2.4/5 GHz 5/6 dBi Directional Wi-Fi Junction Box Antenna with 4 RPTNC Plugs

Ventev's TerraWave 2.4/5 GHz 5/6 dBi Directional Wi-Fi Junction Box Antenna with 4 RPTNC plugs is concealed within a standard three-gang electrical box, and is designed to operate with Cisco's 4-lead 802.11ac Waves I & II WLAN access points. The antenna's cover plate looks like a standard junction box cover, providing building managers, IT network operators, and building architects with an aesthetically appealing Wi-Fi antenna that will blend into existing room décor for "out of sight" coverage and capacity. The antenna is designed to be installed within a dry wall or drop ceiling tile cut-out where the 6' leads can connect to a nearby access point. The directional antenna provides 0– 45 degree articulation for excellent coverage and capacity in one or more rooms. *Every TerraWave antenna is RoHS compliant, and covered by Ventev's two-year TerraNet warranty program. For more information: 800-851-4965 or sales@ventev.com or visit www.ventev.com/infra.*

Specifications		
Model Number	M6050060D37202WST	
Frequency Range	2400 — 2484 MHz	4900 — 5885 MHz
Gain	5dBi	6dBi
Polarization	2 x Horizontal 2 x Vertical	
Horizontal Beamwidth	75º ± 15º	
Vertical Beamwidth	75º ± 15º	
Front to Back Ratio	9 dB	12 dB
VSWR/Impedance	2:1	
Isolation—Cross Polarized Ports	12 dB	20 dB
Input Power	20 W	
Dimensions (L x W x H)	Gang Box Only	6" x 3.7" x 3.6"
	With Cover	6.75" x 3.85" x 4.88"
Connector type	4 x RPTNC Plug	
Pigtail Length	72"/ 6'	
Mounting Options	Drywall or Drop Ceiling Tile	
Construction	Three Gang Electrical Box	
Tilt Option	0° - 45°	
Faceplate Color	White (Other Colors Available)	

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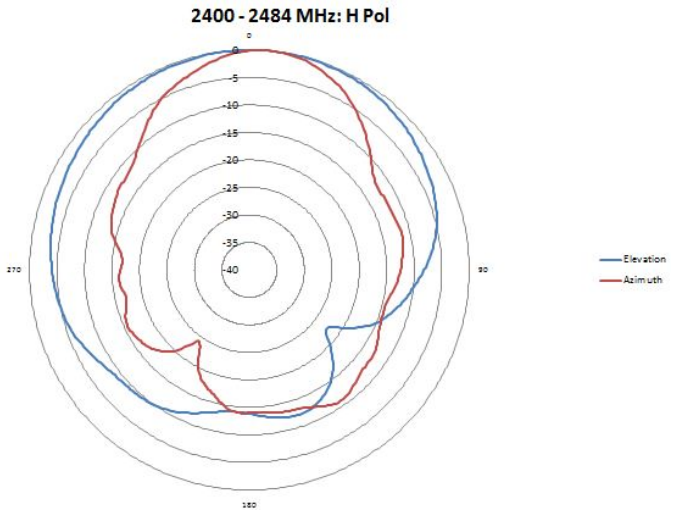
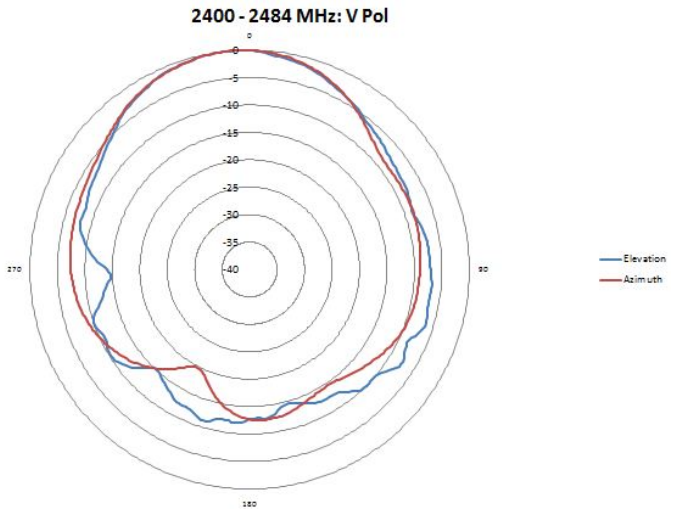
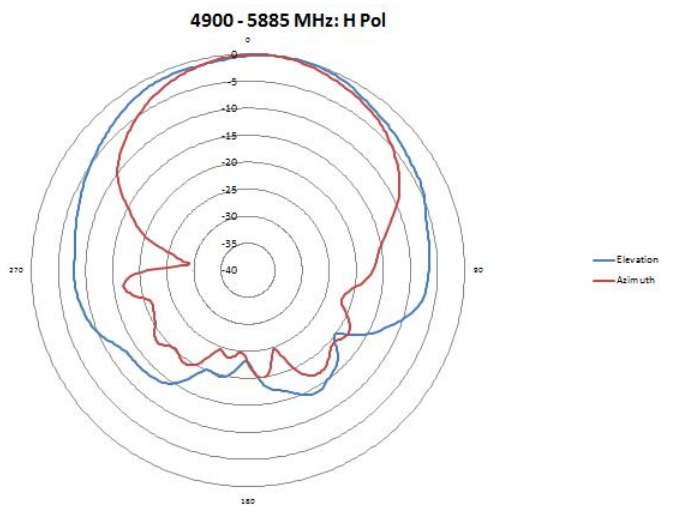
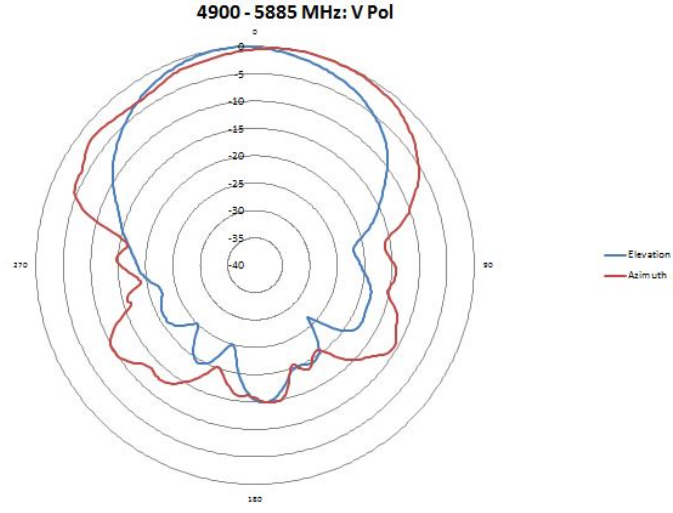
Radiation Patterns









