# 118.3 MHz & 167.6 MHz SAW Filter

**Part Number 2505D01**

## 1. Features

- Typical 3dB bandwidth of 54.0 MHz
- High attenuation
- Single Ended Operation
- Dual In-line Package (DIP)

**RoHS Compliant**

Tested by SGS Testing Korea

## 2. Electrical Specifications

### 2-1 $F_1$ Electrical Specification

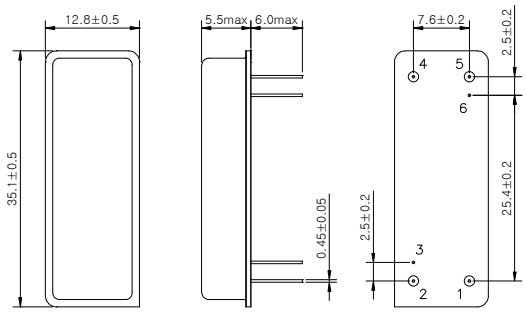
| Room Temperature : +25℃ | | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Center Frequency (fo) | MHz | 118.15 | 118.3 | 118.45 |
| Insertion Loss | dB | - | 24.5 | 26.5 |
| 3dB Bandwidth | MHz | 4.8 | 5.1 | - |
| 40dB Bandwidth | MHz | - | 6.95 | 7.1 |
| Amplitude Ripple ($F_1 \pm 1.9$ MHz) | dB | - | 0.6 | 1.2 |
| Group Delay Variation ($F_1 \pm 1.9$ MHz) | nsec | - | 40 | 80 |
| Absolute Delay ($F_1 \pm F_2$) | usec | - | 1.84 | - |
| Ultimate Rejection | dB | 45 | 50 | - |
| Temperature Coefficient of Frequency | ppm/℃ | - | -72 | - |

### 2-2 $F_2$ Electrical Specification

| Room Temperature : +25℃ | | Minimum | Typical | Maximum |
|---|---|---|---|---|
| Center Frequency (fo) | MHz | 167.45 | 167.6 | 167.75 |
| Insertion Loss | dB | - | 24.5 | 26.5 |
| 3dB Bandwidth | MHz | 5.8 | 6.1 | - |
| 40dB Bandwidth | MHz | - | 8.05 | 8.2 |
| Amplitude Ripple ($F_1 \pm 2.4$ MHz) | dB | - | 0.6 | 1.2 |
| Group Delay Variation ($F_1 \pm 2.4$ MHz) | nsec | - | 40 | 80 |
| Absolute Delay ($F_1 \pm F_2$) | usec | - | 1.84 | - |
| Ultimate Rejection | dB | 45 | 50 | - |
| Temperature Coefficient of Frequency | ppm/℃ | - | -72 | - |

Input POWER : +10dBm

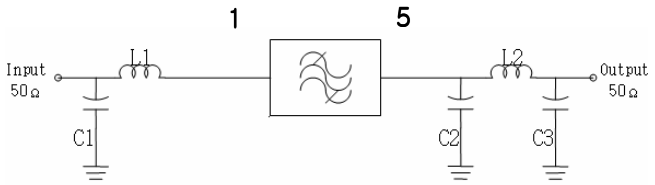
**D3512 Package Dimension**




Dimensions shown are nominal in millimeters

Base : Fe(SPCC), Au plating over Ni plated
Cap : Cu & Cr Alloy, Ni Plated
Termination : Kovar, Au Plated

**Matching Schematic**




**L1 = 1.5nH, L2 = 22nH**

**C1 = 43pF, C2 = 75pF, C3 = 47pF**

| Pin Configuration | | | |
|---|---|---|---|
| **Input** | **1** | **Ground** | **2,4** |
| **Output** | **5** | **Others** | **Ground** |


