

General

High value satellite communication assets require high reliability equipment. Our all new RSX4 is designed to be a drop-in replacement for our field proven 1094xB units in control, capability and performance. Standard features include front panel display, manual buttons, redundant power supplies and is available in AC or AC/DC powered versions. It is designed as the "gold standard" in system reliability for critical SatCom applications.

The unit consists of an RSX4 "universal chassis" that features two rear facing slots. Slots (one or both) can be populated by a choice of redundancy function modules and easily reconfigured in the field as needs change.

Compact (1RU) and high performance, the unit provides a cost effective switching capacity for up to four redundancy channels. Complete control and status of the unit is available at the built-in web browser, front panel controls, alarm inputs, or the 10/100 Ethernet port.

Applications

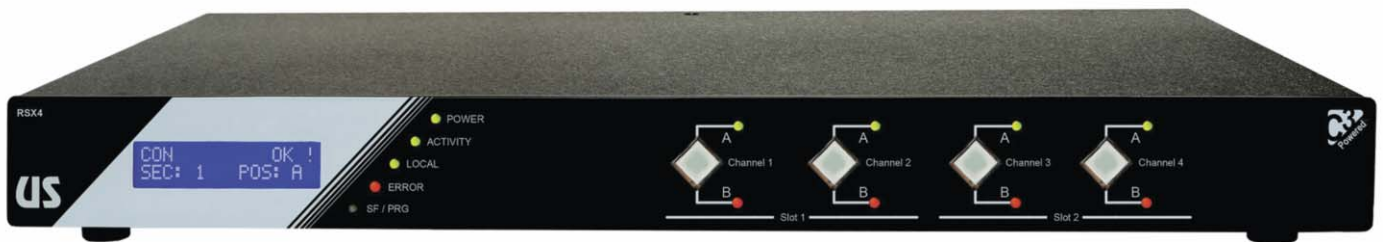
- Ground station and infrastructure facilities
- Communication installations
- ENG trucks and vans
- Airborne surveillance systems
- Teleport and last mile installations
- Receiver routing for transmit or receive

Features

- High reliability switch technology
- SMA, BNC or Triax signal connector types
- Impedance 50 or 75 ohm
- Designed for ultra reliability
- Rugged 1RU construction
- Redundant power supplies
- Dual independent AC circuits
- Two "element" ports
- Ethernet control port (10/100)
- SNTP, SNMP v1/v2, TCP/IP, and web browser control
- Built-in diagnostics
- International AC power input
- LabVIEW drivers available



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Model RSX4
Redundancy Switcher
(1RU)



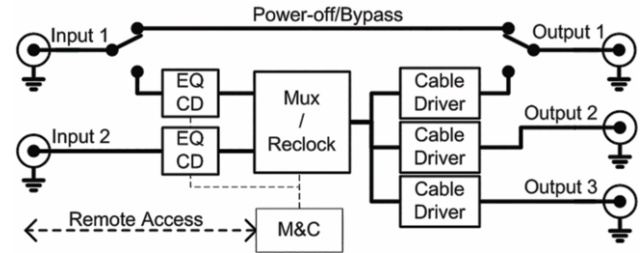
Made in the USA

RSX4-001

Element RSX4-101-7C SD-SDI and HD-SDI Video Switch and 3-Way Distribution

FunctionVideo A/B switch with pass through and distribution
 Switching technologyHigh reliability relays, EQ, reclocker and cable drivers
 Sections per elementSingle section
 CapacitySD-SDI and HD-SDI video
 Signal TypeSMPTE 292M, 424M
 Video rates270Mbps, 1.483Gbps, 1.485Gbps, 2.967Gbps & 2.97Gbps
 Signal connectorBNC
 Impedance75 ohm
 SizeSingle slot

RSX4-101-7C
 SDI video selector, EQ, reclock and 3-way distribution element with bypass.



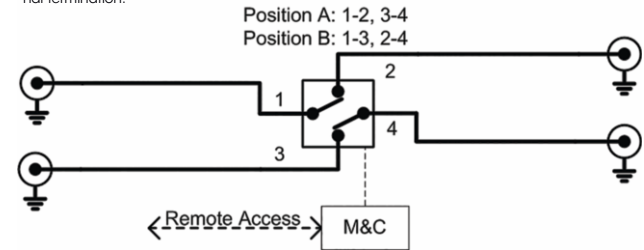
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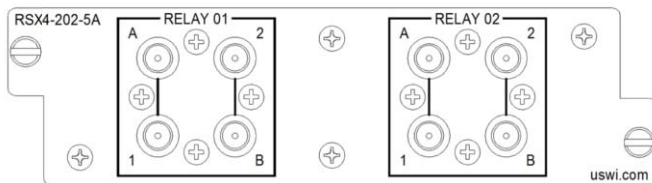
Element RSX4-n0f-5A DC-6GHz, DC-18GHz and DC-40GHz

