

General

High value communication assets require high reliability equipment. Our RSX4 & UC1 products are designed to change as your needs change. These two 1RU compact modular units are identical with exception of the front panel button controls. The RSX4 front is tailored for redundancy applications, and the UC1 for any type of module.

About the RSX4

The RSX4 front panel is designed specifically for 1-4 channel redundancy (A/B) switching and is a drop-in replacement for our field proven 1094xB redundancy switchers (control, capability & performance). High value satellite communication assets (and other similar critical applications) require high reliability equipment and redundancy switching.



About the UC1

The front panel of the UC1 is designed to control any switching element whether it be a full matrix element, or a simple Nx1 configuration. The front panel allows you to navigate an efficient menu system to name channels, make connections or any other common system operation.



Additional Features

The units feature a unique modular design with "PUC" elements that allows the user to remove/install a "PUC" to reconfigure, or field upgrade the unit. PUC's can also be remotely located outside the chassis up to 400 feet away with available extension cables.

Units include 10/100 Ethernet & Multi-Serial control ports (RS232/422/485), front panel control & display, alarm port with hard contact, dual monitored fans, built-in web browser, real-time clock, cable support bracket, benchtop or flanges for rack mount, redundant power supplies, dual power input, available in dual AC, or AC/DC powered versions.

Applications

- Ground station, infrastructure or ATE 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 (relay or solid-state)
- SMA, BNC and other signal connector types
- Impedance 50 or 75 ohm
- Designed for ultra reliability
- Rugged aluminum modular 1RU construction
- Redundant power supplies
- Dual independent AC circuits
- Two slots to install "PUCs"
- Ethernet control port (10/100), IPv4/6
- SNMP, SNMP v1/v2, TCP/IP, and web browser control
- Multi-Serial port with RS-232C/422A/485
- Built-in diagnostics
- Alarm port for external "low" active control
- Dry contact for failure alert
- International AC power input
- LabVIEW drivers available



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Rear View
 Shown with two PUC's installed, and the included cable retainer bracket

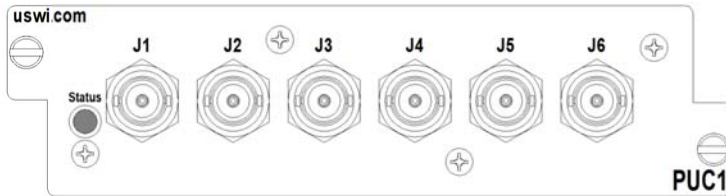


Made in the USA

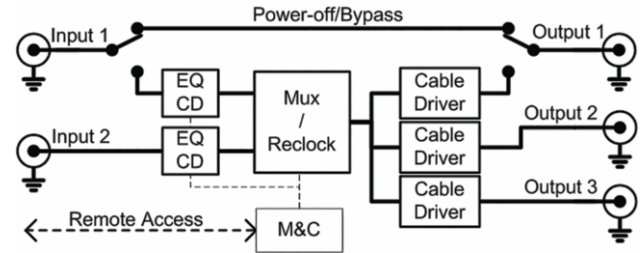
Element PUC1-0117C SD-SDI and HD-SDI Video Switch and 3-Way Distribution

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

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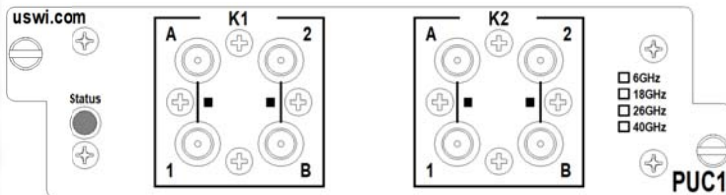
PUC1-0117C
SDI video selector, EQ, reclock and 3-way distribution element with bypass.



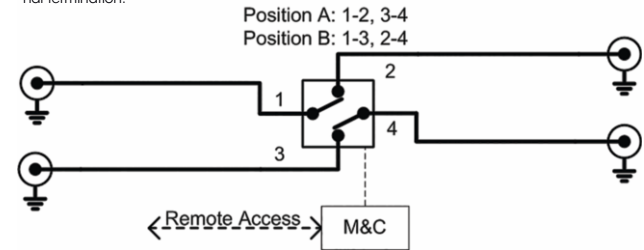
Element PUC1-0fn5A DC-6GHz, DC-18GHz and DC-40GHz

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), 26GHz (f = 5)
 Transmission loss<0.5dB
 Isolation>60dB typical
 Signal connectorSMA, K-Type for 40GHz version
 Impedance50 ohm
 SizeSingle slot

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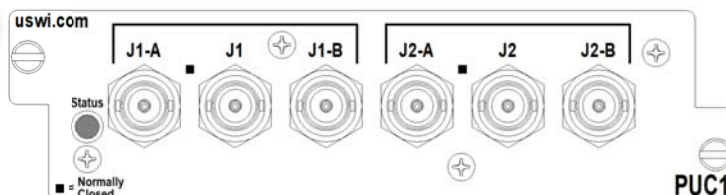
PUC1-0fn5A
One of two independent transfer sections (shown in power off 'A' position). Can also be a self-terminating 1x2 with external termination.