**I T F Co., Ltd.**
102-901, Bucheon Technopark 364, Samjeong-Dong,
Ojeong-Gu, Bucheon-City,
Gyounggi-Do, Korea 421-809

**Tel: 82-32-621-1213**
**Fax: 82-32-621-1218**

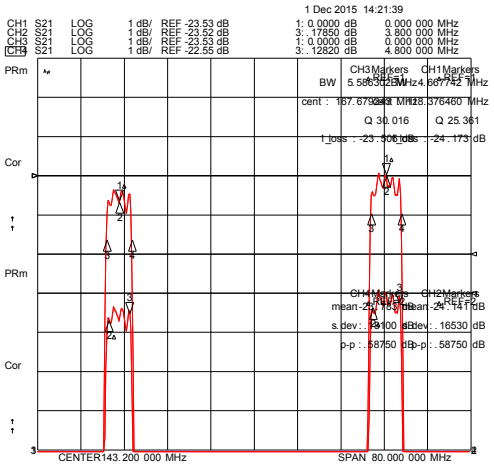
http://www.itf.co.kr
sales@itf.co.kr



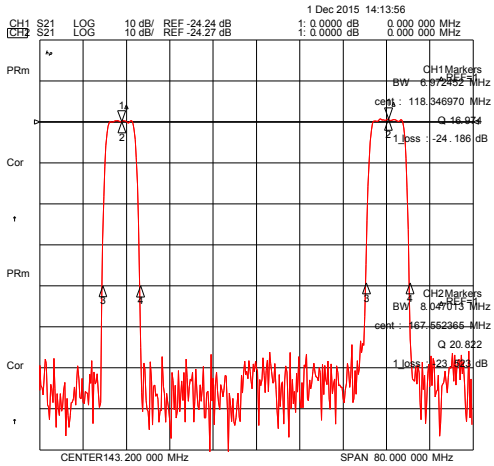
**2015. 12. 01**
**Rev 1.1**

## 3. Typical Performance ( at +25℃ )

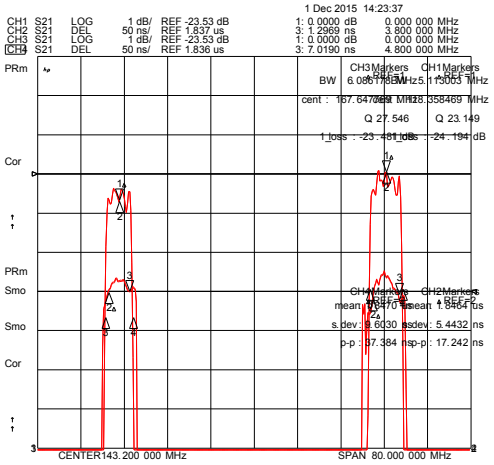
### 1dB Bandwidth & Ripple



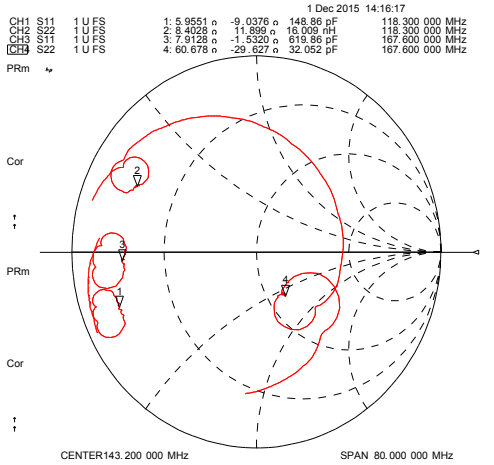

### 40dB Bandwidth



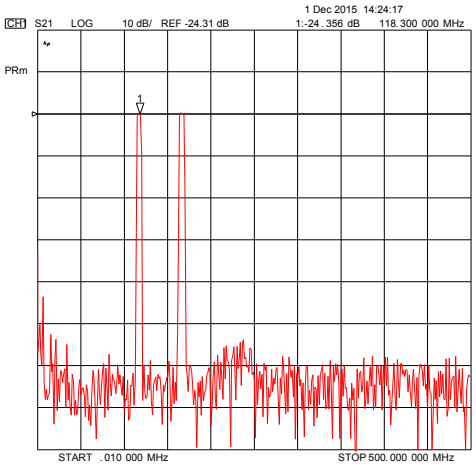

### 3dB Bandwidth & Group Delay




### Smith Chart(S11 & S22)




### Wideband Properties




### SWR(S11 & S22)