



Introduction

The Atlona **AT-WAVE-101** is a wireless presentation and collaboration platform designed for easy content sharing with iOS®, Android™, Mac®, Chromebook™, and Windows® devices. The WAVE-101 allows up to four presenters to share their content simultaneously on-screen, with an Instructor Mode available for managing additional presenters and selecting which to be displayed. Wireless BYOD interfacing is simply enabled through the device's native casting protocol (such as AirPlay®, Google Cast™, or Miracast™), without the need to install an app. For hands-free, effortless user operation, Dynamic Layout Mode™ is an innovative feature of the WAVE-101 that automatically adapts the on-screen layout to new incoming or disconnected source content. The WAVE-101 is equipped with a host of other convenient features for integrators and end users, including programmable display control, display of user-uploaded images and video media, YouTube Live streaming, support for cloud-based digital signage applications, and much more.

Applications

- **Classrooms**
The WAVE-101 includes several features ideal for classroom instruction, such as managing multiple student presenters, the ability to broadcast an instruction session live over YouTube, and playback of local multimedia or YouTube source content.
- **Meeting and gathering spaces**
The WAVE-101 is compact and can be discreetly installed near any available display. It is ideal for ad-hoc collaboration sessions in which presenters can share content through simple instructions on the welcome screen – including a PIN code for security⁽¹⁾.
- **Add-on to existing AV systems**
This presentation device can be added into an AV switcher or matrix switcher, enhancing a new or existing system with wireless BYOD from multiple participants.

Key Features

- Wireless AV platform enables simultaneous content sharing for up to four 1080p presenters.
- Wireless screen casting with iOS, Android, Mac, Chromebook, and Windows devices through native AirPlay, Google Cast, or Miracast protocols.
- Dynamic Layout Mode™ (patent pending) automatically adapts to incoming or disconnected source content, to optimize the way the content is presented on the screen.
- Selectable, fixed static layout modes available to determine the number of visible on-screen presenters.
- Instructor Mode allows a user to manage content, adjust audio volume, upload and play media content, stream YouTube, and switch between layouts.
- Supports YouTube Live streaming.
- Supports cloud-based digital signage platforms.
- Local storage available for playback of images and video.
- Optional Wi-Fi access point access point with built-in firewall.
- Apple® iBeacon® device discovery speeds up connectivity for iOS devices and Mac computers.
- Supports Miracast over Infrastructure for use of facility Wi-Fi or Ethernet network.
- Wireless AV interfacing can be selectively enabled or disabled for each native platform.
- Supports wireless video up to 1080p30 4:2:0 (up to 1080p60 with Miracast).
- Secure wireless and content sharing with randomly generated passwords and PIN codes⁽¹⁾, and a configurable firewall.
- Supports industry-standard, network security features and protocols such as WPA2-PSK, IEEE 802.1x network port security (Ethernet port only), and AES-128 encryption.
- Programmable IP, RS-232 (with optional adapter), or TCP Proxy (port 9001) display control based on time schedules.
- Centrally configure and manage WAVE-101 units with AMS (Atlona Management System).
- Three-year limited product warranty.

Specifications

System	
Operating System	Linux
Processor	Intel® Celeron N4120
Memory	4 GB LPDDR4 (2400)
Storage	64 GB eMMC
Cooling	Fan w/sink

BYOD	
Interface	Wireless LAN (optional-included), Gigabit LAN
Casting Protocols	Miracast, Google Cast, and AirPlay
Wireless Resolution	See casting protocol specification
Visible wireless streams	Up to 4

Supported Local Media Formats	
Video	.MP4, Quicktime
Image	.JPEG, .PNG, .GIF

Video		
Signal Type	Input - Wireless	
	Output - HDMI	
Copy Protection	No	
Pixel Clock	600 MHz	
UHD/HD/SD	3840×2160@60/59.9/50/30/29.97/25/ 24/23.98 Hz 1080p@60/59.9/50/30/29.97/25/ 24/23.98 Hz 1080i@30/29.97/25 Hz	720p@60/59.94/50 Hz 576p@50 Hz 576i@25 Hz 480p@60/59.96 Hz 480i@30 Hz
VESA All resolutions are 60 Hz	2560×1600 1920×1200 1680×1050 1600×1200 1440×900 1400×1050 1280×1024	1280×800 1366×768 1360×768 1152×864 1024×768 800×600 640×480
Color Space	RGB	
Chroma Subsampling	4:4:4	

Audio	
HDMI Pass-Through Formats	PCM 2.0
Bit Rate	2 Mbps max
Sample Rate	32 kHz, 44.1 kHz

USB	
Port	2 x Type A USB
Signal	1 x 2.0 1 x 3.0
Maximum Data Rate	2.0 - 480 Mbps 3.0 - 5 Gbps

Network	
Port	1 x RJ45, Wireless
Standards and Protocols	HTTPS, mDNS, SSL, HTTP/S, WS/WSS, 802.1x (wired only)
Speeds	10/100/1000 Mbps
Wireless Security	WPA / WPA2-PSK
Internal wireless protocol	802.11 b/g/n/ac dual band Wireless LAN
External wireless protocol	802.11 b/g/n/ac dual band Wireless LAN
Addressing	DHCP, Static – selectable through API and built-in web server

