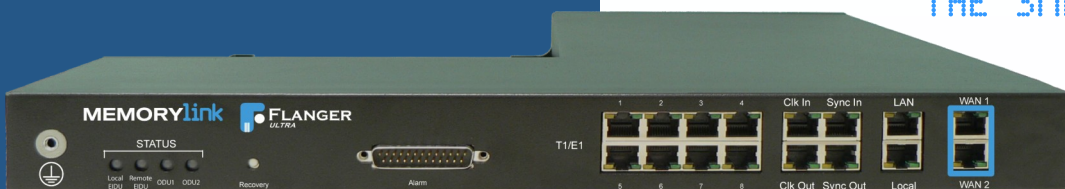


THE SMART CHOICE FOR PCS BACK-  
HAUL AND T1 / E1 LINKS



THE NEW STANDARD IN TDM  
OVER IP

### Flanger Ultra at a Glance

- Multiplexes eight T1/E1 ports to two gigabit Ethernet ports, and can be used in Point-to-Point, Cascaded Point-to-Point and Multi-point applications
- Provides a connection for the customer's gigabit LAN along with the TDM transmission over the same Ethernet link
- Supports six T1/E1 clock modes on a per-channel basis
- Supports synchronization with cascaded Ultra units
- Allows the connection of external T1/E1 timing references
- Fully compatible with the Flanger 4 Plus™, 4-port multiplexer
- Allows the connection of up to five alarm inputs and three alarm outputs
- VLAN tagging and type of service (TOS) prioritization
- Provides a local Ethernet port for configuration and management and an HTTP interface
- SNMP Support

For more information,

please call: 1-866-398-4336 or 847-259-9680

Memorylink's Flanger Ultra™ is the smart backhaul alternative, a proven solution for T1 and E1 replacement. Perfect for PCS operators, Telco carriers, and enterprise customers faced with the challenge of enhancing capacity while minimizing both CAPEX and OPEX. When coupled with a compatible wireless broadband radio link, this flexible, reliable product delivers significant cost-savings over both conventional licensed microwave and leased line alternatives.

Backhaul is one of the largest expenses both in constructing and operating a mobile network, and today most carriers are looking for new strategies and solutions that deliver improved OPEX and CAPEX. The Flanger Ultra, combined with an Ethernet radio link, offers a compelling value proposition, with payback measured in months. It's ideal for carriers planning that transition from 2G to 3G networks, with the scalability and flexibility to grow.

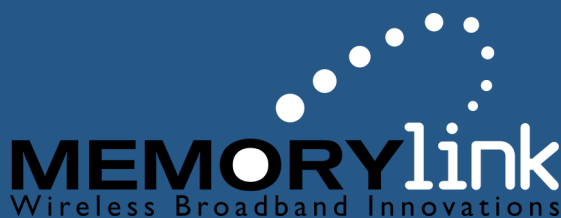
Memorylink's Flanger Ultra TDM over IP multiplexer enables point-to-point tunneling of conventional time-division-multiplexed (TDM) telephony DS1 channels across both wired and, more importantly wireless broadband IP links. Unlike most if not all competing multiplexers, which were designed solely with wired IP networks in mind, the Flanger Ultra enables rock solid transport of telephony TDM traffic over wireless broadband IP links. It provides a low-latency TDM-over-IP solution using Memorylink's Metawire™ technology, which is essentially pseudo-wire capability over wireless broadband IP.

Each pair of Flanger Ultra multiplexers can transport up to eight DS1 channels as well as a "wayside data" channel which supports an additional IP payload end-to-end over a given link.

- The Flanger Ultra supports traffic control and management, enabling "voice" and "data" prioritization. It provides seamless encapsulation and transport of TDM traffic.
- The Flanger Ultra is capable of working with Memorylink's UltraSync™ products which generate a precise, highly stable, sync signal for timing synchronization.
- The Flanger Ultra is not only ideal for cellular/mobile carriers to implement wireless backhaul of their telephony channels, but also for enterprise customers wanting to link regional or campus-wide telephony and LAN networks.

