INTEROPERABILITY GATEWAY
MULTI-CHANNEL VOICE INTERFACE

RELIABLE OPERATION FOR CRITICAL COMMUNICATIONS

The Interoperability Gateway is a software-based multi-channel codec module designed to interface the Internet Protocol (IP) digital network with analog equipment. Applications include connection to dispatch consoles and to analog voice base stations. In both cases, control of the Interoperability Gateway is implemented in software and may be customized easily for specific requirements.

FEATURES

The Interoperability Gateway is a multi-channel analog voice interface for P25^{IP}, OpenSky®, and NetworkFirst® packet-switched digital networks.

The gateway is a rack-mounted card cage designed to accept multiple VME circuit cards. It contains redundant integrated power supplies and provides forced ventilation for up to 3 Interoperability Gateway cards. Each card provides 4 audio interfaces for a total of 12 interfaces per chassis.

The Interoperability Gateway uses a VME-based backplane for power and signal routing, and offers rear mounting expansion slots for additional interface expansion.

DISPATCH CONSOLE INTERFACE

Each Interoperability Gateway receives and transmits packetized digital voice over an Ethernet interface for connection through a switch to the Voice, Interoperability, Data, and Access (VIDA®) network.

Interoperability Gateway modules offer a 4-wire balanced line level interface for the audio connection. Audio amplitude may be adjusted under software control, and signaling lines are opto-isolated and may be operated in "open collector" mode.

INTEROPERABILITY

When used to provide interoperability with other communications systems, network users are automatically connected to legacy system users by selecting them as desigated voice groups. This provides capabilities for cross-band inter-system operation.

In addition, the gateway supports the MDC-1200 signaling format for User ID and Emergency functions.

DIGITAL VOICE CODING

Digitized voice within the digital network is coded using AMBE® for OpenSky systems or IMBE™ for P25 systems. AMBE/IMBE digital voice is then encapsulated into IP packets and sent along with control messages into the IP digital network.

Additionally, the gateway supports the use of ADPCM for NetworkFirst systems and transmission of analog inputs to other VIDA products which support ADPCM.

HARRIS® TECHNOLOGY TO CONNECT, INFORM AND PROTECT™

GENERAL SPECIFICATIONS

Dimensions (H x W x D): 3.5 x 19.0 x 14.75 in.
(8.9 x 48.3 x 37.5 cm)

Rack:	Standard 19-inch, 2 rack units high
Total Card Slots:	4
Weight:	Approximately 13 lb (5.9 kg)

Interoperability Gateway Codec Module:
With analog base station interoperability supporting the OpenSky, P25^{IP}, and ADPCM vocoders

Connectors:

DB-15:	Isolated audio in/out and Tx/Rx signaling
RJ45:	Ethernet interface
USB:	Command line/monitoring
Status LEDs:	DSP, clock, power, interface, network

Audio:

Audio I/O:	Balanced transformer isolated
Line Impedance:	600/10K ohm selectable
Nominal Input Range:	-25 to +12 dBm
Nominal Output Range:	-25 to +10 dBm
Frequency Response:	300 Hz to 3.5 kHz ± 3.5 dB

GENERAL SPECIFICATIONS (CONT'D)

Communications:

Ethernet:	IEEE 802.3 compliant (10 Base-T and 100 Base-X)
USB:	38.4 kbps, ASCII ANSI-compliant terminal

Interoperability Gateway Chassis Interface:

Backplane Connectors:	VME
AC Power Module:	85 to 264 VAC (115-230 VAC nominal), 47-63 Hz
DC Power Module:	-36 to -72 VDC (-48 VDC nominal)
Current Consumption:	10A maximum
Cooling:	Redundant forced air with exhaust at rear of chassis

Environmental:

Operating Temperature:	-4 to +140°F (-20 to +60°C)
Storage Temperature:	-4 to +185°F (-20 to +85°C)
Humidity:	Not to exceed 95% and relative humidity at 122°F (+50°C)

Technical specifications are subject to change without notice. Product sales are subject to applicable U.S. export control laws.

About Harris Corporation
Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately $8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

FLORIDA | NEW YORK | VIRGINIA | BRAZIL | UNITED KINGDOM | UAE | SINGAPORE

HARRIS® TECHNOLOGY TO CONNECT, INFORM AND PROTECT™