

RADWIN 6000 MULTI-SERVICE SMALL CELL SOLUTION



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RADWIN 6000 is a multi-service small cell solution that transforms the business model for broadband access rollout in coverage-challenged areas.

RADWIN 6000 is the first product in the market that provides a complete cellular and broadband access site in one compact unit. RADWIN 6000 incorporates a 3G/HSPA+ base station, wireless backhaul radio, Wi-Fi access point and GPS in a single rugged enclosure built for the rigors of harsh outdoor environments.

RADWIN

Facing strong global demand for mobile and fixed broadband access services, operators need to develop an affordable business model to extend coverage reach.

Extending Broadband Coverage

Today, operators are looking to extend broadband coverage to suburban, rural and remote locations. This compels operators to resolve the challenges of servicing wide and sparsely populated areas with low revenue per site, while addressing issues relating to poor infrastructure and inadequate network connectivity. Common legacy macro base station solutions require a high level of investment due to site deployment complexity which is the main issue that inhibits operators from developing a feasible business model.

In urban environments, operators are looking to provide coverage for non-spot areas while overcoming the challenges of site acquisitions, rental costs, strict environmental regulations and opposition from local city residents. For this reason, a cost effective, intelligent and low visual impact solution is required to successfully address the problem of coverage holes in the city.

RADWIN introduces to the market an innovative small cell solution that enables operators to extend network coverage with an applicable ROI model. RADWIN 6000 offers a unique all-in-one solution that enables operators to quickly deploy smaller, compact units closer to the areas they want to serve while significantly reducing CAPEX, OPEX and Total Cost of Ownership (TCO).

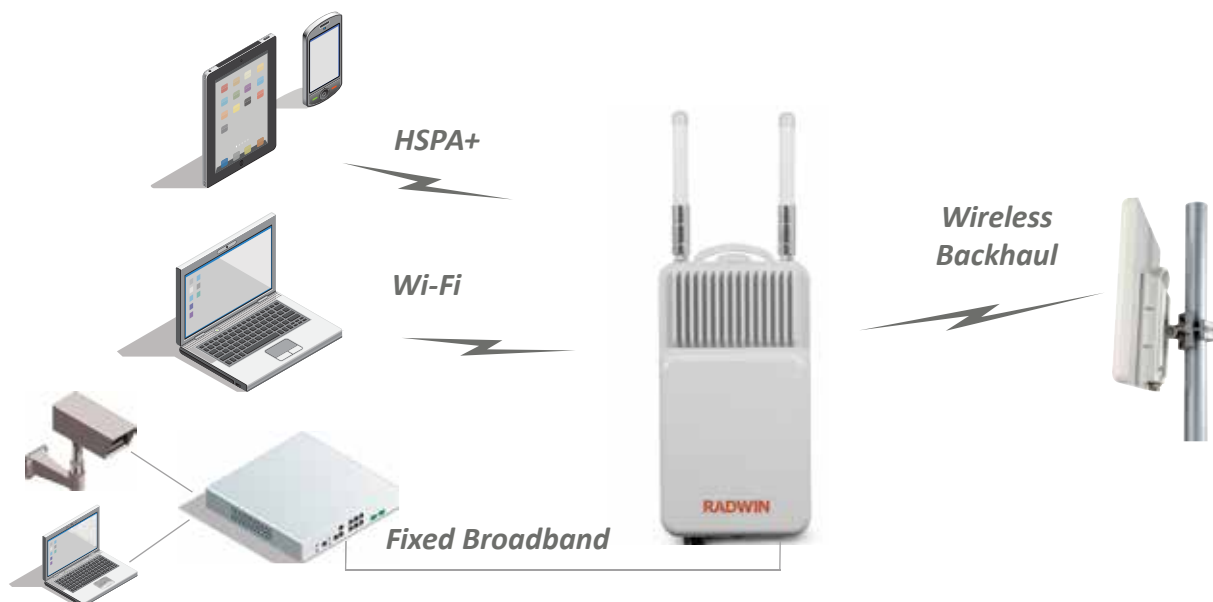
RADWIN multi-service small cell solution enables operators to generate three sources of revenue by delivering:

