

# Optiva OTS-RSU-1:4 3 GHz Wideband RF Redundancy Switch



The Optiva OTS-RSU-1:4 3 GHz Wideband RF Redundancy Switch is optimized to perform in the 10 MHz to 3 GHz frequency range. The OTS-RSU series supports satellite signal transport link redundancy applications for 1x4 redundant switch configurations when integrated with Optiva RF fiber optic transmitters and receivers.



The Optiva Wideband RF Redundancy Switch is SNMP compliant. It can be housed in the same chassis and monitored by the same Network Management System (NMS) as Optiva HD video, audio, serial data, and USB extension / distribution cards.

## Applications

- RF Redundant Link

## Features

- 10 MHz to 3 GHz Satellite Signals
- 1x4 Switch Configuration
- 50 & 75 Ohm BNC or 50 Ohm SMA
- Dedicated Comm-Link for Rapid Switching Response
- Automatic and Manual Redundancy Modes
- Manual Position/Enable Select Button
- Channel Status and Switch Position LED
- SNMP Monitoring and Control
- LNB Power Pass-Through
- Hot Swap Redundant Power Supplies Virtually Eliminate Downtime
- 16 Slot Enclosure Available
- CE & CSA Certified Device, RoHS Compliant

## System Design

The Optiva platform includes a wide range fiber optic transport products for satellite and microwave communications from 1 MHz to 40 GHz. These units can be used to construct transparent inter- and intra-facility links from 1 meter to >100 km for RF and microwave signal transport, antenna remoting, video transport, electronic warfare systems and other high-dynamic-range applications.

**optiva** PLATFORM

Optiva is a completely modular, hot-swappable platform. Both 19" rack-mount and compact tabletop, or wall-mountable enclosures are available. The 3 RU 19" rack-mount, fan-cooled enclosure OT-CC-16F can support an entire 1x4 system and utilizes two dual-redundant, hot-swappable, 200 watt power supplies.

## OT-CC-16F Enclosure

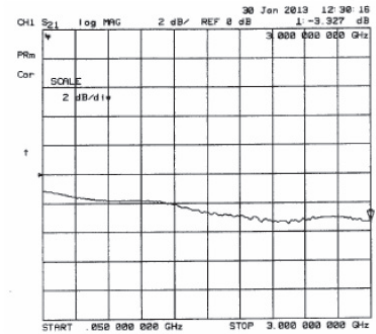


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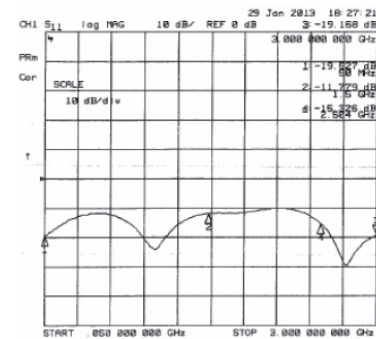
## Performance Highlights

Parameter	Min	Typical	Max	Units
Frequency Range				
50 ohm	10	-	3000	MHz
75 ohm	10	-	2500	MHz
Insertion Loss				
OTS-RSU-1, OTS-RSU-4	-	-	4.5	dB
Isolation				
OTS-RSU-x	50	-	-	dB
Return Loss				
OTS-RSU-x	12	-	-	dB
Input IP3				
OTS-RSU-1, OTS-RSU-4	40	-	-	dB
DC Electrical (at 12 VDC)				
OTS-RSU-1	-	250	-	mA
OTS-RSU-4	-	380	-	mA

