860 WLAN Solution

A Corning MobileAccess Solutions Product

features and 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	• 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

860 WLAN Solution Overview

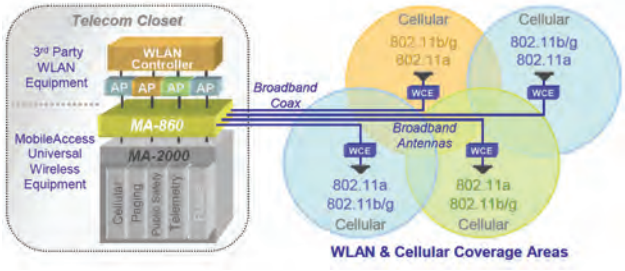
The 860 WLAN Solution, composed of the 860 WLAN Module (860M-AU/860R-AU) and the Wi-Fi Coverage Expander (WCE-AU), delivers pervasive WLAN coverage throughout enterprise environments using a unique multi-service wireless architecture. With the Corning MobileAccess approach, enterprises can seamlessly 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 IDP/Telco/IT closets alongside other LAN networking equipment, yielding significant operational benefits.

860 WLAN Module | Figure 1



WLAN & Cellular Coverage Areas | Figure 2

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860 WLAN Solution

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specifications |

WLAN RF Parameters

IEEE 802.11b/g/n	
Frequency (MHz)	**2400-2485 MHz**
Insertion Loss (dB)[1,2,3]	0.0
Ripple (dB)[1]	4.0
Gain RX [2,3]	4.0
Noise Figure RX [1]	4.5
Gain TX[1,2,3]	0.0

IEEE 802.11a/n	
Frequency (MHz)	**5100-5825 MHz**
Insertion Loss (dB)[1,2,3]	0.0
Ripple (dB)[1]	5.0
Gain RX [2,3]	4.0
Noise Figure RX [1]	4.0
Gain TX[1,2,3]	0.0

[1] This is the 860 WLAN Solution (860M/R-AU + WCE-AU) system parameter.
[2] Assuming up to 300 ft of coax between the 860M/R-AU and WCE-AU.
[3] Assuming 6 dB/100 ft attenuation for 802.11a and 4 dB/100 ft 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

[4] Does 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	860M/R-AU+WCE-AU
FCCID	OJFMA860WCE-AU
Access Point	Cisco 1242AG

specifications | (continued)

RF Connections

860 WLAN Module	Port Type
Access Point Port	(8) SMA Female, 50 ohm
Mobile Services Port	(4) SMA Female, 50 ohm
Antenna Port	(4) N-Type Female, 50 ohm
Wi-Fi Coverage Expander	**Port Type**
RHU Port (To 860)	(1) N-Type Male, 50 ohm
Antenna Port	(1) N-Type Female, 50 ohm

Input Power

Device	860 + (4) WCEs
Voltage Input	20 to 60 VDC
Power Consumption	40 W[5]
Power Supply	
Input Power	• Main: 100-240 VAC, 50/60 Hz, 1.5A • Redundant: 100-240VAC, 47-63 Hz, 1.9A
Output Power	• Main: 48 V, 66 W • Redundant: 9.8 V, 75 W

Physical

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

860 WLAN Module

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specifications | (continued)

Environmental

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

ordering information |

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

Mounting Accessories

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

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CMA-187-AEN / February 2012

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