



ADTRAN

# 1148V-DMT

48-Port Sealed FTTN with EoDMT Backhaul



## Benefits

- Environmentally sealed, temperature hardened standalone VDSL2 FTTN solution enables rapid deployment of ultra-broadband services
- Supports bonded VDSL2 to deliver 100 Mbps over 1,500 ft. from the node
- Provides silent operation and low profile construction abiding to strict residential zoning rules
- Supports IPTV video service
- Can be mounted on a pole, pedestal, cross-box or remote terminal delivering ultra-low Total Cost of Ownership (TCO)
- Supports expansion up to 192 subscribers
- Reduces installation cost via flexible powering options (span, AC and DC powering)

## Overview

### Accelerating Gigabit Services

Premium broadband services are fueling the need for pushing fiber deeper into the network and closer to the end user. However, the cost of delivering Fiber-to-the-Home (FTTH) can be both cost prohibitive as well as time-consuming, particularly in remote and rural locations. Next-generation broadband technologies such as Bonded and Vectored VDSL2 enable service providers to utilize existing copper infrastructure in combination with sealed Fiber-to-the-Node (FTTN) solutions to cost-effectively deliver ultrabroadband (100+ Mbps) and IPTV services to subscribers in all areas.

### Faster Time-to-Market

The ADTRAN 1148V-DMT (Discrete Multi-Tone) compact sealed FTTN solution allows service providers to realize 100 Mbps speeds with their existing copper infrastructure, economically delivering ultra-broadband services to the home using bonded VDSL2.

ADTRAN designed the standalone, weather-proof 1100 Series FTTN systems to be mounted on a pole, pedestal, cross-box, remote terminal or other challenging locations, eliminating

the need for expensive cabinet enclosures, heat exchangers and site construction, which accounts for a large portion of the total cost of deployment. This allows for ultra-broadband services deployment within days, instead of months, dramatically lowering deployment costs.

### Monetize Existing Copper Assets

Equipped with 8-pair bonded for copper backhaul, a non-blocking architecture, and a rich carrier-based feature set that supports multimedia services, the 1148V-DMT is ideally suited for ultra-broadband (100 Mbps) service delivery in difficult to serve locations. The 1148V-DMT supports copper uplinks (up to 8-pair bonded copper), allowing service providers to utilize existing copper infrastructure to quickly expand VDSL2-based ultra-broadband services in remote or rural areas.

The 1148V-DMT is also a future-proofed solution and provides four 1/2.5 Gigabit Ethernet uplinks to support the transition to FTTN applications. As demand grows, and fiber buildout makes economic sense, the copper uplinks can be upgraded to faster GigE fiber backhaul, to deliver higher broadband speeds and enhance customer satisfaction.