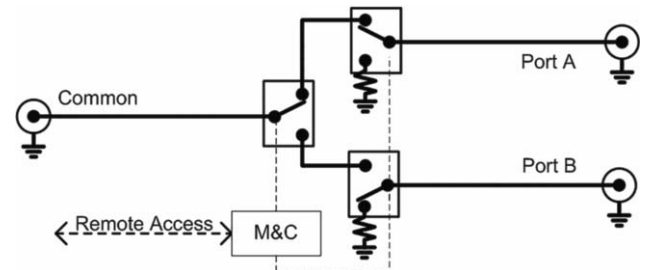
Element PUC1-06nic DC-3GHz: RF, IF, P-Band, L-Band

FunctionRedundancy A/B switch with termination
 Switching technologyHigh reliability relays
 Number per elementSingle (n=1), or Dual sections (n=2)
 FrequencyDC-3GHz
 Transmission loss<1dB
 Isolation>60dB typical
 Signal connectorBNC (c=C) or SMA (c=A)
 Impedance50 ohm (i = 5), or 75 ohm (i = 7)
 SizeSingle slot

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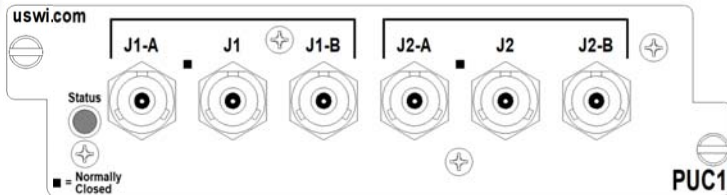
PUC1-06nic
One of two independent self-terminating A/B redundancy switches.



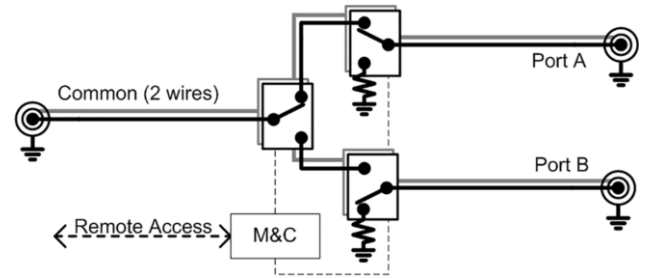
Element PUC1-07niX Triax and 1553 Redundancy

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

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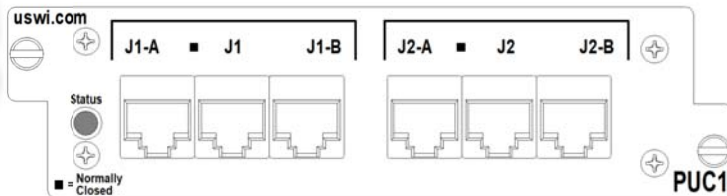
PUC1-07niX
Triaxial redundancy switch with termination for 1553 type signals.



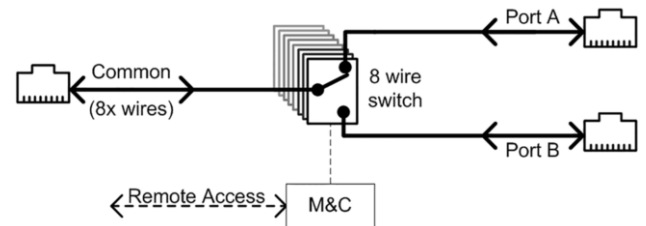
Element PUC1-0fn0J Ethernet redundancy 100Mbps, 1Gbps

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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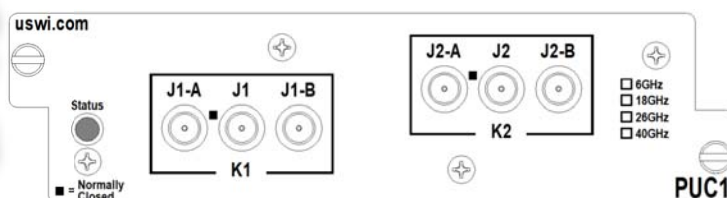
PUC1-0fn0J
One of two independent redundancy sections (shown in power off "A" position).



