



xGenius is a transmission & synchronization tester equipped with a 8' capacitive creen to facilitate the use and results interpretation and supports all the features you need to design, install and maintain telecom, power, railway, finance, military and industrial networks using Ethernet/IP, PTP, SyncE and T1/E1. It has never been so straightforward the use of a tester.

Market Analysis

Updated on 24/10/17

Transmission & Sync test @ 10G

xGenius	VePAL TX320s	MTS-5800	NetBlazer V2	MT1000A
				
ALBEDO	VEEX	VIAVI	EXFO	ANRITSU

CONFIDENTIAL

PLATFORM					
Size	<ul style="list-style-type: none"> • 260 x 160 x 63 mm • Weight: 1.8 kg • Volume: 2,620 cc 	<ul style="list-style-type: none"> • 290 x 140 x 66 mm • Volume: 2,680 cc • 1.58 kg 	<ul style="list-style-type: none"> • 215 x 175 x 42 mm • Volume: 1,580 cc • 1.9kg 	<ul style="list-style-type: none"> • 254 x 210 x 55 mm • Volume: 2,934 cc • 2 kg 	<ul style="list-style-type: none"> • 257 x 164 x 77 mm • Volume: 3,245 cc • 2.7 kg
Architecture	• All interfaces included	• Factory Moduls	• All interfaces included	• Modular equipment	• All interfaces included
Display	<ul style="list-style-type: none"> • 8 inch (800 x 480 pix) • Touchscreen • Keyboard • Mouse 	<ul style="list-style-type: none"> • 7 inch (840 x 480 pixels) • Touchscreen • Keyboard 	<ul style="list-style-type: none"> • 7 inch (1200 x 600 pix) • Touchscreen 	<ul style="list-style-type: none"> • 8 inch • Touchscreen • Multitouch 	<ul style="list-style-type: none"> • 9 inch (800 x 480 pix) • Touchscreen
Ruggedness	• 1,5 meters drop	• 1,0 meter drop	• IEC 721	• (?)	• (?)
Remote Control	<ul style="list-style-type: none"> • Standard VNC • SNMP 	• Proprietary (ReVeals)	<ul style="list-style-type: none"> • Standard VNC • SNMP 	• Standard VNC	• Standard VNC
Batteries	<ul style="list-style-type: none"> • 2 x Li-Po • 8 hours in 10 GbE • 24 hours in EI 	<ul style="list-style-type: none"> • Li-Ion • 2-6 hours 	<ul style="list-style-type: none"> • Li-Ion • 4 hours in 10GbE 	<ul style="list-style-type: none"> • Li-Ion • 2 hours 	<ul style="list-style-type: none"> • Li-Ion • 4 hours
Auxiliar Ports	<ul style="list-style-type: none"> • Ethernet RJ45 • 2 x USB • mini SD card 	<ul style="list-style-type: none"> • Ethernet RJ45 • 2 x USB • Bluetooth • Cellular 	<ul style="list-style-type: none"> • 2 x Ethernet RJ45 • 2 x USB • Bluetooth • Cellular 	<ul style="list-style-type: none"> • Ethernet RJ45 • 3 x USB • SD card 	<ul style="list-style-type: none"> • 3 x USB • Ethernet RJ45 • IEEE 802.11 b/g/n • Bluetooth • Headset
GNSS receiver	• Antenna	• Antenna	• Antenna	• No	• Antenna
Optical Interfaces	• 2 x SFP+	• 2 x SFP+	• 2 x SFP+	• 2 x SFP+	• 2 x SFP+
Electrical Interfaces	<ul style="list-style-type: none"> • 2 x RJ-45 • 2 x BNC • 2 x RJ45-balun • 4 x SMA in/out clock 	<ul style="list-style-type: none"> • 2 x Bantam / RJ45 • 2 x BNC • External Clock input • VF input 	<ul style="list-style-type: none"> • 2 x Bantam • 2 x RJ-45 • 2 x BNC • External Clock input • VF input 	<ul style="list-style-type: none"> • 1 x Bantam • 2 x RJ-45 • 2 x BNC • External Clock input • VF input 	<ul style="list-style-type: none"> • 4 x Bantam • 2 x RJ45 • 2 x RJ48 • 4 x BNC • BNC External Clock input • VF input

