

SwitchplusIP®

Radio Interface Unit (RIU)



Interoperability between you and other agencies via open standards Voice over IP

Simplifying Radio Over IP technology

The RIU is one of the SwitchplusIP® core building blocks and provides a seamless interface between radios and telephony assets using open standards Voice Over IP technology. Within its super compact, ruggedized footprint, the RIU provides support for 4 programmable audio devices each with its own serial port for configuration or data transmission.

It uses dedicated DSP audio processing resources to efficiently convert the audio from these devices to standards-based Voice over IP (VoIP) which can be streamed to any compatible device via the LAN. It also supports dual LAN interfaces ensuring that mission critical audio always gets through to its destination.

The RIU can be used standalone as a SIP based Radio Over IP (ROIP) gateway, integrated with other open standards types solutions such as RTP (Wave) or as part of a larger total C4i communications solution. It is ideally suited for Vehicle Interoperability Solutions, Mobile Fly Away Kits and anywhere you need extensive capability in a small ruggedized footprint.

Simplifying configuration

The RIU is extremely easy to configure. Using an intuitive web interface, users have access to all of the advanced facilities of the RIU.

Simplifying connections

The RIU provides direct connection interfaces to a range of audio equipment:

- Conventional and trunked radios;
- Public address systems;
- Monitor speakers;
- Intercoms.

Simplifying Interoperability

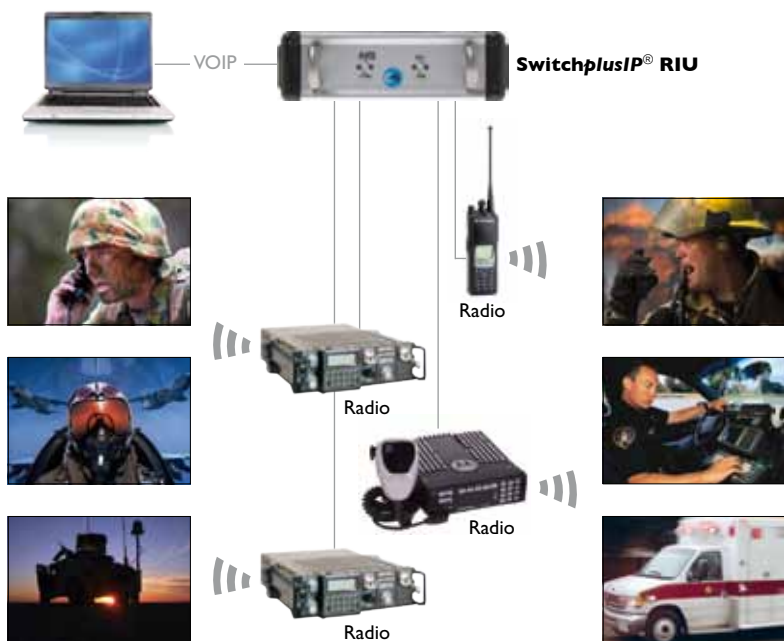
- Connect your unit to the state police;
- Your patrol officers to an EMS bike team;
- The Chief's office to the incident ground; or
- The Governor to the incident commander.

All simply done with C4i Products.

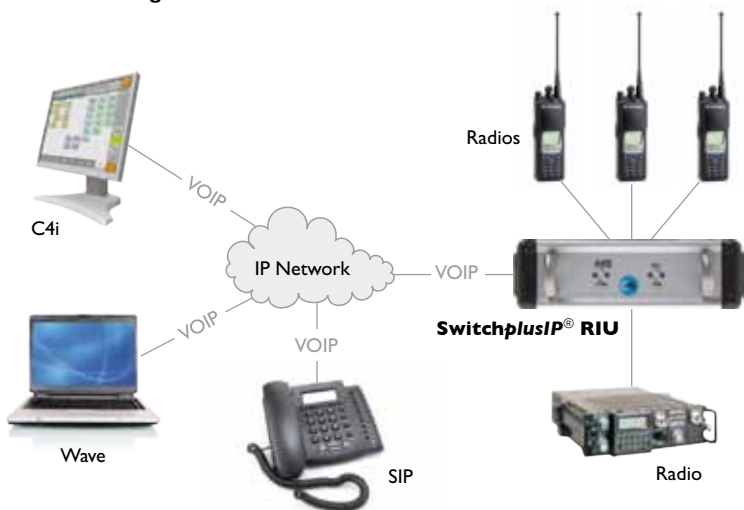




RIU use in a typical Mobile-Dismount System



VOIP Networking



Specifications

Dimensions (W x H x D) 148 x 44 x 380 mm
5.75 x 1.75 x 14 in

Weight 2.0 kg / 4.4 lbs (without ETX module)
2.5 kg / 5.5 lbs (with ETX module)

Mounting Type Rack or shelf mountable; 1U high

Power Input (configuration dependant)

DC 48VDC, 500 mA standard configuration **or** 24–60VDC, 500mA (typical) extended DC range configuration

PoE P/N: 685-335-001 variant only (Not available when ETX module installed in unit)

AC 110–240VAC;
Requires use of AC–DC Power Adapter (P/N: 685-335-040)

Connection Interfaces

DC Power circular push/pull lock/release socket
Fischer 3 pin circular DBPC 102 A052–130

Ethernet 2 x IEEE 802.3 10/100 Base-T
1 x RJ45 socket (two Ethernet ports)

Radio Devices 4 x 26 pin High Density D-Sub connector; 1 per radio connection

Audio 4-wire analog, transformer coupled, DC blocked, 0 dBm/600 Ω input/output

PTT normally open contact, 150 mA/200V max

CODAN 5–25VDC optically isolated

Serial RS232 @ standard rates up to 115.2 kbaud (1 per radio port)
RS422/RS485 available with appropriate interconnection cabling

CODECS G.729, G.711 A–law, G.711 μ-law

Software Protocols FoIP, SIP, VoIP, RTP

Environmental

Protection IP65 rated enclosure & connectors (when connectors covered or mated)

Operating Temperature -20°C to +60°C / -4°F to 140°F (MIL-STD 810G – 501.4 & 502.4 (Op, Tablet))

Storage Temperature -40°C to +75°C / -40°F to 167°F (MIL-STD 810G – 501.4 & 502.4 (Non-Op))

Vibration (Vehicle/Integrity) MIL-STD 810G – 514.5-C3
MIL-STD 810G – 514.6-C17

Transit Shock MIL-STD 810G – 516.5

EMI/EMC MIL-STD 461

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Simplifying communications