

RI 2582

DP8T Solid state switch

High performance solid state switch module

OVERVIEW

The Ranatec RI 2582 is a high performance solid state switch module with 2 pole and 8 throws. Any of the 2 poles can be connected to any of the 8 throws. It is very well suited for high volume testing where long lifetime is required without sacrificing RF performance. RI 2582 offers very good linearity, power handling and speed.

CONTROL INTERFACE

RI 2582, Molex 502584-0570	Function
PIN 1	GND
PIN 2	SDA
PIN 3	VCC*
PIN 4	SCL
PIN 5	GND

* 4.7-15 VDC

APPLICATIONS

The RI 2582 Solid state switch module is designed for applications such as:

- Production testing of mobile handsets
- Production testing of mobile basestations
- Built-In-Test (BITE) applications
- MIMO applications

FEATURES

- Switch mode: DP8T USB/I2C controlled, terminated
- USB driver DLL available for download
- 0.1 - 4.8 GHz RF frequency range
- Insertion loss < 4.8 dB up to 3 GHz
- Isolation > 70 dB
- +26 dBm maximum input power
- USB bus-powered when controlled via USB
- Flexible supply voltage via I2C interface: 4.7-15 VDC
- High repeatability
- Ultra-long lifetime

ELECTRICAL SPECIFICATIONS

- Switch mode: SP4T latching, terminated
- Supply voltage I2C: 4.7 - 15 VDC
- Supply current max: < 50 mA @ USB/I2C
- I2C-bus LOW-level: 0.99 V
- I2C-bus HIGH-level: 2.31 V
- I2C-bus MAX-level: 5.5 V
- Switching time (max): 20 ms
- Operating frequency: 0.1 - 4.8 GHz



Ranatec RI 2582 is a high performance DP8T solid state switch module suitable for high volume switching applications.

- Impedance: 50 Ohm
- Max DC at RF inputs: 25 VDC
- VSWR RFCy □ RFx (max):
 - 1.67:1 @ 0.1 - 0.698 GHz
 - 1.79:1 @ 0.698 - 4.8 GHz
- VSWR RFx □ RFCy (max):
 - 1.60:1 @ 0.1 - 0.698 GHz
 - 1.67:1 @ 0.698 - 4.8 GHz
- VSWR RFCy terminated (max):
 - 1.67:1 @ 0.1 - 0.698 GHz
 - 1.79:1 @ 0.698 - 4.8 GHz
- VSWR RFx terminated (max):
 - 1.43:1 @ 0.1 - 3 GHz
 - 1.67:1 @ 3 - 4.8 GHz
- Insertion loss (max):
 - 3.8 dB @ 0.1 - 0.698 GHz
 - 4.0 dB @ 0.698 - 1.5 GHz
 - 4.8 dB @ 1.5 - 3 GHz
 - 6.0 dB @ 3 - 4.8 GHz
- Isolation, any combination of RF ports (min):
 - 70 dB @ 0.1 - 4.8 GHz
- Input power thru path (max):
 - 26 dBm @ 0.1 - 4.8 GHz
- Input power hot switching & into termination (max):
 - 20 dBm @ 0.1 - 4.8 GHz
- Input 1 dB compression point (typ):
 - 23 dBm @ 0.5 - 4.8 GHz
- Input IP3 (typ):
 - 40 dBm @ 0.5 - 4.8 GHz

ENVIRONMENTAL SPECIFICATIONS

- Operating temp: 0°C to +50°C
- Storage temp: -20°C to +70°C
- Relative humidity: 95% at +40°C

MECHANICAL SPECIFICATIONS

- Dimensions: 50x100x22 mm
- Weight: 75 g
- Connectors: SMA(F)

ORDERING

RI 2582-USB DP8T switch with USB/I²C