

iOPT[®]

Digital Interoperability



 **TRIDENT**
MICRO SYSTEMS

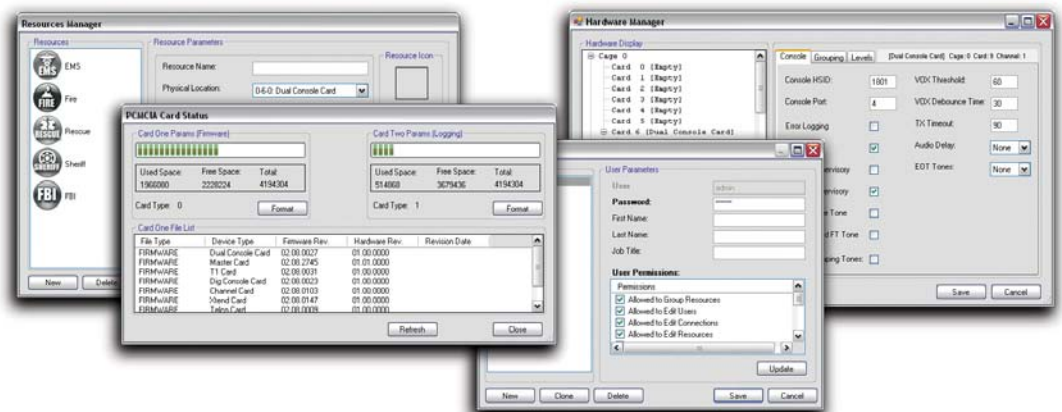
iOPT[®]

iOPT is an intelligent, digital DSP-based interoperability switch providing cross-connection capabilities to multiple radio resources. The hardware chassis with plug-and-play interface cards connects to existing repeaters, base stations, radio control stations, and more. Connections to various communications devices are unlimited (cell phones, intercoms, data devices, etc.).



iOPT Connect

The iOPT chassis and connected resources are controlled through iOPT Connect software. iOPT Connect software runs on Microsoft Windows 2000, XP, and Microsoft Server 2003. Multiple communication resources may be interconnected by simply dragging and dropping the icons that represent each resource into an iOPT Group window. If Fire, Police, and Utility have a need to communicate, the operator simply connects these resources by dragging and placing their representative icons into an iOPT Group window. Instantly, the three radio channels are connected. Everything spoken on the Fire channel is instantly heard on the Police and Utility channels, and vice-versa.



iOPT Chassis Models



Model
1630

Model
612

(shown with optional bezel)

iOPT is available in two chassis models. The iOPT Model 1630 is a 16-slot, rack-mount unit capable of supporting up to 30 independent resources. The iOPT Model 612 is a 6-slot, portable or fixed solution capable of supporting up to 12 independent resources. Model 612 may be rack mounted utilizing the available rack-mount bezel.

The iOPT Model 1630 may be connected to up to three additional 1630s, allowing connections for up to 126 independent resources. Multiple groups of four 1630s can be cascaded together to support over 65,000 independent resources.

iOPT Highlights

- Uses existing radio infrastructure, no need to buy new radios or repeaters
- Allows connectivity to any communications device that has transmit and receive audio
- Maintains a log of systems/channels connected together, including operator and time detail
- Works with all bands of radios
- Ideal for routine radio traffic as well as emergency radio traffic
- Customizable levels of User/Operator Access
- Remote access to hardware settings without having to physically access the equipment
- Real Time Display of resource keying
- Includes pre-configured resource icons with the ability to add your own
- Tailor the appearance of the graphical user interface to any organization with customizable wallpaper and colors
- Backup all hardware settings with simple and quick downloadable files

iOPT Application Cards

CPU Card

- Automatic Fault Recovery
- Full Redundancy Available
- Maintains Application Card Configuration
- PCMCIA Cards provide up to 128MB storage
- Alarm and Error Management and Reporting



Dual DSP I/O Card

- VOX Keying for non-COR devices
- 2 wire and 4 wire
- Digital Audio Delay for dissimilar systems
- DSP Digital Hybrid for Superior Audio Quality
- End-of-Transmission Tones for Resource ID



Network Link Card

- Two T1 Lines Per Card
- Supports Full or Fractional T1
- D4 and ESF Signaling
- Digital Voice and Data Transfer Between Sites



Specifications

iOPT 1630 Chassis:

Physical

Size	12.5"H x 19"W x 20.5"D
Weight	~60 lbs. All Chassis Slots Utilized
Mounting	19" Rack Mount - 3 Position Ears
Air Filter	User Serviceable
Cooling	Fan - Temperature Controlled

Electrical

Chassis available in DC or AC powered models	
AC Supply	89 to 230VAC @ < 3 Amps
DC Supply	12 to 14VDC 8 Amps min

Environmental

Operating Temp.	-10 to 60 Degrees Celsius
Humidity	90% Non-condensing

iOPT 612 Chassis:

Physical

Size	8.75"H x 12.375"W x 18"D
Weight	~60 lbs. All Chassis Slots Utilized
Mounting	19" Rack Mount Capable
Cooling	Convection Cooled

Electrical

Chassis available in DC powered model only	
DC Supply	12 to 14VDC 4 Amps min

Environmental

Operating Temp.	-10 to 60 Degrees Celsius
Humidity	90% Non-condensing

Trident Micro Systems is the industry leader in the design and manufacture of wireless communications infrastructure products.

Trident has implemented their many years of expertise in the development of two-way radio networking systems into the iOPT which is designed to provide communications interoperability for mission critical deployment.

Trident Micro Systems... setting the standard of performance since 1985.



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Application Cards:

All iOPT Application Cards are Hot Swappable. Card settings are automatically updated when card is inserted.

Service Port Connection (for diagnostics)

Baud Rate	19200 Baud, 8, 1, None
Interface Type	DB-9 Serial DTE
Terminal Emulation	ANSI-BBS Color

User Connection

Baud Rate	2400 to 57,600 Baud
Interface Type	DB-9 Serial DTE (optional Trident ES-2 provides Ethernet connectivity)

CPU Card

Controls up to 4 iOPT 1630 Chassis	Remote Firmware Upgrade
PCMCIA Cards - 2 up to 128MB FLASH	Remote and local configuration interface
Master Clock with Automatic DST adjust	Remote and Local Alarms
Controls up to 126 iOPT resources, simultaneously	

Dual DSP I/O Card

2 wire	Maximum transmit level: +3dBm
4 wire	Maximum Transmit level: +6dBm
Allows connectivity to most any communications device that has transmit and receive audio	
VOX keying for those devices that do not have COR connections	
Digital audio delay to accommodate handshakes of dissimilar trunking systems	
Allows for standard 4 wire E&M signaling	
Unique End-of-Transmission Tones to identify resource keying	

Network Link Card

Two T1 Connections per card	D4 or ESF
Maximum Transmit level: 0 dBm	AMI or B8ZS
Receive level dynamic range: +2dB to -22.5dB	Full or Fractional T1

Specifications subject to change without notice.

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