



## Technical specifications - UniPRO MGig1 and SEL1

<b>Test interface</b>	RJ45: 10, 100, 1000 Mb/s. Optical: 1000Mb/s with auto-negotiation and optional SFP. UniPRO MGig1 Solo and UniPRO SEL1: x1 port. UniPRO MGig1 Duo: x2 ports
<b>Operation mode</b>	End point (terminated), pass through (monitor) for UniPRO MGig1 Duo only
<b>SLA-Tick</b>	Items: frame loss, jitter (delay variation), delay (latency, loop test only), service disruption time, information rate, error performance (SES, unavailability). Mode: single-ended with remote loop or double-ended two way test. Tests up to eight configurable services (streams) simultaneously with parameters on each service, pass/fail limits, error injection: single, rate with frame
<b>RFC2544</b>	Items: throughput, latency, frame loss, jitter, back to back, system recovery. Table and graph results, frame size. Mode: single end loopback test or double end Bi-Directional test. Pass/fail limits
<b>Y.1564 (NetSAM)</b>	Configuration test on CIR (Committed Information Rate), EIR (Excess Information Rate), colour mode, traffic policing. Performance test up to 8 services simultaneously on utilisation, FTD (delay), FDV (jitter), FLR (frame loss), SES, availability measurement with fixed or mixed frame size, loop or Bi-Directional test, pass/fail limits
<b>BERT</b>	BER at L1 to L4 frame payload, test pattern on PRBS ITU or Non ITU @ 2 <sup>n</sup> -1 n=11,15,20,23,31. SCRTPAT, CRPAT, CJTPAT, CSPAT, LFPAT, HFPAT, MFPAT, fixed: all 1s, 0s, 1100,1000, 1010. Word: 4 digit Hex, Control: manual or user defined duration. Error injection: single, rate on frame or bit
<b>Multi services (streams)</b>	Up to eight services simultaneously generated and measured on FLR, FTD, FDV, IR with independent IP, MAC, VLAN, MPLS, TCP or UDP ports setup on each service for SLA-Tick, Y.1564 (NetSAM) test
<b>Target finding and remote loop control</b>	Auto detection of target devices (IDEAL NETWORKS' products only) with remote control of loopback (L1 to L4) via in band Ethernet test link. Targets can also be manually controlled locally
<b>Traffic generation</b>	Profile: continuous, ramp (service one only), burst (service one only). Information rate, frame size, test pattern
<b>Frame size (byte)</b>	64,128, 256, 512, 1024, 1280, 1518, user defined up to 10000
<b>VLAN</b>	Level: up to eight including QinQ; VLAN ID, TPID, CFI, on each service
<b>MPLS</b>	Level: up to three; Label, Class, TTL for each service
<b>MAC, IP and payload</b>	Setup: MAC address. IP address: static, DHCP. DNS, netmask, gateway. Version: IPv4, IPv6. CoS: ToS, DSCP. Payload: UDP and TCP ports, ICMP type and code
<b>Service Disruption Time (SDT)</b>	Service protection switch time measurement (SDT) on each service with resolution 1ms
<b>Error insertion</b>	Items: FCS, oversize, undersize, pattern. Type: single, ratio
<b>MAC frame statistics</b>	Per service based - Rx frame rate, Rx information rate, Rx frame size, Tx/Rx frame counts, Tx/Rx layer payload accumulated byte count. VLAN ID, per port based - frame type: unicast, multi cast, broadcast. Pause frames. Protocol discovery: LLDP/CDP/EDP. Frame errors: collision (10/100Mb/s only), FCS, undersize, oversize, jabbers, errored, % errored
<b>Link status</b>	Port: speed, duplex, auto negotiation. Optical power, PoE detection
<b>Tools</b>	Ping and Traceroute (IPv4, IPv6). Cable test, hub blink, PoE and PoE+ (current, voltage, power and pair)
<b>Loopback (UniPRO MGig1 and UniPRO SEL1)</b>	Level: L1 (Physical), L1 (Regenerate), L2 (MAC), L3 (IP), L4 (UDP) unfiltered. Control: local or remote by another master unit via Ethernet test path
<b>Auto sequence test</b>	Multi test items running sequentially. Test items can be defined by user
<b>Top ten bandwidth users</b>	Through mode only, VLAN users, source and destination MAC or IP address users
<b>Storage</b>	Internal configuration profile: MGig1: 30, SEL1: 1. Internal reports: 250 (MGig1 only). Format: xml. External storage: USB
<b>Display</b>	3.5" TFT colour touch screen (UniPRO MGig1), 5 LEDs (UniPRO SEL1)
<b>Battery</b>	NiMH Rechargeable: auto power off; 3,10, 30 min (MGig1), continuous use >4hrs (MGig1), > 3.5hrs (SEL1), power adaptor: AC IN 100-240V/ DC OUT 12V
<b>System interface</b>	USB 1.1 for external storage on software upgrade, test report and configuration upload
<b>Physical</b>	Dimension: 205x98x45 mm (MGig1), 175x80x40 mm (SEL1). Weight including batteries: 650g (MGig1), 400g (SEL1)
<b>Environmental</b>	Temperature: 0°C to 45°C (operation), -20°C to 70°C (storage). Humidity: 5% - 90% no condensation
<b>Accessories included (UniPRO MGig1 &amp; UniPRO SEL1)</b>	1 x NiMH battery, 2 x Patch cables - 30cm, Cat 5e STP, 1 x Power supply with EU/UK/US adaptors, 1 x User manual CD, 1 x English quick reference guide, 1 x Carry case
<b>Languages supported</b>	English, German, French, Italian, Spanish, Portuguese and Chinese