








ALBEDO Ether.Giga is an instrument that supports all the features of modern field testers, plus the new ones like multiple stream generation and analysis or Y.1564 testing that enable it to verify the QoS and SLA of brand new Multiplay and IP services.

Market Analysis

ALBEDO Ether.Giga

	ALBEDO Ether.Giga	VEEX VePAL MX120+	EXFO ETS-1000	JDSU SmartClass Ethernet	FLUKE EtherScope
					
Platform	<ul style="list-style-type: none"> • 210x110x60mm • 1,0 kg • 2xUSB, RJ45, SD • Results txt, pdf 	<ul style="list-style-type: none"> • 210x100x55mm • 1,0 kg • 2xUSB, RJ45 • Results txt 	<ul style="list-style-type: none"> • 222x112x54mm • 0.7 kg • USB, RJ45 • Results Txt 	<ul style="list-style-type: none"> • 230x120x50 mm • 1.0 kg • USB • Results: xls, txt, pdf 	<ul style="list-style-type: none"> • 191 x 152 x 44 mm • 0.86 kg • USB, PCMCIA, CompactFlash, serial (DB9), headphone jack, microphone jack. • Results: xml
GUI	<ul style="list-style-type: none"> • 480 x 272 pixels • Full Color 	<ul style="list-style-type: none"> • 320 x 240 pixels • Full Color 	<ul style="list-style-type: none"> • 320x240 pixel • Limited graphics 	<ul style="list-style-type: none"> • 320x240 pixel • Color 	<ul style="list-style-type: none"> • 640 x 480 pixel • Color
Remote Control	• Identical GUI by VNC- IP	• Identical GUI by VNC- IP	• Identical GUI by VNC- IP	• No remote control	• USB remote control
LEDs	<ul style="list-style-type: none"> • 6 Physical LEDs • 2x8 Soft LEDs 	<ul style="list-style-type: none"> • 4 Physical LEDs 	<ul style="list-style-type: none"> • 2 x3 Physical LEDs 	<ul style="list-style-type: none"> • 4 Physical LEDs 	<ul style="list-style-type: none"> • 6 physical LEDs
Batteries	• 5.5 h (typical)	• no info	• no info	• 4.0 h (typical)	• 4.0 h (typical)
Operation	<ul style="list-style-type: none"> • Ethernet End point • IP end point • Through / Monitor • Loopback L1, L2, L3, L4 	<ul style="list-style-type: none"> • End point • Through / Monitor • Loopback L1, L2, L3, L4 	<ul style="list-style-type: none"> • End point • Through / Monitor/Loopback L1, L2, L3, L4 	<ul style="list-style-type: none"> • Endpoint • Loopback L2, L3, L4 	<ul style="list-style-type: none"> • Endpoint • Loopback
Ethernet PHY	<ul style="list-style-type: none"> • 2 x SFPports 10/100/1000BASE-T, 100BASE-FX, 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX • 2 x RJ-45 ports 10/100/1000BASE-T 	<ul style="list-style-type: none"> • SFPports 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX • RJ-45 ports 10/100/1000BASE-T 	<ul style="list-style-type: none"> • SFPports 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX • RJ-45 ports 10/100/1000BASE-T 	<ul style="list-style-type: none"> • SFPports 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX, 1000BASE-BX CWDM • RJ-45 ports 10/100/1000BASE-T 	<ul style="list-style-type: none"> • 1 x SFP ports 100BASE-FX, 1000BASE-SX, 1000BASE-LX, 1000BASE-ZX • 1 x RJ-45 ports 10/100/1000BASE-T
Autonegotiation	<ul style="list-style-type: none"> • Bit-rate • Disable autoneg 	<ul style="list-style-type: none"> • Bit-rate, HDX, Flow 	<ul style="list-style-type: none"> • Bit-rate • Disable autoneg 	<ul style="list-style-type: none"> • Bit-rate, HDX, Pause capability, flow control • Disable autoneg 	<ul style="list-style-type: none"> • Ability to enable or disable auto-negotiation
MAC format	<ul style="list-style-type: none"> • DIX, IEEE 802.3, IEEE 802.1Q, Q-in-Q • Jumbo 10kB 	<ul style="list-style-type: none"> • DIX, IEEE 802.3, IEEE 802.1Q, Q-in-Q • Jumbo 	<ul style="list-style-type: none"> • DIX, IEEE 802.3, IEEE 802.1Q, IEEE 802.1ad, Q-in-Q • Jumbo 	<ul style="list-style-type: none"> • DIX, IEEE 802.3, IEEE 802.3Q, Q-in-Q • Jumbo 	<ul style="list-style-type: none"> • DIX, IEEE 802.3, IEEE 802.3Q, Q-in-Q. • Jumbo 16 kB
Settings	<ul style="list-style-type: none"> • MAC add • Type / Length • VLAN • MPLS • IP • DSCP/TOS 	<ul style="list-style-type: none"> • MAC add • Type / Length • VLAN • MPLS • IP 	<ul style="list-style-type: none"> • MAC add • Type / Length • VLAN • MPLS • IP • DSCP/TOS 	<ul style="list-style-type: none"> • MAC add • Type / Length • VLAN • MPLS • IP • DSCP/TOS 	<ul style="list-style-type: none"> • MAC add • Type / Length • VLAN • IP • DSCP/TOS

