

# RADWIN SOLUTION GUIDE

OUR RESOURCES ARE YOUR SOLUTION



RADWIN provides a full suite of wireless point-to-point, point-to-multipoint and broadband mobility solutions, powering applications including backhaul, broadband access, private network connectivity, video surveillance transmission as well as wireless broadband in motion for trains, vehicles and vessels.

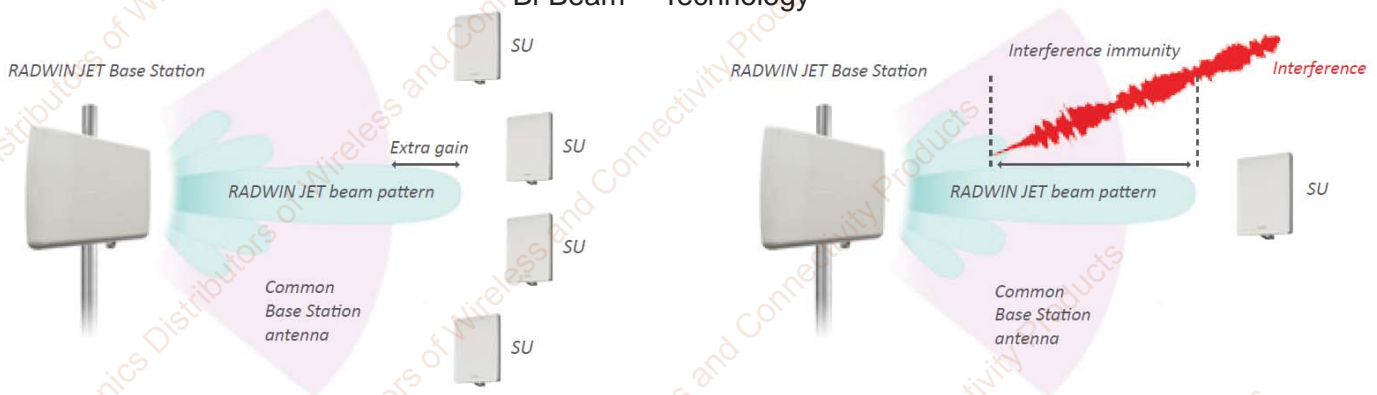
RADWIN's advanced wireless solutions are deployed in more than 150 countries, carrying data, video and voice with unmatched high-capacity over short and long ranges.

## Point-to-MultiPoint

- » Increase antenna and system gain in uplink & downlink directions  
Boost capacity, range and link robustness

- » Improve interference immunity, similar to PtP  
A result of the narrow beam replacing the wide beam of common sector antennas.

### Bi-Beam™ Technology



RADWIN JET PtMP Base Stations incorporate a smart beamforming antenna and advanced air interface. JET's beamforming cancels radio interference and enables operation in heavily congested unlicensed bands and non-line-of-sight (NLOS) conditions. Delivering the highest actual capacity for extended range and second-to-none service reliability, RADWIN JET enables service providers to boost their ARPU while simultaneously reducing infrastructure costs.

JET's innovative smart beamforming air-interface and TDD-network synchronization combine to boost frequency reuse to new levels. JET addresses the need for high network throughput while drastically reducing the amount of frequency spectrum needed for deployments.

JET Base Stations are ideal for the congested 5GHz unlicensed spectrum or the 3.x GHz licensed bands dealing with limited spectrum, either in suburban / rural areas or as a replacement for WiMAX.