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INSTALLATION

***Note 1*:** The Junction Box Wi-Fi Antenna is delivered with the antenna pointing straight forward at the 0° position. The antenna's standard position can be moved +/-45° within the junction box so that the RF beam will provide a more precise coverage pattern.

***Note 2*:** Precise beam positioning is accomplished through a combination of junction box orientation and antenna positioning within the junction box. Figure 1 identifies the antenna components that will be referenced in the antenna positioning steps.

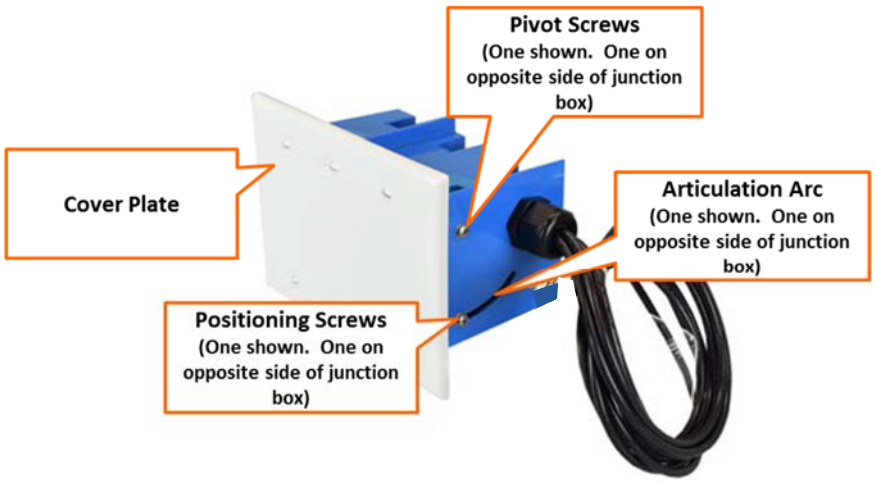

Figure 1

Antenna Positioning:

1. First, orient the junction box so that the antenna's RF beam can point in the desired direction.
   a. Ensure the Articulation Arcs are at the top of the junction box for an RF beam that points up. Refer to Figure 2.
   b. Ensure the Articulation Arcs are at the bottom of the junction box for an RF beam that points down. Refer to Figure 3.
   c. Maintain the articulation arc in the desired orientation through the remainder of the antenna positioning steps

