

Matched SP3T RF Switch 20 - 1500 MHz

SW-163

V2.00

Features

- Internally Terminated
- Integral TTL Driver
- Low Loss – 0.9 dB Typical
- MIL-STD-883 Screening Available

Guaranteed Specifications*

(From – 55°C to + 85°C)

| | | |
|--------------------------|-------------|------------|
| Frequency Range | 20-1500 MHz | |
| Insertion Loss | 20-1500 MHz | 2.0 dB Max |
| | 20-1000 MHz | 1.5 dB Max |
| | 30-500 MHz | 1.2 dB Max |
| VSWR (All States) | 20-1500 MHz | 1.80:1 Max |
| | 20-1000 MHz | 1.50:1 Max |
| | 30-500 MHz | 1.25:1 Max |
| Isolation | 20-1500 MHz | 35 dB Min |
| | 20-1000 MHz | 40 dB Min |
| | 20-500 MHz | 50 dB Min |

Operating Characteristics

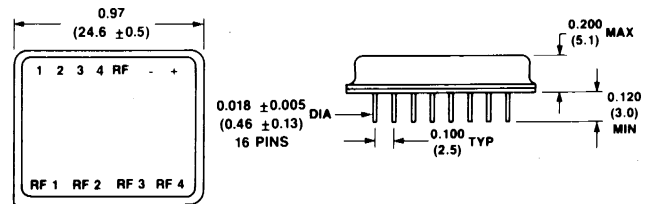
| | | |
|---|---|--------------|
| Impedance | 50 Ohms Nominal | |
| Switching Characteristics | | |
| t _{ON} | 3.0 μS Typ | |
| t _{OFF} | 1.5 μS Typ | |
| Transients (In-Band) | 40 mV Typ | |
| Input Power | 20-1500 MHz | + 5 dBm Typ |
| for 1 dB Compression | 50-1500 MHz | + 15 dBm Typ |
| Intermodulation Intercept Point (for two-tone input power up to + 5 dBm) | | |
| Second Order | (20-1500 MHz) | + 55 dBm Typ |
| | (50-1500 MHz) | + 70 dBm Typ |
| Third Order | (20-1500 MHz) | + 25 dBm Typ |
| | (50-1500 MHz) | + 40 dBm Typ |
| Bias Power | + 9 to + 15 VDC @ 45 mA Max – 5 VDC ± 5% @ 25 mA Max (540 mW Typical) | |

* All specifications apply when operated with bias voltages of + 12 VDC and – 5 VDC (± 5%) and 50 ohm impedance at all RF ports

Ordering Information

| | |
|--------------------|----------------|
| Part Number | Package |
| SW-163 PIN | Dual Inline |

DI-2



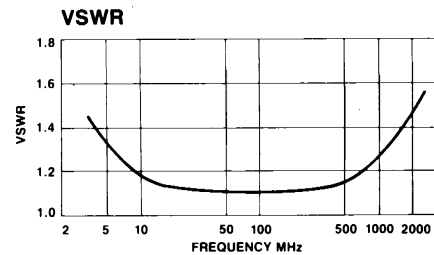
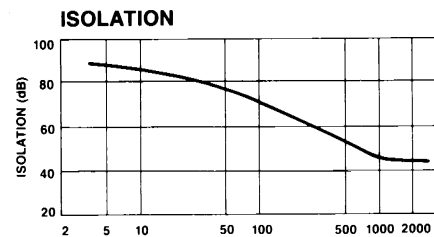
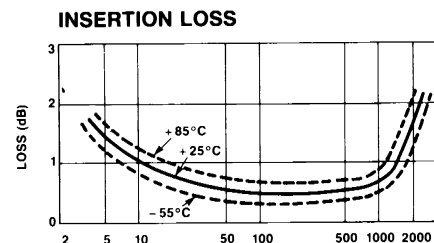
Dimensions in () are in mm.

Unless otherwise noted: ..xxx = ±0.010 (.xx = ±0.25)

.xx = ±0.02 (.x = ±0.5)

WEIGHT (APPROX.) 0.28 OUNCES 8 GRAMS

Typical Performance



Truth Table

| TTL CONTROL INPUTS | | | CONDITION OF SWITCH | | |
|----------------------|---|---|---------------------------|-----|-----|
| "1" = TTL LOGIC HIGH | | | RF COMMON TO EACH RF PORT | | |
| 1 | 2 | 3 | RF1 | RF2 | RF3 |
| 1 | 0 | 0 | ON | OFF | OFF |
| 0 | 1 | 0 | OFF | ON | OFF |
| 0 | 0 | 1 | OFF | OFF | ON |

Specifications Subject to Change Without Notice.

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