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.

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
- SNTP, 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

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

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Made in the USA
Element PUC1-0117C
SD-SDI and HD-SDI Video Switch and 3-Way Distribution

- **Function**: Video A/B switch with pass through and distribution
- **Switching technology**: High reliability relays, EQ, reclocker and cable drivers
- **Sections per element**: Single section
- **Capacity**: SD-SDI and HD-SDI video
- **Signal Type**: SMPTE 292M, 424M
- **Video rates**: 270Mbps, 1.483Gbps, 1.485Gbps, 2.967Gbps & 2.97Gbps
- **Signal connector**: BNC
- **Impedance**: 75 ohm
- **Size**: Single slot

Element PUC1-06nic DC-3GHz, DC-18GHz and DC-40GHz

- **Function**: Transfer A/B switch (baseball)
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: DC-18GHz (f = 2), 6GHz (f = 3), 40GHz (f = 4), 26GHz (f = 5)
- **Transmission loss**: <0.5dB
- **Isolation**: >60dB typical
- **Signal connector**: SMA, K-Type for 40GHz version
- **Impedance**: 50 ohm
- **Size**: Single slot

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

- **Function**: Redundancy A/B switch with termination
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: DC-3GHz
- **Transmission loss**: <1dB
- **Isolation**: >40dB typical
- **Signal connector**: BNC (c = C) or SMA (c = A)
- **Impedance**: 50 ohm (i = 5), or 75 ohm (i = 7)
- **Size**: Single slot
**Element PUC1-07niX**

- **Function**: Redundancy A/B switch with termination
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: DC-100MHz
- **Transmission loss**: <1.0dB
- **Isolation**: >40dB typical
- **Signal connector**: Triaxial (Trompeter BJ77 Type)
- **Impedance**: 50 ohm (i = 5), or 75 ohm (i = 7)
- **Size**: Single slot

**Triax and 1553 Redundancy**

**Element PUC1-ffn5A**

- **Function**: Redundancy A/B switch (failsafe)
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: DC-18GHz (f = 18), 26GHz (f = 17), 6GHz (f = 16)
- **Transmission loss**: <0.5dB
- **Isolation**: >60dB typical
- **Signal connector**: SMA
- **Impedance**: 50 ohm
- **Size**: Single slot

**Ethernet redundancy 100Mbps, 1Gbps**

**Element PUC1-0fn0J**

- **Function**: Redundancy A/B switch
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: 100Mbps (f = 8), 1Gbps (f = 9)
- **Transmission loss**: N/A
- **Isolation**: N/A
- **Signal connector**: RJ45
- **Impedance**: 100 ohm
- **Size**: Single slot

**Ethernet redundancy 100Mbps, 1Gbps**

**Element PUC1-fn5A**

- **Function**: One of two independent normally open redundancy relays
- **Switching technology**: High reliability relays
- **Number per element**: Single (n = 1), or Dual sections (n = 2)
- **Frequency**: DC-18GHz (ff = 18), 26GHz (ff = 17), 6GHz (ff = 16)
- **Transmission loss**: <0.5dB
- **Isolation**: >60dB typical
- **Signal connector**: SMA
- **Impedance**: 50 ohm
- **Size**: Single slot
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, compete 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.

System Specifications

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

**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 section:** Redundant
- **Power supply monitoring:** Included
- **Ethernet port:** 10/100, SNMP v1/v2 and TCP/IP
- **Serial port:** RS-232C/422A/485 (DE-9S)
- **Alarm port:** 4-channel alarm TTL input & dry contact
- **Status LED’s:** Front panel and on PUC’s
- **Front panel display:** LCD
- **Configuration memory:** FLASH
- **Cooling:** Redundant monitored fans
- **AC power requirements:** 90-264VAC, 47-440Hz, <80 Watts
- **AC inlets:** Two (Independent)
- **Optional DC input:** Available
- **Line protection:** Fuses @ AC inlets (spares included)
- **Weight:** <10 lbs
- **Size:** 1.72H x 16.50D x 19.00W (1RU)
- **Operating temp:** 0 to +60C
- **Non-operating temp:** -20 to +85C
- **Humidity:** 0 to 95% (NC @ +25C)
- **MTBF:** >185,000 hours (estimated)
- **Warranty:** 2 years (extended warranty up to 7 years)
- **Certifications:** CE EN61010