ALCATEL-LUCENT
7342 ISAM I-241G-B
RESIDENTIAL INDOOR ONT

The Alcatel-Lucent 7342 Intelligent Services Access Manager (ISAM) I-241G-B Residential Indoor Optical Network Terminal (ONT) provides 4 Gigabit Ethernet (GigE) and two plain old telephone service (POTS) interfaces. It terminates a full service access network (FSAN)-compliant gigabit passive optical network (GPON) fiber interface and is designed to deliver triple play services with high bandwidth capacity.

FEATURES

- Four RJ-45 10/100/1000 Ethernet ports
- Two POTS ports for carrier grade voice services
- RF interface for video services
- Network demarcation for all services
- Voice interworking function from the analog POTS lines to the voice over IP (VoIP)/Ethernet layers
- Interworking functions between the GEM and Ethernet layers
- Optical to electrical conversion
- Optics that support received signal strength indication (RSSI)
- G988 standard and revised compliant OpenManage Client Instrumentation (OMCI) interface for ONT management and provisioning
- Flexible powering options – local, with or without battery backup
- Support for media access control (MAC) and IP anti-spoofing
- Removable fiber storage tray
- Compliant with 7360 ISAM FX, 7342 ISAM Fiber to the User (FTTU), 7302 ISAM FD

BENEFITS

- Delivers connectivity to Ethernet devices within the home
- Supports full triple play services including voice, video, and high-speed Internet access
- Allows service per port configurations
- Can be used as the demarcation point in an open business model
- Supports IP video distribution
- Delivers voice services using VoIP
- Supports T.38 fax services
- Delivers video services efficiently with multicasting or unicasting
- Full range of fault management, configuration, accounting, performance, and security (FCAPS) functions
- Network management using the Alcatel-Lucent 5520 Access Management System (AMS)
- Internet Group Management Protocol (IGMP) snooping
- Flexible video delivery options enable service providers to start with RF overlay and migrate to IPTV

APPLICATIONS

This indoor ONT is designed to deliver triple play services (voice, data and video) to residential subscribers. Voice services are provided through two POTS ports, by using an integrated ATA that converts voice traffic into Session Initiation Protocol (SIP) or H.248. Connectivity to an existing public switched telephone network (PSTN) Class 5 switch is supported through a voice gateway (GenBand) or through SIP with direct interoperability to a variety of soft switches. Ethernet connectivity is available on four GigE ports, both of which have the ability to burst up to a full gigabit dynamically.

Service providers can deliver video using RF overlay or as IP packets (IPTV). RF overlay allows video to be distributed to any television set without investing in a set-top box. If a service provider chooses to offer IPTV, the service provider can distribute IPTV signals.

TECHNICAL SPECIFICATIONS

Physical
- Height: 1.3 in. (33 mm)
- Width: 8.2 in. (208 mm)
- Depth: 5.6 in. (142 mm)
- Weight: 1.25 lb (0.57 kg)
- Wall or desk mount

Operating environment
- Temperature: 32°F to 104°F (0°C to 40°C)
- Humidity: 5% to 85% relative humidity

Power requirement
- Local powering with 12 V input (feed uses external AC/DC adapter)
- Dying gasp support
- Power consumption: Less than 10 W

Safety and electromagnetic interface (EMI)
- Protection of over voltage/current

GPON interface
- 1490 nm wavelength downstream, 1310 nm wavelength upstream
- 2.488 Gb/s line rate downstream, 1.244 Gb/s line rate upstream
- G.984 support for GPON interface (framing)
- G.984.3 support for activation with automatic discovery of a serial number and a password
- G.988 (standard and revised) support for OMCI interface for ONT management and provisioning
- Supports single T-CONT mode and multiple T-CONT modes
- Small form factor (SFF) type laser, SC/APC connector
- AES-128 decryption with key generation and switching

Ethernet
- 10/100/1000Base-T interface with RJ-45 connectors
- Ethernet port auto negotiation or manual configuration
- Medium dependent interface/crossover (MDI/MDIX) automatic sensing
- Hardware priority queues on the downstream direction in support of class of service (CoS)
- Virtual LAN (VLAN) tagging/detagging per Ethernet port
- 802.1p mapper service profile on the upstream
- IGMP snooping/proxy
- Broadcast/Multicast rate limiting
- MAC address limiting
- Priority and rate controlled scheduling

POTS interface
- RJ-11 connectors
- Balanced ring, 55 V RMS
- 5 REN per line
- Dual-tone multi-frequency (DTMF) dialing
- Echo cancellation
- Voice activity detection (VAD) and comfort noise generation (CNG)
- SIP (RFC 3261)
- H.248
- Real-time Transfer Protocol (RTP) (RFC 3550 and RFC 3551)
- Supports voice services using SIP with G.711, G.729 (A and B), and G.723.1 codecs

RF video service interface
- Coaxial port (75 W F connector)
- Operating RF bandwidth: 47 MHz to 870 MHz
- Video output power: 18 dBm V

LED
- Power
- WAN
- Alarm
- LAN (1~4)
- Voice
- Video
- Link
- Mode

Regulatory compliance
- UL 60950-1 • FCC Part 15, subpart B
- ISE-003

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