

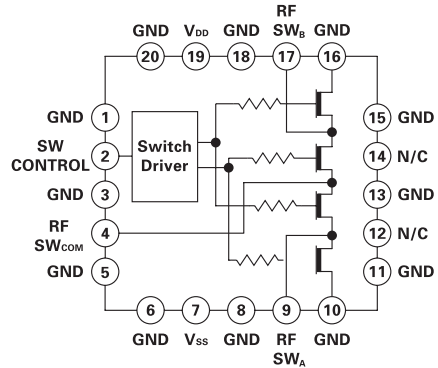
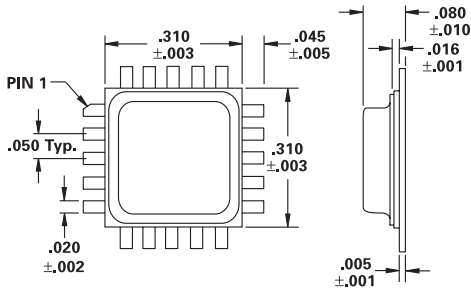
MODEL NUMBER DSW25151

Reflective Switch with Driver

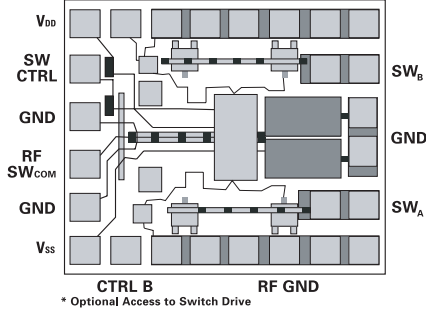
FEATURES

- DC- 10 GHz Broad Bandwidth
- Internal Switch Driver
- Insertion Loss 1.5 dB
- Isolation 45 dB
- Available as die, part # DSW24071D, also available in plastic, part # DSW25251P

SP2T



DIE DIAGRAM (53 X 43 MILS, 7 MILS THICK)
CTRL A RF GND



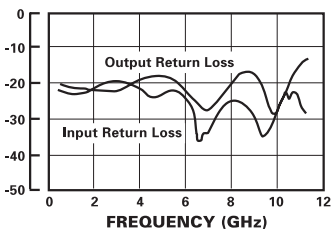
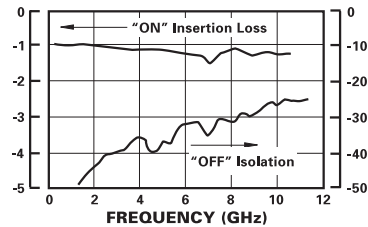
* Optional Access to Switch Drive

PIN FUNCTION

| Pin Name | Pin# | Description |
|----------------------|------|---|
| SW Control (TTL) | 2 | Switch Control: TTL logic input |
| RF SW _{COM} | 4 | Common RF input; DC-coupled |
| V _{SS} | 7 | V _{SS} ; Negative supply voltage |
| RF SW _A | 9 | RF input A; DC-coupled, "ON" for a logic LOW applied to SW Control |
| N/C | 12 | No Connect |
| N/C | 14 | No Connect |
| RF SW _B | 17 | RF input B; DC-coupled, "ON" for a logic HIGH applied to SW Control |
| V _{DD} | 19 | V _{DD} ; Positive supply voltage |
| GND | (1) | Ground |

Note: (1) GND Pins are 1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20
AC Coupling may be required for your application

TYPICAL PERFORMANCE at 25°C



ABSOLUTE MAXIMUM RATINGS

| Parameter | Min | Typ | Max | Units |
|-----------------------|-----|-----|------|-------|
| DC Power Supply | | | ±7 | V |
| Operating Temperature | -55 | | +85 | °C |
| Storage Temperature | -55 | | +150 | °C |
| Power Dissipation | | | 1.0 | W |

SWITCH LOGIC

| SW CTRL | RF SW _A | RF SW _B |
|---------|--------------------|--------------------|
| Low | On | Off |
| High | Off | On |

ELECTRICAL SPECIFICATIONS

T_A = 25°C, V_{DD} = +5V, V_{SS} = -5V

| Parameter | Min ⁽¹⁾ | Typ | Max ⁽¹⁾ | Units |
|--|--------------------|-----|--------------------|-------|
| Frequency of Operation | | DC | 10 | GHz |
| Insertion Loss | | 1.5 | 3.0 | dB |
| Isolation - 1 GHz | 40 | 45 | | dB |
| Isolation - 10 GHz | 18 | 25 | | dB |
| Input Third - Order Intercept ⁽²⁾ | | +35 | | dBm |
| Input / Output VSWR | | 2:1 | | |
| DC Supply Current @ ±5V | | 15 | 20 | mA |
| Positive Supply | 4.5 | 5 | 5.5 | V |
| Negative Supply | -4.5 | -5 | -5.5 | V |
| Input Logic Low | | 1.0 | | V |
| Input Logic High | | 3.0 | | V |

Note: 1. Min / Max Values Listed are Production Tested
2. IP3 Decreases Below 1 GHz



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