

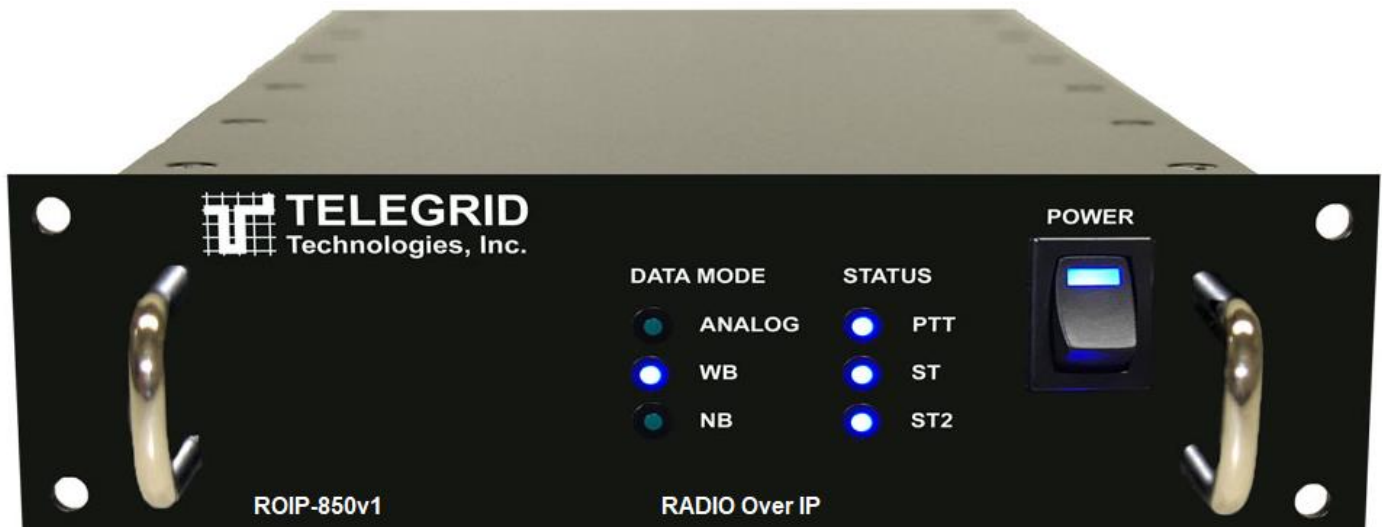
# Radio Over IP Adapter

Model ROIP-850v1

 TELEGRID

TELEGRID's ROIP-850v1 Radio over Internet Protocol (IP) Adapter facilitates the inter-operation of various military radios such as **AN/PRC-117G, AN/PRC-152, AN/PRC-137, AN/PRC-148, AN/PRC-150, and AN/PRC-160** as well as **commercial Analog Transceivers** with IP-based Local Area Networks (LANs), Wide Area Networks (WANs), or IP-based systems/ gateways.

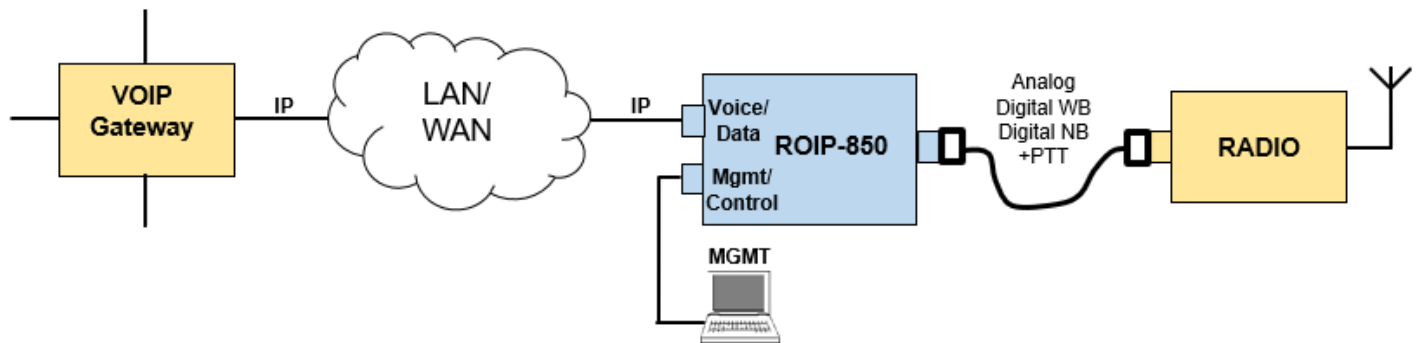
The Adapter essentially converts voice/ data traffic to/from the radio to standard Voice over IP (VoIP) and facilitates a 10/100BaseT Ethernet interface driven by user's Push-To-Talk (PTT). In effect it makes the radios a node on the network thus allowing communications with other equipment similarly connected to the infrastructure. This offers considerable benefits to radio users including the ability to communicate over larger geographical areas than the radio itself supports. This network connection also provides a more reliable quality of service and supports distant radio users which may be mobile or stationary. The features added by the Adapter include audio conferencing, voice and data transport, and remote radio control and operational programming.



## Features

- Operates with the AN/PRC-117G, AN/PRC-152, AN/PRC-137, AN/PRC-148, AN/PRC-150, and AN/PRC-160 as well as commercial Analog Transceivers.
- Facilitates connection of tactical radios to Local Area Network (LAN).
- Supports both DHCP and static IP address designation.
- Converts voice/ data traffic to/from the radio to standard Voice over IP (VoIP) and facilitates a 10/100BaseT Ethernet interface driven by user's Push-To-Talk (PTT).
- Easy operator configuration using web-based interface.
- Front panel indicators show configuration choice and operational status.

The architecture of the RoIP-850 is based on the design of TELEGRID's KYIP-750 device which adapts military encryptors – types **KY-57/ KY-58 (VINSON)** and **KY-99/ KY-100 (ANDVT)** – to IP-based networks and is currently in use by the US military and other Governmental agencies.



### ROIP-850 Concept of Operations

*Based on the design of TELEGRID's KY-57 Buffers  
fielded by the US Army and USMC.*

### Technical Specifications

Data Modes:	Analog, Digital Wide Band (WB), Digital Narrowband (NB)
Analog frequency range:	200 – 3400 Hz
Digital Data Rates:	WB = 16Kbps, NB = 2.4Kbps
Radio Connector:	DB-25 (M)
Ethernet Protocol:	10/100BaseT
Ethernet Connector – Voice/Data:	RJ-45
Ethernet Connector – Mgmt/Control:	RJ-45
Input Power:	80-264 VAC @ 47-440 Hz / DC Power Option Available
AC Power Connector:	Standard 3-prong IEC 320 C14 socket
Operating Temperature:	-40°C to +85°C
Relative Humidity:	0 to 90% non-condensing
Dimensions:	1/3 of 1U Rack Mount - 1.70" H x 5.65" W x 12.50" L
Weight:	3 lbs (including tray and AC power cord)
1/3 of 1U Rack Tray:	Included

### Security Specifications

Cryptography:	FIPS 140-2 Level 1
Encryption:	AES 128/256
Hashing Algorithms:	MD5, SHA1 and SHA256
Network Separation:	Independent Data and Management Network Operation
Secure Protocols:	HTTPS, SSH (v1 and v2), TLS v1.2
Public Key Infrastructure (PKI):	x509 Certificate Trusted Web Configuration Tool

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