

BlueScope BL2000B

Handheld Dual 10G Ethernet



The BlueScope BL2000B is the next generation in handheld T&M solutions

BlueScope Benefits:

- Anytime, anywhere Ethernet testing
- Compact, ultra-light weight form factor
- Intuitive Graphical User Interface (GUI)
 - Reduces training time
 - Easy to use
- Reduces cost of ownership
- Open architecture H/W and S/W platforms
 - Capability to Support the Expansion of Your T&M Needs on a Higher Scale

Contact Information:

Web: <http://www.bluelighttec.com>
Support: support@bluelighttec.com
Sales: sales@bluelighttec.com

US & Canada:
TEL: +1 408 841 9687
FAX: +1 408 841 9607

*Test & Measurement's
SMALLEST,
ULTRA LIGHTWEIGHT
handheld testing solution
for Ethernet networks*

Key Features

Ethernet

- Dual 10G ports-32 Multi-stream Traffic Generation & Analysis
 - Layer 1/2/3/4
- Y.1564 (Multiple streams)
- 10G LAN/WAN Phy
- Packet Capture/Decode
- RFC2544 (Delay, Jitter)
- PBB/ PBB-TE (Mac-in-Mac)
- Real Time Traffic Monitoring
- Packet Flooding Generation
- Unframed/L1 traffic test
- Wireless LAN (Wifi)
- IPv6

BlueScope BL2000B

Ethernet features and Options

General Specifications

- Hybrid user interface (UI) with graphical color touch-screen and keypad; user-friendly and easy to use.
- Multiple testing capabilities: Ethernet, VoIP and IPTV
- Software upgrades can be applied through a USB drive or transferred via FTP.
- File Manager: Print/Save/Copy test results, log files, screen captures and packet capture files to a USB memory card or transfer via FTP
- Optical power measurement
- Customizable test profiles for quick and efficient test set configuration

Optional Features

- Packet Capture and Decode
- Packet Flooding – Mac/VLAN/IP/User Defined Field
- Performance Measurement (Throughput Test 32 multi-streams)
- L1/Unframed BERT (Cable BERT-RJ45, Unframed BERT-SFP Optic)
- Network Discovery
- PBB/PBB-TE(MAC-in-MAC)
- 10G WAN PHY
- Y.1564 (SAM)
- IPv6

Standard Features

- Performance Measurement (Throughput Test up to 4 multi-streams-10G LAN PHY)
- Packet Filtering
- IP Tools (Ping, DHCP, Trace Route)
- In-Service Traffic Monitoring (Non-Intrusive Mode)
- Loopback Mode (L1-L4, auto, filtered)
- MPLS (stacking up to 3 MPLSs)
- VLAN, Q-in-Q (up to 3 VLANs)
- Bit Error Test (BERT)
- RFC 2544 (Network Equipment Benchmarking Test)
- Remote Control via VNC
- Report Generation – PDF, TXT, CSV
- System Tools

BlueScope BL2000B

Ethernet Features and Options

1. Performance Measurement

(Traffic Generation/Throughput Test)

- Dual 10G Ports - Up to 32 Streams Per Port
- Layer 1/2/3/4 Packet Frames (Continuous, Burst-Once, Ramp, Random Length)
- MAC/VLAN/MPLS/ICMP/TCP/UDP Setup
- Payload (PRBS, Increment, Decrement, User Pattern)
- Frame Size (Runt to Jumbo)
- Frame Rate (% , BPS, FPS)
- VLAN Tags (3 Q-in-Q: TPID, Priority, CFI, VLAN ID)
- MPLS Label (3 Stacks: Label, Exp., EoS, TTL)
- Pause Injection with Delay Control
- Error Injection (FCS, Duplicated, Lost, Late Frame, L3/L4 Checksum, Bit Error)
- Ping, ARP, Trace Route, DHCP

2. Packet Filtering

- Source/Destination Addresses (MAC/IP/Port)
- VLAN (Q-in-Q, TPID, Priority, CFI, VID)
- MPLS (Label, Exp., EoS, TTL)
- Packet Fields (TOS/DSCP, Protocol, User Defined)
- Advanced Pattern Matching Based on User Defined Pattern Filters

3. IP Tools

- IP Setup (MACP, IP, Netmask, Gateway, DNS)
- Static and DHCP Support
- Ping (Destination, Frame Length, Ping Rate, Timeout, Number of Pings)
- Trace Route (Destination IP, Max Hop, Timeout)

4. In-Service Traffic Monitoring (Non-Intrusive Mode)

- Per Frame/Per Packet Based Measurements
- In-Line Packet Filtering and Capturing
- Error Injection
- Media Conversion (Optic ↔ Copper)

5. Loopback Mode

- Layer 1 (All), L2 (All), L2/3/4 (Filtered)
- Auto Loopback
- Per Frame/Per Packet Based Measurements
- Remote Loopback control
- 802.3ah, 802.1ag, Y.1731

