

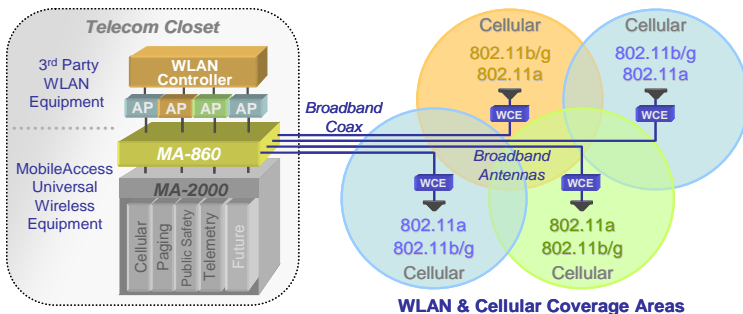
860 WLAN Solution Overview

The MobileAccess 860 WLAN Solution, composed of the 860 WLAN Module (860M-AU/860R-AU) and the Wi-Fi Coverage Expander (WCE-AU), delivers pervasive WLAN coverage throughout enterprise environments using a unique multi-service wireless architecture. With the MobileAccess approach, enterprises can seamlessly translate their WLAN investments and design expertise into a comprehensive, multi-service wireless solution.

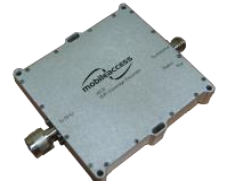
The 860 WLAN Module combines WLAN services with signals from other wireless sources, including voice and data services from multiple wireless operators, public safety, and building automation applications. It then distributes the combined RF signals over a common set of broadband cables and antennas. One-Click calibration between the 860 WLAN Module and the Wi-Fi Coverage Expander ensures optimal coverage by mirroring the coverage footprint and system behavior of “AP-on-Ceiling” deployments for 802.11a/b/g/n WLAN services.

This Wire-it-Once™ approach spreads WLAN deployment costs across multiple wireless service needs, providing facility-wide coverage for WLAN and all other wireless services while creating a flexible infrastructure that adapts to evolving technology requirements.

In addition, the 860 WLAN Solution allows for Access Points (APs) to be located in secure telecom closets alongside other LAN networking equipment, yielding significant operational benefits.



860 WLAN Module



Wi-Fi Coverage Expander

Benefits

Cost-Effective Multi-Service Solution

- ▶ Delivers WLAN and other wireless RF signals over a single multi-service infrastructure
- ▶ Spreads WLAN deployment costs across multiple wireless services

Dependable WLAN Coverage

- ▶ MobileAccess WLAN architecture mirrors the behaviors and coverage footprint of “AP-on-Ceiling” deployment
- ▶ One-Click compensation ensures optimal 802.11b/g and 802.11a coverage
- ▶ Dedicated AP to antenna relationships ensure transparent support for WLAN applications such as VOIP and location services (RTLS)
- ▶ Redundant power option

Centralized & Secure AP Management

- ▶ Lowers operating expenses
- ▶ Provides physical security and simplifies management

Proactive End-to-End Monitoring

- ▶ Remote SNMP monitoring for status, alerting, and fault detection
- ▶ Monitoring extends to attached multi-service antennas

Simplified IT Deployment Model

- ▶ Uses standard WLAN design techniques

WLAN RF Parameters

	IEEE 802.11b/g/n	IEEE 802.11a/n
	2400 - 2485 MHz	5150 – 5825 MHz
Insertion Loss (dB) ^{1,2,3}	0.0	0.0
Ripple (dB) ¹	4.0	5.0
Gain RX ^{2,3}	4.0	4.0
Noise Figure RX ¹	4.5	4.0
Gain TX ^{1,2,3}	0.0	0.0

¹This is the 860 WLAN Solution (860M/R-AU + WCE-AU) system parameter.

