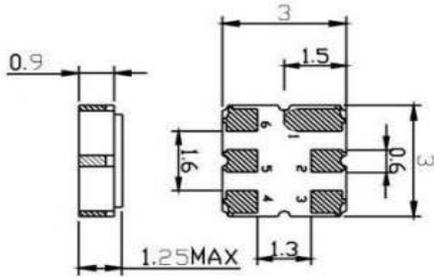


Specification Sheet

| | | | |
|---------------|-----------------------|-------------|--------------------|
| Customer Name | XXXX | CUST P/N | NA |
| Approval No. | PD | Temwell P/N | STSF-902B25-S3030W |
| Lot No. | | Date | 2025.06.24 |
| Description | SAW Filter (BandPass) | Version | A1 |

(1) Size Diagram (Unit : MM)


| PinNo. | Description |
|-----------|-------------|
| 2 | Input |
| 5 | Output |
| 1,3,4,6 | Ground |
| Tolerance | ±0.1mm |

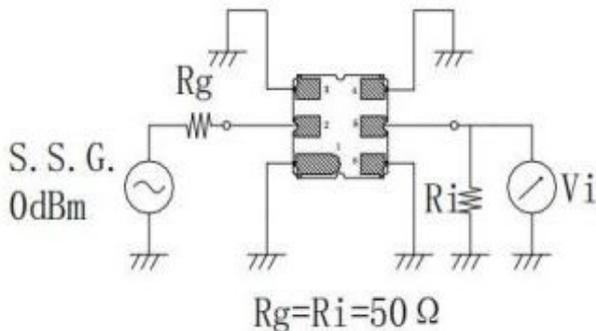
(2) Electrical Specifications

| Item | | | Specification | | |
|-----------------------|--------------|------|---------------|---------|-------|
| Parameter | MHz | Unit | Min. | Typical | Max. |
| Center Frequency | - | MHz | - | 902.5 | - |
| Insertion Loss | 902.5 | dB | - | 1.4 | 2.0 |
| Insertion Loss | 890-915 | dB | - | 2.2 | 3.5 |
| Ripple | 890-915 | dB | - | 1.1 | 2.0 |
| Group Delay | 890-915 | ns | - | 40 | 100 |
| Attenuation | DC-700 | dB | 45 | 52 | - |
| | 700-870 | dB | 45 | 40 | - |
| | 870-880 | dB | 30 | 25 | - |
| | 925-945 | dB | 20 | 50 | - |
| | 945-2000 | dB | 45 | 35 | - |
| VSWR | 2000-3000 | dB | 30 | - | - |
| | 890-915 | - | - | 1.7:1 | 2.0:1 |
| Operation Temperature | -40°C~+85°C | °C | - | - | - |
| Storage Temperature | -40°C~+125°C | °C | - | - | - |
| RF Power Dissipation | 20 | dBm | - | - | - |

Remark

Note 1: Test Temperature: 25°C±2°C

Note 2: Terminating source impedance: 50Ω. Terminating load impedance: 50Ω

(3) Test Circuit


| Port | Matching component |
|--------|--------------------|
| Input | R1: 50Ω |
| Output | R2: 50Ω |

