   |
|-----------------------|-------------------|
| Input                 | L1=22 nH, C1=22pF |
| Output                | L2=18 nH, C2=33pF |
| Source/Load Impedance | 50 Ω              |

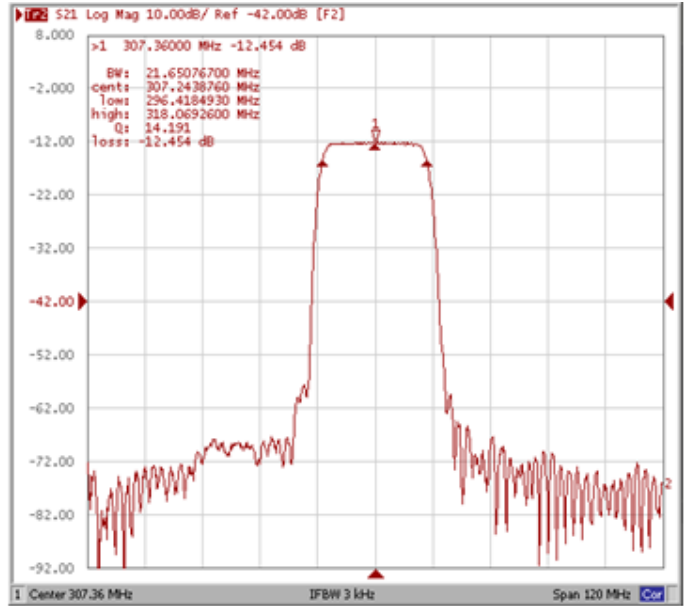
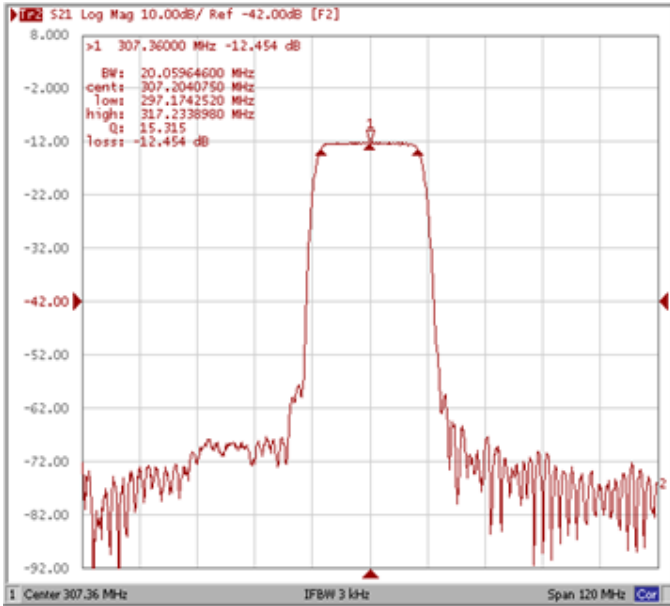
## Frequency Characteristics

### Frequency Response

Operating Temperature : +25 °C

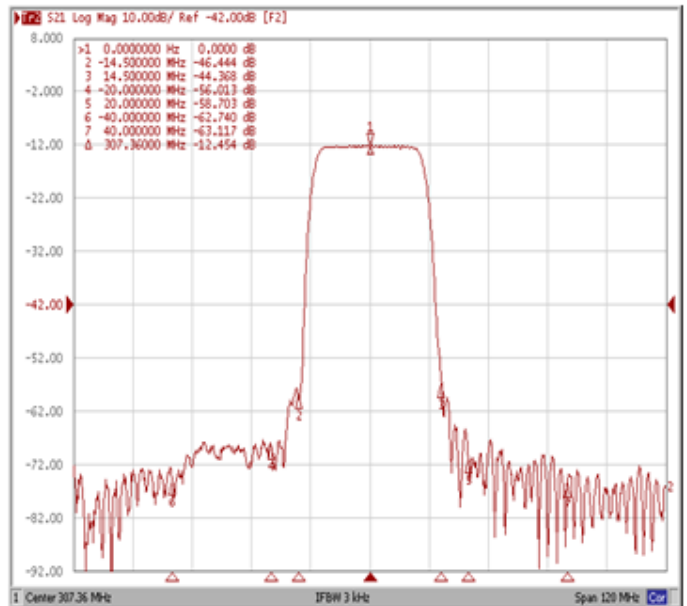
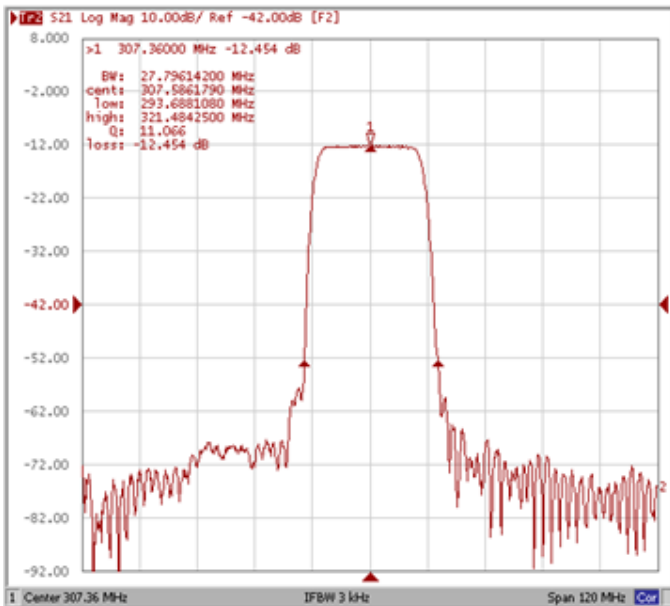
#### Bandwidth at -1.0 dB

