BBS 1000+

CARRIER GRADE OPTICAL ACCESS PLATFORM

COMPACT GIGABIT ETHERNET PASSIVE OPTICAL NETWORK (GEPON) PLATFORM DELIVERS VOICE, HIGH-SPEED DATA AND VIDEO SERVICES TO RESIDENTIAL AND BUSINESS SUBSCRIBERS

- **IEEE 802.3ah GEPON**
- **32 SPLITS, 20KM REACH**
- **64 SPLITS,10KM REACH**
- **UP TO 512 SUBSCRIBERS SERVED IN COMPACT 1U CHASSIS**
- **ADVANCED L2/L3 FUNCTIONS**
- **DYNAMIC BANDWIDTH ALLOCATION**
- **INDIVIDUALIZED BILLING PER SERVICE LEVEL AGREEMENT**
- **MULTICAST SUPPORT FOR VIDEO STREAMING**
- **REMOTE PROVISIONING AND MANAGEMENT**
- **ADVANCED SECURITY**

UTStarcom's BBS 1000+ Optical Line Terminal (OLT) provides a direct optical interface to the Ethernet/IP network core. Together with UTStarcom's various Optical Network Unit (ONU), it completes FTTH with up to 1 Gbps of bandwidth to residential and business customers. Combining the economic benefits of Ethernet Passive Optical Network (GEPON) with built-in L2/L3 switching and routing functionalities, the BBS 1000+ is an optimal transport platform for bandwidth-intensive triple play services.

KEY BENEFITS

Cost-effective Triple Play Transport

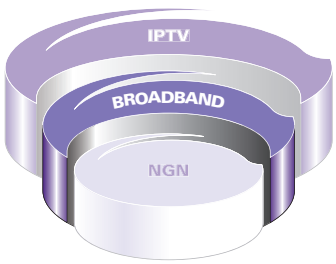
BBS 1000+ supports up to 8 PON links, each delivering 1 Gbps of shared bandwidth among up to 64 subscribers, serving a maximum of 512 subscribers from a compact 1U chassis. High subscriber density and low cost of entry, combined with the operational cost savings of passive GEPON technology make BBS 1000+ a compelling alternative to legacy, last-mile access solutions.

Customized Broadband Service Offerings

BBS 1000+'s QoS features allow operators to oversubscribe bandwidth while protecting delay-sensitive traffic based on individualized Service Level Agreement (SLA). Dynamic bandwidth allocation enables operators to bill bandwidth in 1 Mbps increments. For video services, IGMP support allows for multicast control and ensures efficient utilization of network infrastructure.

Easy Provision, Rapid Revenue Generation

Powerful OAM functions enable remote diagnostics, flexible provisioning, and reconfiguration of the BBS 1000+ platform.



Technical Specifications

HARDWARE

MAIN CHASSIS

PHYSICAL DIMENSION	482.6mm (W) x 280mm (D) x 43.6mm (H)
WEIGHT	12 Pounds with no SFP
POWER CONSUMPTION OF EACH OLT MODULE	Maximum 30 Watts
POWER CONSUMPTION OF CHASSIS WITH TWO OLT MODULES	Maximum 100 Watts
POWER SUPPLY	2 hot swappable -48VDC power module for redundancy protection 1 universal AC module or optional
ARCHITECTURE	2 pluggable OLT module, hot swappable 1 pluggable GSM module, 1 pluggable Fan module
CONSOLE PORT	1 RS232
LAN MANAGEMENT	1 RJ45 10/100Base-T Fast Ethernet
UPLINK PORTS	4 SFP Connectors for insertion of either electrical or optical transceivers

OLT MODULE

NUMBER OF OLT PORT	4 port/Module; 8 port /Chassis
COMPLIANCE	IEEE802.3ah
OPTICAL FIBER	Single Mode Fiber
CONNECTOR	SC Connector
SPLITS PER OLT PORT	1:32 ; 1:64
DATA RATE	1 Gbps up and down stream
OPTICAL LINK BUDGET	26 dB for PON link
WAVELENGTH	Tx: 1490 nm, Rx: 1310 nm

ADVANCED FEATURES

LAYER 2 SWITCHING FUNCTIONS

- Non-blocking line rate switching
- IGMP Snooping support for 512 Multicast Groups
- Port based VLAN , protocol based VLAN and 802.1q VLAN
- Per ONU Q in Q support
- IEEE 802.3ad link aggregation (trucking) and load balance
- Packet mirroring per ingress/egress port
- STP (IEEE 802.1d), RSTP(IEEE 802.1w) and PVST+ Support
- 16K MAC table support
- MAC management(Learning control, limit and aging) support
- 802.1X support for ONU AAA

LAYER 3 ROUTING FUNCTIONS

- L3 switching and full line speed support
- Static Route
- OSPF
- ARP support(static ARP, proxy ARP per RFC1027, ARP per RFC826)
- TCP/IP, ICMP per RFC792 support
- DHCP server/relay

MULTICAST FEATURES

- IGMPv1/v2 snooping and Proxy
- Fast Leave
- Up to 512 Multicast groups
- PIM-SM

QUALITY OF SERVICE

- Up to four CoS queues per subscriber
- Strict Priority and WRR Scheduling
- IEEE 802.1 p
- IPv4 TOS priority
- Egress rate shaping
- Upstream Dynamic Bandwidth Allocation (DBA) per ONU
- Downstream Bandwidth Control per ONU

SECURITY

- Access Control List (ACL)
- Global and Per VLAN User Isolation
- EPON Frame Encryption: AES128 bit downlink encryption
- Broadcast/Multicast/DLF storm control

USER AUTHENTICATION

- IEEE 802.1x/Radius

SYSTEM MANAGEMENT

- FTP, SNMP v1 & v2c, DHCP, Telnet, console interface with CLI
- In-Band/Out-of-band management
- Auto provision of ONUs
- Environmental monitoring

ENVIRONMENTAL & REGULATORY COMPLIANCE

- Operating temperature: 0˚C to +45˚C
- Storage/non-operating temperature: -20˚C to +65˚C
- Operating relative humidity: 10% to 85%, non-condensing.
- Non-operating relative humidity: 5% to 95%, non-condensing.
- UL, VCCI ,CE, FCC Part 15 ClassA, MIC

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About UTStarcom, Inc.
UTStarcom is a global leader in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless, and handset solutions to operators in both emerging and established telecommunications markets around the world. UTStarcom enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks. Founded in 1991 and headquartered in Alameda, California, the company has research and design operations in the United States, China, Korea and India. UTStarcom is a FORTUNE 1000 company. For more information about UTStarcom, visit the company's Web site at www.utstar.com

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