

Data Sheet

W2005 Series 5G Wideband Adapter

2024 - 02 - 19

Designed for fixed locations that require the higher performance of 5G and the flexibility of wireless, the Cradlepoint W2005 Series 5G Wideband Adapter is a key member of the W-Series 5G Wideband Adapter family that will usher in the next generation of Wireless WAN networking. The W-Series is designed to accommodate the diverse spectrums, multiple generations, and breadth of new technologies introduced in 5G while delivering enterprise-class standards of scalability, comprehensive management, and security.

High Performance Wideband

The W2005 Series 5G Wideband Adapter is purpose-built for outdoor deployment in the coverage and capacity spectrum layers. To address the tradeoff of lower propagation in the capacity layer, Cradlepoint designed the W2005-5GB to be placed on the outside of buildings for optimal signal reception.

Designed for Enterprise-Class Business

While the performance of 5G is top of mind, the W-Series was also designed with enterprise-class standards for high scalability, comprehensive management, and security. Because 5G is a collection of new spectrum, new technologies, and new network infrastructure that is rolling out over several years, the Cradlepoint 5G edge networking service and endpoints accommodate the diverse deployments of an organization with hundreds or even tens of thousands of sites.

Notable Benefits

- Increase the size and types of your WAN use cases with 5G performance
- Experience the dependability of dual connectivity with simultaneous 5G and 4G connections
- Gain carrier-class connectivity using a software-defined modem and integrated multilevel test and recovery utilities
- Deploy an enterprise-class 5G solution with greater simplicity and confidence with the wizard-based installation application
- Manage the Cradlepoint router and 5G adapter as one entity for singular control and visibility
- Evaluate the benefits of your 5G service with value confirmation tools built into the NetCloud Platform
- Deploy within any existing networking or SD-WAN environment



[Product Page](#)



[NetCloud Service](#)



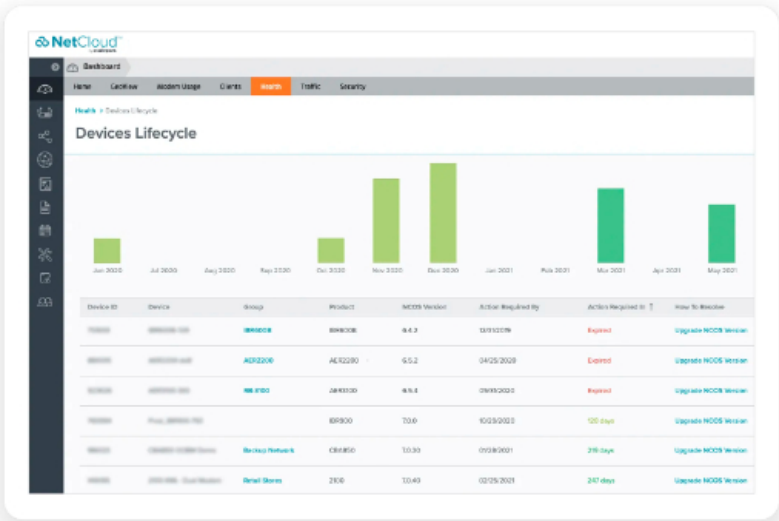
[Quick Start Guide](#)

Carrier-Class Connectivity

Although each network operator conforms to 3GPP standards, they implement those standards differently to gain optimal efficiency and performance from their network. Additionally, software from modem manufacturers is designed to serve multiple operators within broad markets. The W-Series uses a customized software-defined modem, pre-programmed endpoints, and multilevel integrity testing to predict vulnerable connections and deliver carrier-class connectivity.

