## ORS-Series Multi-channel RF Switch



## Overview

The OPTELLENT ORS-Series Multi-channel RF Switch is a cost-effective easy-to-use switch solution for testing components and systems in R\&D and manufacturing environments. RF connections are routed through an absorptive switch network capable of fast and reliable switching. Multiple channels can be re-arranged using software to achieve different configurations. The switch is available in bench-top and rack-mountable chassis.

An intuitive graphical user interface (GUI) enables easy point-and-click operation through an RS232 or USB interface. Software drivers are available for incorporating the switch into test automation suites using programs like LabVIEW, VisualBASIC, C, etc.

## Applications

Wireless and fiber optic testing

- Automated multi-channel testing of RF components, subsystems and systems
- Wireless and datacom network monitoring


## Key Features

Wide bandwidth

## High Reliability

## Multi-channel options

## Efficient and Easy-to-Use

RS232 or USB Interfaces

## Switching Configurations

The switch is fully bi-directional and transparent to the underlying protocols in the RF signals.

The basic unit is a 2-to-1 RF switch. The System can be configured with 4 to 16 switches which can be operated in manual or automated modes using the software. The software also allows the creation of timing profiles to automatically trigger switching activity.

## Technical Specifications

| Parameter | Min | Typ | Max | Unit |
| :--- | :---: | :---: | :---: | :---: |
| Bandwidth $^{1}$ | 500 |  | 18000 | MHz |
| Insertion Loss $^{2}$ | 0.2 |  | 1.7 | dB |
| Return Loss $^{3}$ |  |  | 20 | dB |
| Isolation $^{2}$ |  | 60 |  | dB |
| Input IP3 |  | 49 |  | dBm |
| Input 1 dB Compression |  | 24 |  | dBm |
| Switching time ${ }^{4}$ |  |  | 70 | ns |

${ }^{1}$ Available in different ranges; see ordering information
${ }^{2}$ At 2000 MHz
${ }^{3}$ ON state
${ }^{4}$ Refers to switch component itself. Switching time from GUI change is on the order of milliseconds

## System and General Specifications

|  | Unit | Min | Typ |  |
| :--- | :---: | :---: | :---: | :---: |
| Control interface |  | RS232 / USB |  |  |
| RF Connectors |  | SMA female |  |  |
| Operating Temperature | ${ }^{\circ} \mathrm{C}$ | 0 |  | 70 |
| Storage Temperature | ${ }^{\circ} \mathrm{C}$ | -40 |  | 85 |
| Size (L x W x H) | $\mathrm{mm}^{3}$ |  | $300 \times 240 \times 64$ |  |
| Voltage | VAC |  | $100-240$ |  |
| Current | A |  | 2 |  |
| Standard Warranty |  | 12 Months |  |  |

## Ordering Information



Example: ORS-4-2x1-A- L: 4-channel 2x1 RF Absorptive Switch for 500 to 6000 MHz
Specifications are subject to change without notice.
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