FunctionTransfer A/B switch (baseball)
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 FrequencyDC-18GHz (f = 2), 6GHz (f = 3), 40GHz (f = 4)
 Transmission loss<0.5dB
 Isolation>60dB typical
 Signal connectorSMA, K-Type for 40GHz version
 Impedance50 ohm
 SizeSingle slot

RSX4-n0f-5A
 One of two independent transfer sections (shown in power off 'A' position). Can also be a self-terminating 1x2 with external termination.



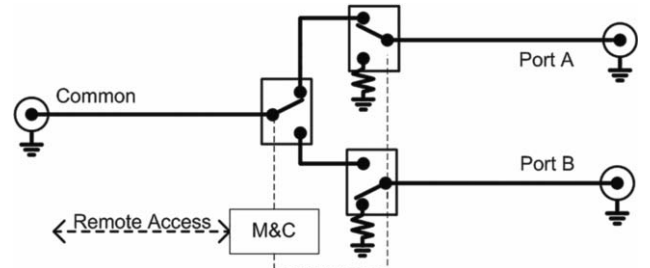
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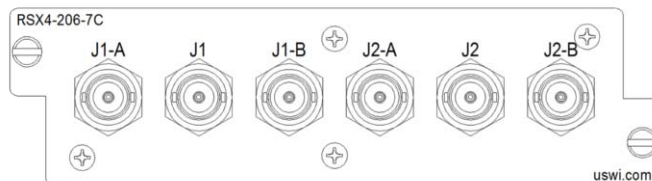
Element RSX4-n06-iC DC-1GHz: RF, IF, P-Band

FunctionRedundancy A/B switch with termination
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 FrequencyDC-1GHz
 Transmission loss<1.0dB
 Isolation>60dB typical
 Signal connectorBNC
 Impedance50 ohm (i = 5), or 75 ohm (i = 7)
 SizeSingle slot

RSX4-n06-iC
 One of two independent self-terminating A/B redundancy switches.



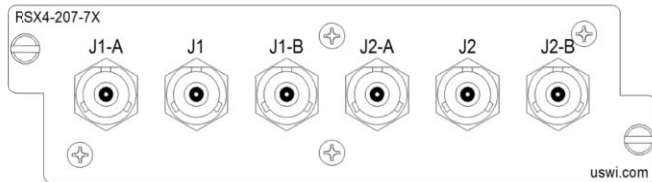
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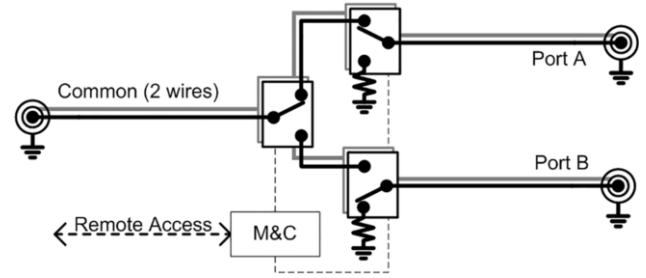
Element RSX4-n07-iX Triax and 1553 Redundancy

FunctionRedundancy A/B switch with termination
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 FrequencyDC-100MHz
 Transmission loss<1.0dB
 Isolation>60dB typical
 Signal connectorTriaxial (Trompeter BJ77 Type)
 Impedance50 ohm (i = 5), or 75 ohm (i = 7)
 SizeSingle slot

07



RSX4-n07-iX
Triaxial redundancy switch with termination for 1553 type signals.

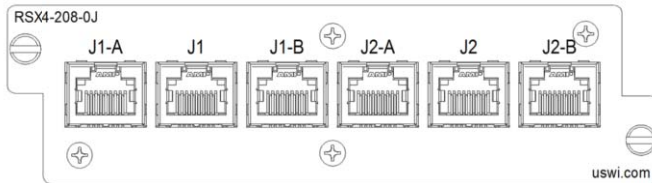


Element RSX4-n0f-0J Ethernet redundancy 100Mbps, 1Gbps

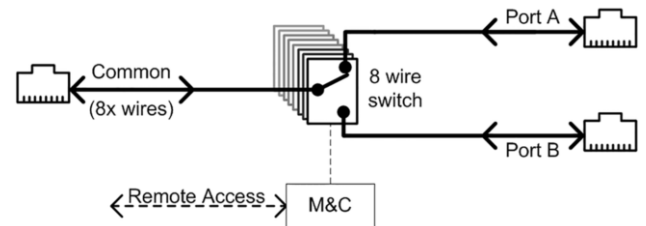
FunctionRedundancy A/B switch
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 Frequency100Mbps (f = 8), 1Gbps (f = 9)
 Transmission lossN/A
 IsolationN/A
 Signal connectorRJ45
 Impedance100 ohm
 SizeSingle slot

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09



RSX4-n0f-0J
One of two independent redundancy sections (shown in power off "A" position).

