

GRL-100/200

GigaE Smart Remote Loopback Device

GRL-100/200 series are smart and remote loopback devices for Ethernet out of service testing and in-service monitoring, Throughput, BERT, QoS, Link OAM and SLA Measurement. The connection mode of non-manned devices can be managed via management port.



Functions

- | Support 10/100/1000Base-T and 100Base-FX, 1000Base-X interfaces
- | Single port or multi ports smart and remote loopback of Layer 1 to Layer 4 Ethernet packets
- | Remote control via management port
- | 10/100/1000Mbps real time packet filtering
- | Auto-negotiation and auto MDI/X
- | LED indicators of loopback status and FCS/CRC errors
- | Link OAM (802.3ah) discovery and loopback
- | Compatible with all major vendors' Ethernet test sets
- | Support 19" 1U rack mount kit

Integrity

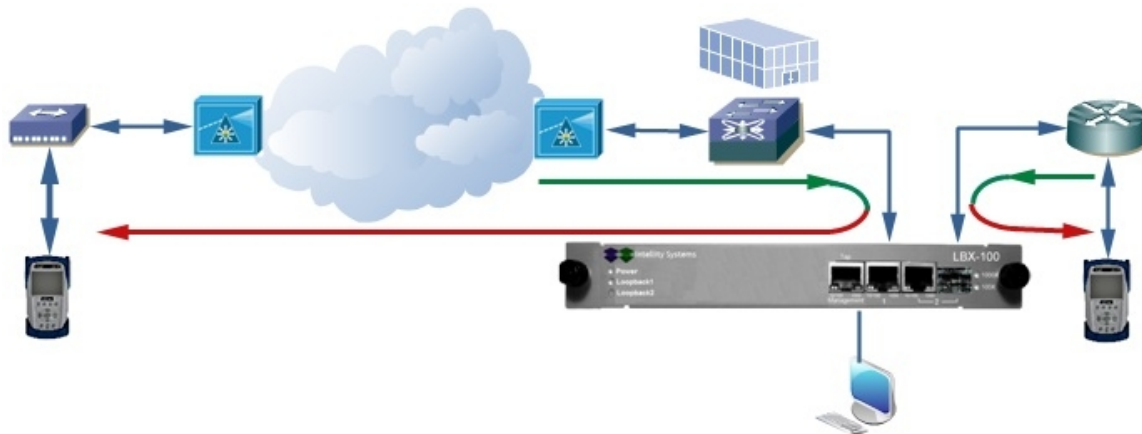
- | Secured, reliable and high availability
- | Real time packet processing

Applications

The GRL-100/200 makes the Ethernet loopback available to all levels of real time service testing and monitoring in a lightweight, compact and easy-to-use unit.

Remote and Smart Loopback with Packet Filter

Dual-port smart loopback with real time packet filtering to swap MAC/IP source/destination addresses and TCP/UDP source/destination ports for traffic return path. Link OAM 802.3ah loopback and discovery are supported in addition to loopback control and respond. It is interoperable with all major Ethernet testers.



Ethernet Interfaces (Single and Dual ports at 10/100/1000Base-T MDI/X and 100/1000Base-X)

Optical Interface – SFP, LC Connector Class 1 Laser

Type	100Base-FX	100Base-LX	1000Base-SX	1000Base-LX	1000Base-ZX
Wavelength (nm)	1310 MM	1310 MM	850 MM	1310 SM	1550 SM
Tx Level (dBm)	-20 ~ -15	-15 ~ -8	-9.5 ~ -4	-9.5 ~ -4	-2 ~ +3
Rx Sensitivity Level (dBm)	-31	-28	-21 ~ 0	-25.5 ~ -3	-24 ~ -3
Maximum Distance (km)	2	15	0.55	10	80
Tx/Rx Bit Rate (Gbps)	0.125	0.125	1.25	1.25	1.25
Tx Operational Wavelength Range (nm)	1280 ~ 1380	1260 ~ 1360	770 ~ 860	1270 ~ 1360	1540 ~ 1570
Optical Power Accuracy (dBm)	±2	±2	±2	±2	±2
Auto-Negotiation and Flow Control	√	√	√	√	√

Electronic Interface - RJ45 UTP

Type	10Base-T	100Base-T	1000Base-T
Tx Level (dBm)	-20 ~ -15	-15 ~ -8	-9.5 ~ -4
Maximum Distance (m)	100	100	100
Tx/Rx Bit Rate	10 Mbps	125 Mbps	1 Gbps
Tx Accuracy (ppm)	±100	±100	±100
Rx Accuracy (ppm)	±4.6	±4.6	±4.6
Duplex Mode	Half and Full	Half and Full	Full
Auto-Negotiation, Flow Control and MDI/X	√	√	√

Specifications

Functional Specifications

Loopback

Smart loopback with or without swapping MAC/IP source/destination address and TCP/UDP source/destination port.

Filter	User defined loopback filter parameters: broadcast, multicast, MAC/IP source/destination address, VLAN ID and priority, TCP/UDP source/destination port.
Smart Loopback	Loopbacks incoming test traffic from layer 1 to 4.
Remote Loopback	802.3ah loopback, loop up/down control and respond.

Others

Link OAM	IEEE 802.3ah connection, OAM frame statistics, discovery and loopback control.
Management Port	Windows based management applications

Note: Specifications subject to change without notice

General Specifications

Dimension (W x D x H)	205 x 145 x 31 mm	Operating Temperature	0°C ~ 55°C (32°F ~ 131°F)
	19' 1U rack mount version	Storage Temperature	-10°C ~ 70°C (-14°F ~ 158°F)
Power Supply	100~240VAC, 47 ~ 67Hz , 5V, 1.2A	Relative Humidity	10% ~ 95% non-condensing

Related Products

GL-111

GL-222

Ordering Information

GRL-100	Single-port 10/100/1000Base-T and 100Base-X/1000Base-X loopback box includes AC adapter, user's manual, carrying case and one-year warranty in hardware and software.
GRL-100	Dual-port 10/100/1000Base-T and 100Base-X/1000Base-X loopback box includes AC adapter, user's manual, carrying case and one-year warranty in hardware and software.

Accessories

GRL-NA2	Two-prong power cord for use in North America, Latin America and Asia
GRL-NA3	Three-prong power cord for use in North America, Latin America and Asia
GRL-EU	Two-prong power cord for use in Europe

Options

GRL-LX	100Base-FX and 100Base-LX Support
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