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CLOCKS

Internal Clock	<ul style="list-style-type: none"> - Rubidium built-in - GPS built-in receiver - OCXO ±0.1 ppm - Default better ±2.0 ppm 	<ul style="list-style-type: none"> - CSAC built in - GPS built-in receiver - Internat Atomic clock 	<ul style="list-style-type: none"> - Rubidium external - Internal (Stratum 3) 	<ul style="list-style-type: none"> - (?) 	<ul style="list-style-type: none"> - 4.6 ppm,
External Inputs	<ul style="list-style-type: none"> - DS1, E1 - 1.5, 2, 10 MHz - 1 pps - SyncE, PTP 	<ul style="list-style-type: none"> - DS1, E1 - 1.5, 2, 10 MHz - 1 pps - SyncE, PTP 	<ul style="list-style-type: none"> - DS1, E1 - 1.5, 2, 10 MHz - 1 pps 	<ul style="list-style-type: none"> - 1.5, 2 Mb/s, - 1.5, 2 MHz 	<ul style="list-style-type: none"> - DS1, E1 - 2, 10 MHz - 1 pps - PTP
Clock outputs	<ul style="list-style-type: none"> - 1 pps - 2Mb/s, - 2.0, 10 MHz 	<ul style="list-style-type: none"> - 1.5, 2.048 Mb/s - 1.5, 2, 10, 25, 125 MHz - 1 pps 	<ul style="list-style-type: none"> - No(?) 	<ul style="list-style-type: none"> - 1.5, 2 Mb/s, - 1.5, 2 MHz 	<ul style="list-style-type: none"> - (?)

SYNCHRONOUS ETHERNET - ITU-T G.8261

PTP Modes	<ul style="list-style-type: none"> - Master, Slave, Passthrough 	<ul style="list-style-type: none"> - Master, Slave 	<ul style="list-style-type: none"> - Master, Slave 	<ul style="list-style-type: none"> - Master, Slave 	<ul style="list-style-type: none"> - Master, Slave
Frequency	<ul style="list-style-type: none"> - Offset and Drift - Analysis and Generation 	<ul style="list-style-type: none"> - Offset - Analysis and Generation 	<ul style="list-style-type: none"> - Offset - Analysis and Generation 	<ul style="list-style-type: none"> - Offset - Analysis 	<ul style="list-style-type: none"> - Offset - Analysis
ESMC / SSM (QL)	<ul style="list-style-type: none"> - Monitor, decode, generat. 	<ul style="list-style-type: none"> - Monitor, decode, generat. 	<ul style="list-style-type: none"> - Monitor, decode, generat. 	<ul style="list-style-type: none"> - Monitor, decode, generat. 	<ul style="list-style-type: none"> - Monitor, decode
SyncE Wander	<ul style="list-style-type: none"> - Built-in and real-time mesurement - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - Built-in and real-time mesurement - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No
Wander Generation	<ul style="list-style-type: none"> - SyncE Sinusoidal wander 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No

PTP - 1588v2

PTP modes	<ul style="list-style-type: none"> - Master, Slave, Transparnt - I-step GM emulation - Protocol Decode/Generate - Freq. offset - Drift 	<ul style="list-style-type: none"> - Master, Slave, Transparnt - Protocol Decode/Generate - Freq. offset - Drift 	<ul style="list-style-type: none"> - Requires external device!! - Master, Slave - Protocol Decode/Generate 	<ul style="list-style-type: none"> - Master, Slave - Protocol Decode/Generate 	<ul style="list-style-type: none"> - Master, Slave - Protocol Decode/Generate
PTP Phase analysis	<ul style="list-style-type: none"> - Time Error (TE) - max TE - Dynamic TE - Constant TE 	<ul style="list-style-type: none"> - Time Error (TE) 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - (?) 	<ul style="list-style-type: none"> - (?)
PTP Profiles	<ul style="list-style-type: none"> - Telecom - Electrical 	<ul style="list-style-type: none"> - Telecom 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No(?) 	<ul style="list-style-type: none"> - No(?)
PTP Wander	<ul style="list-style-type: none"> - Built-in and real-time - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - Built-in and real-time - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No
Floor metrics	<ul style="list-style-type: none"> - FPR, FPP, FPC - Pass / Fail threshold 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No

1 pps

Ipps Wander	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - (?)
Time Error (TE)	<ul style="list-style-type: none"> - TE, max TE 	<ul style="list-style-type: none"> - TE, max TE 	<ul style="list-style-type: none"> - TE, max TE 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> -

1544 MHz, 2048 MHz, 10 MHz

MHz Wander	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - TIE, MTIE, TDEV 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - (?)
MHz Jitter	<ul style="list-style-type: none"> - YES 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No 	<ul style="list-style-type: none"> - No