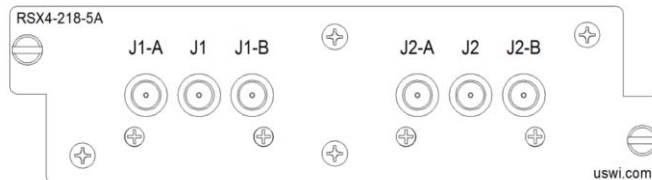


Element RSX4-nff-5A DC-18GHz, DC-6GHz

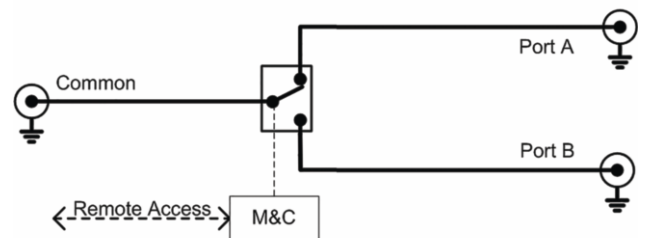
FunctionRedundancy A/B switch (failsafe)
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 FrequencyDC-18GHz (ff = 18), 6GHz (ff = 16)
 Transmission loss<0.5dB
 Isolation>60dB typical
 Signal connectorSMA
 Impedance50 ohm
 SizeSingle slot

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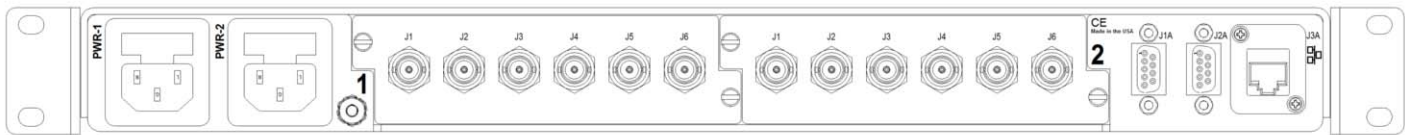
RSX4-n18-5A
One of two independent normally open redundancy relays.



Modular: Plug-in Elements

The RSX4 has two rear facing slots that accept one or two RSX4 plug-in elements. They can be mixed and matched to your requirement, or to reconfigure as your needs change.

Specifically designed for ultra reliability, the unit has redundant monitored power supplies, manual front panel control (and display), 10/100 Ethernet port, multi-serial port, and also direct TTL alarm input port (TTL low changes port) for each section.



Model RSX4
Rear view shown with two RSX4-206-7C elements installed (1RU)

System RSX4 Specifications

Capacity2-Slots (two dual 2x1 elements)
Switching technologyRelay or solid-state available
Type of systemRedundancy (A/B)
ArchitectureModular
Signal connector location . . .Rear panel

** NOTE 1: If special or unique performance or features are required, the base model number is used plus a unique 5-digit suffix.

General Specifications

Switching speed<10mS
Power supply sectionRedundant
Power supply monitoring . . .Included
Ethernet port10/100BaseT, SNMP v1/v2 and TCP/IP
Serial portRS-232C/422A/485 (DE-9S)
Alarm input and driver4-channel alarm input & driver output (TTL)
Status LED'sFront panel
Front panel displayLCD
Configuration memoryFLASH
CoolingConvection
AC power requirements90-264VAC, 47-440Hz, <25 Watts
AC inletsTwo (independent)
Optional DC inputAvailable
Line protectionFuses @ AC inlets
Weight<9 lbs
Size1.72H x 9.50D x 19.00W (1RU)
Operating temp0 to +50C
Non-operating temp-20 to +85C
Humidity0 to 95% (NC @ +25C)
MTBF>115,000 hours (estimated)
Warranty2 years
CertificationsCE EN61010

Universal Switching's policy is one of continuous development. Consequently, the company reserves the right to vary from the descriptions and specifications shown in this publication.