HARMONY FIRST MILE 200

THE HARMONY FIRST MILE 200 DELIVERS BOTH PERFORMANCE AND VALUE IN A FLEXIBLE PERIPHERAL SWITCH.

Part of the Harmony microwave solution, this reliable switch is optimized for tail and chain sites where 3G and LTE base stations are co-located with 2G base stations. This system also aggregates TDM and packet traffic locally.
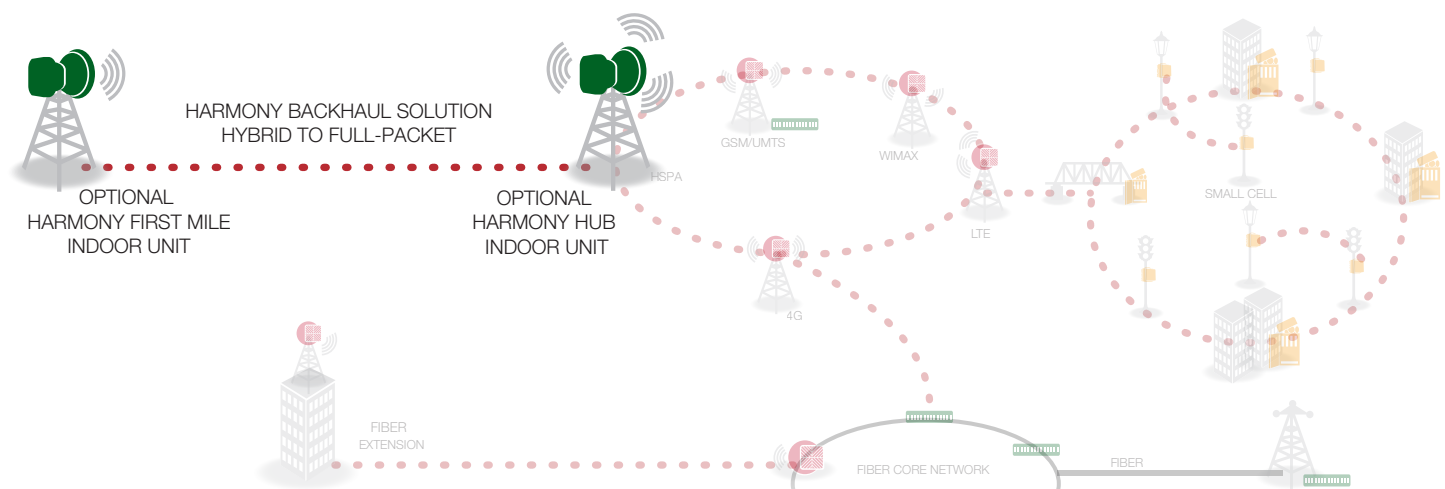
The Harmony First Mile 200 delivers 8 Gbps switching capacity, combined with E-LINE and E-LAN services, advanced QoS mechanisms, performance monitoring, fault detection and robust clock recovery.

With its extended operating temperature range and compact size, the Harmony First Mile 200 can be deployed within an outdoor base station housing or within its own enclosure, providing zero-footprint site installation.

The Harmony First Mile 200's access interfaces, which can be used to power the Harmony Radio, include Fast and Gigabit Ethernet and E1/T1.

SOLUTION HIGHLIGHTS

- 802.1ad provider bridging and 802.1Q bridging
- E-LINE and E-LAN services
- Advanced QoS with 8 priority queues, policing, shaping and weighted random early detection (WRED)
- Ethernet OAM: 802.1ag and ITU-T Y.1731
- Advanced clock synchronization with Synchrounous Ethernet, Adaptive Clock Recovery and Differential Clock Recovery
- Low power consumption (min. 15W)
- Power over Ethernet support for Harmony Radio
- RSTP/MSTP, G.8031, G.8032 network protection
- 8 x E1/T1 TDM ports
- 6 x 10/100/1000 Base-TX Ethernet Ports

HARMONY BACKHAUL SOLUTION
HYBRID TO FULL-PACKET

OPTIONAL
HARMONY FIRST MILE
INDOOR UNIT

OPTIONAL
HARMONY HUB
INDOOR UNIT

GSM/UMTS

HSPA

WIMAX

LTE

4G

SMALL CELL

FIBER
EXTENSION

FIBER CORE NETWORK

FIBER

SWITCHING CAPACITY

8 Gbps

ETHERNET PORTS

4 x 10/100/1000Base-T + 2 x GE SFP ports;
RJ-45 connectors (2 ports with embedded power to Harmony Radio)

1 local management port + 1 DCN port

2 in and 2 out dry contacts

TDM PORTS

8 E1/T1 TDM ports; RJ-48C connectors

SERVICES

E-Line and E-LAN service

E1/T1/J1 CESoPSN (RFC5086)

E1 SAToP (RFC4553)

BRIDGING AND VLAN MANIPULATION

E1/T1/J1 SAToP (RFC4553)

IEEE 802.1Q bridging

MAC table size: 8K

Support for Static MAC

VLAN insertion and translation

QUALITY OF SERVICE (QoS)

Traffic classification and mapping based on port, MAC, VLAN ID, VLAN priority bits, IP address, DSCP, etc.

Policing on port, VLAN, and queue

8 priority queues per port

Scheduler: Strict Priority, WDRR, WRR

Congestion Control: sRED

Per-port and per-queue traffic shaping

PERFORMANCE MONITORING

Packet counters according to RFC2819 RMON MIB, RFC2863

Y.1731 performance measurement

FAULT DETECTION

Y.1731/802.1ag

PROTECTION

xSTP based network protection

1+1 hot-standby (HSBY) nodal protection

LAG

G.8031, G.8032

50ms CES 1+1 linear protection

CLOCK SYNCHRONIZATION

Adaptive Clock Recovery (ACR)

Differential Clock Recovery (DCR)

Synchronous Ethernet with and without SSM

Clock sources:	Network clock via ACR/DCR/158v2
	Line clock from any E1/T1 port
	Synchronous Ethernet SSM
	Internal free-run clock

SUPPORTED ODU CONFIGURATIONS:

1+0

1+1 HSBY

POWER

Supply:	Up to 48V DC
Consumption:	Min. 15W

ENVIRONMENTAL

Operating Temperature Range:	-5°C to + 55°C / 23°F to 131°F

DIMENTIONS & WEIGHT

44.2 cm x 21 cm x 3.2 cm; 1 kg

16.6" x 8.3" x 1.3"; 2.2 pounds

DragonWave

www.dragonwaveinc.com