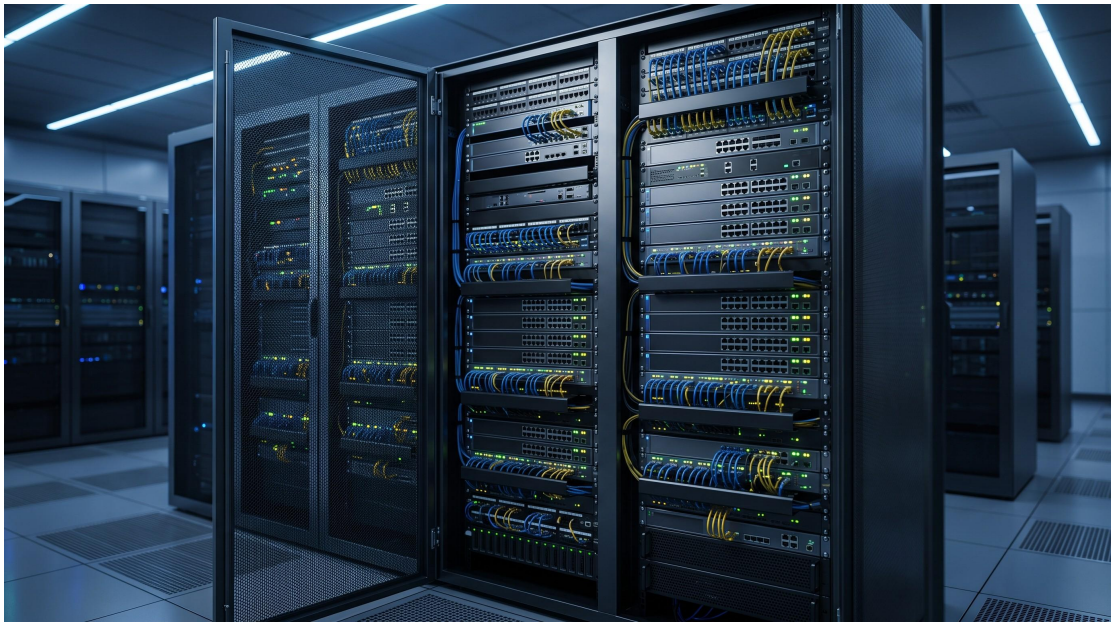
Nokia 7368 ISAM ONT Family Comparison Matrix - Official Technical Overview & Hardware Datasheet

EXECUTIVE SUMMARY

The Nokia 7368 Intelligent Services Access Manager (ISAM) Optical Network Terminal (ONT) portfolio constitutes a comprehensive carrier-grade fiber access termination family engineered for diverse deployment scenarios, ranging from high-density enterprise optical LAN environments to residential triple-play service delivery. As an integral element of the Nokia ISAM ecosystem, the 7368 series ensures seamless interoperability with the 7360 ISAM Optical Line Terminal (OLT) platform while providing a forward-compatible architecture that supports both GPON and XGS-PON access technologies . This comparison matrix consolidates the hardware specifications, interface configurations, and deployment positioning of representative models within the family, enabling network architects and procurement engineers to conduct accurate technical evaluations across the portfolio.



PORTFOLIO POSITIONING AND MODEL DIFFERENTIATION

The 7368 ISAM ONT family is structured around two principal deployment paradigms: enterprise optical LAN termination and residential subscriber premises connectivity. The enterprise-class U-00160CP-P establishes the high-density tier, delivering a 1RU rack-mountable chassis with sixteen 10/100/1000Base-T interfaces and dual expansion slots capable of accommodating additional interface modules for scaling to twenty-four ports . This configuration is optimized for campus backbone aggregation and passive optical LAN architectures where port density and Power over Ethernet (PoE) budget are critical selection criteria.

Conversely, the residential and small-business segment is addressed by compact, fanless desktop or wall-mountable ONTs including the XS-250WX-A,

XS-020X-A, G-241G-A, and G-240G-A variants . These models prioritize spatial efficiency, integrated Wi-Fi capability, and voice service termination, with the XS-250WX-A representing the most feature-rich residential gateway configuration, incorporating dual-band 802.11ac wireless, two POTS ports with integrated ATA, and a 10 Gigabit Ethernet user interface . The XS-020X-A addresses the data-only XGS-PON migration path with a streamlined single 10G Ethernet port configuration .

HARDWARE ARCHITECTURE AND INTERFACE CONFIGURATION

The architectural differentiation within the 7368 family manifests most clearly in the optical uplink and subscriber interface provisioning. The U-00160CP-P employs a pluggable SFP/SFP+ PON module supporting both GPON (2.488 Gbps downstream / 1.244 Gbps upstream) and XGS-PON (10 Gbps symmetrical) operation, thereby providing a field-upgradeable migration path without chassis replacement . The residential XS-series models similarly adopt XGS-PON compliant uplinks per ITU-T G.9807.1, with the XS-250WX-A and XS-020X-A both supporting 10 Gbps symmetrical line rates . The G-241G-A and G-240G-A, by contrast, are GPON-only devices compliant with ITU-T G.984, suited for legacy GPON access deployments requiring RF video overlay or voice service continuity .

