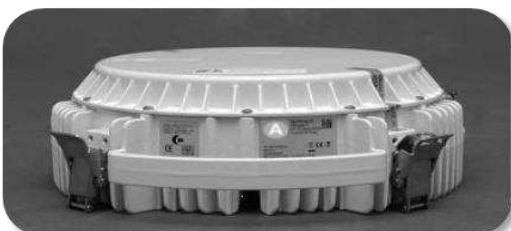


High Performance IP and TDM Microwave Radio



Features

- Advanced Radio and Digital Signal Processing**
 Up to 380 Mbps over-the-air throughput for single IDU configurations (Transcend™ 800L), 760 Mbps over-the-air throughput for coupled IDU configurations (Transcend™ 800ML) and multiple Gbps over-the-air throughput for N+0 configurations.
- Smaller Foot Print**
 Transcend™ 800ML, packed two IDU into a 1U chassis, simplifying cable interconnectivity, is the optimal solution for back-to-back or 2+0 configuration.
- True Adaptive Coding and Modulation (True ACM™)**
 Transcend™ 800L/ML automatically adjusts coding and modulation rates, without any payload error, to changing environmental conditions. This allows for sustained availability at overall higher capacity.
- High speed IP traffic – Gigabit Routing and Switching**
 Transcend™ 800L/ML includes a full featured built-in Layer 2 Gigabit Switch and Layer 3 Gigabit router. High Speed IP traffic is scalable up to Gbps with low latency.
- Add and Drop feature for TDM traffic**
 Transcend™ 800 offers powerful and complete Add/Drop Multiplex solution for TDM traffic
- Flexible Installation Configuration**
 Transcend™ 800L/ML is available in split-mount and full-indoor configuration for lower frequency bands.



Common Outdoor Unit (ODU) for all Advantech Wireless' microwave radios

Overview

The Transcend™ 800L/ML with integrated Layer 2 10/100/1000BaseT/1000Base-F Ethernet switch, full featured Layer 3 10/100/1000BaseT Ethernet router and optional support for up to 2 x STM-1/OC-3 or 20 x E1/T1s is the ideal carrier grade IP and TDM microwave radio. Transcend™ 800L/ML is the low cost high capacity, high performance, and flexible solution to demanding transmission, telecom and broadcast applications including backhauling 3G/4G traffic and Wireless Broadband Networks such as LTE, HSPA+, WiMAX, Metro WiFi, UMTS TDD, and private communication networks carrying data, voice, and HD video.

Transcend™ 800L/ML, Advantech Microwave's second generation microwave system offering True Adaptive Coding and Modulation™, dynamically and seamlessly adapts coding and modulation to path propagation conditions. The result is the Lowest Total Cost of Ownership; higher availability, smaller antennas, and longer hop distances.

Transcend™ 800L/ML can be flexibly configured as a narrow band or wide band IP, TDM, or mixed IP/TDM transport stream radio. Modulation and data throughput are programmable from QPSK to 256 QAM or up to 380 Mbps for a single carrier on Transcend™ 800L and 760 Mbps on Transcend™ 800ML. Operators can provision traffic capacity based on priority or dynamically change it to provide maximum throughput. Provisioning can be based on CoS priorities or QoS for VoIP traffic and is fully compatible with triple play to combine voice (Abis or VoIP) with GPRS and video services.

Traffic grooming, cross connection, expansion and redundancy is supported through the integration of a front plane high speed serial interface. Transcend™ 800L/ML supports a complete set of diversity and protection interfaces including full hot standby, frequency diversity, space diversity, polarization diversity and N+0. The inherent connectivity and flexibility of Transcend™ 800L/ML supports multiple network technologies including Ring, Mesh, Star, and Tree networks.

The Transcend™ 800L/ML includes a secure Embedded Element Manager (Web interface, Telnet and SSH) built upon open standards. Advantech Microwave's optional NetWay Manager is a complete network management suite compatible with all Advantech's point-to-point microwave radios.

Transcend™ 800L/ML

Transcend™ 800L/ML Specifications

Interfaces

- Synchronous Ethernet
- 8 x 10/100/1000 BaseT Ethernet Switch
- 4 x SFP Ethernet Switched optical or copper ports
- 2 x 10/100/1000 BaseT Ethernet Router
- 2 x STM-1/OC3 full duplex through SFP slots (optional)
- 20 x E1/T1 (optional)
- 4 x 10/100/1000 BaseT ports for NMS and EOW applications (traffic independent)
- DSUB-15 (f), Protection and Alarm Interface
- DSUB-9 (f) Serial console port for CLI
- 2 x High speed serial interface for redundancy and traffic aggregation
- Dual power supply connectors

Characteristics

Frequency bands (GHz)	4 – 38 GHz
Channelization	1.75 – 56 MHz for ETSI and 2.5 – 50 MHz for ANSI channel scheme (programmable)
Modulation	Programmable: QPSK, 16-QAM, 32-QAM, 64-QAM, 128-QAM, 256-QAM with True Adaptive Coding and Modulation™
Configuration	Unprotected, hot stand-by, space diversity, frequency diversity, polarization diversity and N+0
Installation Type	Split or All-Indoor
Ethernet Latency	200 us (typical value)

Management Functions

- Multiple simultaneous user support
- True IP management network (DCN)
- Supports host networking
- Automatic routing via RIP/OSPF
- Support Simple Network Time protocol (SNTP)
- CT management
- Active and standby software partitions for very robust operation
- Application software downloaded and updated without loss of traffic

Fault Management Functions

- Real-time alarm / event logs
- Acknowledgeable and re-configurable alarms / events
- Forwarding of alarms to 8 northbound Network Management
- Alarms/Events via SNMP TRAPS, e-mail (SMTP), as well as digital I/O and LED
- Rapid Spanning Tree protocol

Configuration Management Functions

- Embedded element managers:
- HTTP server for WEB based management
 - Text terminal interface and Telnet server for CLI
 - SNMP agent
 - MIB Browser
 - Embedded configuration log
 - Support of Cisco Discovery Protocol for automatic network discovery

Performance Management Functions

- Embedded Real time performance collection:
- Management traffic statistics
 - Payload traffic statistics

Security Management Functions:

- 4 User levels with reconfigurable passwords per user (http / CLI)

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An ISO 9001:2008 Company



PN: PB-T800L-ML-1W0-LNZ007-001-13150

Transcend™ 800L/ML

Physical

Environmental robustness According to ETSI & IEC standards, CE marking and Bell Telecordia GR-63-CORE

Dimensions:

Indoor Unit (IDU)	483x44x277 mm or 19x1.75x10.9inch, (1U) (WxHxD)
Outdoor RFU (ODU)	267x89x267 mm or 10.5x3.5x10.5inch (WxHxD, incl. handle)
Full-Indoor RFU	483x264x277 mm or 19x10.5x10.9inch, (6U) (WxHxD)

Weight:

Indoor Unit (IDU)	< 3.2 kg or 7 lbs
Outdoor RFU (ODU)	< 5 kg or 11 lbs
Full-Indoor RFU	< 11 kg or 24 lbs

Temperature:

Indoor Unit (IDU)	-5 to +50 C
Radio Frequency Unit (ODU)	-33 to +55 C (full specification) -45C to +55C (operational) Up to +60C with solar shade

Electrical:

Power Consumption	100 W (typical split-mount with 800ML), 300 W (typical full-indoor with 800ML)
Voltage Supply DC	+/-48 VDC
Voltage Supply AC	100/240 VAC
ODU-IDU cable length	up to 300 m

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