

Vivint AirBridge Wireless Mesh Node

(VS-YOFIMN-000)

Quick Reference (Overview, Installation, Specs, Regulatory)



The Vivint AirBridge™ wireless mesh node is a connectivity device that can be added to the homeowner's Vivint Smart Home system. This proprietary 5GHz Wi-Fi solution creates a secure mesh network dedicated to a Vivint system with the Smart Hub panel and connected devices such as cameras, sensors, etc. Vivint AirBridge is not supported on the older SkyControl panel. Adding Airbridge node(s) to configure a dedicated Vivint network eliminates bandwidth sharing on the local network, worry about rogue devices, and the need for third-party hardware such as repeaters, extenders, etc.

You can, if necessary, add more than one node to the system in order to expand coverage for the Vivint network (see below for details). AirBridge optimizes network traffic; increases signal strength between cameras and the panel, enhancing video quality; and improves the speed, reliability, and control of the overall Vivint smart home experience.

Vivint AirBridge (VAB) is professionally installed by a Vivint Field Service Pro (FSP) technician. VAB nodes are added to the system via either NFC or WPS. Features include an LED light that indicates function and status; and a multi-function button that lets you toggle the LED on/off, send a WPS signal to the panel, and reboot or reset the node. Once installed and configured, AirBridge nodes operate seamlessly and transparently in improving every aspect of the Vivint network/system. In other words, when functioning properly AirBridge requires very little if any end user interaction.

This document includes a product description overview, key features, illustrations, installation and test instructions, as well as technical specifications, standards certifications listings, and regulatory notices and declarations.



Installation Instructions Outline

Installing the AirBridge node is simple and straightforward, and can be quickly learned and mastered. As noted, you can install multiple VAB nodes to a Vivint system that is based on the Smart Hub control panel (SkyControl is not supported) if warranted by the home environment and size and scope of the system.

IMPORTANT: In order to configure the secure dedicated Vivint network, either the initial AirBridge node or the Smart Hub panel itself must be hardwired to the home's broadband internet router via an Ethernet connection, designating that hardwired component as the network's single portal node. To be clear, only one portal node is allowed on the Vivint network, and the Ethernet port on the VAB can be used for connection only when it is acting as that portal node.

The Vivint technician should carefully read these steps in order to ensure a successful installation and optimal performance. For additional information, including details for specific network configurations and troubleshooting guidelines, refer to the *Field Service Smart Home Pros* website.

Follow these steps to pair a VAB node and add it to the system:

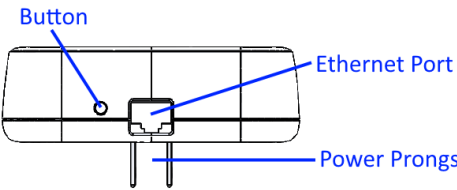
- First, change the panel connection type to AirBridge mode.** At the panel, tap on the menu icon (...) in the bottom right corner > tap **Software version** > enter the PIN code **2203** to access the Installer Toolbox > tap **Networking** > and then select **AirBridge**. Press **Back** > and then press **OK** to confirm the change.
IMPORTANT: Do NOT reboot the panel during the AirBridge node installation process. Once the node(s) are installed, the network connection status will update to show the new connection type.
- Pair the VAB node to the panel via NFC.** In the Installer Toolbox > tap **Networking** > **Add AirBridge** > **NFC** > and then tap **Add**. Align the upper left side of the VAB node with the white LED light in the bottom right corner of the panel, and hold it in physical contact with the panel until pairing is complete (this may take several minutes, make sure to wait until prompted that the node is successfully paired).
NOTE: If NFC doesn't work you can use WPS, making sure to first plug in the VAB node (powered on) and then press the button on the bottom of the node for 3-5 seconds to send a WPS signal to the panel.
- Name each VAB node that you add. In the Installer Toolbox > tap **Networking** > **Advanced Networking** > **AirBridge Node View**. Tap the node and then its name field to enter a unique descriptive name (based on its location and function as either a *portal* or *point* node).
- Install the VAB node.** Plug the node directly into an unswitched wall outlet.
NOTE: If the panel is wirelessly connected to the home router, you must install the first VAB node (as the network's single *portal* node) where it can be directly connected to the router via the Ethernet port. However, if the panel is hardwired to the router, you should install the first VAB node and subsequent nodes (as network *point* nodes) in a location that best enhances network performance, such as in between a camera with a weak signal and the panel. You can use the AirBridge Network Graph tool (on the Networking page) to both view the network and to determine how many nodes are needed and where they should be installed for optimal coverage. See the *Field Service Pros* website for details and examples.
- Verify power is present at the node. The LED will illuminate white. (See LED descriptions.)
- Wait for the node to establish a connection to the panel and update its firmware. The LED will illuminate green. This may take several minutes, make sure to wait until prompted that the node is connected.
- If after running the Network Graph tool you need to install multiple nodes, follow the same steps as above.
- Once finished, the panel will automatically configure all of the nodes on the Vivint network.

Button Functionality

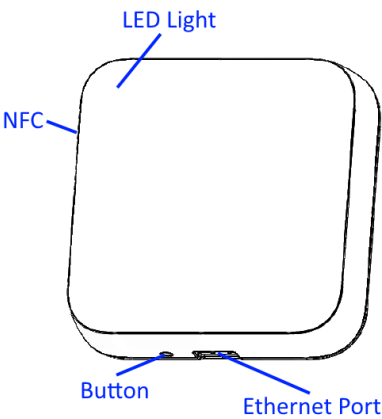
The button located on the bottom of the AirBridge node can perform multiple functions, as described below.

