Motorola SF24210

Desktop Intelligent Fiber-to-the-Premises (FTTP) Services Platform

Overview:

The Motorola SF24210 Desktop ONT is an ITU G.984-compliant GPON intelligent optical network terminal (ONT). It is designed to deliver a full range of advanced voice, data and video services over an all-optical ultra-broadband access network.

Using the SF24210 compliant GPON optical network terminal (ONT), operators can build upon the power of a fiber infrastructure to bring advanced IPTV and packet-based video services directly to the home. In conjunction with the high-density Motorola AXS1800™ and AXS2200™, the SF24210 becomes the next generation service delivery point into the home, enabling operators to deliver multiple revenue generating services over a single fiber passive optical network (PON). Based on open standards and leveraging a highly flexible design, the Motorola SF24210 addresses the demand for ultra broadband services. It can be configured to seamlessly deliver quality voice-over-IP and high speed Internet access – via a single fiber optic connection to the home. The SF24210 also supports interactive services by integrating upstream signals from Motorola's widely deployed family of IP set top terminals.

Highlights include:

- Enables the delivery of IPTV - voice, video and data-services over a single fiber GPON
- Provides Internet access at speeds up to 600Mbps sustained and 800Mbps burst over Ethernet
- Provides 1x GE and 3x 10/100 Ethernet ports
- Supports interactive packet-based video and IPTV with Ethernet
- Enables easy installation supported through pre-provisioned service profiles
- Provides a cost-effective, scalable solution for initial rollout or full deployment

With the SF24210, service providers can:

- Provide tiered broadband data services from kbps to multi-Mbps
- Offer transparent TDM and VoIP telephony
- Provide video delivery via a single origination point, enabling IPTV services such as HDTV, VOD and digital video recording (DVR) as well as on-line gaming

Features and Benefits

Flexibility

Revenue growth and building a powerful defense against competitors are key reasons service providers need to consider the deployment of next generation fiber access technologies. Multi-service delivery over a single converged FTTP and FTTN platform provides the flexibility to offer "triple play" and additional advanced IPTV services. The converged platform provides revenue generating services and allows service providers to take advantage of improved deployment economics and greater operational simplicity.

Interoperability:

The SF24210 is in compliance with industry standard FSAN and ITU-T G.984 specifications to allow interworking with third party vendors. The SF24210 is also designed to interoperate with Motorola's line of combination RF/IP set top terminals.

Management:

The AXS1800 and AXS2200 FTTP and FTTN access networks and SF24210 are managed by a comprehensive element management system that enables visibility into system performance, service continuity, service provisioning, maintenance and upgrades from a single operations center.

Specifications:

Physical Description*

- Height: 6.1" (15.5 cm), Width: 7.7' (19.5 cm)
- Depth: 1.2" (3.1 cm)
- Weight: .9 lbs. (400 grams)
- Mounting: Desktop or Wall Mounted (via optional fiber slack storage unit)

* not including fiber management

Power Supply

- ONT Input Voltage: +12Vdc, 15 Watts (maximum)
- Power Supply Input Voltage: 100 to 240 VAC, 50/60 Hz.

Interface Configuration

Data Interfaces:

- Provides 1x GE and 3x 10/100 Ethernet ports, RJ-45 connectors

Voice Interfaces:

- 2 POTS

Video Interface:

- 75-ohm F-type connector +18dBmV.

Network Interfaces

Optical:

- GPON: 2.488 Gbps downstream, 1.244 Gbps upstream
- Operating Wavelengths:
  1490 nm voice/data receive
  1550 nm video receive
  1310 nm voice/data transmit
- SC/APC connector

Power Interface

- 2 position round connector, 12 V DC power jack
- 9 Pin Din Connector
- Supports separately orderable Uninterruptible Power Supply that provides for up to four hours of power outage support on a standard 4.5Ah battery

Environmental

- Operating Temperature: 0°C to +40°C ambient
- Storage Temperature: -25°C to +55°C
- Operating Humidity: 5% to 95% RH

Regulatory Compliance

- US/Canada: UL 60950-1
- Europe: EN 60950-1
- CB: IEC 60950-1:2001
- Emission/Immunity: ETSI EN 300 386 Class B, FCC CFR47 Part 15 Class B
- Lightning Surge: ETSI EN 61000 4-5
- Stationary use: ETSI EN 300 019-2-3 Specification T 3.2
- Transportation conditions (optional): EN 300 019-2-2, specification T 2.3
- Storage: ETSI EN 300 019-2-1, Specification T1.2
- Sustainable development: WEEE 2002/96/EC, RoHS 2002/95/EC
- International Standards Compliance:
  EMEA: RoHS and WEEE, Uniquemarkings/labeling EMEA (ETSI), CE Mark, C-tick Mark, CCC Mark
- Laser Safety: 21CFR1040, CE Mark EN60825-1/2

Protocols

- ITU-T G.984.1, G.984.2, G.984.3, G.984.4, GEM Mode
- IGMP v2 (RFC 2236) and IGMP v3 (RFC 3376)
- IEEE Std 802.1D bridging and learning, traffic class expediting & dynamic multicast filtering (Annex H)
- IEEE 802.1Q Virtual LAN with 8 levels of priority
- RFC 1886, RFC 2460, RFC 2463, RFC 2464, RFC 2474, RFC 3513, RFC 3587 RFC 3261, RFC 3262, RFC 3263, RFC 3264, RFC 3265, RFC 3311, RFC 3325, RFC 3515, RFC 3840, RFC 3842, RFC 3891, RFC 3911, RFC 3959, RFC 3966, RFC 4028, RFC 4235, RFC 4412
- SNMPv3
- IEEE 802.3-2005
- IEEE 802.1ad Provider Bridges

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