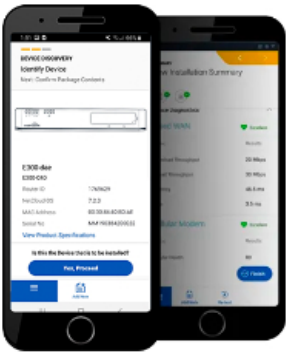
5G Spectrum Solutions

The W-series portfolio supports all spectrum layers ensuring that organizations have the right solution for every location. The W2000 and W2005 support low- and mid-band layers while the W4005 supports low-, mid-, and high-band layers.



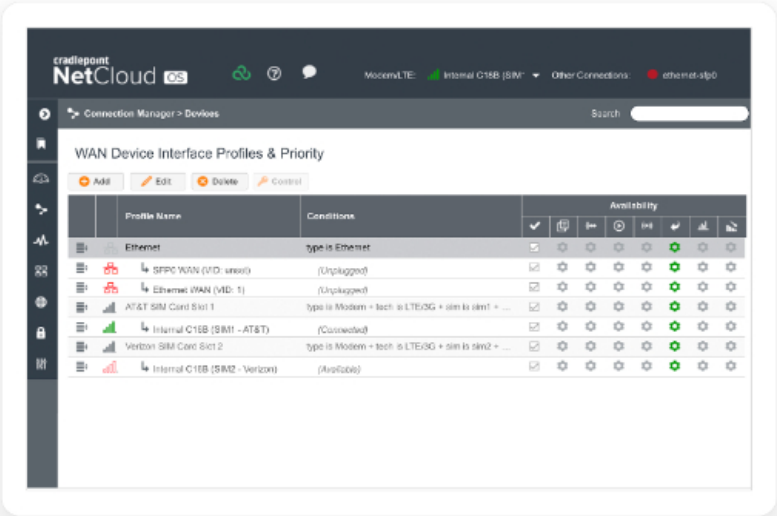
Support for a Full Range of Cellular Technologies

Cradlepoint 5G solutions support all cellular generations, from 4G LTE to Gigabit-Class LTE to 5G — with the ability to gracefully transition tens of thousands of sites between generations as technology becomes available in individual locations.



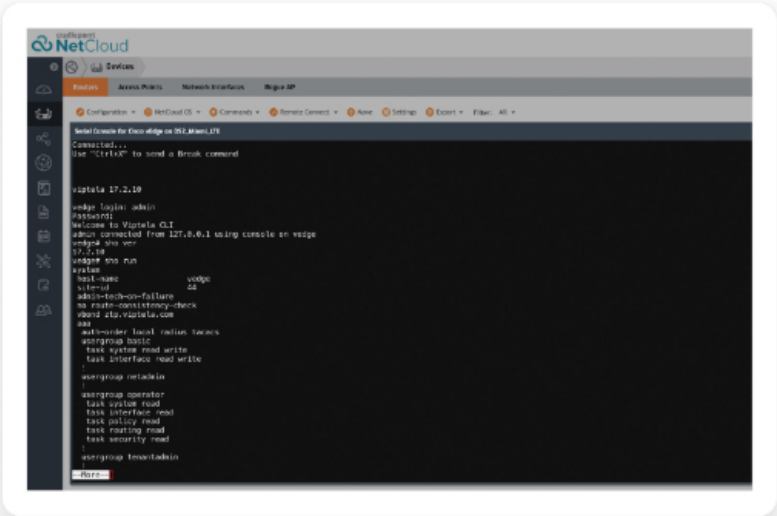
Complete Lifecycle Management

Cradlepoint 5G solutions help enterprises minimize complexity from installation to troubleshooting with tools and features such as the mobile installation application, the captive modem feature, 5G tools demonstrate 5G service value, and Out-of-Band Management.



Intelligent Hybrid WAN Connectivity

Cradlepoint 5G solutions deliver effortless wireless endpoint management in a “wired-first SD-WAN” environment and provides all-in-one capabilities (routing, embedded wireless, and foundational SD-WAN) in a “wireless-first SD-WAN” deployment.



Hardware Specifications

The following features are delivered through the hardware.

