The NetVanta® 838T is a Carrier Ethernet Network Termination Unit (NTU) that terminates up to eight e.SHDSL copper pairs. Four 10/100 Ethernet ports are provided for customer use. The NetVanta 838T is designed for cost-effective deployment of voice and data services to small- and medium-sized businesses, supporting bandwidth indoors of up to 120 Mbps. However, typical deployments using outside plant copper for extended distances will be closer to 16 Mbps. The NetVanta 838T is designed for LAN, WAN and MetroEthernet extension as well as supporting Voice over IP (VoIP) applications with voice, video and data traffic. Enterprise customers, as well as integrated communications providers like CLECs, ILECs and ISPs, will benefit from this intuitive, easy to install, plug-and-play unit. A key feature of this unit is auto line detection, which enables synchronization with data rates from 192 Kbps to 15 Mbps without operator intervention.

In the event that a single loop fails, the NetVanta 838T will continue to operate on the remaining loop, providing additional resiliency. Once the failed loop is operational again, the NetVanta 838T will automatically detect its availability and will auto-recover to the original configuration.

The EIA-232 craft port enables local access for configuration and status information. The SHDSL Ethernet over Copper provides carriers a management channel to remotely configure and collect status information.

The compact design provides safety and reliability required for customer premises installations. It can be wall or rack mounted depending on customer preference. When wall mounted, the NetVanta 838T only occupies an eight-inch by 12-inch area of the customer’s telephone wiring closet. For rack mount installations, custom 19-inch rackmount shelves are available.
NetVanta 838T

Eight-Port, SHDSL EFM Ethernet NTU

Physical Interface

Network Interface
■ RJ-21 e.SHDSL

Client Interface
■ Four Autosensing 10/100Base-T Ethernet
■ RJ-45
■ Auto MDI/MDIX
■ Auto-Rate
■ Auto-Duplex
■ All Ethernet ports may be used for either network
WAN or customer-side LAN connections

Management: Console Port
■ DB-9
■ EIA-232

Diagnostics LEDs
■ Power/Alarm LED
■ Ethernet LED
■ SHDSL Loop Status for Each Loop

Environment
■ Operating Temperature: -40 to +149F (-40 to +65C)
■ Storage Temperature: -40 to +185F (-40C to +85 C)
■ Relative Humidity: Up to 95%, Non-condensing

Physical Specifications
■ Dimensions: 1.75 in. x 12 in. x 8 in. (H x W x D)
(44 mm x 305 mm x 203 mm)
■ Weight: 4 lbs (1.8 kg)
■ AC Power: Universal power supply 100–240 VAC,
50/60 Hz
■ Power Dissipation: 14 watts maximum

DSL Features
■ Variable rate bonding for the SHDSL loops
■ Auto-failover and recovery
■ Plug-and-play auto-line detection

Ethernet Features
■ IEEE 802.1p priority marking
■ IEEE 802.1d dynamic/transparent bridging
■ IEEE 802.1Q VLAN tagging
■ IEEE 802.3u Ethernet
■ MEF 9/14 certified EPL, EVPL, ELAN

Ethernet Services Support
■ Priority queuing of traffic based on VLAN priority
■ Supports eight class of service queues
■ Per UNI port, CE VLAN ID (C-Tag) and/or CE VLAN
P-bits, DSCP fields
■ Single stack VLAN and double stack VLANs (Q-in-Q)
■ Manipulation based on 802.1p and DSCP fields
■ STAG TPID provisioning supports 802.1ad and
802.1Q standards
■ Port-based service support

Services Scale and Flexibility
■ MEF 9, 14 compliant EPL, EVPL, ELAN
■ Configurable EtherType and TPID for
service flexibility
■ VLAN IDs 0–4095; EVC configurable in the
range of 2–4094
■ Configurable MTU from Mini Jumbo frame support
(1700 Bytes)
■ 16k active MAC address; Ability to disable MAC
learning (32k support future software)
■ Ingress policers (tr3CM), CIR and EIR settings to
64 kbps granularity, Configurable Burst through
EBS, CBS settings
■ Egress shaping per port (per port per queue
and per up to 16 VLAN groups in future)

Resources
■ 64 EVCs
■ 64 EVC Maps
■ 64 Policers
■ 4 EFM Group

Fault and Performance Management
■ IEEE 802.3ah EFM standard
■ ITU-T Y.1731 CFM, PM
■ Supports OAM management status and
loopback messaging
■ Supports Terminal and Facility MAC-Swap Loopback

Management and Administration
■ Management Methods
■ Craft interface (Local, EIA-232)
■ SNMP proxy via TA838 LTU, TA1400S series
and TA5000
■ Local: YMODEM through craft port
■ Remote: Managed through TA838 LTU, TA1400S
series and TA5000
■ Configuration script download

Regulatory Agency Approvals
■ FCC Part 15 Class A
■ FCC Part 68
■ UL 60950, CAN/CSA C22.2 No. 60950
■ EN 60950, IEC 60950, AS 3260/ AS NZS60950
■ NEBS Level 3
■ S043.2
■ ITU-T K21:2000 Basic

Ordering Information

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetVanta 838T US Power</td>
<td>117238G1</td>
</tr>
<tr>
<td>NetVanta 19-inch Rackmount Install Kit</td>
<td>117294G1</td>
</tr>
<tr>
<td>NetVanta 23-inch Rackmount Install Kit</td>
<td>117298G1</td>
</tr>
</tbody>
</table>