# FLANGER ULTRA MX-8000G SPECIFICATIONS

Ports		Standards	
<b>Ethernet Ports (RJ45)</b>	Auto MDI/MDIX Full/Half Duplex 2 10/100/1000baseT Ethernet WAN ports with phantom power over Ethernet for wireless broadband radio power 1 RJ45 10/100/1000baseT Ethernet LAN port 1 RJ45 10/100baseT Ethernet local configuration port	<b>Unframed T1/E1 Traffic</b>	T1 G.703 and T1.403
<b>Timing Ports (RJ45)</b>	TDD synchronization input and output Clock input and clock output	<b>Jitter/Wander Performance on T1/E1 Ports</b>	ITU-T G.823 SYNC IF Requirements when using radio timing mode or external timing mode
<b>DS1 - T1/E1 (RJ45)</b>	Eight ports meeting ANSI T1.403, ITU-T G.703, AT&T TR62411	<b>Clock Synchronization</b>	Meets 3GPP TS25.104 or ETSI TS 125 402 (50ppb)
<b>DB-25M External Alarm I/O Port</b>	Five external alarm inputs Three external alarm outputs	<b>SNMP</b>	V2.c
<b>Internal Alarm Support</b>	Temperature alarm Output voltage alarm Battery voltage alarm T1/E1 channel status alarm TDD Sync status alarm Clock source status alarm	<b>Ethernet</b>	IEEE 802.3, 802.3u (10/100) and 802.3ab (10/100/1000) Prioritization: VLAN tagging IEEE 802.1Q - TOS: IETF RFC 1349
<b>Interfaces and Indicators</b>			
<b>User Interfaces</b>	Local and remote Web interface, Command Line Interface via telnet		
<b>Front Panel Indicators</b>	Local status, Remote status, RF1 status, RF2 status		
<b>RJ45 Port LEDs</b>	T1/E1 port status, Ethernet status, TDD sync input & output status, T1/E1 clock input & output status		
<b>Environmental</b>		<b>Physical</b>	
<b>Operating Temperature</b>	-40 C to +60 C	<b>Housing</b>	Standardized EIA 310-D, IEC 60297 1U 19-Inch Mountable Rack
<b>Storage Temperature</b>	-40 C to +85 C	<b>Dimensions</b>	Height 1.75" in (44.45mm) Width 19" in (482.6mm) Depth 14" in (355.65 mm)
<b>Operating/Storage Humidity</b>	95% maximum (non-condensing)		
<b>High Temperature Exposure and Thermal Shock / Flamibility</b>	GR-63-CORE		
<b>EMI</b>	Telecordia GR-1089-CORE	<b>Weight</b>	Approx. 10lbs (4.54) without additional power supplies
<b>ESD</b>	GR-78-CORE sections 9.4 and 9.5, GR-1089-CORE system level ESD	<b>Passive Cooling</b>	No Fan
<b>Electrical Parameters</b>		<b>Power Parameters</b>	
<b>Input Voltage</b>	24-48 VDC	<b>Max Power Consumed</b>	25 W
<b>Input Current</b>	8A Maximum	<b>Max Power Provided to ODU (each)</b>	55W (55V at 1A)
<b>Optional AC Power Supply</b>	Can also be powered by Memorylink 56V AC power supply. Part Number 5300-1256-K	<b>Max Power Provided to Sync port</b>	To power an external UltraSync : 1.5W (12V at 125mA)
<b>Optional Motorola PIDU</b>	Can also be powered by Motorola's PIDU (Power Indoor Unit) Input: 55VDC, 1.4A Max	<b>Ground</b>	Chassis ground screw - terminal connection
<b>Regulatory</b>			
FCC Part 15, Subpart J, Class A - CE - TUV Pending			
Restriction of Hazardous Substances - RoHS Directive 2002/95/EC Compliant			



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