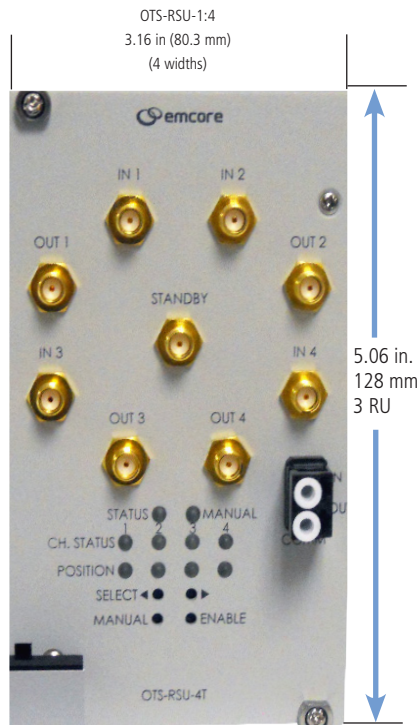
## S21 Plot



## S11 Plot

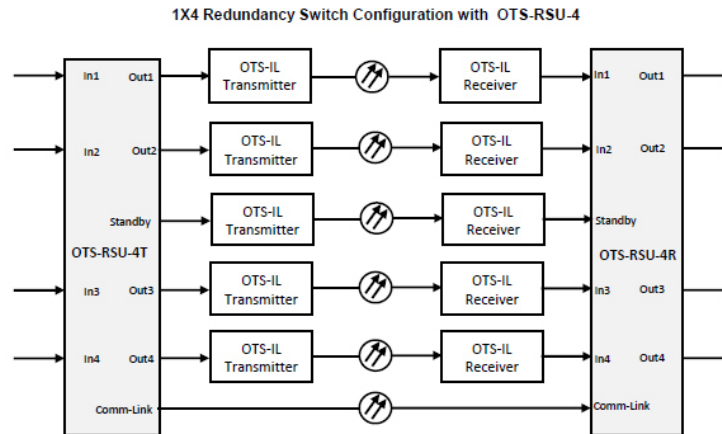


## OTS-RSU-1:4



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## Block Diagram



## Ordering Information

Product Code	Specifications
OTS-RSU-4T-S5	RSU, 1x4, Tx, Optiva, 10-3000 MHz, 50 Ohm, SMA
OTS-RSU-4T-S5-SS	RSU, 1x4, Tx, Optiva, 10-3000 MHz, 50 Ohm, SMA, Five SMA/SMA cables
OTS-RSU-4T-S5-SB	RSU, 1x4, Tx, Optiva, 10-3000 MHz, 50 Ohm, SMA, Five SMA/BNC cables
OTS-RSU-4R-S5	RSU, 1x4, Rx, Optiva, 10-3000 MHz, 50 Ohm, SMA
OTS-RSU-4R-S5-SS	RSU, 1x4, Rx, Optiva, 10-3000 MHz, 50 Ohm, SMA, Five SMA/SMA cables
OTS-RSU-4R-S5-SB	RSU, 1x4, Rx, Optiva, 10-3000 MHz, 50 Ohm, SMA, Five SMA/BNC cables
OTS-RSU-4T-B5	RSU, 1x4, Tx, Optiva, 10-3000 MHz, 50 Ohm, BNC
OTS-RSU-4T-B5-BB	RSU, 1x4, Tx, Optiva, 10-3000 MHz, 50 Ohm, BNC, Five BNC/BNC cables
OTS-RSU-4R-B5	RSU, 1x4, Rx, Optiva, 10-3000 MHz, 50 Ohm, BNC
OTS-RSU-4R-B5-BB	RSU, 1x4, Rx, Optiva, 10-3000 MHz, 50 Ohm, BNC, Five BNC/BNC cables
OTS-RSU-4T-B7	RSU, 1x4, Tx, Optiva, 10-2500 MHz, 75 Ohm, BNC
OTS-RSU-4T-B7-BB	RSU, 1x4, Tx, Optiva, 10-2500 MHz, 75 Ohm, BNC, Five BNC/BNC cables
OTS-RSU-4R-B7	RSU, 1x4, Rx, Optiva, 10-2500 MHz, 75 Ohm, BNC
OTS-RSU-4R-B7-BB	RSU, 1x4, Rx, Optiva, 10-2500 MHz, 75 Ohm, BNC, Five BNC/BNC cables
OPV-CTRL-IC	NMS SNMP Controller Card and MIB for Optiva Family
OTP-1GETR-xx	Optical Tcvr, 1 CH, 10/100/1000 Ethernet over fiber, SM, LC - See OTP-1GETR Data Sheets for Exact Models
OTP-1ETR-A2/A2	Optical Tcvr, 1 CH, 10/100 Ethernet over fiber, SM, Dual LC - See OTP-1E Data Sheet for Exact Models
OT-CC-16F-XXX	Chassis, Rack-Mount, 16 Slot, 3 RU -- See OT-CC-16F Data Sheet for Exact Models
PS-200F-XX	Power Supply, 12 VDC, 100 to 240 VAC, 50/60 Hz, (Specify power cord (NA, EU, UK)) - See PS-200F-XX Data Sheet for Exact Models