

ODIN

OMNEO Digital Intercom



The ODIN Digital Intercom is a highly scalable intercom system in a 1RU (Rack Unit) package. As your capacity needs to evolve, a single ODIN can grow from 16 ports to a maximum of 128 ports. A maximum of eight ODIN units can be interconnected via an optical Inter-Frame Link creating a single matrix with up to 1024 ports. The total number of licensed ports may be allocated freely to any port hardware type supported by the unit.

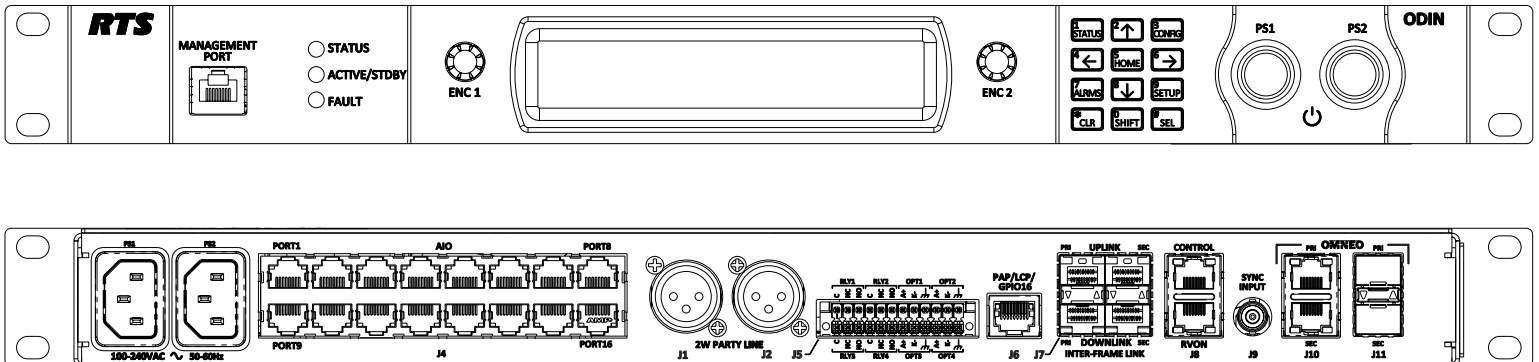
The front panel has been designed to incorporate a User Interface as an alternative option to AZedit that supports the most common setup and configuration tasks. The AZedit and IPedit software applications have been updated to support ODIN.

Featuring connectors for AIO, OMNEO and two-wire technology, ODIN supports keypanel technology going forward and, as always, RTS legacy keypanels. OMNEO is standard on RJ-45 connectors or is available using optional Optical Fiber SFP connectors.

Features

- A robust digital matrix in a compact 1RU space
- Built-in OMNEO technology
- Redundant power supplies
- Front panel user interface gives easy access to the most common configuration tasks to allow quick modifications to the system
- Energy-efficient design, uses less than 50W of power

Line Drawing



Specifications

Power Supply:

Type..... Locking IE320 C14 style connector
 (2 connectors, fully redundant
 load-sharing power supplies)
 AC Input..... 100VAC – 240VAC, 60/50Hz,
 0.5A / 0.35A

Maximum Power

Consumption 47W (based on 120VAC)

Note: Lighted power buttons on front panel control DC voltage feed to internal circuitry; they do not disconnect AC from the internal power supplies. Power cords must be fully removed from unit to safely disengage internal power.

Environmental:

Operating
 Temperature 32°F – 113°F (0°C – 45°C)
 Storage
 Temperature -4°F – 158°F (-20°C – 70°C)

Dimensions:

19" w/ rack ears (17.3" w/o rack ears) W x 1.7" H x 14.3" D (including connectors)
 (482.6 mm w/ rack ears [439 mm w/o rack ears] W x 43.7 mm H x 363.5 mm D [including connectors])

Weight:

ODIN Matrix..... 11.5lbs (5.2kg)
 Optional Mounting Bracket 0.86lbs (390grams)

AIO 4-Wire Analog:

Connectors 16 RJ-45 connectors
 Signal Format Differential RX/TX audio with differential RS-485 control data
 Wiring Scheme Both 568B & USOC supported
 A/D and D/A Resolution 24bits
 Max Input Level (balanced) +20dBu w/o clipping
 Digital Input Gain Programmable (-20dB – +20 dB)

Input Frequency

Response +1dB/-3dB from 200Hz – 20kHz
 THD+N (8dBu input, unity gain) 0.025% non-weighted@1kHz
 <0.075% non-weighted, 100Hz – 20kHz
 Nominal Input Impedance..... >22kΩ
 Nominal Output Level 8dBu
 Digital Output Gain Programmable (-20dB – 20dB)

Maximum Output

Level (balanced) @ 600 Ohms.....20 dBu w/o clipping
 Output Frequency
 Response +1dB / -3dB from 200Hz – 20kHz
 Output Noise Floor <-70dBu
 Crosstalk Isolation >80dB