²Assuming up to 300ft of coax between the 860M/R-AU and WCE-AU

³Assuming 6dB/100ft attenuation for 802.11a and 4dB/100ft attenuation for 802.11b/g

Mobile Services RF Parameters

Frequency (MHz)	Insertion Loss (dB) ⁴	Ripple (dB)
412-520	2.5	2.0
608-614	2.0	1.0
698-960	1.5	1.5
1395 - 1432	2.0	1.0
1710 - 1880	3.0	1.5
1850 - 1995	3.5	2.0
2110 - 2170	6.0	2.5

⁴Does not include the loss due to any coax or jumper cables across the 860 WLAN Solution.

Standards and Approvals

- UL / IEC 60950 -1
- CE EN 60950
- CAN/CSA C22.2 No 60950
- UL2043 Fire/Plenum (Wi-Fi Coverage Expander)
- EN 300328
- EN 301893
- EN 301489
- TRA type approval for UAE
- FCC-47, CFR 15.109, Part 15 approval with the following Access Points:

Part Number	FCC ID	Access Point
860M/R-AU + WCE-AU	OJFMA860WCE-AU	Cisco 1242AG

RF Connections

860 WLAN Module

Access Point Port	(8) SMA Female, 50ohm
Mobile Services Port	(4) SMA Female, 50ohm
Antenna Port	(4) N-Type Female, 50ohm

Wi-Fi Coverage Expander

RHU Port (To 860)	(1) N-Type Male, 50ohm
Antenna Port	(1) N-Type Female, 50ohm

Port Type

(8) SMA Female, 50ohm
(4) SMA Female, 50ohm
(4) N-Type Female, 50ohm

Port Type

(1) N-Type Male, 50ohm
(1) N-Type Female, 50ohm

Input Power

Device	Voltage Input	Power Consumption
860 + (4) WCEs	20 to 60 VDC	40 W ⁵

⁵860 has a 5W max power draw. Each WCE has a max 8.5W power draw.

Power Supply	Input Power	Output Power
Main	100-240VAC, 50/60Hz, 1.5A	48V, 66W
Redundant	100-240VAC, 47-63 Hz, 1.9A	9.8V, 75W

Physical Specifications

Device	Dimensions	Weight
860 WLAN Module	242 mm x 279 mm x 38 mm (9.53 in x 10.98 in x 1.50 in)	2.82 kg (6.2 lb)
Wi-Fi Coverage Expander	130 mm x 120 mm x 20 mm (5.12 in x 4.72in x 0.80 in)	0.80 kg (1.8 lb)

Environmental Specifications

	Temperature	Humidity
Operating	0°C to +50°C (32°F to 122°F)	95% (non-condensing)
Storage	-20°C to +85°C (-4°F to 185°F)	95% (non-condensing)

Ordering Information

Device	Part Number	Description
860 WLAN Module	860M-AU	860 WLAN Module with main power supply and Mobile Service support up to 2170MHz Not supported as a standalone device without the WCE-AU.
	860R-AU	860 WLAN Module with redundant power supply and Mobile Service support up to 2170MHz Not supported as a standalone device without the WCE-AU.
Wi-Fi Coverage Expander	WCE-AU	Wi-Fi Coverage Expander with Mobile Service support up to 2170MHz

Mounting Accessories

The following accessories can be ordered when deploying an 860 WLAN Solution with Mobile Services. N-Type to SMA jumper cables are to be ordered separately (recommended lengths of 6in, 1ft or 5.5ft based on the position of the 860 to the RHU).

Part Number	Description
BRKT-RHU-800-STK	Stacking bracket for mounting RHU, 860 or 1200 on top of an RHU or 860 with screws.
BRKT-1RU-SHELF-2K	Rack mountable shelf for RHU, 860 or 1200 with screws. Can also be used as a stacking bracket for mounting RHU, 860 or 1200 on a 2000 cabinet.
BRKT-1200-STK	Stacking bracket for mounting RHU, 860 or 1200 on top of a 1200 module with screws.