Figure 1. Electrical Characteristics: Frequency response

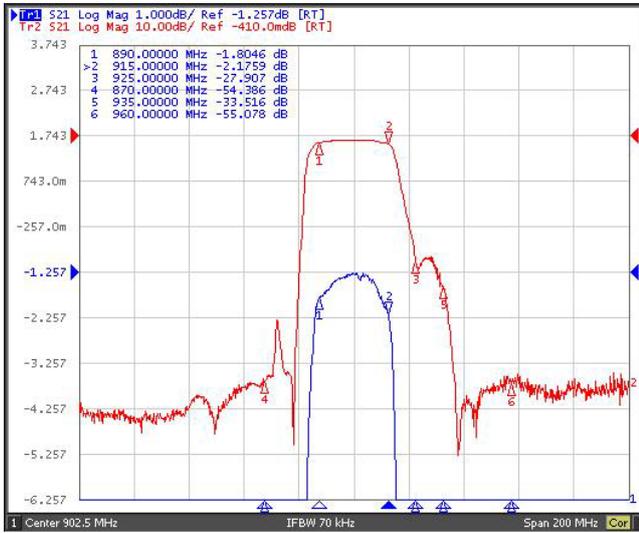


Figure 2. Electrical Characteristics: Wideband

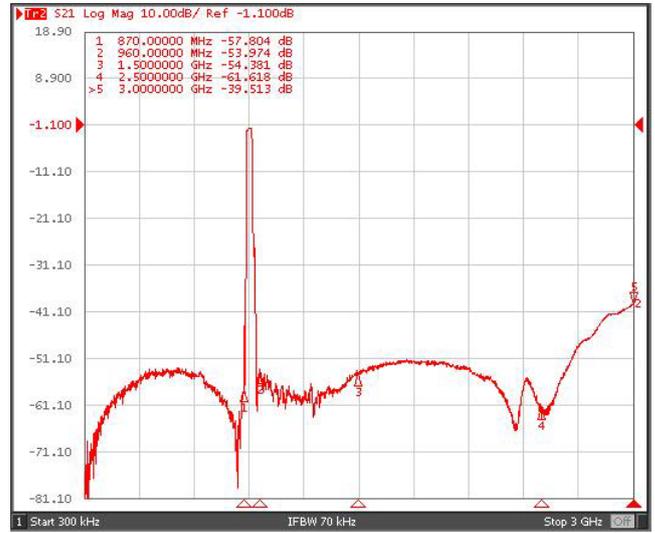


Figure 3. Delay Ripple & S11 VSWR

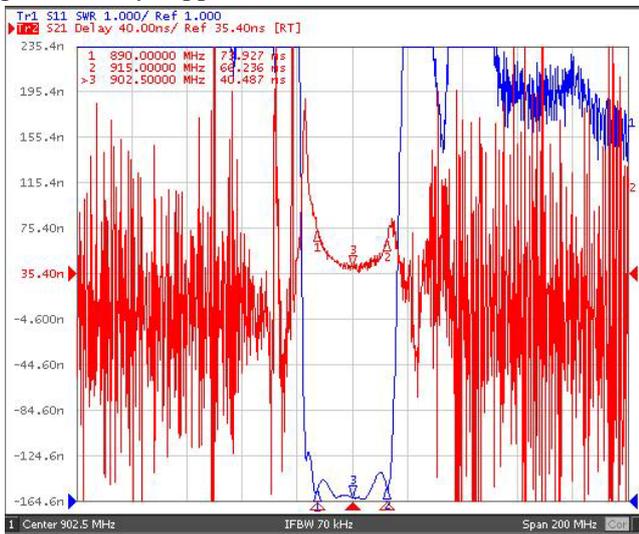
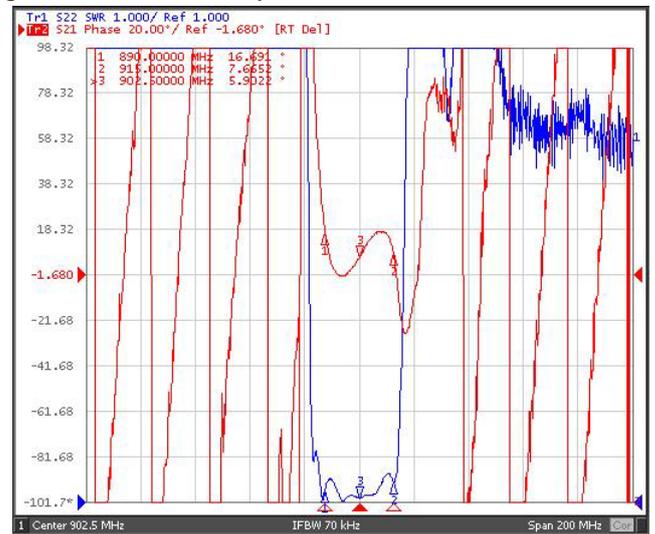
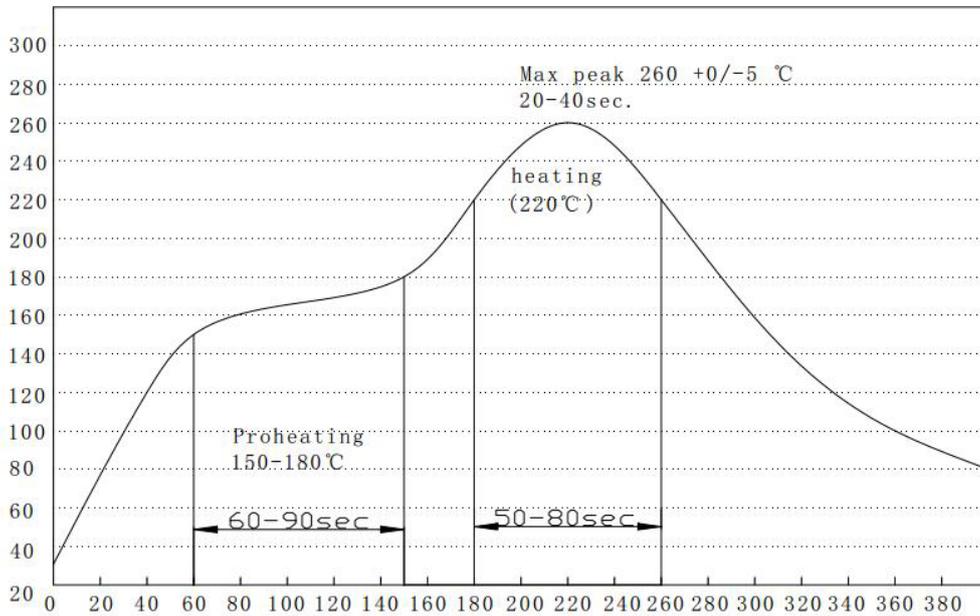


Figure 4. Phase Linearity & S22 VSWR



| | | |
|-------------|------------|----------|
| Approval | Supervisor | Designer |
| C. K. Chang | M. Y. Chen | F.L.Lai |

Recommended SMT Solder Profile



Reliability

| No. | Test item | Test condition | |
|-----|------------------------------|--|---------------------------------|
| 1 | Temperature Storage | Temperature: 85°C±2°C , Duration: 250h , Recovery time: 2h±0.5h Temperature: -40°C±3°C , Duration: 250h ,Recovery time: 2h±0.5h | |
| 2 | Humidity Test | Conditions: 60°C±2°C ,90~95%RH | Duration:250h |
| 3 | Thermal Shock | Heat cycle conditions: TA=-40°C±3°C, TB=85°C±2°C, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h. | |
| 4 | Vibration Fatigue | Frequency of vibration:10~55Hz Directions: X,Y and Z | Amplitude:1.5mm Duration: 2h |
| 5 | Drop Test | Cycle time:10times | Height:1.0m |
| 6 | Solder Ability Test | Temperature:245°C±5°C Depth: DIP--2/3, SMD--1/5 | Duration:3.0s--5.0s |
| 7 | Resistance to Soldering Heat | Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration:10±1s Temperature of Soldering Iron: 350°C±10°C, Duration: 3~4s, Recovery time : 2 ± 0.5h | |