INTERFACES	
Modem:	Embedded 5G FR1 NSA/SA 3GPP release 15 and 4G LTE Category 20 modem
Ethernet:	2 x 2.5 GbE RJ45 (LAN/WAN switchable)

Wi-Fi:	Single band 2.4 GHz <ul style="list-style-type: none"> Endpoint setup only 2x2 MU-MIMO 802.11ax Wi-Fi 6 External 2 x 2 antennas Global Safe Mode
GNSS / GPS:	GNSS Muxed to DIV0:L1 and MIMO2:L5
ENVIRONMENTAL	
Temperature:	<ul style="list-style-type: none"> Operating: -30 °C to 70 °C (-22 °F to 158 °F) Storage: -40 °C to 85 °C (-40 °F to 185 °F)
Humidity:	<ul style="list-style-type: none"> Operating: 10% to 90% Storage: 5% to 95%
Ingress Protection:	IP67 (dust tight and water emersion up to 1 meter)
Wind / Shock Rating:	134 MPH sustained wind rating
POWER	
Required:	PoE++ <ul style="list-style-type: none"> PoE power injector included 802.3bt PSE Type 4 (100 W)
Consumption:	802.3bt Class 8 PD (90 W)
PHYSICAL	
Size:	323 x 300 x 79 mm (12.72 x 11.8 x 3.11 in)
Weight:	4.9 kg (10 lb 12.8 oz)
RELIABILITY	
Calculated MTBF:	578,527 hours (Telcordia SR332 at 25 °C)
CERTIFICATIONS	
Safety:	UL/cUL, CB Scheme
Materials:	WEEE, RoHS3
CLOUD SERVICES	
Service Plans:	NetCloud Service for Branch 5G Adapter
Service Add-Ons:	NetCloud Exchange, NetCloud Advanced
Support:	NetCloud Packages include support for the full subscription term.
Warranty:	All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.
Device Management:	NetCloud Manager for the full subscription term.
Software Updates:	NetCloud Manager for the full subscription term.
PERFORMANCE	
IP Passthrough Mode Throughput:	2.0 Gbps

Standard NAT Mode Throughput:	2.0 Gbps
Captive Modem Mode Throughput:	2.0 Gbps
LEDs	
Refer to the W2005 Outdoor 5G Wideband Adapter Quick Start Guide .	

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections. Results do not reflect performance of the cellular wireless operator networks.

