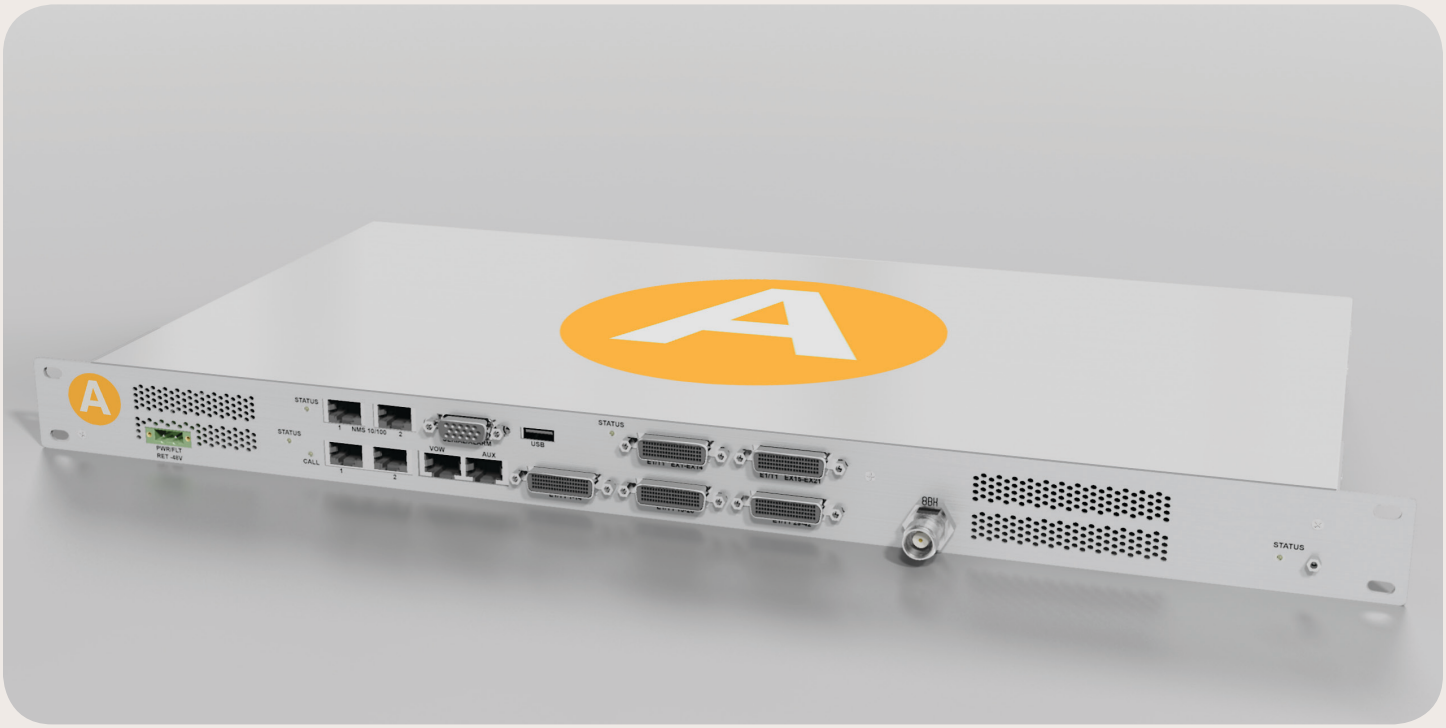
Advantech Wireless

AMR Transcend™ 600

microwave communications

SDH, PDH and High Speed IP Solution



Features

- **Advanced Radio and Digital Signal Processing**
  Up to 600 Mbps over-the-air throughput for single IDU configuration and up to 1 Gbps over-the-air throughput for coupled IDU configuration.
- **High Speed IP traffic**
  High speed IP traffic is scalable to 1 Gbps with very low latency. Traffic aggregation and QoS supported.
- **Add and Drop feature for TDM traffic**
  Up to 223 E1/284T1s can be mapped to East radio, West radio, or front panel.
- **Nodal Traffic Grooming**
  Flexible support of IP and TDM traffic with prioritization via quality and cost of service.
- **Built for Ring Architecture**
  Designed to support protected and East/West repeater configurations in a single 1U chassis. SDH/Sonet ring architecture supports self healing resulting in less equipment, fewer spares, and higher reliability.