Subscriber interface provisioning spans from the sixteen-port PoE-capable enterprise configuration of the U-00160CP-P to the four-port Gigabit Ethernet plus dual POTS arrangement of the G-241G-A and the data-centric 1/10 GigE plus 1 GigE pairing of the XS-020X-A . All models incorporate Layer 2 switching functionality with VLAN manipulation, IGMP snooping for multicast efficiency, and OMCI-based remote management per ITU-T G.988 .

KEY FEATURES

- PON Technology Flexibility: Pluggable SFP/SFP+ module architecture in the U-00160CP-P enables single-SKU support for GPON and XGS-PON, while XS-series models natively terminate 10 Gbps symmetrical XGS-PON per ITU-T G.9807.1.
- Enterprise PoE Capability: The U-00160CP-P delivers IEEE 802.3af/at PoE/PoE+ on all sixteen base ports with a 370W total power budget and per-port management, eliminating separate power provisioning for connected devices .
- Residential Triple-Play Integration: XS-250WX-A consolidates XGS-PON termination, dual-band 802.11ac Wi-Fi, two POTS ports with SIP interworking, and five Ethernet ports into a single desktop enclosure .
- Voice Service Continuity: G-241G-A and G-240G-A provide two POTS interfaces with CLASS services and T.38 fax support, maintaining legacy voice infrastructure compatibility in GPON deployments .

- Environmental Hardening: G-241G-A and G-240G-A are temperature-hardened for indoor operation from -5°C to 50°C and outdoor deployment within Nokia universal enclosures from -40°C to 60°C .
- Management Uniformity: All family members support OMCI (ITU-T G.988) remote management with FCAPS functionality, ensuring consistent operational workflows across mixed-technology deployments .

COMPLIANCE & STANDARDS

The 7368 ISAM ONT family demonstrates comprehensive alignment with international telecommunications and safety standards. PON layer compliance encompasses ITU-T G.984.x for GPON models, G.9807.1 for XGS-PON capable units, and G.988 for OMCI management across the portfolio . Ethernet functionality adheres to IEEE 802.3ah (EFM OAM), 802.1Q (VLAN), and 802.1p (CoS) specifications. Safety and electromagnetic compliance include CE Mark, UL 60950-1, and FCC Part 15 Class A/B certification where applicable. The U-00160CP-P additionally incorporates 4kV surge protection on its power interface, reflecting its positioning for enterprise and campus environments where electrical resilience is a deployment prerequisite .

TECHNICAL SPECIFICATIONS

Parameter	U-00160CP-P	XS-250WX-A	XS-020X-A	G-241G-A
Deployment Class	Enterprise Optical LAN	Residential Gateway	Residential Data	SMB / Hospitality
Form Factor	1RU Rack-Mountable	Desktop / Wall-Mount	Desktop / Wall-Mount	Desktop / Wall-Mount
PON Technology	GPON / XGS-PON (Pluggable)	XGS-PON (G.9807.1)	XGS-PON (G.9807.1)	GPON (G.984)
Downstream / Upstream Line Rate	2.488G / 1.244G or 10G / 10G	10G / 10G	10G / 10G	2.488G / 1.244G
Ethernet User Ports	16 × 10/100/1000Base-T (expandable to 24)	4 × GigE + 1 × 1/10GigE	1 × GigE + 1 × 100M/1G/2.5G/5G/10G	4 × 10/100/1000Base-T
PoE Capability	IEEE 802.3af/at, 370W budget	Not applicable	Not applicable	Not applicable
POTS / Voice Ports	None	2 × POTS (integrated	None	2 × POTS

		ATA/SIP)		
Wi-Fi	None	Dual-band 802.11b/g/n + 802.11ac	None	None
RF Video Port	None	None	None	1 × RF Coaxial (135 channels)
Management	OMCI (G.988), SNMP	OMCI, TR-069, Nokia AMS	OMCI, Nokia AMS	OMCI, TR-069
Power Consumption	< 530W (PoE included)	< 14W	< 14W	< 8.2W
Operating Temperature	-5°C to 45°C	-5°C to 45°C	-5°C to 45°C	-5°C to 50°C (indoor) / -40°C to 60°C (outdoor enclosure)
Primary Application	Campus POL, high-density aggregation	FTTH triple-play with 10G	FTTH data-only XGS-PON	GPON voice/data/RF video

ORDERING AND DEPLOYMENT CONSIDERATIONS

Procurement differentiation within the 7368 family should be governed by three primary axes: PON technology roadmap, port density and PoE requirements, and subscriber service profile. Organizations planning GPON-to-XGS-PON migration without infrastructure replacement should prioritize the U-00160CP-P for enterprise aggregation and the XS-250WX-A or XS-020X-A for residential XGS-PON service introduction. Deployments requiring legacy GPON compatibility with RF video overlay or voice continuity should evaluate the G-241G-A or G-240G-A, which maintain full compliance with the installed 7360 ISAM OLT base. The U-00160CP-P warrants selection where PoE-powered devices (IP cameras, wireless access points, VoIP handsets) are co-located with optical LAN termination, eliminating the capital and operational expense of separate power injection infrastructure .