# ADTRAN 1148V-DMT

## Cost-Effectively Expand Footprint

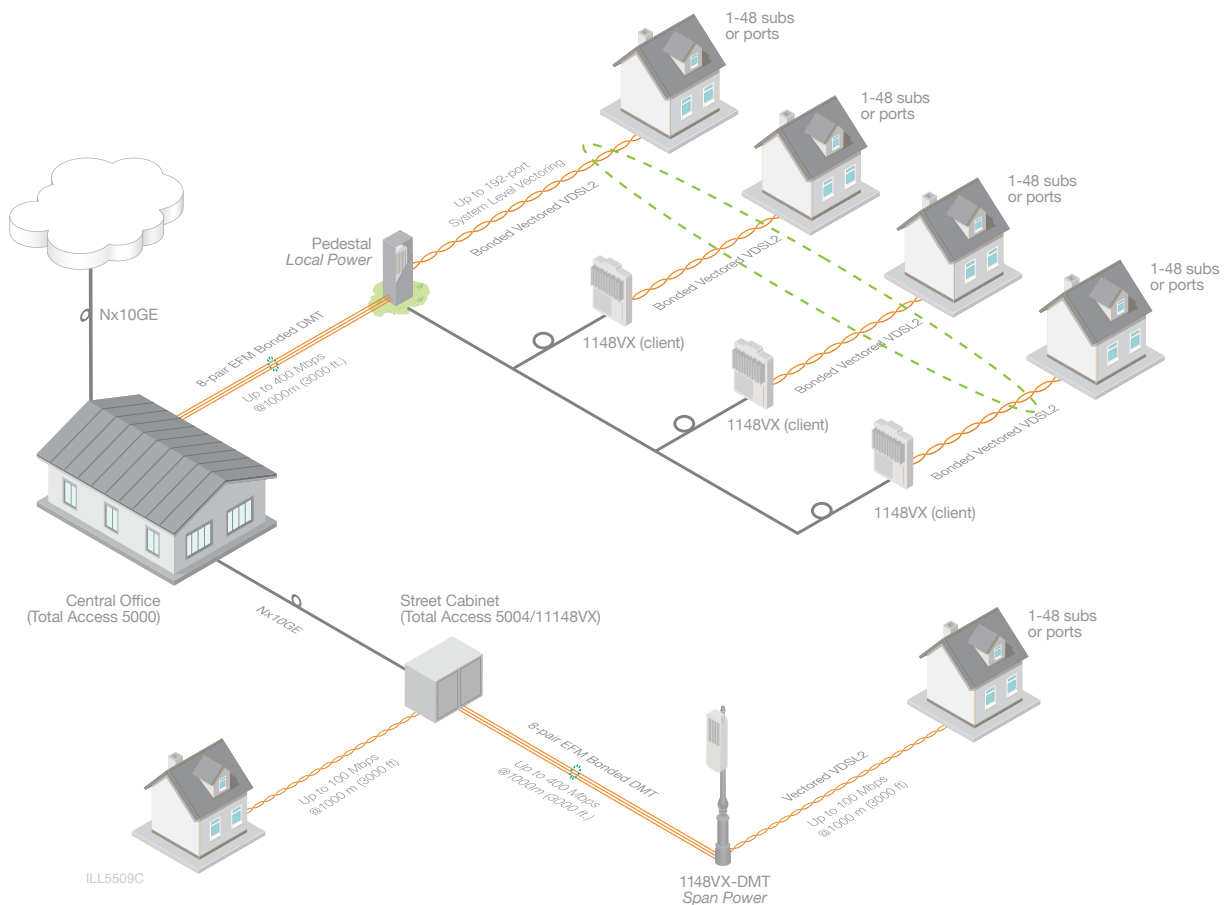
Integrated 1 Gigabit Ethernet switching in the 1148VDMT host units enable the connection of up to four 1148V nodes to create an FTTH system that scales to 192 ports in a single, managed node, accommodating long-term growth and lowering initial circuit costs. Integrated splitters and primary protection eliminate the need for extra equipment and provide the absolute smallest footprint for the 1148V-DMT VDSL2 system.

## Lower Operation and Maintenance Costs

Developed with concern for carrier field needs, the 1148V-DMT comes with customer-accessible cables that allow for quick replacement of units in the field. Several cable lengths with MS2 or 710 type connectors or unterminated stub are

available to accommodate the needs of all service providers. The 1148V-DMT can be remotely provisioned and managed using TL1, Telnet, SNMP, or the Advanced Operational Environment (AOE) management suite, allowing service providers to operate the unit without a truck dispatch.

RFT-V span, 100-240 VAC, and -48 VDC local powering options are offered within the unit, eliminating the need to order and spare different part numbers for different applications. Span powering from the central office allows for the centralization of battery backup and dramatically reduces deployment costs. The 1148V-DMT uses 1 to 8 powering pairs from the central office with the actual pair count dependent on the desired deployment range.



# 48-Port Sealed FTTN with EoDMT Backhaul

## Product Specifications

### Mechanical

- **Dimensions:** 21.9 in. x 16.8 in. x 4.5 in. (55.7 cm x 42.7 cm x 11.5 cm) (H x W x D)
- **Weight:** 48 lbs (22 kg)
- **Outdoor Mounting:** Pole, Pedestal, Cross-box, Remote Terminal, other challenging locations

### Access

- 48 subscriber ports of VDSL2 for high speed internet.
- Well-suited for 100Mbps services delivery under 1500 ft. (400 meters)

### Network

- 4x1/2.5 SFP Interfaces
- Resilient Ethernet Ring per ITU-T G.8032 (ERPS)

