



ULC-1000MSAN

Multi-Service Access Node High Density, High Capacity MSAN Systems

Description

Keeping with the current trend of full integration IP and broadband, OPNET Technologies presents ULC-1000MSAN, a high density, high capacity Multi-Services Access Node. It can be configured to deploy a wide range of narrowband and broadband services, to subscriber over a copper or optical fiber wire-line network infrastructure.

The ULC-1000MSAN can be deployed in central office as well as remote outdoor node applications. It enables migration from legacy PSTN TDM based network to IP-Based Next Generation Network (NGN). It provides operators with maximum flexibility for service access, enabling efficient and effective deployment of new services without the need for additional investment in infrastructure.

- ◆ Combination of Traditional TDM Services and IP-Based NGN Services in a Single Universal Platform
- ◆ Integrate High speed and Reliable Transmission System
- ◆ High Density, Flexible and Scalable Modularized System Design
- ◆ Comprehensive NMS Features for Access Network Management
- ◆ An easy way of migration from TDM network to NGN network
- ◆ Key applications critical to consumers by a single platform
- ◆ Protect the values of existing equipment investment
- ◆ Lower capital investment and network operation cost
- ◆ Increase Average Revenue Per User (ARPU) by introducing new value-added services

Main Feature

◆ TDM-Based Features:

- Open PSTN interfaces: V5.2 and 2-wire analog, connections to any LE switch for TDM POTS applications
- E1/T1 PBX Trunk Line Interface
- ISDN-PRA E1/T1 PBX Trunk Line Interface
- DS0 level fully non-blocking cross-connect and grooming

◆ VoIP Access Features:

- Comply with standardized IP-based control protocols, H.248v2 / SIP
- Bi-directionally convert voice formats between TDM-based PCM payload and IP-based G.711, G.723, G.726 or G.729 payload
- Echo-cancellation mechanism
- Voice Activation Detection (VAD)
- Comfort Noise Generation (CNG)
- T.38 Fax over IP functionality
- Gateway between ISDN PRA and IMS SIP Protocol
- Gateway between E1/T1 CAS and IMS SIP Protocol

◆ Broadband Access Features:

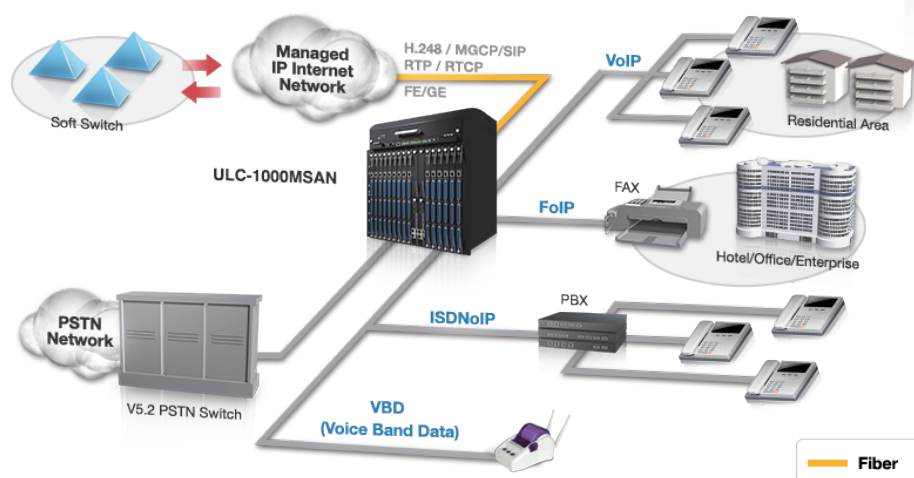
- Variety of xDSL Access Interfaces: ADSL / ADSL2 / ADSL2+ / VDSL2
- Variety of Network Interface: Fast Ethernet (FE) or Gigabit Ethernet (GE), Electrical or Optical Interface
- Integrated L2 Switch Features for Advanced Data Services
- Built-in POTS Splitter on board to simplify MDF cross-connection

◆ Scalable System Capacity from Small, Medium to Large Network Management and Maintenance

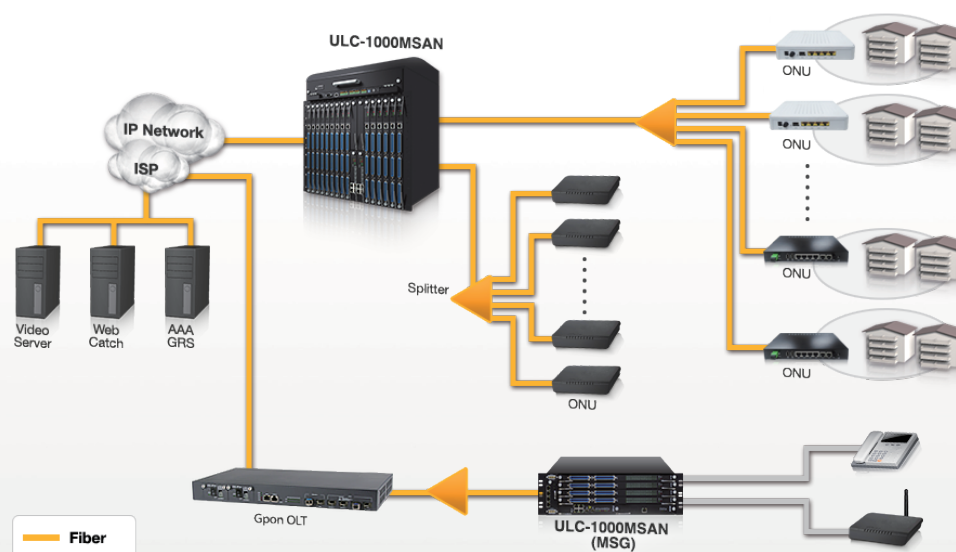
- Comprehensive network management Features: CM, PM, FM, SM and Inventory
- Management for overall Access Network
- Integrate line testing features for easy maintenance
- Scalable management capacity for different size of access network
- User friendly interface for easy operation