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	ALBEDO Ether.Giga	VEEX VePAL MX120+	EXFO ETS-1000	JDSU SmartClass Ethernet	FLUKE EtherScope
Generation	<ul style="list-style-type: none"> 8 independent streams Continuous, Burst, Ramp, Random LoopBack 	<ul style="list-style-type: none"> 8 independent streams Continuous, Burst, Ramp LoopBack 	<ul style="list-style-type: none"> 10 independent streams Continuous LoopBack 	<ul style="list-style-type: none"> 8 independent streams Continuous, Burst, Ramp, Flood Loopback 	<ul style="list-style-type: none"> 4 independent streams Continuous Loopback
Multilayer Patterns	<ul style="list-style-type: none"> L1: RPAT, JTPAT, SPAT, HFAPAT, LFPAT, MFPAT L2-4: 2¹¹-1, 2¹⁵-1, 2²⁰-1, 2²³-1, 2³¹-1, 0, 1, Inv 	<ul style="list-style-type: none"> L1: RPAT, RTPAT, SPAT L2-4: 2¹¹-1, 2¹⁵-1, 2²⁰-1, 2²³-1, 2³¹-1, 0, 1, Inv 	<ul style="list-style-type: none"> L1: RPAT L2-4: 2¹¹-1, 2¹⁵-1, 2²⁰-1, 2²³-1, 2²⁹-1, 2³¹-1, 0, 1, Inv 	<ul style="list-style-type: none"> L1: CRPAT, CJPAT, CSPAT L2-4: 2²³-1, 2³¹-1, Inv 	<ul style="list-style-type: none"> L1: HFAPAT, LFPAT, MFPAT, LCRPAT, SCRIPAT L2: All 0s, all 1s, alternating 1s and 0s, PRBS, Incrementing Byte
Cable Tests	<ul style="list-style-type: none"> Optical power (SFP) Open, Short with distance MDI/MDI-X status Polarities Pair skew 	<ul style="list-style-type: none"> Open, Short Polarities 	<ul style="list-style-type: none"> Attenuation, Open, Short Distance Polarities MDI / MDI-X 	<ul style="list-style-type: none"> Optical power (SFP) Open, Short with distance MDI/MDI-X status Polarities Pair skew 	<ul style="list-style-type: none"> Optical power (SFP) Cable length Short, Open Wiremap
SLA	<ul style="list-style-type: none"> Delay Delay variation / Jitter Frame loss Availability 	-	<ul style="list-style-type: none"> Packet jitter 	<ul style="list-style-type: none"> Delay Delay variation / Jitter Frame loss 	<ul style="list-style-type: none"> Delay Delay variation / Jitter Frame loss
Net Explore	<ul style="list-style-type: none"> 25 most common MAC/IP 25 most VID / C-VID, S-VID 	-	-	-	-
RFC-2544	<ul style="list-style-type: none"> Symmetric and Asymmetric Throughput Frame-loss Latency Back-to-back Recovery time tests 	<ul style="list-style-type: none"> Throughput Frame-loss Latency Back-to-back 	<ul style="list-style-type: none"> Throughput Frame-loss Latency Back-to-back 	<ul style="list-style-type: none"> Throughput Frame-loss Latency Back-to-back jitter (!) 	<ul style="list-style-type: none"> Throughput Frame-loss Latency Back-to-back
eSAM	<ul style="list-style-type: none"> 8 x non-colour services 4 x colour services CIR, EIR, Throughput FTD, FDV, FLR, availability 	-	-	-	-
ICMP	<ul style="list-style-type: none"> Ping Trace Route 	<ul style="list-style-type: none"> Ping Trace Route 	<ul style="list-style-type: none"> Ping Trace Route 	<ul style="list-style-type: none"> Ping Trace Route 	<ul style="list-style-type: none"> Ping Trace Route