### JET Series Highlights and Features

- Base Station with smart Uplink and Downlink beamforming antenna
- Up to 750 Mbps Data Rate per sector, 3 Gbps per cell using 2 x 80 MHz
- Guaranteed SLA or best-effort per Subscriber Unit
- Exceptional interference immunity, similar to PtP
- Pay-as-you-grow Subscriber Units: 25 up to 250 Mbps
- Scalable network: TDD synchronization
- High spectrum efficiency – 18bps/Hz per cell
- Multi-band support: 4.9 – 5.9 GHz or 3.3-3.8 GHz

Outdoor Units (ODUs)	JET PRO (5.X GHz)	JET AIR (5. X GHz)	JET NLOS
Max Throughput	750 Mbps* Aggregate	250 Mbps* Aggregate	337 Mbps* Aggregate
Frequency	4.9-5.8 GHz	4.9-5.8 GHz	4.9-5.8 GHz or 3.3-3.8 GHz
Service type per SU	CIR** or Best Effort	Best Effort	CIR**
Channel BW	10, 20, 40, 80 MHz	10, 20, 40, 80 MHz	10, 20, 40 MHz
Encryption	AES 128		
Max Subscribers	64	64	4
Compatible Subscribers	SU-PRO, SU-AIR, HSU XXX	SU-PRO, SU-AIR, HSU XXX	HSU 55S0

\*\*Committed Information Rate (CIR)

\* Frequency Dependent

# Point-to-Point All Outdoor or Split Mount

## RADWIN 2000

The RADWIN 2000 portfolio offers sub-6 GHz licensed and unlicensed wireless broadband solutions that deliver high throughput of up to 750 Mbps Data Rate and operate for extensive range. Supported bands include 2.3-2.4 GHz, 3.3-3.8 / 3.65 GHz, 4.4-6.0 GHz and 5.7-6.4 GHz. Compact and robust, RADWIN 2000 products provide Ethernet and native TDM (up to 16 E1s/T1s), thus facilitating seamless migration from TDM to all-IP networks.

### RADWIN 2000 Highlights and Features

- Ethernet & native TDM over the same link
- Pay-as-you-grow capacity software upgrades
- Outstanding interference mitigation
- Multi radio collocation at the hub site, saving tower space
- Multiband feature enhancing radio planning flexibility
- Extremely simple installation and maintenance
- Available with integrated antennas or connectorized



ODU with Integrated Antenna



IDU-E  
Ethernet +2 T1s  
indoor unit



IDU-C  
Ethernet + 4, 8, 16 T1 indoor unit



IDU-H  
Ethernet aggregation  
unit for 6 ODUs

Outdoor Units (ODUs)	D+ Series
Max Throughput	742 Mbps* Aggregate
TDM T1 Trunks	Ethernet only
Frequency	4.9-6.090 GHz
Channel Bandwidth	10/20/40/80 MHz
Encryption, US Security	AES128, FIPS197

\* Frequency Dependent

## Smart-Node All-in-One Power and Communication Solution

RADWIN Smart-Node is an outdoor power and communication solution that reduces costs and accelerates the roll-out of smart-city, IoT and telecom projects. The all-in-one Smart-Node solution offers a wide variety of power and networking interfaces including fiber and an array of radio technologies to connect multiple devices such as CCTV cameras, Wi-Fi access points and IoT sensors.

Bridging the gap between broadband and IoT applications, Smart-Node enables easy integration with 3rd party devices to support multiple applications ranging from city surveillance, smart-lighting, waste management, smart-metering and more. Smart-Node is a remarkably compact, IP-67 protection grade solution that guarantees low visual impact for street level deployments and high reliability when exposed to extreme temperatures and tough environments



### Input power options

- RW-8019-1100 model:
  - 100-240V AC
  - UPS with 2.5AH lithium-ion battery (120W/h or 240W/0.5h at full load)
- RW-8019-3200 model:
  - 40-57V DC
  - Supporting solar panel, street light

### Versatile communication options

#### GbE switch

- 5-Port Gigabit PoE switch
- SFP Gigabit port

### Output power options:

- PoE, PoE+ (15W, 30W, 60W )
- Passive PoE (24V/56V )
- DC-OUT 12/24V-30W (configurable)
- Internal power interfaces: 12V, PoE 24V/56V

### Wired and wireless connectivity options:

- Fiber – SFP
- Copper – LAN
- Wireless broadband – RADWIN PtP and PtMP radios (external)



\* Not supported in this version

### Benefits:

- Simple installation, configuration and monitoring
- Unified management for power and communication
- Ready-to-install solution – eliminate labor time
- 1/3 of the size and weight of a typical cabinet