

## Transcend™ VP



Transcend VP Indoor Unit (IDU)

### Features

- Industry leader in System Gain resulting in smaller antennas and longer distances between antennas
- Common ODU architecture with other Transcend™ radios supporting low cost future radio capacity expansion
- Automatic Transmit Power Control (ATPC) to reduce interference, improve residual BER, and reduce fade effects
- Software Controlled Capacity Selection with flexible assignment between Ethernet and TDM traffic
- Up to 16 E1/T1s supported with remaining capacity available for Ethernet traffic
- Ethernet traffic capacity ranges up to 31 Mbps
- Built-in Layer 2 10/100BaseT Ethernet Switch and Layer 3 router with full support for QoS and VLAN
- High Speed Interface for traffic grooming and expansion
- Fully Integrated Embedded Element Management



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

### Overview

Transcend™ VP is the Value Proposition solution to microwave radio links – designed and built for cost, reliability, and performance. The Transcend™ VP split-mount microwave radio is software adjustable up to 16 x E1/T1s with simultaneous support of TDM and Ethernet traffic. Transcend™ VP delivers an optimized solution for telecom and data communication networks. With wide frequency support covering all licensed bands and bandwidths from 6 GHz to 38 GHz and the highest system gain in the industry, Transcend™ VP meets worldwide coverage demands for different network configurations and path conditions. Transcend™ VP includes full featured Ethernet switching and routing functionalities through its built in 4-port 10/100 BaseT Ethernet switch. Ethernet capacity can be flexibly assigned with support for port-to-port VLANs, flow control, and statistics. Microwave network configuration is simplified through Transcend™ VP's ability for automatic discovery of other radios along a network via an Ethernet cable or a radio link. IP configuration is also flexibly supported through RIP. Advanced Ethernet functionalities include traffic shaping.

Traffic grooming, cross connection, expansion, and redundancy is supported through the integration of a front plane high speed serial interface. This ring network's serial connection offers high bandwidth, forward compatibility with Advantech Wireless latest radios and flexibility in radio and rack layout.

Transcend™ VP includes a secure Embedded Element Manager (Web interface, Telnet, and SSH) built upon open standards. Advantech Wireless optional NetWay Manager™ is a complete network management suite fully compatible with all Advantech Wireless point-to-point microwave radios. NetWay Manager Enterprise edition can be used both as a Network Element Manager and as a Network Management System giving you a total overview of all network elements with standard protocols.

## Transcend™ VP

Specifications	
Management Functions	Configuration Management Functions
Multiple simultaneous user support	<b>Embedded element managers:</b>
True IP management network (DCN)	HTTP server for WEB based management
Supports host networking	Text terminal interface and Telnet server for CLI
Automatic routing via RIP	SSH
Support Simple Network Time protocol (SNTP) for centralized time management	SNMP agent up to V3
Active and standby software partitions for very robust operation	Software download via RSYNC
Application software downloaded and updated without loss of traffic	MIB Browser via CLI Embedded configuration log
Performance Management Functions	
Embedded Real time performance collection and management of traffic and payload statistics	
Fault Management Functions	Security Management Functions
Alarm/event severities according to ITU X.733	4 User levels with reconfigurable passwords (http/CLI)
Real-time alarm / event logs	RFC Support
Acknowledgeable and re-configurable alarms / events	SNMP (RFC 1157, 1213, 1406, 1757 & 3410-3418)
Forwarding of alarms to northbound Network	
Management Alarms/Events via SNMP TRAPS, e-mail (SMTP), digital I/O and LED	

Frequency (GHz)	6	7	8	11	13	15	18	23	26	32	38
Transmit Max Power (dBm)	<b>30</b>	<b>27</b>	<b>27</b>	<b>26</b>	<b>26</b>	<b>26</b>	<b>25.5</b>	<b>24</b>	<b>23.5</b>	<b>22.5</b>	<b>22</b>
Receiver threshold in dBm for different RF channel bandwidths	2.5 MHz	-95.0		-95.5		-95.5	-95.5	-95.0	-95.0	-95.0	-92.5
	3.5 MHz	-93.6	-93.6	-93.6	-94.1	-94.1	-94.1	-94.1	-93.6	-93.6	-91.1
	5 MHz	-92.0		-92.5		-92.5	-92.5	-92.0	-92.0	-92.0	-89.5
	7 MHz	-90.5	-90.5	-90.5	-91.0	-91.0	-91.0	-91.0	-90.5	-90.5	-88.0
	10 MHz	-89.0		-89.5		-89.5	-89.5	-89.0	-89.0	-89.0	-86.5
	14 MHz	-87.5	-87.5	-87.5	-88.0	-88.0	-88.0	-88.0	-87.5	-87.5	-85.0
	20 MHz	-86.0		-86.5		-86.5	-86.5	-86.0	-86.0	-86.0	-83.5
28 MHz	-84.5	-84.5	-84.5	-85.0	-85.0	-85.0	-85.0	-84.5	-84.5	-83.5	-82.0

The presented values assume use of CPM.

Antenna Configurations	Integrated up to 1.2 m/4ft; up 3.7m/12ft non-integrated option; dual polarized option	
Redundancy	Hot Standby, Space Diversity, Frequency Diversity and Polarity Diversity	
Modulation	Continuous phase modulation	
Max. Cable length	300 m	
IF Coaxial Interface	50 Ω TNC (f) for IDU and N-Type (f) for ODU	
Traffic interface	ITU-T G.703 (2xDB-37(f) for TDM traffic) and IEEE 802.3 (4xRJ45 for IP traffic)	
E1/T1	Software-controlled up to 16xE1/T1	
Throughput	Software-controlled with up to 31 Mbps capacity depending on RF channel width.	
Network Management Interface (NMI)	4 port Ethernet L2 Switch/L3 Router (RJ-45 with Auto MDI/MDX), CLI / DTE Modem interface (DSUB-9 female) optional Embedded Control Channel in E1/T1 (ECC)	
Discrete Alarm Interface	DSUB-15 (f), 4 x Inputs, 2 x Form-C relay outputs	
USB Port	Used for back up, restore or software upgrade	
	IDU	ODU
Dimensions	(19" Rack, 1RU)	10.5 x 10.5 x 3.5" / 267 x 267 x 89 mm
Weight	<8.8lbs/ 4 kg	<10.1lbs/ 4.7 kg
Environment	-5°C to +55°C	-45°C to +55°C
IDU Power Consumption	30 W	
ODU Power Consumption	30 W (58 W for 6 GHz)	
IDU Power Supply	±36 Vdc to ±72 Vdc	

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