

# SPST RF SWITCH

## MODEL TWD2216

Package: 14 Pin DIP (DP3)

Also Available In: Connectorized Housings

### Features

- 5 - 3000 MHz
- RF2 Terminated in 'OFF' State
- Integral TTL Driver
- Environmental Screening Available

### Absolute Maximum (No Damage) Ratings

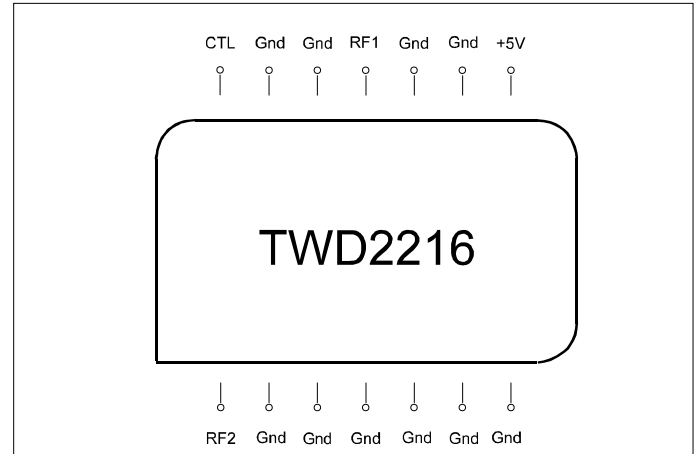
Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -65°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +6.0 Volts  
 Continuous RF Input Power ..... +30 dBm

### Specifications

| CHARACTERISTIC                              | TYPICAL<br>Ta = 25 °C | MIN/MAX<br>Ta = -55 °C to +85 °C |
|---------------------------------------------|-----------------------|----------------------------------|
| Frequency                                   | 5 - 3000 MHz          | 5 - 3000 MHz                     |
| Insertion Loss (dB)                         |                       |                                  |
| 5 - 1000 MHz                                | 0.8                   | 1.2 Max.                         |
| 5 - 2000 MHz                                | 1.2                   | 1.5 Max.                         |
| 5 - 3000 MHz                                | 1.8                   | 2.2 Max.                         |
| Isolation (dB)                              |                       |                                  |
| 5 - 1000 MHz                                | 50                    | 46 Min.                          |
| 5 - 2000 MHz                                | 36                    | 34 Min.                          |
| 5 - 3000 MHz                                | 31                    | 29 Min.                          |
| VSWR "ON"/"OFF"                             |                       |                                  |
| 5 - 1000 MHz                                | 1.25:1                | 1.4:1 Max.                       |
| 5 - 2000 MHz                                | 1.5:1                 | 1.6:1 Max.                       |
| 5 - 3000 MHz                                | 1.5:1                 | 1.7:1 Max.                       |
| 1dB Compression (dBm)                       |                       |                                  |
| 50 MHz                                      | +18.5                 | +18.0 Min.                       |
| 500 - 3000 MHz                              | +24.0                 | +22.0 Min.                       |
| Switching Speed (ns)<br>(50% TTL to 90% RF) | 60                    | —                                |
| DC Bias (mA)<br>(4.5 to 5.5 VDC)            | 0.025                 | 1.0 Max.                         |

**Note:** Care should always be taken to effectively ground the case of each unit.

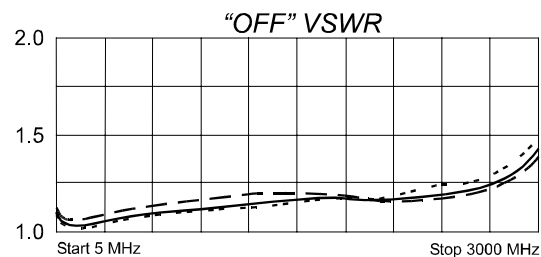
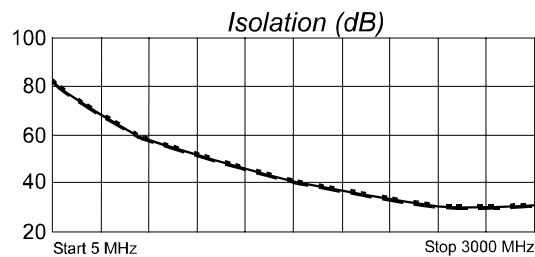
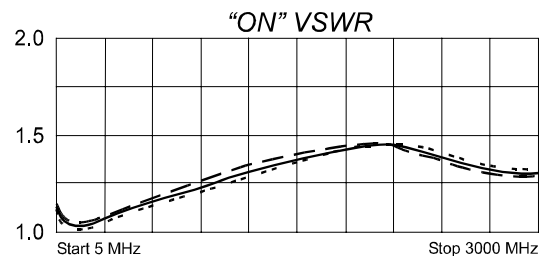
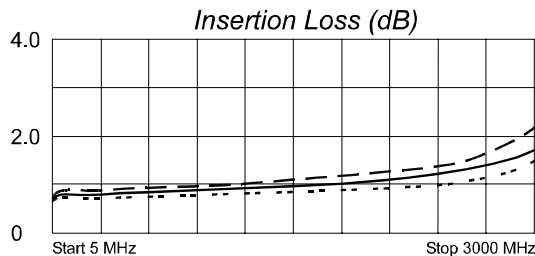
### Pin Layout



### Truth Table

| Control Input | Switch Position |
|---------------|-----------------|
| TTL           | RF1 To RF2      |
| 0             | "OFF"           |
| 1             | "ON"            |

### Typical Performance Data



Legend ——— + 25 °C — — — — — +85 °C - - - - - -55 °C



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