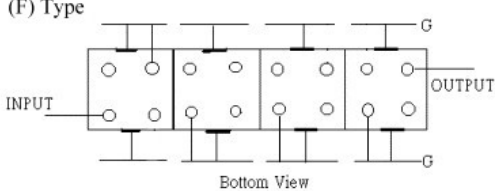
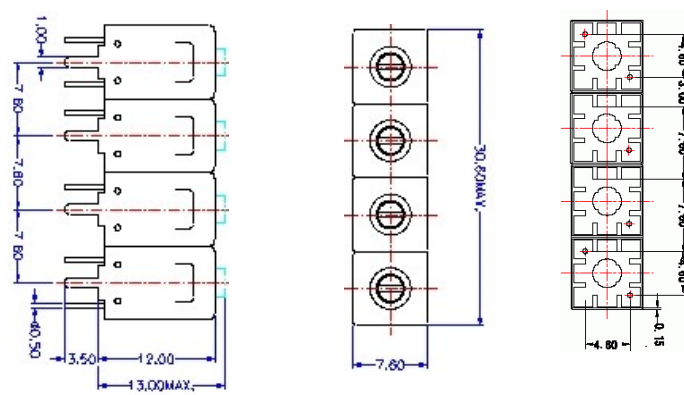
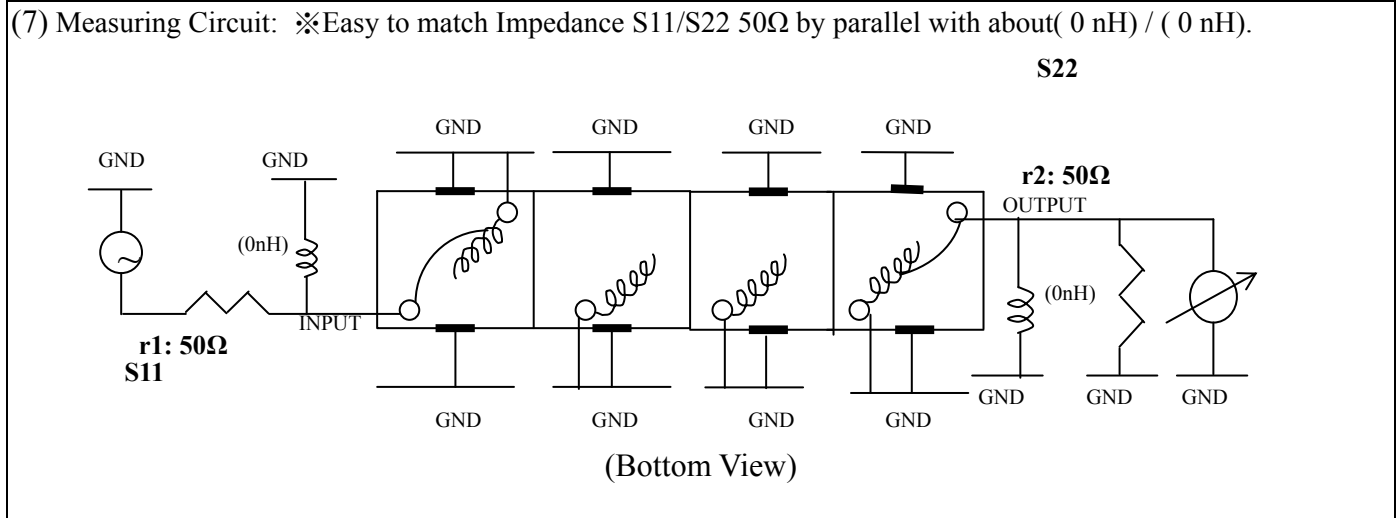


VHF UHF Helical Filter Specification Sheet

| | | | |
|----------------------|-------------|-----------------------|----------------|
| Customer Name | | Temwell's Part No. | TF69845F-680M |
| Approval No. /dated | 0906009CD | Temwell's Print name. | 69845F 680M |
| Work Instruction No. | 200906009CD | Date | Jun.09.2009 |

| | |
|--|--|
| (1) Pin Position | (2) Size Diagram |
| <p>(F) Type</p>  <p>Bottom View</p> |  |

| | | | |
|-------------------------------|-------------|-----------------|-----------------|
| (3) Electric Characteristic | | Specify | Performance |
| Item | | | |
| Center Freq.(Fo) +/- 0.5 % | | 680 MHz | 680 MHz |
| Insertion Loss | | Typ. 3.5 dB | 2.74 dB |
| -3 dB Bandwidth | | Typ. 20 MHz | 23.9 MHz |
| Sensitivity (Attenuation) | Fo - 50 MHz | Typ. 53 dBc | 56 dBc |
| | Fo + 50 MHz | Typ. 52 dBc | 55 dBc |
| | Fo - ()MHz | Typ. dBc | dBc |
| | Fo +()MHz | Typ. dBc | dBc |
| Return Loss | | Min. 12 dB | 18.8 dB |
| Ripple | | < 1 dB | dB |
| Impedance | | In / Out : 50 Ω | In / Out : 50 Ω |
| (4) Torque for Tuning Screw | | > 100gf • cm | |
| (5) Temperature Condition: | | | |
| Operating Temperature | | 0°C ~ +60°C | |
| Storage Temperature | | -20°C ~ +70°C | |
| (6) Input Power | | > 1 Watt | |