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ETHERNET - IP					
Test Ports	<ul style="list-style-type: none"> 10G WAN, 1000BASE-X, 10/100/1000BASE-T, 100BASE-FX Dual Port 	<ul style="list-style-type: none"> 10G WAN, 1000BASE-X, 10/100/1000BASE-T, 100BASE-FX Dual Port 	<ul style="list-style-type: none"> 10G WAN, 1000BASE-X, 10/100/1000BASE-T, 100BASE-FX Dual Port 	<ul style="list-style-type: none"> 10G WAN, 1000BASE-X, 10/100/1000BASE-T, 100BASE-FX Dual Port 	<ul style="list-style-type: none"> 10G WAN, 1000BASE-X, 10/100/1000BASE-T, 100BASE-FX Dual Port
Frames	<ul style="list-style-type: none"> IEEE 802.3 / DIX VLAN, 802.1ad / Q-in-Q MPLS FCS error insertion IPv4 and IPv6 	<ul style="list-style-type: none"> IEEE 802.3 / DIX VLAN, 802.1ad / Q-in-Q MPLS IPv4 and IPv6 	<ul style="list-style-type: none"> IEEE 802.3 / DIX VLAN, 802.1ad / Q-in-Q MPLS IPv4 and IPv6 	<ul style="list-style-type: none"> IEEE 802.3 / DIX VLAN, 802.1ad / Q-in-Q MPLS IPv4 and IPv6 	<ul style="list-style-type: none"> IEEE 802.3 / DIX VLAN, 802.1ad / Q-in-Q MPLS IPv4 and IPv6
Optical	<ul style="list-style-type: none"> Power Meter 	<ul style="list-style-type: none"> Power Meter OTDR 	<ul style="list-style-type: none"> Power Meter 	<ul style="list-style-type: none"> Power Meter 	<ul style="list-style-type: none"> No
PoE Plus	<ul style="list-style-type: none"> Yes PoE Plus 	<ul style="list-style-type: none"> No(?) 	<ul style="list-style-type: none"> No(?) 	<ul style="list-style-type: none"> Only standard PoE 	<ul style="list-style-type: none"> Only standard PoE
Cable test	<ul style="list-style-type: none"> TDR: Open, Short distance to fault Active links: MDI / MDIX Wiremap: Open, Short, Straight, Crossed, Polarity, Pair skew, Crosstalk 	<ul style="list-style-type: none"> TDR: Open/Short distance fault 	<ul style="list-style-type: none"> TDR: Distance to fault Wiremap: Polarity, Skew 	<ul style="list-style-type: none"> TDR: Open, Short distance to fault Cable length Wiremap: Open, Short, Straight, Crossed, Polarity, Pair skew 	<ul style="list-style-type: none"> No
Operation Modes	<ul style="list-style-type: none"> Terminal: IP, Ethernet, LI Pass through, Monitor Loop-back 	<ul style="list-style-type: none"> Terminal Monitor Loop-back 	<ul style="list-style-type: none"> Pass through Terminal Monitor Loop-back 	<ul style="list-style-type: none"> Pass through Terminal Loop-back 	<ul style="list-style-type: none"> Terminal Pass through, Monitor Loop-back
Latency	<ul style="list-style-type: none"> One-way delay with GPS Round Trip Delay (RTD) 	<ul style="list-style-type: none"> No OWD Round Trip Delay (RTD) 	<ul style="list-style-type: none"> OWD with GPS and CDMA Round Trip Delay (RTD) 	<ul style="list-style-type: none"> No OWD Round Trip Delay (RTD) 	<ul style="list-style-type: none"> No OWD Round Trip Delay (RTD)
Packet Capture	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> No
Streams	<ul style="list-style-type: none"> 8 streams 	<ul style="list-style-type: none"> 8 streams 	<ul style="list-style-type: none"> 10 streams 	<ul style="list-style-type: none"> 16 streams 	<ul style="list-style-type: none"> 16 streams
Measurements	<ul style="list-style-type: none"> BERT Alarm Detection/Genera 	<ul style="list-style-type: none"> BERT Alarm Detection Service Disruption Time PBB (MAC-in-MAC) 	<ul style="list-style-type: none"> BERT Alarm Detection Service Disruption Time 	<ul style="list-style-type: none"> BERT Alarm Detection Service Disruption Time 	<ul style="list-style-type: none"> BERT Alarm Detection/Genera Service Disruption Time PBB (MAC-in-MAC)
Protocols	<ul style="list-style-type: none"> DHCP, ARP, DNS Ping, Traceroute 	<ul style="list-style-type: none"> DHCP, ARP, DNS Ping, Traceroute FTP, HTTP 	<ul style="list-style-type: none"> DHCP, ARP, DNS Ping, Traceroute FTP, HTTP 	<ul style="list-style-type: none"> DHCP, ARP, DNS Ping, Traceroute FTP, HTTP 	<ul style="list-style-type: none"> DHCP, ARP, DNS Ping, Traceroute
Bandwidth Profiles	<ul style="list-style-type: none"> Constant, Burst, Ramp, Random 	<ul style="list-style-type: none"> Constant, Burst, Ramp 	<ul style="list-style-type: none"> Constant, Ramp, Bursty, Flood 	<ul style="list-style-type: none"> Constant, Burst, Ramp 	<ul style="list-style-type: none"> Constant, (Burst), Ramp
Ethernet OAM	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes
RFC-6349	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes
RFC-2544	<ul style="list-style-type: none"> Symmetric Asymmetric (with GPS) Throughput, Back-to-back, Frame loss, Latency, System recovery 	<ul style="list-style-type: none"> Symmetric Asymmetric Throughput, Back-to-back, Frame Loss, Latency 	<ul style="list-style-type: none"> Symmetric Asymmetric Throughput, Back-to-back, Frame loss, (Jitter), Latency, System recovery 	<ul style="list-style-type: none"> Symmetric Throughput, back-to-back, frame loss and latency 	<ul style="list-style-type: none"> Symmetric Asymmetric (with GPS) Throughput, back-to-back, frame loss and latency
Y.1564 (eSAM)	<ul style="list-style-type: none"> Symmetric Asymmetric (with GPS) 	<ul style="list-style-type: none"> Symmetric 	<ul style="list-style-type: none"> Symmetric Asymmetric 	<ul style="list-style-type: none"> Symmetric Asymmetric (?) 	<ul style="list-style-type: none"> Symmetric Asymmetric (with GPS)