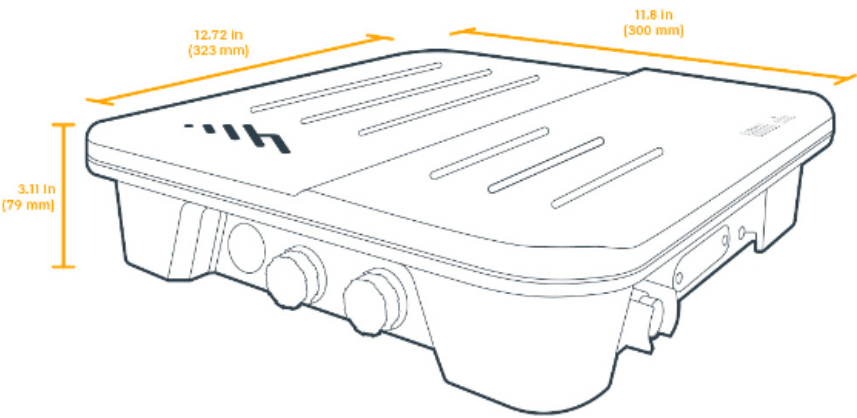
Enterprise-Class Modem Specifications

SPECIFICATION	
Technology:	5G FR1 NSA/SA and 4G LTE <ul style="list-style-type: none">— LTE Advanced Pro Category 20— Dual SIM slots, 2FF form factor— 3GPP Release 15
Carrier Aggregation:	LTE Only <ul style="list-style-type: none">— Downlink: Up to 7CA— Uplink: Up to 2CA LTE + 5G NR ENDC <ul style="list-style-type: none">— Downlink: 1CA— Uplink: 1CA See Understanding Carrier Aggregation .
Peak Rates:	<ul style="list-style-type: none">— Downlink: Up to 4.14 Gbps— Uplink: Up to 660 Mbps
MIMO:	4x4 MIMO
Modulation:	5GB FR1 <ul style="list-style-type: none">— Downlink: Up to 256 QAM— Uplink: Up to 256 QAM. (Only enabled on particular carrier equipment from 9190 data sheet.)

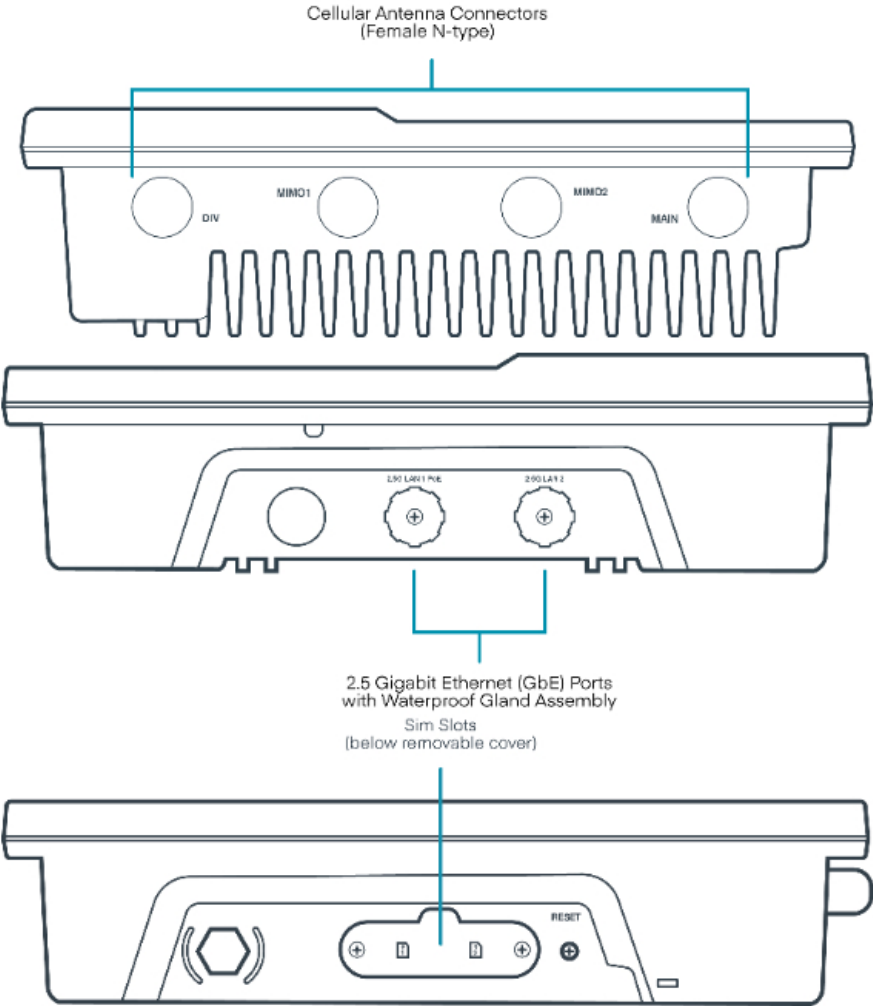
4G/LTE Bands:	<div>FDD</div> <div>— B1 (2100), B2 (1900), B3 (1800), B4 (1700), B5 (850), B7 (2600), B8 (900), B12 (700), B13 (700), B14 (700), B17 (700), B18 (850), B19 (850), B20 (800), B25 (1900), B26 (850), B28 (700), B29 (700), B30 (2300), B32 (1500), B66 (1700), B71 (600)</div> <div>TDD</div> <div>— B34 (2000), B38 (2600), B39 (1900), B40 (2300), B41 (2500), B42 (3500), B43 (3700), B46 (5200), B48 (3500)</div>
5G NR Bands:	<div>NSA and SA</div> <div>— n1 (2100), n2 (1900), n3 (1800), n5 (850), n7 (2600), n8 (900), n12 (700), n20 (800), n25 (1900), n26 (850), n28 (700), n38 (2600), n40 (2300), n41 (2500), n48 (3500), n66 (1700/2100), n71 (600), n77 (3700), n78 (3500), n79 (4900)</div>
3G Bands:	B1, B2, B3, B4, B5, B6, B8, B9, B19
Power:	<div>LTE</div> <div>— LTE bands: 23 dBm ± 1 (typical conducted)</div> <div>— LTE HPUE: 25 dBm ± 1 (B41 standalone mode only)</div> <div>LTE + 5G NR ENDC</div> <div>— LTE + 5G NR: 20 dBm ± 1 (typical conducted)</div> <div>5G NR</div> <div>— 5G NR bands: 23 dBm ± 1.5 (typical conducted)</div>
Antennas:	N-type female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS:	Passive GNSS (multiplex with DIV0/MIMO2 antenna ports)
SMS:	Yes
Regulatory:	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ)
Network Operator Standards:	PTCRB (U.S., Canada), GCF (Worldwide)
Network Operator Certifications:	AT&T, Telstra, T-Mobile, Verizon†
Public Safety Network Certifications:	FirstNet Capable™, T-Mobile Connecting Heroes, Verizon Frontline

† Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications, to operate on their network. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

Physical Measurements & Features



Features



SIM Card Info



Ordering Guide

NetCloud Branch 5G Adapter Essentials + Advanced packages and plans full featured for 5G performance and connectivity. Essentials + Advanced packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty. See additional details of what is included in the Essentials + Advanced NetCloud software: cradlepoint.com/netcloud-service

NetCloud Enterprise Branch Packages for the W2005 Series 5G Wideband Adapter

REGION	5G ADAPTER PACKAGE PLAN	PART NUMBER
North America: U.S. & Canada	Essentials	BE0x-20055GB-GN
	Essentials + Advanced	BEAx-20055GB-GN
U.S. Federal Government	TAA Compliant NC — Essentials + Advanced	TAA-BEAy-20055GB-GN
Europe: European Union (EU)	Essentials	BE0x-20055GB-GE
	Essentials + Advanced	BEAx-20055GB-GE
Europe: United Kingdom (UK)	Essentials	BE0x-20055GB-GU
	Essentials + Advanced	BEAx-20055GB-GU
Asia Pacific: Asia-Pacific (AP), Australia & New Zealand (NZ)	Essentials	BE0x-20055GB-GP
	Essentials + Advanced	BEAx-20055GB-GP
All Regions	Renewal Essentials + Advanced	BEAx-NCEA-R

x = 1, 3, or 5 years
y = 3 or 5 years

Accessories

INCLUDED	PART NUMBER
W2005-5GB Outdoor 5G Wideband Adapter	
802.3bt 90 W PoE Injector	N/A
Cellular antenna, outdoor 5G Low/Mid Band with N type connector (Qty 4)	N/A
Outdoor mounting plate	N/A
Pole mount clamp	N/A
Plate to assembly mounting screws & washers	N/A

Plate to W2005 mounting screws	N/A
OPTIONAL	
PoE Injector, 56 V, 0.8 A, 90 W, single port 2.5 GbE 802.3bt	170827-000

Support & Warranty

The W-Series Adapters are only sold as components of Branch 5G Adapter Essentials + Advanced Packages.

- NetCloud Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.

More Information

Find the most up-to-date information at cradlepoint.com/w2005