- Press & let go quickly** — Toggles on/off the LED light
- Press & hold for 3-5 seconds** — Sends a WPS signal
- Press & hold for 10 seconds** — Reboots the node
- Press & hold for 20 seconds** — Factory resets the node

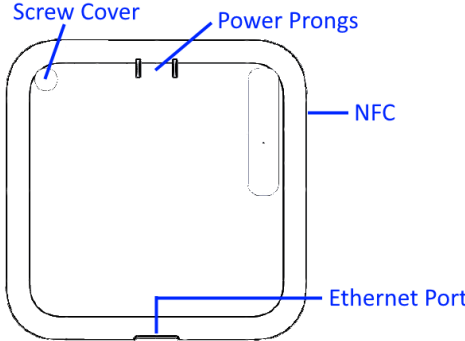
Bottom View —



Front View —



Back View —



Technical / Hardware Specifications

Vivint Part Number (P/N)	VS-YOFIMN-000
Model Number (M/N)	BB01
Color	White
Weight	7.1 oz. (approximate)
Dimensions	4.15w x 4.15h x 1.32d cm (1.6w x 1.6h x .5d in.)
Power Usage	100-240V~ 50/60 Hz. Input 0.3A (direct plug-in)
Backup Battery	None
Wireless Signal Range	150 ft.
Connectivity (Frequency Bands, Network Standards, Ports)	WLAN 2.4GHz (client) / 5GHz (backhaul); IEEE 802.11 a/b/g/n/ac; 2x2 MU-MIMO; NFC at 13.56 MHz; 10/100 Ethernet (non-POE) for WAN only
Communication Security	WPA2 for secure transmission
Camera Support	Maximum 6 cameras per VAB node
Operating Temperature Limits	32° to 122°F (0° to 50°C) †
Relative Humidity	20-85% Non-Condensing

†NOTE: Installation in a non-climate-controlled space with excessive ambient heat, such as a garage or attic, will reduce useful/service life and should be avoided if possible.

Standards Certifications & Listings

FCC	47CFR Part 15, Subpart B, Class B
ISED Canada	CAN ICES-003, Issue 6 +A1, Class B
Safety Certification	cETLus Listed
UL 62368-1	Standard for Safety for Audio/Video, Information and Communication Technology Equipment
CSA C22.2 No. 62368-1	Standard for Safety for Audio/Video, Information and Communication Technology Equipment
- Contains FCC ID:	2AAAS-NM01
- Contains IC:	10941A-NM01

*For complete regulatory compliance information, go to: vivint.com/fcc.



Troubleshooting Tips

Possible failures with the Airbridge (VAB) node and what to do in order to resolve:

- **VAB node is not pairing to the panel (NFC progress stops) –**
 - ✓ Factory reset the node, and then try again
- **VAB node is not connecting to the panel –**
 - ✓ Ensure the node is close enough to the panel (20 ft. recommended) and does not have too many obstructions (walls, floors, etc.). Move the node if possible, or add another VAB as a point node in between.
- **Camera is not connecting to VAB node(s) –**
 - ✓ Run the rebalance tool (Installer Toolbox > Networking > Advanced Networking > Airbridge Node View > Rebalance AirBridge Network
 - ✓ Reboot the panel, then reset both the camera and the VAB node

What the LED Light Colors Mean

The Vivint Airbridge node features an LED light located on the front in the upper left corner that illuminates different colors in order to indicate various functions and status, as described below.

- **White (Solid)** — Powered on
- **White (Blinking)** — Searching / pairing (press & hold for 3-5 seconds)
- **Green (Solid)** — Connected to the panel (successful)
- **Green (Blinking)** — Firmware update in progress
- **Red (Solid)** — Error connecting to the panel (failed)
- **Red (Blinking)** — Not connected to the panel / offline
- **Yellow (Solid) > White (Blinking)** — Soft reboot (press & hold for 10 seconds)
- **Yellow (Solid) > Red (Blinking)** — Factory reset (press & hold for 20 seconds)

Wireless Product Notice

Wireless communications hardware provides reliable communication; however, there are some limitations which must be observed.

- The transmitters are required to comply with all applicable wireless rules and regulations. As such, they have limited transmitter power and limited range.
- Wireless signals may be blocked by radio signals that occur on or near the wireless operating frequencies.

FCC and ISED Canada Regulatory Compliance Declarations*

CAUTION! Unauthorized changes or modifications could void the user’s authority to operate the equipment.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation of the device.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

PRUDENCE! Changements ou modifications pourraient annuler le droit de l'utilisateur à utiliser l'équipement non autorisées.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes:

- (1) l’appareil ne doit pas produire de brouillage, et
- (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

Ces limites sont conçues pour fournir une protection raisonnable contre les interferences

nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre une énergie de radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions, il peut causer des interférences nuisibles aux communications radio. Cependant, il n'existe aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou télévision, ce qui peut être déterminé en mettant l'équipement hors et sous tension, l'utilisateur est encouragé à essayer de corriger l'interférence par une ou plusieurs des mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmentez la distance entre l'équipement et le récepteur.
- Connecter l'équipement à une sortie sur un circuit différent de celui sur lequel le récepteur est branché.
- Consulter le revendeur ou un technicien radio / télévision expérimenté pour de l'aide.