Overview

With support of true over-the-air gigabit traffic and flexible support of Ethernet and TDM, the AMR TranscendTM 600 SDH/PDH carrier grade microwave radio is the high capacity, high performance, and flexible solution to demanding transmission and telecom applications including backhauling 3G/4G traffic and Wireless Broadband Networks such as WiMAX, Metro WiFi, UMTS TDD, and private communication networks carrying data, voice, and video traffic.

Overview (continued)

Transcend 600 can be flexibly configured as a PDH, SDH or IP radio. Modulation and data throughput rates are programmable from QPSK to 128 QAM or up to 600 Mbps for a single IDU or true 1 Gbps aggregated traffic from a coupled IDU. The standard 16x E1/T1 and 100BaseTX interfaces can be optionally augmented to include Gigabit Ethernet, expansion up to 63 E1/T1s, E3/DS3/STS-1, STM-1, and 2xSTM-1. Protected and East/West repeater configurations are supported within a single 1RU chassis resulting in compact installations with minimum cabling. For the highest reliability, Transcend 600 supports ring configurations including self-healing SDH/Sonet rings.

Nodal traffic grooming is supported through Transcend 600's Crosspoint Switch and Add/Drop multiplexer. The integrated Add/Drop Multiplexer allows mapping of up to 223 E1s or 284 T1s to the East Modem (maximum 64E1/84T1), West Modem (maximum 64E1/84T1), and Local Front Panel (maximum 63E1/63T1) as well as local STM-1 Ports.

Transcend 600 includes a secure Embedded Element Manager (Web interface, Telnet, and SSH) built upon open standards. Allgon Microwave's optional NetWay Manager™ is a complete network management suite compatible with all Allgon Microwave's point-to-point microwave radios.

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Specifications

Physical

- Scalable Fast Ethernet with full duplex support to 100 Mbps
- Scalable Gigabit Ethernet with full Duplex to 1 Gbps
- Expandable to 223E1/284T1
- Expandable to 2 STM-1/OC3 Full duplex

Connector

- Scalable Ethernet 2xRJ-45
- Scalable Gigabit Ethernet 1xSFP Slot, 4x10/100/1000Base-TX
- PDH 1-63 x E1/T1 RJ-48C & Molex High-Density 60-pin
- 1 or 2 STM-1/OC3 (Optical) Type fiber SC
- 1 or 2 STM-1 Electrical BNC

Standard Configuration

- Scalable Ethernet
- 16 (or 42) x E1/T1 Wayside or Traffic
- In-band Control Channel

Options

- Gigabit Ethernet Master IO
- 2 and 16 x E1/T1 Master IO
- Expansion 16 x E1/T1
- Expansion 21 x E1/T1
- 1 or 2xSTM-1/OC-3

Voice Service Channel

- Frequency 300-3400 Hz
- I/O Impedance 600 ohms

System

Frequency bands (GHz)	6 – 38 GHz
Channelization	7– 56 MHz programmable
Modulation	Programmable: QPSK, 16-QAM, 32-QAM, 64-QAM, 128-QAM
System Gain	from 88 to 120 dB depending on throughput and occupied bandwidth
Occupied bandwidth	Programmable
Forward Error Correction	Included as standard
Auto Transmit Power Control	Included as standard
Redundancy	Hitless switching

Rev. A7.1

Advantech
Wireless

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Physical

Antenna Unit	from 0.3 to 3.7 m or from 1 to 12 ft (depending on frequency)
Environmental robustness	According to ETSI & IEC standards, CE marking and Bell Telecordia GR-63-CORE
Dimensions:	
Indoor Unit	483x44x277 mm or 19”, 1U (WxHxD)
Radio Frequency Unit	267x89x267 mm or 10.5x3.5x10.5 inch (WxHxD, incl. handle)
Weight:	
Indoor Unit	< 3.2 kg or 7 lbs
Radio Frequency Unit	< 5 kg or 11 lbs
Temperature:	
IDU	from 5 to +50 C
ODU	from -33 to +55 C
Power	
Consumption	up to 100 W (1+0 terminal)
Voltage Supply	-48 Vdc
ODU-IDU cable length	up to 300 m