### DMT Specifications

- **Modulation Type:** Discrete Multi-Tone (DMT)
- **Mode:** Full Duplex, Non-overlapped
- **Standards:** T1.413;G.992.1 Annex A; G.992.2 Annex A; G.992.3; G.992.4; G.992.5
- **Number of Pairs (DSL):** 48 (one per loop)
- **Downstream Data Rate:**
  - ◆ ADSL2: Up to 8 Mbps
  - ◆ ADSL2+: Up to 32 Mbps
  - ◆ VDSL: Up to 100 Mbps
- **Upstream Data Rate:**
  - ◆ ADSL: Annex A mode – up to 1 Mbps
  - ◆ ADSL2+: Annex M mode – up to 2 Mbps
  - ◆ VDSL: Up to 50 Mbps
- **DSL Service Range:** 18,000 feet (5.5 km)

### DSL Standards

- ITU G.993.2 (VDSL2)
- ITU G.992.3 (ADSL2)
- ITU G.992.5 (ADSL2+)
- ITU G.993.5 (G.vector)
- G.998.1 (ATM Bonding)
- G.998.2 (EFM Bonding)

### VDSL2 Profiles and PSDs

- Profiles 8a-d, 12a-b, 17a
- Annex A and Annex B PSDs

### IPTV Services Support

- Internet Group Management Protocol (IGMP) v2 and v3
- Dynamic Host Configuration Protocol (DHCP) Support with option 82

### Ethernet Services Support

- Single Stack VLAN and Double Stack VLANs
- (Q-in-Q) Manipulation
- Flexible Traffic Classification
- Ingress Policing and Egress Shaping
- IGMP Snooping and Proxying

### Security

- Management AAA via RADIUS and TACACS+
- SSHv1/v2, SFTP, and HTTPS

### Diagnostics

- Self Test

### Management

- **Local:** Local Craft Interface (DB9, RS-232)
- **Remote:** TL1, Telnet, SNMP, Advanced Operational Environment (AOE) Management Suite

### Environmental

- **Operating Temperature:** –40° F to 149° F (–40° C to 65° C)
- **Storage Temperature:** –40° F to 285° F (–40° C to 85° C)
- **Relative Humidity:** 95%, Non-Condensing
- **Environmentally Hardened:** Fully Sealed, Watertight

### Power

- Local DC Power: –48 VDC
- Local AC Power: 100-240 VAC, 50/60 Hz,
- Auto-ranging AC Power Supply
- Line Power: 1 to 8 Line-Powering Pairs (+/- 190 VDC per pair)

### Regulatory Standards

- GR-487-CORE, Issue 4
- NEBS Level 3
- GR-1089-CORE, Issue 6
- GR-63-CORE, Issue 4
- UL 60950-1/22
- RoHS Compliant
- FCC Part 15

# ADTRAN 1148V-DMT

## Ordering Information

Equipment	Part No.		
1148V-DMT HOST, ANSI	1179950F1		
1148VX Client, CALA, BLV	1179931F1		
1148V Host to Client Expansion Cable	1179830G1		
1148V (4th Gen) Pole Mount Bracket	1179779G1		
1148V (4th Gen) Wall Mount Bracket	1179779G2		
1148V (4th Gen) Cooled Mount Bracket	1179779G4		
Accessories			
Span Power			
1148V (4th Gen) 8-pair cable HD-710, 20	1179814G8		
1148V (4th Gen) 8-pair cable HD-MS2, 20	1179814G9		
Additional Accessories			
11xx DC power cable, 20'	1179810G2		
11xx DC power cable, 40'	1179810G3		
11xx AC power cable, 8'	1179810G4		
11xx Alarm cable, 20'	1179810G5		
TA11xxA/V/P PG13.5/29 Wrenches	1179842G1		
TA11xxA/V/P PG13.5/29 Grommets	1179841G1		
POTS, POTS/DSL, Fiber	5 ft	15 ft	20 ft
Cable Kit, 1148V, CAT5 AMP (MS2)	1179815F2		1179815F4
Cable Kit, 1148V, CAT5 AMP (710)	1179815G1		1179815F3
Cable Kit, 1148V CAT5 STUB		117815F7	1179815F8
100-Pair 24 AWG (MS2)	1179816F1		1179816F2
100-Pair 24 AWG (710)	1179816F4		1179816F5
Cable Kit, 1148V, 24AWG STUB		1179816F7	1179816F8

\*Additional cable lengths available for quote. Please email support@adtran.com or call 888-4ADTRAN for pre-sales support.



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ISO 9001  
ISO 14001  
TL 9000