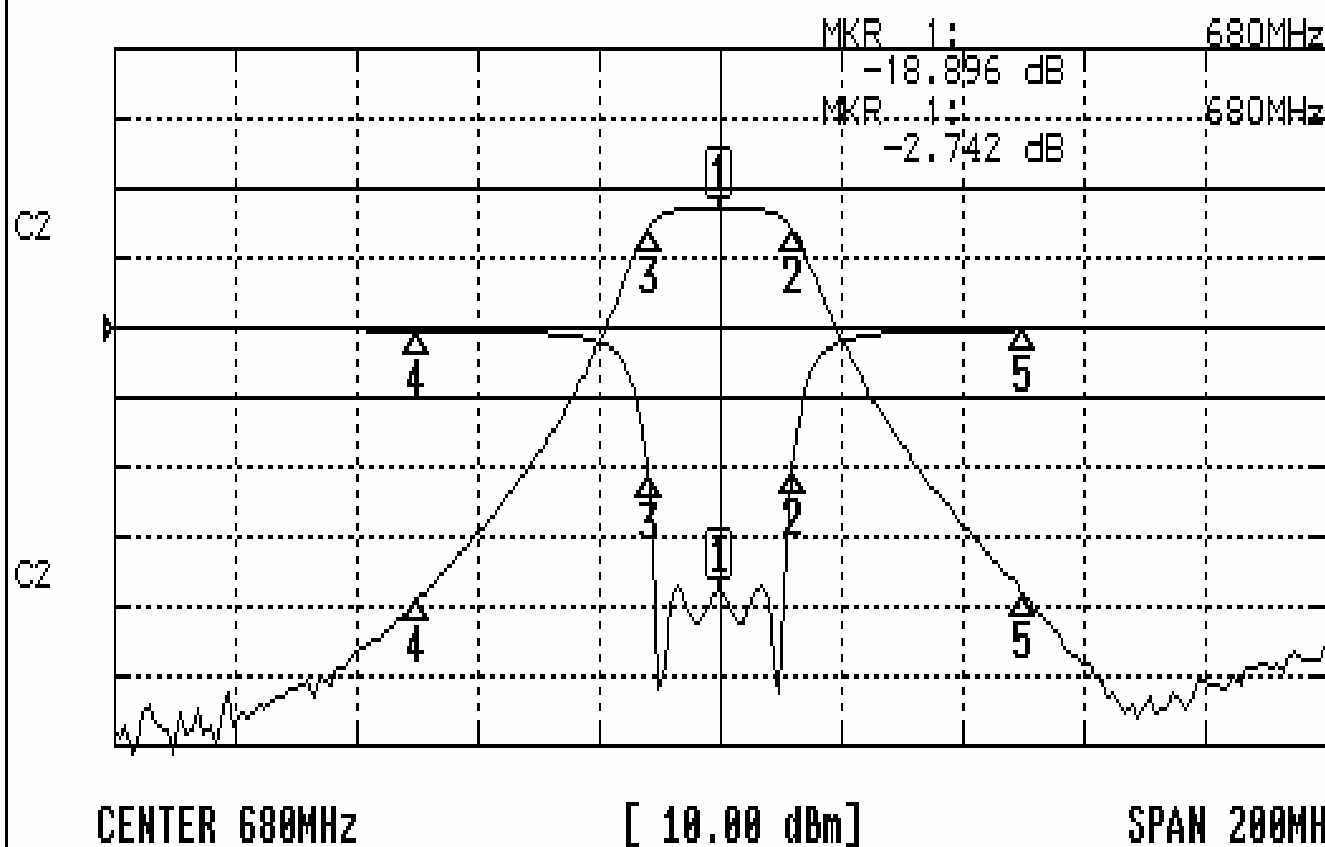
| | | | |
|-----------|------------|----------|-------------------------------|
| Approval | Supervisor | Designer | Aperture size |
| C.Y.Chang | C.K.Chang | Y.H.Yeh | 7H4S(4*5.5)(5.57) 7H046RB4 |

TEMWELL CORPORATION

Performance-TF69845F-680M

200906009CD

| | | | | | |
|------------|-----|---------|-----|----------|------------|
| CH1 | S11 | LOG MAG | REF | 0.000 dB | 5.000 dB/ |
| CH2 | S21 | LOG MAG | REF | 0.000 dB | 10.000 dB/ |



CH1 MARKER LIST

| | | | | |
|---|------------|---------|----|--|
| 1 | 680.000MHz | -18.896 | dB | |
| 2 | 692.040MHz | -10.055 | dB | |
| 3 | 668.150MHz | -10.573 | dB | |
| 4 | 630.000MHz | -0.177 | dB | |
| 5 | 730.000MHz | -0.140 | dB | |

CH2 MARKER LIST

| | | | | |
|---|------------|--------|----|--|
| 1 | 680.000MHz | -2.742 | dB | |
| 2 | 692.040MHz | -1.750 | dB | |
| 3 | 668.150MHz | -1.766 | dB | |
| 4 | 630.000MHz | 0.132 | dB | |
| 5 | 730.000MHz | 0.559 | dB | |