

# Temperature test report

## (1) Temperature Test



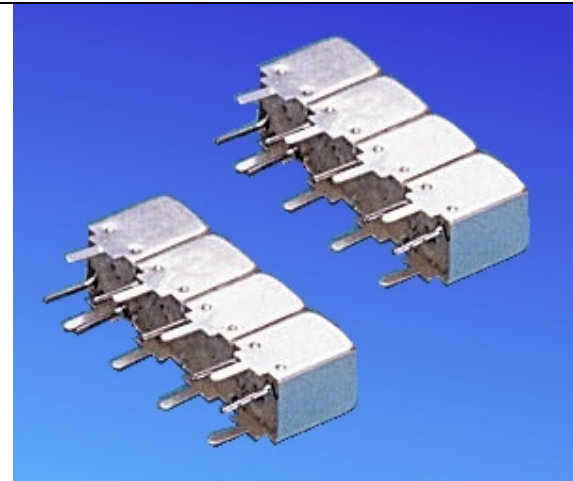
**Testing Organization:**  
Temwell Corporation



**Testing Machine:**  
Temperature & Humidity Tester Chamber  
THS-A4C-100 STD

**Testing Specification:**  
Operation Temperature: - 30°C ~ + 70°C  
Storage Temperature: - 30°C ~ + 80°C

## (2) Test subject:



**Item:**  
Helical Band Pass Filter 5W4 Series  
1. TFW4588B-1575M

**Require:**  
Operation Temperature: - 30°C ~ + 70°C  
Storage Temperature: - 30°C ~ + 80°C

**(3) Testing and test result:**

**Part number 1**

**TFW4588B-1575M**

**溫度槽測試報告 (Temperature Aging Test Report)**

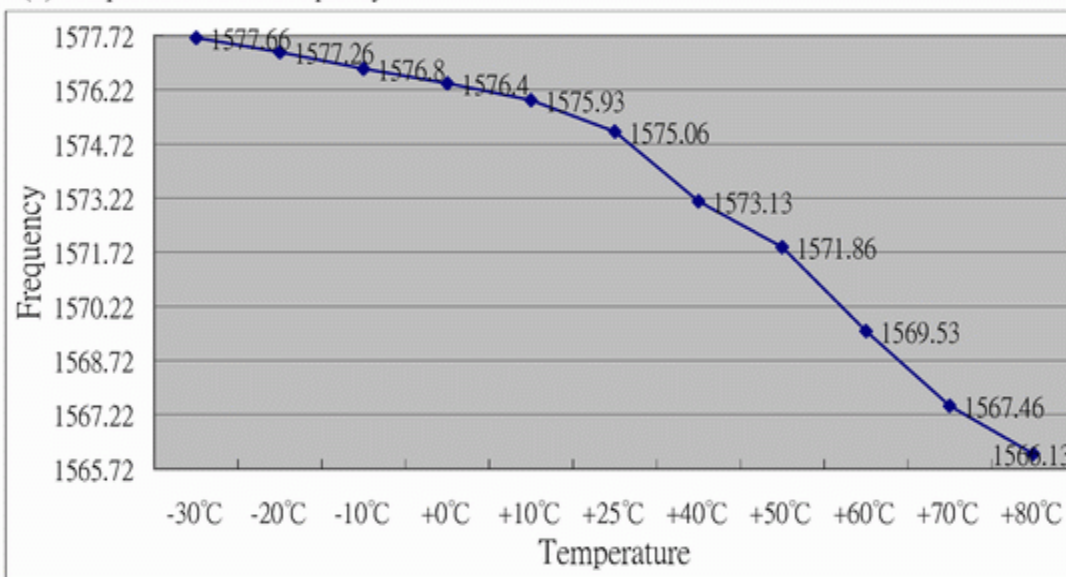
Parts Name : TFW4588B-1575M(A) (Quadruple Tuning)

Date : FEB.01.2005

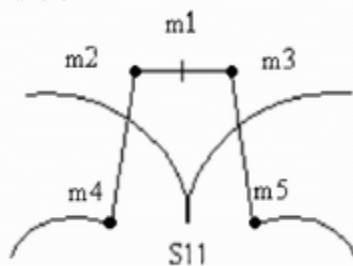
(1) Temperature & Time Process & Fo Frequency

|     | Temp<br>°C | Time<br>Age<br>Hour | $\Delta f(\%)(\text{MHz})$<br>Temp. Draft (-30~+70°C)<br>< Fo×0.5% (Tolerance) | Fo<br>MHz | At -3dB<br>MHz | At -3dB<br>MHz | -3BW<br>MHz | IL<br>(dB) | R.L.<br>S11<br>(dB) | Atten.<br>Fo-100M<br>(dB) | Atten.<br>Fo+100M<br>(dB) |
|-----|------------|---------------------|--|-----------|----------------|----------------|-------------|------------|---------------------|---------------------------|---------------------------|
| f1  | -30°C      | 1.5H                | 0.165%(2.60M)  | 1577.66   | 1606.86        | 1548.46        | 58.40       | 2.19       | 21.00               | 63.38                     | 45.31                     |
| f2  | -20°C      | 0.5H                | 0.139%(2.20M)  | 1577.26   | 1606.33        | 1548.20        | 58.13       | 2.28       | 20.82               | 63.26                     | 45.45                     |
| f3  | -10°C      | 0.5H                | 0.110%(1.74M)  | 1576.80   | 1605.80        | 1547.80        | 58.00       | 2.34       | 20.69               | 63.02                     | 45.65                     |
| f4  | +0°C       | 0.5H                | 0.085%(1.34M)  | 1576.40   | 1605.40        | 1547.40        | 58.00       | 2.48       | 21.26               | 62.52                     | 45.81                     |
| f5  | +10°C      | 0.5H                | 0.055%(0.87M)  | 1575.93   | 1604.86        | 1547.00        | 57.86       | 2.57       | 21.15               | 61.45                     | 46.00                     |
| f6  | +25°C      | 0.5H                | 0.000%(0.00M)  | 1575.06   | 1603.80        | 1546.33        | 57.47       | 2.77       | 21.14               | 61.24                     | 45.19                     |
| f7  | +40°C      | 0.5H                | 0.122%(1.93M)  | 1573.13   | 1601.66        | 1544.60        | 57.06       | 2.97       | 19.32               | 60.63                     | 47.26                     |
| f8  | +50°C      | 0.5H                | 0.203%(3.20M)  | 1571.86   | 1600.33        | 1543.40        | 56.93       | 3.14       | 18.78               | 58.90                     | 47.45                     |
| f9  | +60°C      | 0.5H                | 0.351%(5.53M)  | 1569.53   | 1597.80        | 1541.26        | 56.54       | 3.47       | 17.97               | 58.25                     | 48.55                     |
| f10 | +70°C      | 0.5H                | 0.482%(7.60M)  | 1567.46   | 1595.66        | 1539.26        | 56.40       | 3.66       | 16.95               | 57.01                     | 49.45                     |
| f11 | +80°C      | 0.5H                | 0.566%(8.93M)  | 1566.13   | 1594.33        | 1537.93        | 56.40       | 3.81       | 16.08               | 55.33                     | 50.04                     |

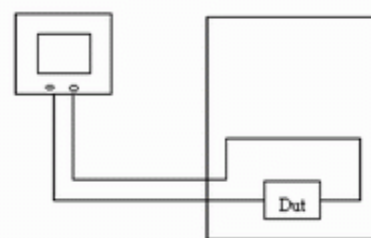
(2) Temperature VS Fo Frequency



(3) Makers



(4) HP-8714E Temperature Chamber



**Result**

**PASS**