Error Insertion	<ul style="list-style-type: none"> FCS endpoint IP checksum TSE Undersized frames 	<ul style="list-style-type: none"> Code FCS end IP Checksum 	-	<ul style="list-style-type: none"> FCS TSE IP Checksum 	-
Protocols	<ul style="list-style-type: none"> ARP, DNS, DHCP, 	<ul style="list-style-type: none"> ARP, FTP 	<ul style="list-style-type: none"> ARP, DNS, DHCP 	<ul style="list-style-type: none"> ARP, DHCP 	<ul style="list-style-type: none"> ARP, DNS, DHCP, SMTP, POP3, FTP, HTTP, WINS
Filter to traffic	<ul style="list-style-type: none"> 8 independent filters MAC, IP, Type/Length, VID, DSCP, UDP, arbitrary 	<ul style="list-style-type: none"> 8 independent filters MAC, IP, Type/Length, VID, DSCP, UDP, arbitrary 	<ul style="list-style-type: none"> 10 independent filters MAC, IP, Type/Length, VID, DSCP, UDP, arbitrary 	<ul style="list-style-type: none"> 1 filter MAC, IP, VID, DSCP 	<ul style="list-style-type: none"> 4 independent streams
Statistics	<ul style="list-style-type: none"> Common talkers: MAC addresses, IP addresses VID (VLAN), C-VID (Q_in_Q), S-VID (MPLS) Frame Counts (RFC 2819) VLAN, Q-in-Q, Priority, Control, Pause, BPDUs Unicast, Multicast, Broadcast FCS errors, Undersized, Oversized, Fragments, Jabbers, Runts, Collisions, Late Collisions Size: <65, 65~127, 128~255, 256~511, 512-1023, 1024-1518, >1518, min/max length, total IP Packet Counts UDP, ICMP packets IPv4 checksum errors Unicast, Multicast, Broadcast 	<ul style="list-style-type: none"> Frame/Package Statistics: Multicast, broadcast, unicast, pause frames, frame size distribution, bandwidth utilization, frame rate, line rate, data rate, frame loss, frame delay variation 	<ul style="list-style-type: none"> Frame/Package Statistics: Multicast, broadcast, unicast, pause frame, frame rate, frame loss, out-of-sequence frames, in-sequence frames 	<ul style="list-style-type: none"> Link Stats: Bandwidth utilization, frame rate, RX/TX L1 Mbps, RX/TX L2 Mbps, round-trip delay, service disruption time, CVLAN ID, SVLAN ID, CVLAN priority, SVLAN priority, Avg and Max packet jitter Link Counts Total received and transmitted frames, pause frames, VLAN frames, unicast frames, broadcast frames, frame length Error Counts FCS errored frames, runts, jabbers, undersized frames, OOS frames, lost frames, IP checksum errors, IP packet length errors, JDSU payload errors 	<ul style="list-style-type: none"> Frames sent, received, rate and percent loss for both upstream and downstream directions Tx and Rx rates in bps and fps, frames sent and lost, loss ratio, errored intervals; current, average, maximum latency and jitter IPTV: GMP Latency, Total Packets Sent, Connected Time, Received Packet Rate, RFC-4445 MDI Delay Factor and Media Loss Rate for MPEG-2 streams
Year of design	2012	2004	2008	2001	No info
Made in	Europe	US	OEM Russia	US	US