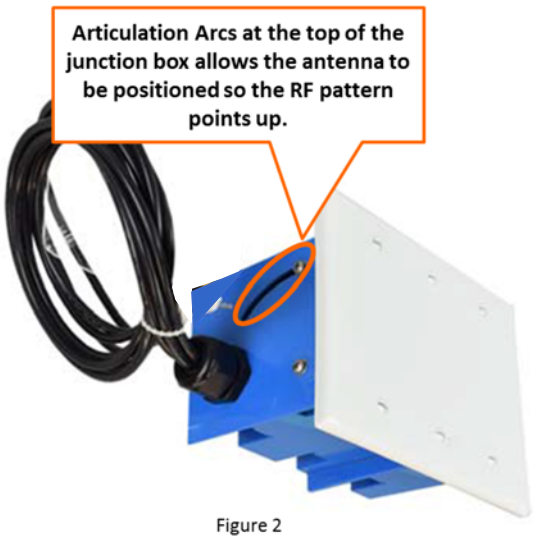

Figure 2

Figure 3

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Antenna Positioning (cont.):

2. Remove the cover plate from the front of the junction box using a standard screwdriver.
3. Loosen the pivot screws on both sides of the junction box using a Phillips head screwdriver.
4. Loosen the positioning screws on both sides of the junction box using a Phillips head screwdriver.
5. Grip both positioning screws between thumbs and index fingers, and rotate the antenna to the desired position.
6. Hold one positioning screw in place and tighten the other screw at the desired position. Then, tighten the second positioning screw.
7. Tighten the pivot screws to lock the antenna's position.

Note 3: Do not reinstall the cover plate until after the antenna is positioned within the drywall as described in the next steps.

Junction Box Installation and Connection within Drywall:

Note 4: The Junction Box Wi-Fi Antenna can be installed in many different environments / locations. The procedures in this step describe a common in-wall installation environment.

Note 5: The following installation steps assume the location of the access point has already been selected.

Note 6: Reminder: When installing the junction box into the wall, ensure the articulation arc is at the top of the junction box for an upward pointing RF beam, or the bottom of the junction box for an downward pointing RF beam.

1. Trace the outline of the junction box on the drywall at the location of desired antenna placement.
2. Cut out the traced section of drywall with a utility knife or other tool. Remove the cut section of drywall.
3. Run a cable snake or pull cord inside drywall from the access point (AP) to the mounting hole for the junction box.
4. Attach the pull cord to the connector side of the antenna's cables.
5. Pull the cables through the rectangular hole in the drywall.
6. Install the edge of the junction box with the cables into the rectangular cut out in the drywall first.
7. Rotate the other side of the junction box into the hole just after the cable end of the junction box antenna clears the inside of the drywall.
8. Push the junction box fully into the hole until the face of the junction box is flush with the drywall.
9. Tighten the four junction box wall anchors by tightening the wall anchor screws with a Phillips head screwdriver. Ensure the junction box is secured within the drywall.
10. Cover the junction box with the wall plate that shipped with the antenna.
11. Connect the cables to the AP.

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Junction Box Installation and Connection in Drop Ceiling Tile:

Note 7: The Junction Box Wi-Fi Antenna can be installed in many different environments / locations. The procedures in the following steps describe a common drop-ceiling tile installation environment.

Note 8: The following installation steps assume the location of the access point has already been selected.

Note 9: The following installation steps assume that antenna positioning/articulation is complete.

Note 10: *Recommended:* Create an installation template out of thick cardboard, thin plywood, or other suitable material to ease installation. Template should be 2' x 2', and should have a cut-out in the center that is the shape/dimensions of the blue gang-box section of the antenna.

Note 11: The following steps assume the use of a template as described in Note 10.

1. Remove the drop ceiling tile from the ceiling grid and place on a workbench or other work area.
2. Lay the template on the ceiling-facing side of a drop ceiling tile.
3. Trace the outline of the junction box on the drop ceiling tile drywall at the location of desired antenna placement.
4. Cut out the traced section of the drop ceiling tile with a utility knife or other tool. Remove the cut section of tile.
5. Install the edge of the junction box with the cables into the rectangular cut out in the ceiling tile first.
6. Rotate the other side of the junction box into the hole just after the cable end of the junction box antenna clears the inside of the drywall.
7. Push the junction box fully into the hole until the face of the junction box is flush with the drywall.
8. Tighten the four junction box wall anchors by tightening the wall anchor screws with a Phillips head screwdriver. Ensure the junction box is secured within the tile.
9. Cover the junction box with the wall plate that shipped with the antenna.
10. Place the ceiling tile into the overhead grid.
11. Connect the cables to the AP.