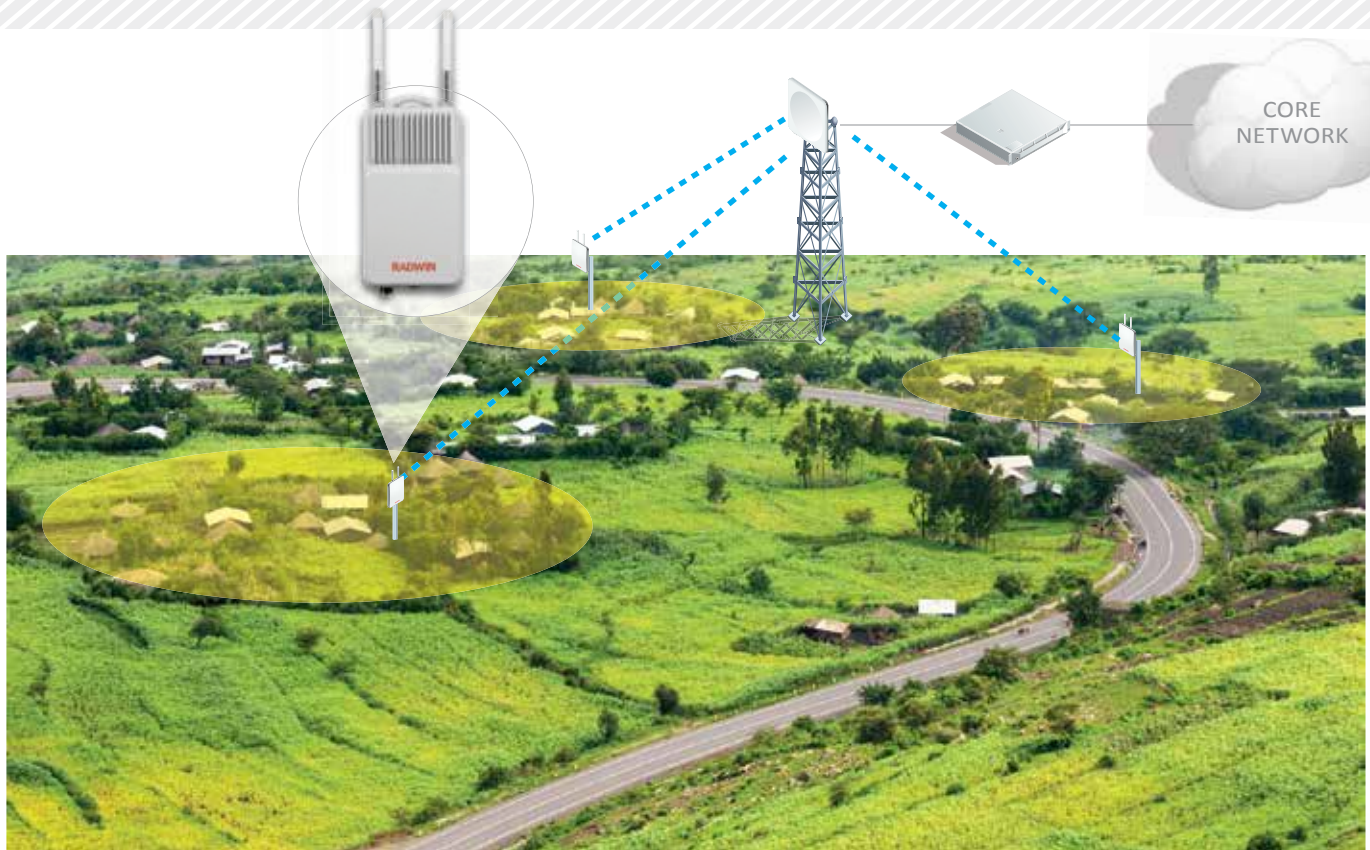
1. Mobile broadband services
2. Wi-Fi access services
3. FiberClass Wireless™ access services

RADWIN 6000 delivers high transmission power in the small cell arena to obtain excellent wide range coverage. Consuming extremely low power, this new solution cost-effectively operates in environments with an unstable power supply. In addition, renewable energy sources such as solar panels also become an affordable option.

