RADWIN MultiSector™ Connectorized

1.5Gbps base station supporting multiple external antennas, for low TCO deployments

RADWIN MultiSector Connectorized is a dual carrier base station supporting up to 4 external sector antennas. The self-contained base station notably reduces site complexity and TCO while enabling deployment flexibility through the mix and match of different antennas for best performance per deployment use case.

The MultiSector solution is perfect for network operators planning to deploy multiple base station sites with varied sector sizes and coverage, as typically required in rural connectivity, safe city and oil & gas applications.

The MultiSector dual carrier base station delivers up to 1.5Gbps and enables connectivity of up to four MIMO 2x2 antennas, two antennas per carrier of 750Mbps. The self-contained base station includes a built-in layer-2 Switch that aggregates the dual carrier traffic and internal GPS antenna to significantly reduce mutual interference with local or remote networks.

The MultiSector base station can cover 4 sectors with only 2 frequencies. Each of the radio carrier resources are split between 2 antennas in the time domain, avoiding signal power loss when using an RF splitter.

The output from one MultiSector antenna can be configured as self-backhaul to carry traffic from all other antennas to the hub site, eliminating the need for a Point-to-Point (PtP) radio.

The unit is fed through a single PoE and can be connected to the WAN over SFP.

MultiSector Connectorized highlights:

- Dual carrier base station
- Up to 1.5Gbps
- Up to 4 MIMO 2x2 external antennas
- Built-in Switch and GPS for synchronization
- Feed by single PoE
- WAN connection over SFP or PoE
- Optional self-backhaul
- Compatible with existing RADWIN Subscriber Units (SUs)

Main Applications:

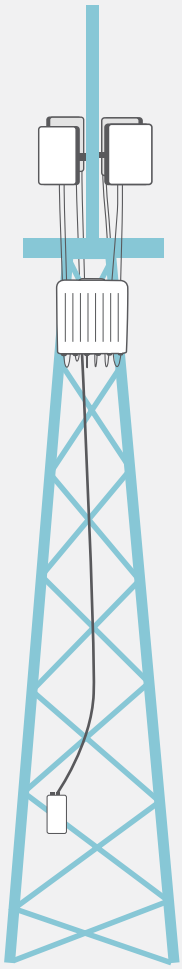
Rural Fixed Wireless Access (FWA)

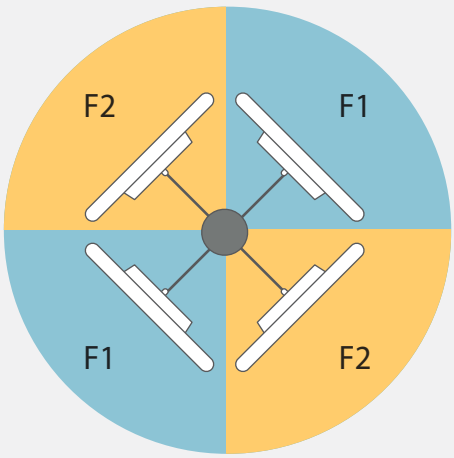
Safe city video surveillance backhaul

Digital oil field connectivity

Multisector Connectorized benefits:

- Sector antenna selection flexibility per network coverage requirements
- Reliable connectivity utilizing RADWIN's unique and robust air interface
- Reduced tower and site complexity due to a self-contained base station
- Frequency reuse 2, regardless of the antenna's performance
- Optional self-backhaul, eliminating the need for an additional PtP radio





MultiSector-Connectorized Specifications

Architecture	Outdoor unit and connectors for 4 external MIMO 2x2 antennas (8 x N-type)
Net aggregate Capacity	Up to 1.5 Gbps (2 x 750 Mbps)
Frequency band and regulation	Universal (4.9-6GHz), ETSI, FCC (5.1, 5.8GHz) WPC, IC (5.8GHz)
Radio	
Subscriber Units (SUs) support	Up to 128 SUs
End to End Latency	Typical: 3.5msec
SLA management	CIR, MIR, Best Effort
Radio access scheme	OFDM, Auto MIMO 2x2 /Diversity per SU
Adaptive Modulation	BPSK/QPSK/16QAM/64QAM/256QAM
Encryption	AES 128
Duplex Technology	TDD, Configurable Uplink/Downlink ratio
TDD Synchronization	Inter and Intra site synchronization through built-in GPS
Max Tx Power	23 dBm per radio per port
Channel Bandwidth	Configurable: 10, 20, 40, 80 MHz , automatic selection between 20,40,80MHz
Interfaces	
Data Interfaces	1000BaseT (over PoE) or SFP (1GbE Full Duplex, supports single and multi-mode)
PoE to ODU Interface	Outdoor CAT-5e; Maximum cable length: 75m for 1000BaseT
Networking	
Sub convergence layer	Layer 2, Bridging learning of 8K MAC addresses
QoS	Packet classification to 4 priority queues according to 802.1P or Diffserv
VLAN Support	802.1Q, QinQ, 4094 VLANs
Management	
Protocol	IPv4/IPv6 dual-stack; SNMP v1 and v3; HTTP/ HTTPS using web browser
NMS application	RADWIN NMS -WINManage
Mechanical	
ODU Dimensions	25.2(w) x 28.3(h) x 7.8(d) cm
ODU Weight	3.4 kg / 7.5 lbs
Power	
Power Feeding	Provided over PoE cable
Power Consumption	<30W
Environmental	
Operating Temperatures	-40°C to 60°C / -31°F to 140°F
Humidity	100% condensing, IP67
Safety	US/CAN (cTUVus), CE/IEC
EMC	FCC, ETSI, CAN/CSA-CEI/IEC, AS/NZS

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