

Datasheet SW150_WB

Broadband High-Frequency Switch Module with RS485 Control

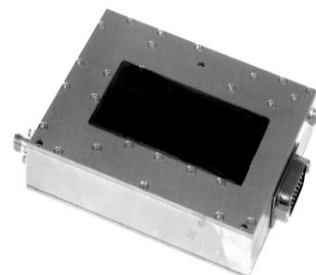
Model: SW150_WB

Overview

The Broadband RF Switch Module is a high-performance solution designed for wideband applications from 700 MHz to 5900 MHz. Featuring RS485 protocol control, this switch provides reliable performance with low insertion loss, high isolation, and robust power handling capability. Built for mission-critical environments, it ensures stable operation under harsh conditions with extended lifetime and excellent switching performance.

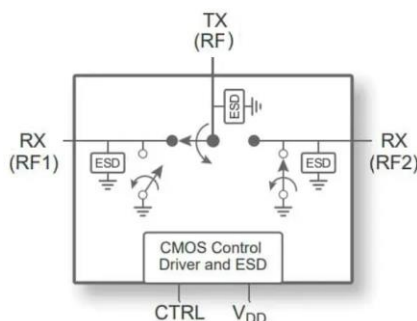
Key Features

- Wide frequency coverage: 700 MHz – 5900 MHz
- Low insertion loss: typ. 1.8 dB
- High isolation: ≥ 50 dB
- VSWR: $\leq 2.0 : 1$
- High power handling: up to 150 W CW
- RS485 control interface
- Long lifetime: 1 million switching cycles
- Rugged design: operational from -40°C to $+85^{\circ}\text{C}$, 95% RH
- Flexible connector options: N-type or SMA
- Compact and lightweight construction



Typical Applications

- RF Communication Systems
- Electronic Warfare and Jamming
- Test and Measurement Equipment
- Switching Networks for High-Power RF
- Remote-Controlled Antenna Systems



Electrical & Mechanical Specifications

Parameter	Specification
Frequency Range	700 MHz – 5900 MHz
VSWR (max)	2.0 : 1
Insertion Loss (typ.)	1.8 dB
Isolation (min)	50 dB
Input Power (max, CW)	150 W
Input Port	1 × N-type or SMA
Output Ports	2 × N-type or SMA
Switching Time	≤ 100 ms
Lifetime	≥ 1 million cycles
Control Interface	RS485
Amplitude Balance	±0.3 dB
Supply Voltage	48 V DC (±2 V)
Operating Temperature	-40 °C to +85 °C
Operating Humidity	≤ 95% RH
Dimensions	≤ 300 × 160 × 50 mm
Weight	≤ 4 kg

Environmental & Reliability

- Designed for rugged outdoor and laboratory environments
- Shock and vibration resistant
- Long-life mechanical and electronic components ensure reliability