

Nokia 7360 ISAM FX

ETSI

The Nokia 7360 Intelligent Services Access Manager (ISAM) FX is a high-capacity access node that addresses mass-market fiber deployments. It meets the Gigabit bandwidth demand of residential and business users today and can smoothly evolve to next-generation fiber technologies to meet the demands of tomorrow. The Nokia 7360 ISAM FX simultaneously supports point-to-point and multiple Passive Optical Network (PON) technologies. High-bandwidth service throughput is enabled by market-leading switching and uplink capacity and backplane technology that provides non-blocking connectivity to each user port.

The Nokia 7360 ISAM FX is available in three size variants (FX-4, FX-8 and FX-16) suitable for all types of fiber networks — from hundreds of subscribers on FX-4 to thousands of subscribers on FX-16. Service providers have maximum flexibility for deploying a fiber access node in the central office, outside plant cabinet or other remote environments. All 7360 ISAM FX shelves are ready to support any future fiber-based access application with full flexibility for mixing Gigabit Passive Optical Network (GPON), 10G Ethernet Passive Optical Network (10G EPON), 10 Gigabit symmetrical and asymmetrical PON (XGS-PON dual rate), Time and Wavelength Division Multiplexing PON (TWDM-PON) and point-to-point access technologies on the same platform. As a result, operators are not locked in to a certain fiber access technology or shelf density; they can choose to deploy different options based on techno-economics, local regulations or services offered.

The Nokia 7360 ISAM FX is part of the ISAM product family, using the same software stream and supported by the same Nokia 5520 Access Management System (AMS) and the Motive Network Analyzer - Fiber.



7360 ISAM FX-16



7360 ISAM FX-8



7360 ISAM FX-4

Features

- High-capacity backplane: 2 x 100 Gb/s per slot
- 4-slot (FX-4), 8-slot (FX-8) and 16-slot (FX-16) shelf options
- Simultaneous support of multiple fiber access technologies
- High-density GPON, 10G EPON, XGS-PON, TWDM-PON and point-to-point support
- Support of universal next-generation PON (universal NG-PON) for cost-efficient introduction of 10 Gb/s symmetrical and asymmetrical services with XGS-PON and easy evolution to full TWDM-PON on the same platform and line card
- Residential, mobile and business applications converged on a single platform
- IP/Ethernet access platform supporting Multiprotocol Label Switching (MPLS)
- Advanced traffic management for premium video delivery

Benefits

- Secure investment with system capacity that enables high bandwidth next-generation technologies such as XGS-PON and TWDM-PON
- Shelf-size options that support any network size or deployment model in a central office or outside plant
- One ISAM family: Any technology, any service, any deployment model results in lower cost and time to market when deploying new ISAM technologies
- Commonality of software, line cards and deployment practices across the ISAM family
- Supports existing practices and proven ISAM technology
- Allows multiple service providers to offer their services over a single network using an open access platform
- Complete management suite with the Nokia 5520 AMS and Motive Network Analyzer - Fiber

Technical specifications

Full service platform

- Multiservice access support
 - IPTV services
 - Multimedia service
 - High-speed Internet access
 - Business access
 - Cell-site backhaul
- LT support
 - Gigabit PON (GPON) line cards
 - 10G Ethernet PON (EPON) line card with DPoE
 - Point-to-point fiber line cards
 - Universal NG-PON line cards
- Network Termination (NT) support:
 - Nokia ISAM FANT-F
 - 480 Gb/s switching matrix (bidirectional)
 - Active/Active redundancy
 - 160 Gb/s uplink capacity
 - Small Form Factor Pluggable SFP+ cages
 - Nokia ISAM FANT-G
 - 1.28 Tb/s switching matrix (bidirectional)
 - Active/Active redundancy in the data plane and Active/Standby in the control and management plane
 - 360 Gb/s uplink capacity
 - C-Form Factor Pluggable (CFP4)

Management

- Fully managed by the Nokia 5520 AMS
- DOCSIS Provisioning over EPON (DPoE)

Eco-sustainability

- Product lifetime maximized by modular, shelf-based concept and by implementing new features and functionalities through remote software download

- Power consumption targets Code of Conduct (CoC) power consumption limits
- Compliant with the European directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS)
- Product collection and treatment under Nokia responsibility complies with the national laws on product treatment applied at the end of life for Wastes from Electrical and Electronic Equipment (WEEE), implementing the European Directive (2002/96/EC)
- Product packaging materials are free from hydrochlorofluorocarbon (HCFC)
- Plastic product packaging material is marked according to ISO 11469, referring to ISO 1043 (97/129/EEC)

Standards compliance

- Environmental
 - ETS EN 300 019-1-1 storage – Class 1.1 weather-protected, partly temperature-controlled locations
 - ETS EN 300 019-1-2 transport – Class 2.3 public transportation
 - ETS EN 300 019-1-3 stationary use – Class 3.1E and Class 3.3 (assuming no condensation and icing)
 - GR-63-CORE
 - TP76200MP
 - GR-3108-CORE
- Powering
 - ETS EN 300 132-2
- Protection
 - ITU-T K.20 enhanced and K.45 basic
- Safety
 - IEC 60950, EN60950 Class 1, AS/NZS 60950.1
 - UL/CSA 60950-1-03
 - EN 60950-1

- EMC
 - ETS EN 300 386 for telecommunications center installation environment
 - ETS ES 201 468
 - GR-1089-CORE
 - FCC part 15 Class A
 - EN 55022
- Acoustic noise
 - ETS 300 753

Operating conditions

- Operating temperature range: -40°C to +65°C (-40°F to +149°F)
- Relative humidity: 5% to 93% (non-condensing)
- Over-temperature sensors and over-temperature shutdown

Power

- Input
 - 48/60 V DC nominal
 - Fully redundant power feeding (branch A and B)

Dimensions

- FX-16
 - Height: 622.5 mm (~14 RU)
 - Width: 497.4 mm; can be used in ETSI-sized 600 x 300 mm racks
 - Depth: 280 mm
- FX-8
 - Height: 355 mm (8 RU)
 - Width: 446.5 mm; can be used in 19-in. racks
 - Depth: 278.3 mm
- FX-4
 - Height: 222 mm (5 RU)
 - Width: 446.5 mm; can be used in 19-in. rack
 - Depth: 278.3 mm
- Rack-mounting pitch of 25 mm



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