BBS 4000

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

- **IEEE802.3ah GEPON**
- **COMPACT 9U CHASSIS**
- **32 SPLITS, 20KM REACH, MAXIMUM 1408 SUBSCRIBERS**
- **64 SPLITS, 10KM REACH, MAXIMUM 2816 SUBSCRIBERS**
- **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 4000 Optical Line Terminal (OLT) provides a direct optical interface to the Ethernet/IP network core. Together with UTStarcom's Optical Network Unit (ONU), it completes the end-to-end FTTx 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, BBS 4000 is the ideal carrier class optical access and transport platform for FTTx (FTTB, FTTH, FTTC).

KEY BENEFITS

Flexible and Cost-effective Triple Play Transport

BBS 4000 supports up to 44 OLT EPON interfaces, each of which delivers 1 Gbps of shared bandwidth for up to 64 subscribers, serving a maximum of 2816 GEPON subscribers via a 9U chassis. High subscriber density combined with the operational cost savings of GEPON technology make BBS 4000 a compelling alternative to legacy, first-mile access solutions. It supports flexible concentration ratio between OLT and GE uplink modules thus providing wide variety of Service deployment option.

Customized Broadband Service Offerings

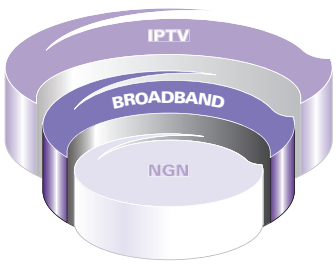
BBS 4000 QoS features allow operators to oversubscribe bandwidth while protecting delay-sensitive traffic based on individualized Service Level Agreement (SLA). Dynamic bandwidth allocation enables operators to bill bandwidth in 1 Mbps increments. For video services, multicast handling with IGMP proxying and snooping ensures efficient utilization of network infrastructure.

Easy Provision, Rapid Revenue Generation

Powerful OAM functions enable remote diagnostics, flexible provisioning and reconfiguration of the BBS 4000 platform.

Cost-effective Layer3 Ethernet Switching

CSM with GEM04A/GEM04B modules offers stable and cost-effective 48GE full-duplex wire speed LAN switching functionality.



Technical Specifications

HARDWARE

PHYSICAL DIMENSION

Chassis: 482.6 mm (W) x 415mm (D) x 399.2 mm (H)

WEIGHT

Full load configuraiton: 20.5kg

POWER CONSUMPTION

Full load power consumption: 460 Watts

POWER SUPPLY

DC -48V input (-40~-57V), 2 power modules redundancy

ARCHITECTURE

19" rack chassis, Total 15 vertical slots

2 slots for 1+1 Redundant CSM

12 slots for line cards

Two Half Slot 1+1 Redundant Power Supply

Three Field Replaceable Fans

CONSOLE PORT	1 RS232
LAN MANAGEMENT	1 10/100Base-T Fast Ethernet
UPLINK INTERFACE	SFP type port; or 10/100/1000Mbps RJ45
GEPON INTERFACE	SFP type OLT port
OPTICAL FIBER	Single Mode Fiber
MAXIMUM OLT PORT	Up to 44 OLT port
SPLITS PER OLT PORT	Max.1:64
GEPON BANDWIDTH PER PORT	1.25Gbit optical bandwidth
OPTICAL LOSS BUDGET	29 dB for PON link
WAVELENGTH	Tx: 1490 nm, Rx: 1310 nm
EPON STANDARD	IEEE 802.3ah

ADVANCED FEATURES

LAYER 2 SWITCHING FUNCTIONS

- 48 Gbps Non-blocking wire speed switching
- STP/RSTP/MSTP
- IEEE802.1Q with 4K VLANs handling
- IEEE 802.3ad link aggregation
- VLAN Q in Q
- 16K MAC addresses

LAYER 3 SWITCHING & ROUTING

- Static Routing with up to 8K host routes
- Routed Interfaces, Super VLAN Interface (RFC 3069)
- DHCP Plus Host Routes Management
- ARP support(static ARP, proxy ARP per RFC1027,ARP per RFC826)

QUALITY OF SERVICE (QoS)

- 8 CoS queuing
- IEEE 802.1 p
- IPv4 Diffserv/TOS
- SP and WRR congestion management
- Classification based Traffic Metering, Shaping and Marking
- Buffer Management: WRED
- Dynamic Bandwidth Allocation (DBA)

MULTICAST

- 1K Multicast Groups Support
- IGMPv2 Proxy and Snooping

SECURITY

- ACL and Packet filtering
- IEEE 802.1x with RADUIS or Local authentication
- Logon Security
- AES 128 bit Encryption
- Per VLAN and Global User Isolation
- MAC Filtering and Limit
- Anti DoS Attack Features

SYSTEM MANAGEMENT

- CLI via console or telnet
- SNMP v1 & v2c agent and proxy
- FTP/TFTP supporting
- ONU Remote Upgrade and Management

SUBSCRIBER MANAGEMENT

- ONU Authentication via IEEE 802.1X
- DHCP Server and Relay (Option 82)
- PPPoE and BPDU Transparency

UTStarcom, Inc. USA
1275 Harbor Bay Parkway
Alameda, CA 94502 USA
Tel: 510-864-8800
Fax: 510-864-8802

www.utstar.com

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

BB-DS-1543-BBS4000-0308