

RI 2582 DP8T Solid state switch 0.1-4.8 GHz

High performance solid state switch module

Features:

- Switch mode: DP8T USB/I²C controlled, terminated
- Available with LAN control
- USB driver DLL for download at www.ranatec.com
- 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

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 I²C

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

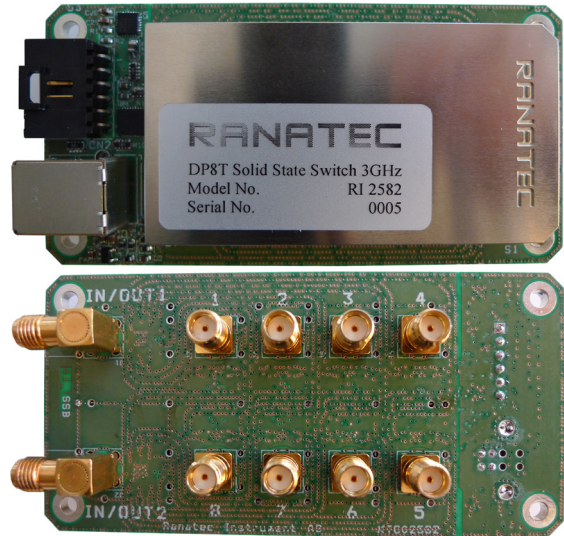
Applications

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

Electrical specifications:

- Switch mode: DP8T USB/I²C ctrl, terminated
- Supply voltage I²C: 4.7 - 15 VDC
- Supply voltage LAN: 5 VDC
- Supply current max: < 50 mA @ USB/I²C
- Supply current max: < 350 mA @ LAN
- I²C-bus LOW-level: 0.99 V
- I²C-bus HIGH-level: 2.31 V
- I²C-bus MAX-level: 5.5 V
- Operating frequency: 0.1 - 4.8 GHz
- Impedance: 50 Ohm
- Max DC at RF inputs: 25 VDC
- VSWR RFCy→RFx (max):
1.67:1 @ 0.1 - 0.698 GHz



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

- VSWR RFx→RFCy (max):
1.79:1 @ 0.698 - 3 GHz
1.79:1 @ 3 - 4.8 GHz
- VSWR RFCy terminated (max):
1.60:1 @ 0.1 - 0.698 GHz
1.67:1 @ 0.698 - 3 GHz
1.67:1 @ 3 - 4.8 GHz
- VSWR RFx terminated (max):
1.67:1 @ 0.1 - 0.698 GHz
1.79:1 @ 0.698 - 3 GHz
1.79:1 @ 3 - 4.8 GHz
- Insertion loss (max):
3.8 dB @ 0.1 - 0.698 GHz
4.8 dB @ 0.698 - 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 specification:

- 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
- RI 2582-LAN DP8T switch with LAN