6. Bit Error Test (BERT)

- Framed (Layer 2/3/4) Test Patterns: (PRBS 31 and Inverted)
- Error Packet Generation (Lost/Duplicate/Late Frame): Single, Burst, Rate

7. RFC2544

- Performance Measurement (Throughput Test)
- Delay Measurement (Latency Test)
- Packet Frame Loss Measurement (Frame Loss Test)
- Back-to-Back Test
- Packet Jitter Test
- Report Generation (PDF, CSV and TXT)

8. Cable Diagnostics

- Optic Cable:
 - Rx Power Level
 - Wavelength (λ)

9. Remote Control – VNC

10. File Management

- File Transfer from/to USB Memory Stick
- File Transfer via FTP
- Usage of Space (in %)
- File View, Print, Export to CSV, Rename, Delete

11. Report Generation

- PDF, CSV and TXT

12. System Tools

- Data and Time
- Network Settings:
 - Static vs. DHCP

- IP Address, Subnet, Gateway, DNS, Remote Control
- License Control
- Display Control (Brightness)
- Auto Power On/Off
- **System and User Info:**
 - SN, S/W Version, H/W Version, User Info for Custom Report
- **Printer:**
 - HP LaserJet Compatible
 - Network or USB Connection
- Software Upgrade via FTP
- Software Upgrade via USB

13. **Packet Capture & Decode**

- Filtered Capture
- **Event Trigger Capture:**
 - VLAN, Pause Frame, Multicast/Broadcast
 - FCS Error, Frame Size, L3/L4 Checksum Error
- Decode with WireShark/Ethereal

14. **Packet Flooding**

- Random or Incremental Flooding
- Flooding - MAC, VLAN, IP, User Defined Field

15. **Throughput Test (32 multi-streams)**

- Tx – Generate Max. 32 Independent Streams
- Rx - Receive Up To 32 Independent Streams
- Ramp, Continuous,, Ramp-Cyclic, Burst-Continuous, and Burst-Cyclic Modes

16. **L1/Unframed Bit Error Test (BERT)**

- **Unframed (Layer 1) Test Patterns**
 - PRBS 9, 11, 15, 20 and Inverted

17. **Network Discovery**

- Network Status (Up/Down), IP, MAC, Vendor, Port Info, OS, OS Type, SNMP Info.

18. **PBB, PBB-TE (MAC-in-MAC)**

- Test connectivity across the network (Edge to Edge)

- MAC-in-MAC Functionality with VLAN IDs and QoS Preservation.
- VLAN Tags (3 Q-in-Q: TPID, Priority, CFI, VLAN ID)
- Configure B-tag, I-tag (PCP, DEI, VLAN ID, I-SID, RES)

19. **Y.1564 (EtherSAM)**

- Provides the Verification of SLA and the Connectivity of Service:
 - Verify Network Connectivity
 - Verify Performance of Network Route
 - Verify SLA of each Service
- **Measurements:**
 - CIR(Committed Information Rate)
 - EIR (Excess Information Rate)
 - Bandwidth
 - Packet Jitter
 - Latency
 - Frame Loss
 - Random or Incremental Flooding

20. **IPv6**

- Generate and Analyze traffic for next generation internet protocol IPv6
- **Performance Measurement:**
 - Traffic Generation/ Throughput Test
- **Configuration:**
 - Up to 4 Streams Per Port
 - Layer 1/2/3 Packet Frames (Continuous, Burst-Once, Ramp, Random Length)
 - MAC/VLAN/MPLS Setup
 - Payload (PRBS, Increment, Decrement, User Pattern)
 - Frame Size (Runt to Jumbo)
 - Frame Rate (% , BPS, FPS)
 - VLAN Tags (3 Q-in-Q: TPID, Priority, CFI, VLAN ID)
 - MPLS Label (3 Stacks: Label, Exp., EoS, TTL)
 - Pause Injection with Delay Control
 - Error Injection (FCS, Duplicated, Lost, Late Frame, Bit Error)
 - Ping, DHCP

BlueScope BL2000B

Platform Specifications

Hardware Specifications:

- **Ports:**
 - Two XFP (Dual 10G Ports)
- **Dimensions:**
 - Size: 172.5 (W) x 227 (H) x 58.5 (D) mm
 - Weight: 1.3 kg with Battery, Battery (0.3 kg)
- **Operating Temp:** 0°C~40°C
- **Storage Temp:** -20°C~ +70°C
- **Display:** Color TFT-LCD Touch Screen
- **User Interface:** Touch Screen & Keypad
- **Humidity:** 10% ~ 90%
- **Power:**
 - AC adaptor: 100V~240 V(50Hz/60Hz)
 - Removable/Rechargeable lithium -Ion Battery
 - Battery life: 3 hours typical, 8 hour in standby mode
 - Charging time: 1 ~ 2 hours
- **Memory:**
 - 16GByte internal Flash memory included