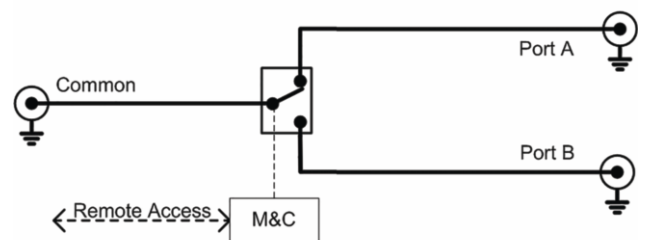
Element PUC1-ffn5A DC-18GHz, DC-6GHz

FunctionRedundancy A/B switch (failsafe)
 Switching technologyHigh reliability relays
 Number per elementSingle (n = 1), or Dual sections (n = 2)
 FrequencyDC-18GHz (ff = 18), 26GHz (ff = 17), 6GHz (ff = 16)
 Transmission loss<0.5dB
 Isolation>60dB typical
 Signal connectorSMA
 Impedance50 ohm
 SizeSingle slot

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PUC1-ffn5A
One of two independent normally open redundancy relays.



Modular: Plug-in "PUC" Elements

These units have two rear facing slots that accept one or two PUC1 elements. They can be mixed and matched to your requirement, or to reconfigure as your needs change. The details of the PUC1 elements are shown on pages 2 and 3.

PUC's can also be located outside the chassis by adding an extension cord between the chassis and the PUC. You might need this to located a switch function close to your source to keep signal cable lengths short.

Define Your System

The unit can be ordered complete with the quantity and type of PUC1 elements you need. When ordering a system, the unit comes with the type of front panel you define, complete chassis with dual 80W supplies, the UC1-AK-115 accessory kit, and one or two PUC1 elements of your choice. The unit is fully assembled, tested and burned in. See definition to the right. If you need assistance, contact your local representative or the factory.

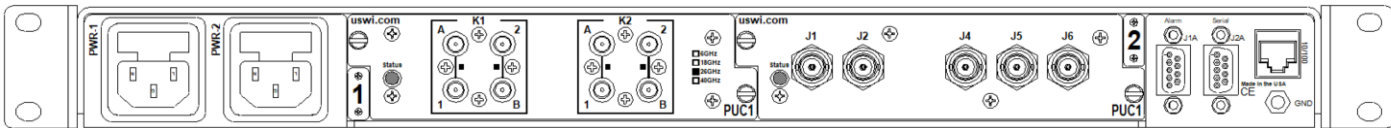


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Series Number (RSX4 or UC1)

Type of PUC1 element installed in Slot 1

Type of PUC1 element installed in Slot 2 (0000 if no PUC installed)



Example System Model: RSX4-0525A0117C
Rear view shown with Slot-1 having PUC1-0525A element, and Slot-2 with the PUC1-0117C element.

Model	Description
RSX4-D80	Chassis with RSX4 front panel, redundant 80W power supplies, no PUCs
RSX4-000	Chassis with RSX4 front panel, and without power supplies
UC1-D80	Chassis with UC1 front panel, redundant 80W power supplies, no PUCs
UC1-000	Chassis with UC1 front panel, and without power supplies
PSAUC1-080	Power supply assembly: 80W
UC1-AK-115V	Accessory kit with rack flanges, dual 115VAC cords, cable retainer bracket
UC1-AK-220V	Accessory kit with rack flanges, dual 220VAC cords, cable retainer bracket
CA-UC1-xxx	PUC1 extension cable assembly (001 to 050 feet)
FPUC-001	Filler plate for one PUC slot

System Specifications

CapacityTwo PUC1 elements
Switching technologyRelay or solid-state available
Type of systemRedundancy (A/B), Nx1 or Matrix
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 port10/100, SNMP v1/v2 and TCP/IP
Serial portRS-232C/422A/485 (DE-9S)
Alarm port4-channel alarm TTL input & dry contact
Status LED'sFront panel and on PUC's
Front panel displayLCD
Configuration memoryFLASH
CoolingRedundant monitored fans
AC power requirements90-264VAC, 47-440Hz, <80 Watts
AC inletsTwo (independent)
Optional DC inputAvailable
Line protectionFuses @ AC inlets (spares included)
Weight<10 lbs
Size1.72H x 16.50D x 19.00W (1RU)
Operating temp0 to +60C
Non-operating temp-20 to +85C
Humidity0 to 95% (NC @ +25C)
MTBF>185,000 hours (estimated)
Warranty2 years (extended warranty up to 7 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.