

## Cryogenic Low pass Filter

### DC-1.1GHz/SMA Male to Female

**Model: TLLF-DC-1.1GHz-T2-Cryo**

#### Features:

- Passband Frequency Range DC to 1.1GHz
- Low Insertion Loss
- Excellent Return Loss
- High Stop Band Suppression

#### Applications:

- Instrumentations
- Test Labs
- Sub-assemblies

#### Electrical Characteristics:

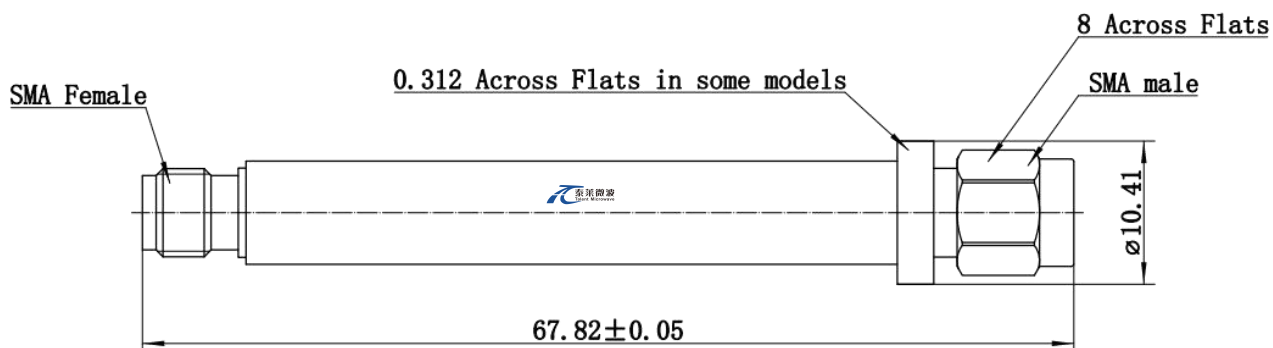
| Parameter                       |            | Min | Typ | Max | Units |
|---------------------------------|------------|-----|-----|-----|-------|
| Passband Frequency range        |            | DC  |     | 1.1 | GHz   |
| Passband Isolation              |            |     | 40  |     | dB    |
| Passband Insertion Loss         | @DC-1.1GHz | 1.1 | 1.6 |     | dB    |
|                                 | @1750MHz   |     | 3.0 |     | dB    |
| Stopband Insertion Loss         | @2070MHz   | 20  | 28  |     | dB    |
|                                 | @2.3-20GHz |     | 40  |     | dB    |
| Stopband VSWR<br>@2070-20000MHz |            |     | 10  |     | :1    |
| Passband VSWR<br>@DC-1100MHz    |            |     | 1.4 |     | :1    |
| RF Power (W)                    |            |     |     | 10  | W     |
| Impedance                       |            | 50  |     |     | Ohms  |

#### Envrionmental And Physical Characteristics:

| Description             | Parameter           | Units |
|-------------------------|---------------------|-------|
| Input /Output Connector | SMA Male/SMA Female |       |
| Case Material           | Stainless steel     |       |
| Finish                  | Gold Plated         | mm    |
| Weight                  | 30                  | g     |

Outline Drawing:

Unit:mm



## Environmental Conditions:

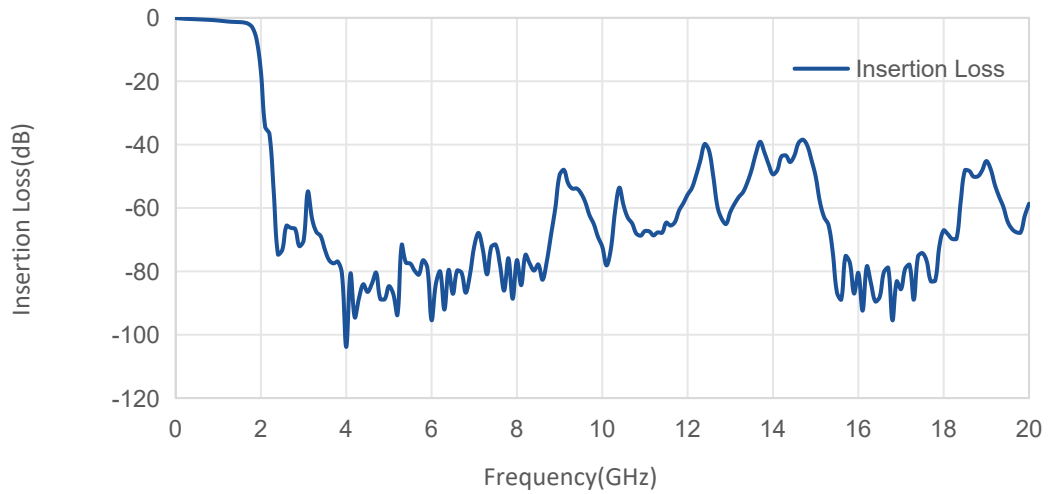
| Parameter                       | Min                                                 | Typ | Max  | Units |
|---------------------------------|-----------------------------------------------------|-----|------|-------|
| Operating Temperature           | mK                                                  |     | +100 | °C    |
| Non-operating Temperature       | -55                                                 |     | +85  | °C    |
| Relative humidity               |                                                     | 95  |      | %     |
| Altitude                        | 10,000                                              |     |      | feet  |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |      |       |
| Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |      |       |

## Ordering Information:

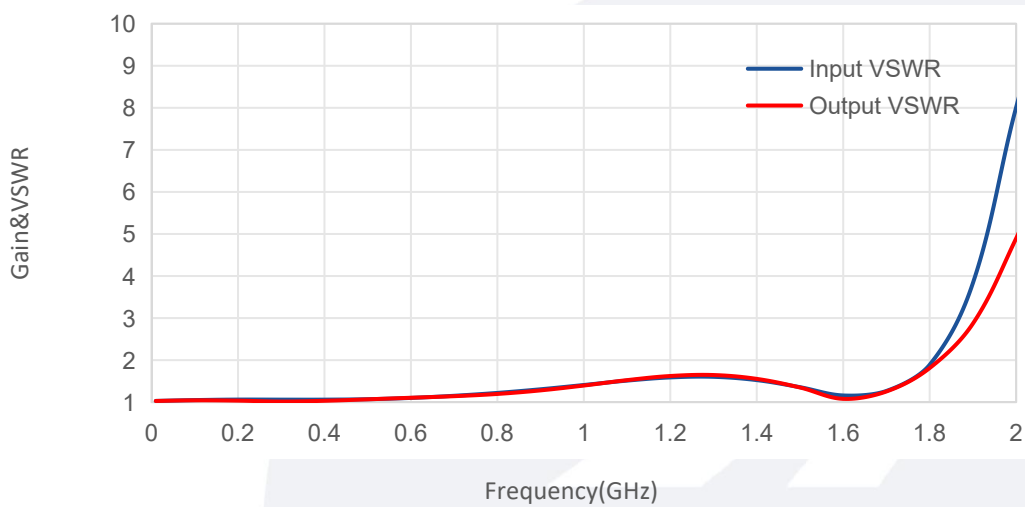
| Base Number          | Description                                                                                                  | Revision |
|----------------------|--------------------------------------------------------------------------------------------------------------|----------|
| TLLF-DC-1.1G-T2-Cryo | Coaxial Low pass Filter,Passband frequency range:DC-1.1GHz,Passband Insertion Loss:1.6dB, SMA Male to Female | Rev.1.1  |

## Typical Performance Data:

### Insertion Loss vs Frequency



### Gain&VSWR vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.