

# PROCOM™ 1800 Series

## Voice Communication Switching System



For over 50 years, Telegenix has been providing highly reliable and scalable Voice Communications Switching System (VCSS) for Military and Civilian Air Traffic Control (ATC) requirements. The PROCOM 1800 is built on Telegenix's years of experience in providing high reliability, non-blocking VCSS.

The PROCOM 1800 Series VCSS is integrated using modular building blocks to meet the user's exact needs. A low profile (1U) central node provides 28 port interface capacity as a stand-alone system. Nodes can be interconnected to larger systems, such as the PROCOM 2000 or an additional PROCOM 1800. Color Touch Screen Operating Position Stations (OPS) provide intuitive, easy to use access to all system interfaces.

The PROCOM 1800 VCSS enables the user to combine radios and wired communications in one versatile switching system that complies with major FAA and Military regulations. The VCSS has been developed under the clear focus of durability and reliability that is field proven.

The PROCOM 1800 is a Commercial Off-the-Shelf (COTS) system that was developed from the ground up for quick and simple installation. Easy system integration is assured through the use of standard enclosures and RJ-45 connectors. Interfaces to radios, Operators Position Stations and land lines are provided for easy system configuration. A fully documented Windows based System Administration Tool provides either on-line or off-line configuration and optimization of the system.

The PROCOM 1800 VCSS is the perfect solution for your Voice Communications Switching System project requirements. Please contact us and we will propose the most optimum configuration for your needs.

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### **Application** *The PROCOM 1800 Series Integrated VCSS provides audio switching and control of radios, PBX, landlines, interphone and intercom for:*

- Air Traffic Control Communications, both large and small fixed base towers
- Mobile Tactical Control Communications
- Command Center Communications
- Marine Traffic Control Communications
- Communications Training and Simulation
- Emergency Services Dispatch – Fire, Police, Disaster Communication
- Hospital to EMS Technician Interoperability

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- ### **Features**
- All digital audio processing
  - Up to 28 interface ports
  - Full non-blocking and conferencing capabilities
  - On-site reconfigurable and upgradeable
  - Digital link to Operator Position Station (OPS)
  - Independent digital and analog recording ports
  - DC source powered per MIL-STD-1275
  - Built to meet MIL-STD-461 EMI/RFI standards
  - Easily mounted in standard 19" EIA rack

**When reliable communication matters, there is no way around a powerful digital voice communication switch.**



# TELEGENIX

A Leader in Voice Communication Switching Systems

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## Audio Signals

- Frequency Response > Less than +/-0.5dB, 300 to 3400Hz
- Distortion > Less than 2% THD, 300-3400Hz
- Signal to noise ratio > More than -60dBm at 3000 Hz
- Idle channel noise ratio > Less than -60dBm at 3000 Hz
- Crosstalk Isolation > Better than 90db between channels, 100 Hz to 10 kHz

## Signal Processing

All PROCOM 1800 signals are digitally processed, switched and combined. External signals are processed by interface specific Line Interface Units (LIU). The signals are converted, processed, synchronized and assigned to internal channels. The available interfaces are:

### ISDN:

- BRI (Basic Rate Interface)
- Provides link to Operator Position Stations (OPS)

### Analog:

- 4-wire E&M with PTT
- Facility Intercom/Public Address
- VHF/UHF Radio Interfaces

### Telephone:

- 2-wire POTS
- 2-wire Central Offices/PBX

### Digital:

- E1/T1
- Digital Voice Recording
- Node Trunking
- VoIP using Gateway Adapter Units

### System Administration Configuration:

- TC/IP
- RS-232

### Recording:

- Digital:
- (1) E1 interface
- (30 channels)

### Analog:

- (14) Common ground OR
- (8) Differential analog recorder interfaces

## Key Advantages

- > Real Time Operating System
- > Full DSP Audio Processing
- > Intercom and Interphone Operation
- > Touch Entry Displays
- > Front Panel Status Indicators
- > Windows based System Administration Tools

## Environmental

- Temperature > 0°C to +40°C (operating)  
-40°C to +70°C (non-operating)
- Altitude > 0 to +10,000 feet (operating)  
0 to +50,000 feet (non-operating)
- Humidity > 10% to 90% (non-condensing)
- Environment > Intended for fixed base installations

## Power Requirement

- CCU > No Interfaces, 10 watt

(All slots full and two OPS powered locally) +24 VDC (+20%, -15%), 90 watts

## Dependability

- MTBF Critical > Better than 100k hours
- Availability > >.99999
- MTTR > <30 minutes
- Other > 99% BIT failure detection

## Dimensions & Weight

- CCU > 19"W x 1.6"H x 18"D (1U) (14 lb.)  
480 x 43 x 460 mm (6.3kg)

Dependable voice communications are essential in national defense and public safety. Therefore, it's not surprising that PROCOM is the supplier of choice for a wide variety of vital military and civilian applications.

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