(C) ALBEDO TELECOM

	xGenius	VePAL TX320s	MTS-5800	NetBlazer V2	MT1000A
E1 - T1					
Frames	<ul style="list-style-type: none"> E1 (PCM-30/C, PCM-31/C) DS1 (Q4-2015) 	<ul style="list-style-type: none"> E1, E2, E3 DS1, DS3 	<ul style="list-style-type: none"> E1, OC-3 to OC192 STM-1 to STM-64 	<ul style="list-style-type: none"> E1, OC-3 to OC192 STM-1 to STM-64 	<ul style="list-style-type: none"> E1, OC-3 to OC192 STM-1 to STM-64
Modes	<ul style="list-style-type: none"> Terminal Monitor, Pass-through, Loop-back, Mux-Demux, Analogue 	<ul style="list-style-type: none"> Terminal Monitor, Pass-through, Loop-back, Analogue 	<ul style="list-style-type: none"> Terminal Monitor, Pass-through, Loop-back, Analogue 	<ul style="list-style-type: none"> Terminal Monitor, Pass-through, Loop-back, Analogue 	<ul style="list-style-type: none"> Terminal Monitor, Pass-through, Loop-back, Analogue
Measurements	<ul style="list-style-type: none"> Attenuation Frequency, Freq. deviation 	<ul style="list-style-type: none"> Attenuation Frequency 	<ul style="list-style-type: none"> Attenuation Frequency, Freq. deviation 	<ul style="list-style-type: none"> Attenuation Frequency, Freq. deviation 	<ul style="list-style-type: none"> Attenuation Frequency, Freq. deviation
Analysis I	<ul style="list-style-type: none"> G821, G826, M2100 CAS, G711 	<ul style="list-style-type: none"> G821, G826, M2100 CAS, G711 	<ul style="list-style-type: none"> G821, G826, M2100 CAS, G711 	<ul style="list-style-type: none"> G.821, G.826, G.828, G.829, M.2100, M.2101 	<ul style="list-style-type: none"> G.821, G.826, M.2100
Latency	<ul style="list-style-type: none"> Round Trip Delay (RTD) One-Way Delay (OWD) 	<ul style="list-style-type: none"> Round Trip Delay (RTD) 	<ul style="list-style-type: none"> Round Trip Delay (RTD) 	<ul style="list-style-type: none"> Round Trip Delay (RTD) 	<ul style="list-style-type: none"> Round Trip Delay (RTD)
Pulse Mask	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> No(?) 	<ul style="list-style-type: none"> No(?)
Voice Frequency (VF)	<ul style="list-style-type: none"> Measurement, generation Add/drop 	<ul style="list-style-type: none"> Measurement, generation Add/drop 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No
E1/T1 Jitter	<ul style="list-style-type: none"> Analysis Jitter Generation 	<ul style="list-style-type: none"> Analysis Jitter Generation 	<ul style="list-style-type: none"> Analysis Jitter Generation 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No
E1/T1 Wander	<ul style="list-style-type: none"> TIE, MTIE, TDEV Wander Generation 	<ul style="list-style-type: none"> TIE, MTIE, TDEV Wander Generation 	<ul style="list-style-type: none"> TIE, MTIE, TDEV 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> No