Wi-Fi	Frequency Range/Band	Power Output	Number of Channel/s	Channel Spacing	Modulation Type
WLAN (Internal)	2412 ~ 2483.5MHz	802.11b (11Mbps, CCK): 18 dBm ± 1.5 dBm	11: (Ch. 1-11) – USA 13: (Ch. 1-13) – Europe 14: (Ch. 1-14) – Japan	5 MHz	CCK, DQPSK, DBPSK
		802.11g (6, 9, 18, 24Mbps, OFDM): 18 dBm ± 1.5 dBm			64QAM, 16QAM, QPSK, BPSK
		802.11g (36Mbps, OFDM): 17 dBm ± 1.5 dBm			BPSK, QPSK, 16QAM, 64QAM
		802.11g (48Mbps, OFDM): 16 dBm ± 1.5 dBm			
		802.11g (54Mbps, OFDM): 15 dBm ± 1.5 dBm			
		802.11n (HT20, MCS0): 18 dBm ± 1.5 dBm			
		802.11n (HT20, MCS7): 15 dBm ± 1.5 dBm			
		802.11n (HT40, MCS0): 17 dBm ± 1.5 dBm			
	802.11n (HT40, MCS7): 15 dBm ± 1.5 dBm				
	5150 ~ 5850 MHz	802.11a (6, 24, 36Mbps): 13 dBm ± 1.5 dBm	9/2	20 MHz	64QAM, 16QAM, QPSK, BPSK
		802.11a (48Mbps): 12 dBm ± 1.5 dBm			BPSK, QPSK, 16QAM, 64QAM
		802.11a (54Mbps): 10.5 dBm ± 1.5 dBm			
		802.11n (HT20, MCS0): 13 dBm ± 1.5 dBm			
		802.11n (HT20, MCS7): 10 dBm ± 1.5 dBm			
		802.11n (HT40, MCS0): 12 dBm ± 1.5 dBm			
		802.11n (HT40, MCS7): 10 dBm ± 1.5 dBm			
		802.11ac (HT20, MCS7): 10 dBm ± 1.5 dBm			256QAM, 64QAM, 16QAM, QPSK, BPSK
		802.11ac (HT20, MCS8): 9 dBm ± 1.5 dBm			
		802.11ac (HT40, MCS8): 8 dBm ± 1.5 dBm			
		802.11ac (HT40, MCS9): 7 dBm ± 1.5 dBm			
802.11ac (HT80, MCS8): 7 dBm ± 1.5 dBm					
802.11ac (HT80, MCS9): 6 dBm ± 1.5 dBm					
Bluetooth	2402 ~ 2480MHz	4.5 ~ 11.5 dBm (BR), 1.5 ~ 8.5 dBm (EDR)	79	1 MHz	GFSK, π/4-DQPSK, 8-DPSK
Bluetooth LE	2402 ~ 2480MHz	-1 ~ 6 dBm	40	2 MHz	GFSK, π/4-DQPSK, 8-DPSK
WLAN (USB Dongle)	2400 – 2483.5MHz	11b (11Mbps): 16dBm±1.5dBm	13/9	5 MHz	DSSS/OFDM
		11g (54Mbps): 14dBm±1.5dBm			
		11n (20MHz, MCS7): 14dBm±1.5dBm			
		11n (40MHz, MCS7): 14dBm±1.5dBm			
	5150 – 5825MHz	11a (54Mbps): 12dBm±1.5dBm	9/2	20MHz	OFDM / QPSK / 16QAM / 64QAM / 256QAM
		11n (20MHz, MCS7): 12dBm±1.5dBm			
11n (40MHz, MCS7): 12dBm±1.5dBm					
		11ac (80MHz, MCS9): 10dBm±1.5dBm			

RS-232	
Port	1 x USB (adapter sold separately)
Default Parameters	9600, 8, N, 1
Use	1-way connected display control and monitoring
Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Data flow	Bidirectional

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI IN/OUT	15	5	30	10

Buttons and Indicators	
Control Buttons:	
Power	1 - momentary, tact-type
Function Indicators:	
PWR	1 - LED, green

Connectors	
HDMI OUT	1 - Type A, 19-pin female
USB HUB	2 - Type A, 4-pin female
LAN	1 - RJ45, 1000Base-T
Lock	1 - Kensington Lock
DC 12V	1 - 12V DC 2 A

Temperature	Fahrenheit	Celsius
Operating	32 to 122	0 to 50
Storage	-4 to 140	-20 to 60
Humidity (RH)	20% to 60%, non-condensing	

Power	
Consumption	General Load: 10.2 W Max Load: 17 W
Supply	Input: 100 - 240 V AC, 50/60 Hz Output: 12 V / 2 A DC

Dimensions	Inches	Millimeters
H x W x D	1.32 x 2.76 x 2.76	33.4 x 70 x 70

Weight	Pounds	Kilograms
Device	0.57	0.26

Certification	Description
Device	CE, FCC, UKCA, RCM, China RoHS
Power Supply	KC, UL, ETL, RCM, CE, FCC, TUV Safety, NOM, CCC, EAC, BSMI, PSE

Warranty	
Device	3-year limited

Accessories

SKU	Description
AT-LC-H2H-1M	LinkConnect HDMI to HDMI 1 Meter Cable
AT-LC-H2H-2M	LinkConnect HDMI to HDMI 2 Meter Cable
AT-LC-H2H-3M	LinkConnect HDMI to HDMI 3 Meter Cable

Footnotes

(1) PIN codes are supported for AirPlay and Miracast (Infrastructure and P2P).

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