#### Bandwidth at -3.0 dB



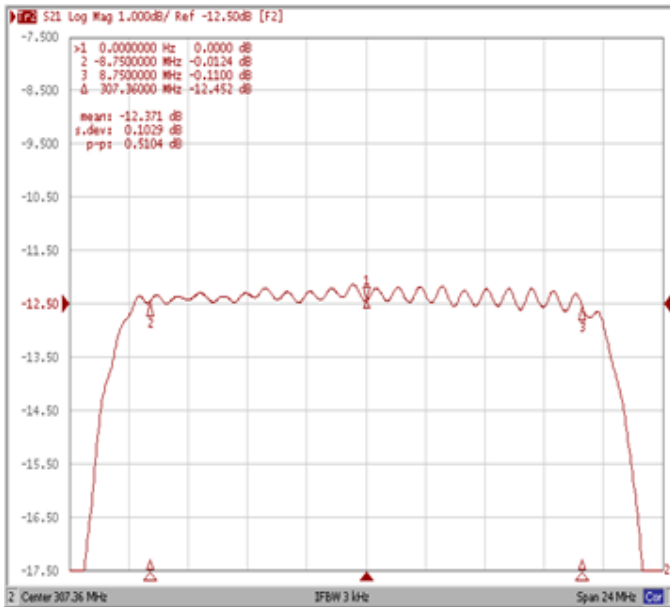
#### Bandwidth at -40.0 dB

#### Attenuation

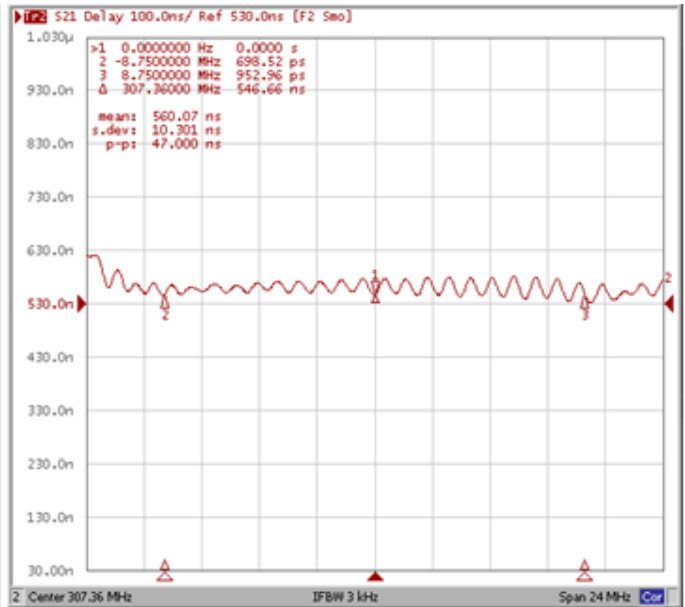


## Frequency Response

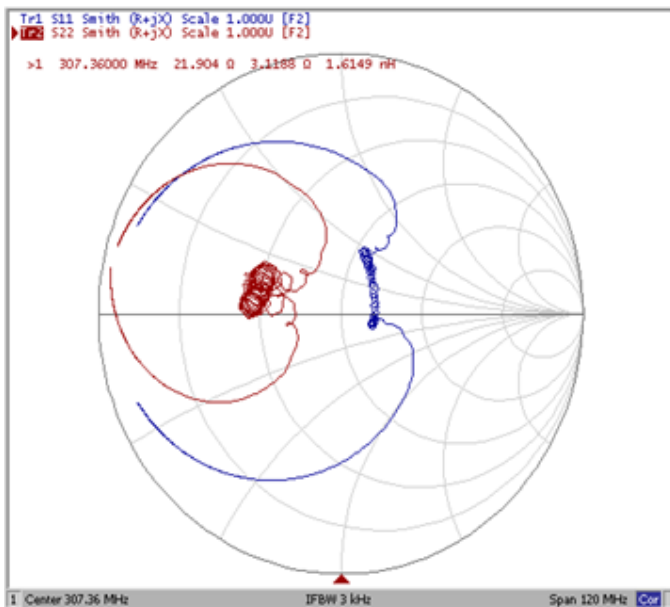
**Ripple Variation at Fo  $\pm$ 8.75MHz**



**Group Delay Variation at Fo  $\pm$ 8.75MHz**



**Smith Chart**



**VSWR**