Application

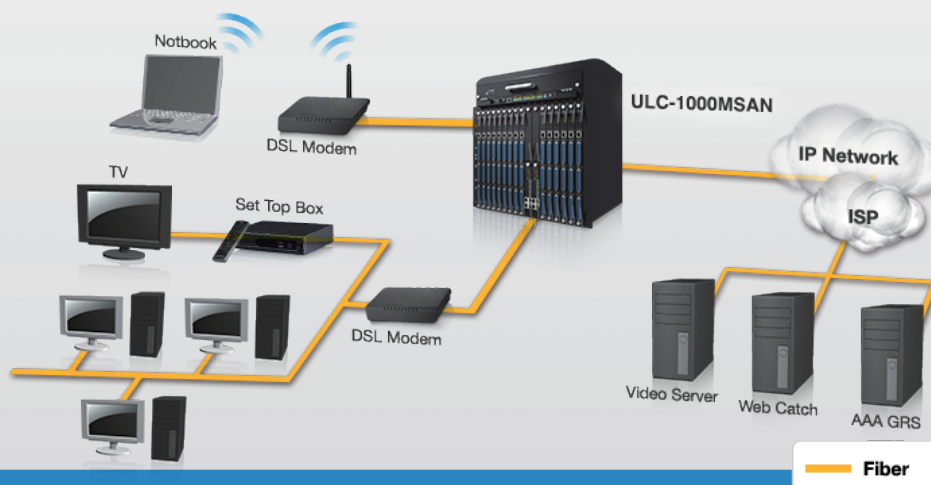
Telephony Service



FTTH, GPON OLT/ONU Applications



Broadband Application - Triple - Play



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Broadband Application - Virtual Private Network Service



Specifications

Uplink Interface

- ◆ Gigabit Ethernet Optical, 1000Base-SX, LX, LH, ZX, SFP Module
- ◆ Gigabit Ethernet Electrical, 100/1000Base-T

Common Units

- ◆ CPUC: Central Process Unit, System Control and Traffic Uplink
- ◆ MGUM: Media Gateway Unit, VoIP Protocol (H.248/MGCP/SIP) Process Unit

Subscriber Line Interface and Units

UNIT

RI-POTS2	48-port FXS POTS line card
RI-POTSCA	72-port FXS POTS line card
ATU-C2	48-port ADSL/2/2+ line card
ATU-CS	48-port ADSL2+ Line Interface with built-in Splitter
VTU-C	24-port VDSL2 line card
VTU-CS	24-port VDSL2 line card with built-in splitter
PRI12S	12-port ISDN PRA E1/T1 line card
TDMoE8	8-port E1/T1 Pseudo Wires line card
TDMoE12	12-port E1/T1 Pseudo Wires line card

Subscriber Line Card Connection

- ◆ Telco50, 25-pair RJ-21 connector

Management Interfaces

- ◆ 1 x RS-232 DB-9 console port
- ◆ 1 x FE RJ-45 EMS out-band management
- ◆ Support In-band management
- ◆ 2 x RJ-45 Alarm contacts I/O

Operating Environment

- ◆ Operating conditions: -10 to 60°C(14 to 149° F)
- ◆ Non-Operating conditions: -10 to 85°C(14 to 185 °F)
- ◆ Relative Humidity: 5 to 95 %
- ◆ Storage Humidity: 5 to 95 %

Regulatory Compliance

- EMC: CE: EN550221 class A & EN300386 V1.3.2
- Safety: EN60950-1
- MTBF: 55,000 hours

MSA Chassis Dimensions

- 486*340*477 mm, 13U Height
- 4 Common Unit slots, 15 Service Slots
- Weight: ~40Kg (Full equipped)

MSB Chassis Dimensions

- 486*340*572 mm,, 7.5U Height
- 2 CPUC slots, 2 MGUM slots, 8 Service Slots
- Net weight: 15kg; Weight (Full equipped): ~25Kg

MS7 Chassis Dimensions

- 483*362*222 mm, 5U Height,
- 1 CPUC slots, 1 MGUM slots, 7 Service Slots
- Net weight: 10kg; Weight (Full equipped): ~20Kg

MSE Chassis Dimensions

- 594*314*196 mm, 4.5U Height
- 1 CPUC slots, 1 MGUM slots, 5 Service Slots
- Net weight: 9kg; Weight (Full equipped): ~15.5Kg

MSG Chassis Dimensions

- 487*314*135 mm, 3U Height
- 1 CPUC slots, 1 MGUM slots, 4 Service Slots
- Net weight: 6.8kg; Weight (Full equipped): ~15Kg

MSM Chassis Dimensions

- 487*320*112 mm, 2.5U Height
- 1 CPUC slots, 2 Service Slots
- Net weight: 7.6kg; Weight (Full equipped): ~11Kg

Power Requirement: -42 ~ -60VDC

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