RADWIN 6000 Highlights

- » 3G/HSPA+ outdoor small cell
- » Up to 24 concurrent users
- » HSPA+ data rates 21Mbps / 5.7Mbps
- » 5W Tx power
- » Rx space diversity
- » Self-Organizing Networks (SON)
- » Integrated wireless backhaul (LOS / NLOS) of up to 100 Mbps
- » Carrier grade Wi-Fi access point
- » Layer 2 switch for cascading cell sites
- » Integrated GPS for network synchronization and inventory management
- » Extremely low power consumption < 30W
- » Small, rugged and IP67 sealed enclosure
- » Extended temperature - 55°C to +60°C
- » Sourcing by AC or DC power supply





RADWIN 6000 boosts mobile broadband services for remote locations

RADWIN 6000 Benefits

- » Excellent 3G coverage range of up to 3km
- » Quick and simple installation and maintenance free
- » Cutting Total Cost of Ownership by eliminating the need for:
 - o Outdoor cabinets
 - o High mast towers
 - o Power grids
 - o Cost of installation and operation of external backhaul
 - o Constraints relating to site acquisition and rental costs
- » High service availability
- » Low visual impact
- » Efficient cascading of multi-cell sites
- » Additional data capacity by use of an integrated Wi-Fi access point



RADWIN 6001 MBS
(Multi-Service Basestation)

RADWIN 6002 MBS
with wireless backhaul

Typical Use Cases

Suburban & Rural Towns and Villages

- » Residential users
- » Government & Public facilities
- » Small – Medium Enterprises (SME)

Remote Business Locations

- » Industrial business facilities (oil rigs, mines, farms)
- » Tourist locations: Lodges, resorts and national parks

Non-Spot Areas (Coverage Holes) in Urban Environments

- » Public non-spot areas – parks, beaches etc.
- » New neighbourhoods
- » Shopping outlets

Temporary Solutions

- » Mass events
- » Emergency and disaster recovery solutions

RADWIN 6000 SPECIFICATIONS

Supported Bands		
Band	UL Frequencies [MHz]	DL Frequencies [MHz]
Band I (IMT)	1920–1980	2110–2170
Band II (PCS)	1850–1910	1930–1990
Band III (DCS)	1710–1785	1805–1880
Band IV (AWS)	1710–1755	2110–2155
Band V (CLR) (850)	824 - 849	869 - 894
Band VIII (GSM) (900)	880 - 915	925 - 960
Configuration		
3G Small Cell	Small form factor outdoor unit	
Integrated Wireless Backhaul	Optional	
Integrated WiFi	2.4 GHz; 802.11 b/g/n; Up to 25dBm - Optional	
Capacity		
Number of simultaneous users	Up to 24	
Maximum data rate (DL / UL)	Up to 21.1 Mbps / 5.7 Mbps	
Range	Up to 3 km	
Radio Characteristics		
Tx Power	Up to 5 Watt (37 dBm)	
Rx Diversity	Supported	
Rx Sensitivity	-120 dBm	
Power		
Power Supply	44-60 VDC or 100-250 VAC	
Power Consumption	< 30 W (typical)	
Mechanical		
Dimensions	360(h) x 200(w) x 70(d) mm / 360(h) x 200(w) x 90(d) mm with backhaul option	
Weight	4.5 kg / 5.5 kg with backhaul option	
Volume	1.7 liter / 2 liter with backhaul option	
Mount	Mast or wall mountable	
Environmental		
Operating Temperatures	- 40°C to +60°C / - 40°F to +140°F; Extended temperature (option) - 55°C to +60°C / - 67°F to +140°F	
Humidity	100% condensing , IP67 (totally protected against dust and against immersion up to 1m)	
Network Interfaces		
Core Network Connectivity	Luh interface 3GPP Release 9, 3GPP TS 25.467, 3GPP TS 25.468, 3GPP TS 25.469	
Management	TR-196/TR-069, SNMPv3, Web based, CLI	

About RADWIN

Delivering best of breed wireless connectivity solutions, RADWIN is committed to providing a complete offering for the Sub 6 GHz domain that assures unmatched reliability, flexibility and installation simplicity. Deployed in over 150 countries around the world, RADWIN's success is due to swift delivery of high quality wireless connectivity products that secure unrivaled performance for broadband access, backhaul connectivity, small cell mobile broadband, private networks and specialized broadband mobility applications.

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