2-Wire Party Line Analog:

Connector two 3-pin female XLR connectors
 Modes/Port supported RTS CH1, RTS CH2
 Audiocom (1 channel)
 Clear-Com (1 channel)

4W/2W Echo Return Loss >30dB

Unbalanced Operation (RTS/Clear-Com)

Output Level 0 dBu (nominal)
 Expected Termination Impedance 200 Ω
 Noise Contribution <-60 dBu
 THD+N (w/ nominal input) <0.5%, 200Hz– 8kHz
 Bridging Impedance..... >10kΩ
 CALL Signaling 20kHz (RTS mode)
 12VDC (Clear-Com mode)
 MIC KILL Signaling 24kHz (RTS mode)

Balanced Operation (Audiocom)

Output Level 0 dBu (nominal)
 Expected Termination Impedance..... 300Ω
 Noise Contribution <-60 dBu
 THD+N (with nominal input) <0.5%, 200Hz – 8kHz
 Bridging Impedance..... >10 kΩ
 CALL Signaling 20kHz (Audiocom mode)
 MIC KILL Signaling 24kHz (Audiocom mode)

General Purpose Input/Output Ports:

Relays

Type..... SPDT
 Contacts Common (C)
 Normally Closed (NC)
 Normally Open (NO)
 Contact Rating..... 1A @ 30 VDC

Inputs

Type..... Optically Coupled
 Input Voltage..... 5 VDC – 12 VDC on A+
Note: A+ is internally pulled to +5 VDC. Connect K- to chassis ground to activate.

PAP/LCP/GPIO Port:

Connector RJ-45
 Format RS-485 control data only (no audio)

Inter-Frame Link Port

(2 UPLINK/2 DOWNLINK):

Note: Supports expansion and connection of up to eight ODIN frames.
 Fiber Connector Type Small Form Factor Pluggable (SFP)
 Multimode Finisar FTLF8519P3BNL
 500m / 2.125Gbps
 Single Mode..... Finisar FTLF1421P1BTL
 15km / 2.67Gbps
 Speed 2Gbps
 LED Indicator Optical Signal Present
Note: SFF-8472 fiber diagnostics supported

Control Port:

Connector RJ-45
 Format IEEE 802.3 compliant
 Speed 10/100/1000 Mbps
 LEDs.....Speed and Link/Activity

Sync Input Port:

Connector BNC
 Termination Impedance 75 Ω
 Input Frequency Range 48 kHz ±25 ppm
 Input Level 5V TTL Compatible

OMNEO Port (primary and secondary):

Maximum Capacity 128 Full-duplex ports
 Copper Connector Type RJ-45
 Format IEEE 802.3 compliant
 Copper Ethernet Speed..... 100/1000 Mbps
 Fiber Connector Type Small Form Factor Pluggable (SFP)
 Multimode Finisar FTLF8519P3BNL
 500m / 2.125Gbps
 Single Mode..... Finisar FTLF1421P1BTL
 15km / 2.67Gbps
 Fiber Speed 100/1000Mbps
 LED Indicator Optical Signal Present
Note: SFF-8472 fiber diagnostics supported

TFT Display:

Active Area 120.10 mm (wide) x 18.77 mm (high)
 Dot Resolution 576 x 90 pixels
 Color Resolution 16-bit (64K) RGB color
 View Angle 80° (typical, all directions)
 Protective Lens Anti-Glare / Anti-Reflective

Front Panel Management Port:

Connector RJ-45
 Format IEEE 802.3 compliant
 Speed 10/100/1000 Mbps
 LEDs.....Speed and Link/Activity

Agency Compliance:

Emissions (Class A)

- EN 55032:2012/AC:2013
- KN32 w RRA Public Notification 2016-26 & RRA Announce 2016-79
- AS/NZS CISPR 32:2015
- VCCI-CISPR 32:2016
- ICES-003, Issue 6:2016, Updated April 2017
- FCC Part 15 Subpart B
- Chinese National Standard 13438 (2008)

Immunity

- EN55024:2010
- KN32 w RRA Public Notification 2016-26 & RRA Announce 2016-79

Safety

- UL 60950-1 and CAN/CSA C22.2 No.60950-1-07
- UL 62368-1
- Japanese PSE compliance

Order Information

Order No.	Description
ODIN16NOCORD	ODIN 16 no cord
ODIN32NOCORD	ODIN 32 no cord
ODIN64NOCORD	ODIN 64 no cord
ODIN128NOCORD	ODIN 128 no cord

Order No.	Description
ODIN16PORTUPG	ODIN 16 port upgrade
OM-SM SFP ODIN	Fiber module single mode ODIN
OM-MM FIBER	Multimode Fiber Module

The specification information is subject to change without notification. Brand names mentioned are the property of their respective companies.