

10G xPON ONT/ONU

with Voice Option

Hitron's NOVA2202, NOVA2204, NOVA2301 and NOVA2302 ONTs deliver reliable, high-performance fiber connectivity for residential and business deployments. Built on open industry standards and engineered for service-provider scale, these models give operators flexible deployment options—whether they need simple, high-speed bridging or advanced multi-port configurations for demanding applications. With consistent provisioning, carrier-grade reliability, and seamless integration into existing OSS/BSS and ACS systems, the NOVA lineup streamlines activation and ensures superior service quality across every install.

Flexible Fiber Options

Deploy the right solution for your network with versatile support across the NOVA product line. The NOVA2202 and NOVA2204 support IEEE 802.3av 10G-EPON, ITU-T G.987.2 XG-PON, and ITU-T G.9807.1 XGS-PON standards to match a wide range of fiber deployments. The NOVA2301 and NOVA2302 supports ITU-T XG-PON and XGS-PON, making it ideal for networks standardized on GPON and XGS-PON technologies.

Carrier-Grade Reliability and Operational Efficiency

The NOVA series is built for scale with support for TR-369/USP, TR-069, OMCI, and other open standards for easy integration into existing management systems. Operators can monitor and manage all models through HitronCloud or their current ACS, streamlining operations and improving visibility. With standardized firmware, consistent provisioning, and Hitron ProInstall, deployments are faster and more reliable from day one.

Key Features

- ITU-T G.987.2 XG-PON compliant
- ITU-T G.9807.1 XGS-PON compliant
- IEEE 802.3av 10G-EPON compliant
- DOCSIS DPoE 2.0 compliant
- One 1/2.5G/5G/10GBASE-T Ethernet port
- One 10/100/1000BASE-T Ethernet port (NOVA2202/2204/2302 only)
- Two FXS VoIP ports (NOVA2204 only)
- Extensive operator control via configuration file and IEEE 802.3ah OAM/OMCI

Features & Benefits

Flexible Models for Any Deployment

The NOVA2202, NOVA2204, NOVA2301 and NOVA2302 offer multiple port configurations and performance tiers, giving ISPs the right ONT for standard residential, connected home, and premium multi-gig services.

Standards-Based Interoperability

All models support TR-369/USP, TR-069, OMCI, and other open industry standards, ensuring seamless integration with existing OSS/BSS systems and simplifying multi-vendor environments.

Multiple PON Technologies in One Unit

The NOVA2202 and NOVA2204 supports 10G-EPON, XG-PON, and XGS-PON in a single ONT—ideal for operators transitioning access networks or running mixed-technology environments without hardware swaps.

10G-Ready Performance Options

With models supporting up to multi-gig and 10G speeds, the NOVA lineup enables operators to deliver faster, more responsive broadband experiences that drive customer satisfaction and long-term loyalty.

Voice-Enabled Model Options

The NOVA2204 includes built-in voice ports, giving ISPs the flexibility to deliver VoIP services alongside high-speed data for residential and business subscribers.

Compact, Carrier-Grade Design

All four models use a small, efficient form factor with carrier-grade thermal management and reliability, enabling easy placement in customer homes while delivering long-term durability and performance.

Strengthen your Service Offering

Cut Installation Time, Not Corners

Hitron ProInstall™ transforms the way technicians deploy Hitron ONTs and ONUs by simplifying every step of the installation process. With automated device recognition and real-time validation checks, ProInstall ensures faster, more accurate installs while reducing repeat truck rolls. Technicians get a clear, consistent setup experience, and service providers gain greater installation quality, improved first-time-right rates, and a smoother path to activating high-speed fiber services.

Real-Time Insights for Smarter Decisions

HitronCloud® transforms raw device telemetry into real-time, actionable insights that help ISP managers make faster, smarter operational decisions. By capturing rich PON performance data directly from Hitron ONTs and ONUs, the platform enables early detection of issues, proactive maintenance, and more predictable service quality at scale. And because Hitron's solutions support open industry standards, this telemetry can also be integrated into many existing ACS systems—giving operators the flexibility to manage their network through HitronCloud® or their current management infrastructure.

SPECIFICATIONS
NOVA2202
NOVA2204
NOVA2301
NOVA2302
Interfaces

- 1 x SC-APC 10G Optical Port (no UPC)
- 1x RJ-45 1/2.5/5/10GBASE-T Ethernet Port
- 1x RJ-45 10/100/1000BASE-T Ethernet Port
- 1x DC 12V Power Jack
- 2x RJ-11 FXS Ports


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 G987.2 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
 - 32 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)


Management

- ITU-T G.988 OMCI
- IEEE 802.3ah OAM
- Web-based GUI Configuration and Management
- LEDs clearly display network status and activity
- Power On Self-Diagnostic



SPECIFICATIONS
NOVA2202
NOVA2204
NOVA2301
NOVA2302
Mechanical

LED: Online



LED: Phone



Factory Default Reset Button


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


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


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


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

