



# 10G xPON 8-port MDU ONU with Voice



NOVA2208

for MDU and Business Subscribers

Deliver high ARPU premium business and MDU residential services with Hitron's NOVA2208 10G xPON 8-port MDU ONU with Voice. With a 10 Gigabit PON fiber interface, this powerful solution delivers speeds up to 10 Gbps\* downstream and 10 Gbps\* upstream. You can meet everyone's most bandwidth-demanding applications today and tomorrow, including telecommuting, HD and UHD video on demand, ultra high speed Internet access, voice, interactive media services and more.

## Flexible Fiber Options: 10G-EPON, XG-PON, and XGS-PON

Deploy the right solution for your network needs with support for IEEE 802.3av 10G-EPON, ITU-T G.987.2 XG-PON and ITU-T G.9807.1 XGS-PON.

## Voice Services

The NOVA2208 is a one-box solution for a wide variety of deployment options with eight FXS Voice ports. You can deliver reliable voice services to up to 8 residential subscribers or within a SMB deployment.

## 10G MDU/Business Networking

You can make sure your subscriber's LAN network makes full use of the 10G access speeds. The NOVA2208 supports one 10GigE and eight 2.5GigE ports. You can configure the 8 Ethernet ports to serve up to 8 different customers or apartments within a Multi-Dwelling Unit (MDU)\*\*.

## Key Features

- IEEE 802.3av 10G-EPON compliant
- ITU-T G.987.2 XG-PON compliant
- ITU-T G.9807.1 XGS-PON compliant
- DOCSIS DPoE 2.0 compliant
- One 1/2.5G/5G/10GBASE-T Ethernet port
- Eight 10/100/1000/2500BASE-T Ethernet port
- Eight FXS Voice ports
- Extensive operator control via configuration file and IEEE 802.3ah OAM

## Interfaces

- 1x SC-UPC/APC 10G Optical Port
- 1x RJ-45 1/2.5/5/10GBASE-T Ethernet Port
- 8x RJ-45 100/1000/2500BASE-T Ethernet Port
- 8x RJ-11 FXS Ports
- 1x IEC320-C14 Internal Power Supply (12V-5A) with ON/OFF switch

## xPON Uplink

- 1x SC/APC Connector, Single Mode Fiber
  - TX Wavelength: 1270 nm
  - TX Max. Output Power: 7 dBm
  - RX Wavelength: 1577 nm
  - Sensitivity Max.: -29 dBm
- Compliant with IEEE 802.3av 10G-EPON
- Compliant with ITU-T G.987.2 XG-PON
- Compliant with ITU-T G.9807.1 XGS-PON

## Advanced Features

- 10G-EPON (Choice of Protocol)
  - IEEE 802.3av (Clause 77) Compliance
  - IEEE 802.3ah (Clause 64) Compliance
  - CTC V3.0 Specification Compliance
  - 16 LLIDs in Multiple-LLID (M-LLID) Mode
    - Programmable VoQ per LLID
  - 8 Priority Queues (VoQs) in S-LLID Mode
  - Standard MPCP Protocol fully supported
- XG-PON/XGS-PON (Choice of Protocol)
  - 128 GEM-Port-ID/XGEM-Port-ID
  - 32-TCONT
- Layer 2 Switching, supporting up to 4K MAC addresses
- VLAN Tagging and Stripping with Priority Tag Support and QinQ Support for full 4K VLAN Range
- Jumbo Frame Support up to 12 Kbyte
- QoS Functions (DSCP/802.1p/TC Arbitrary Mapping to Queues and Flows)
- Per Flow Packet Policing and Per Queue Traffic Shaping
- Customizable QoS (with WRED) and powerful ACL support

## Voice

### General Voice Features

- SIP v2 Call, SIP v2 Call Control
- MGCP
- DNS SRV
- Hook Flash Event Signaling
- RTP Audio Transport
- RFC2833 RTP Payload
- SIP INFO
- InBand DTMF Mode
- HD Voice Ports with 16kHz sampling rates

### Voice Audio Codecs

- G.711 (a-law and mu-law)
- G.722 (HD codec)
- G.723.1
- G.726
- G.728
- G.729
- AMR (narrowband)
- Adaptive Jitter Buffer
- G.167 Acoustic Echo Cancellation

### FAX Relay Protocols Compliance

- T.38 Pass-through and over IP Fax/Modem Detection Control
- T.28 (IP) Compliant Group 3 and SG3 Fallback to Transport T.30
- V.34 Fax and Modem Bypass
- Automatic Fallback to G.711 support

### CLASS Calling Features

- Call Waiting
- Call Hold
- Call Resume
- Call Forward Unconditional, Call Forward on Busy
- Caller ID
- 3-Way Conference
- Call Consultant
- Call Transfer and Network-initiated Class Services - MWI messaging, VMWI via FSK

### Management

- IEEE 802.3ah OAM
- Web-based GUI Configuration and Management
- LEDs clearly display network status and activity
- Power On Self-Diagnostic

### Mechanical

- LEDs: Power, Alarm, Link, Activity
- Factory Default Reset Button
- Dimensions: 250mm(W)x44.5mm(H)x300mm(D)
- Net Weight: TBD

### Electrical

- Input Power: 12VDC
- Power Consumption: 36W
- Surge Protection: Ethernet RJ-45 sustains at least 4KV /  
Voice RJ-11 sustains at least 4KV

### Environmental

- Operating Temperature: 0°C (32°F) ~ 50°C (122°F)
- Operating Humidity: 5% ~ 95% (Non condensing)
- Storage Temperature: -20°C (-4°F) ~ 60°C (140°F)

\*10Gbps are theoretical speeds. Speeds measured in laboratory settings are 8.5 Gbps downstream and 8.4 Gbps upstream

\*\*Please note that the NOVA2208 does not come with built-in provisioning support for the 8 Ethernet Ports. To configure each LAN port for individual apartments or customers within an MDU, Internet Service Providers (ISPs) will need to utilize a dedicated provisioning tool.

Specifications subject to change without further notice. Product photo may differ.

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