



Introduction to CW-ANT-T-D3-N Antenna

The CW-ANT-T-D3-N antenna serves as an external antenna for Wi-Fi 7 access points.

CW-ANT-T-D3-N features one port and operates as a triple-band, directional, outdoor antenna that supports a variety of deployments. With its IP67 rating, it functions reliably in both indoor and outdoor environments. The antenna integrates a one-wire EEPROM to support the SIA (Self-Identifying Antenna) feature. It includes an N-Type male connector plug and features an articulating joint that allows the antenna to pivot ± 90 degrees from the N-Connector axis.

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Technical specifications

System requirements

This antenna is designed for indoor and outdoor use with Cisco Wireless 9179F Wi-Fi 7 Access Point.

Antenna specifications

Figure 1: CW-ANT-T-D3-N Antenna



Table 1: Mechanical specifications

Parameters	Descriptions
Antenna type	Directional
SIA Functionality	Available
Nominal input impedance	50 Ohms
Polarization	Linear
Length	139mm
Width	41mm
Depth (thickness)	23mm

Parameters	Descriptions
Weight (without mount)	0.161 lbs. (73 g)
Connector type	N-Type Male Connector
Operating temperature range	-40°C to 65°C -4° to 122°F (-20° to 50°C) including solar load.
Environment rating	IP66, IP67
Environmental sensors	Supports air pressure sensors

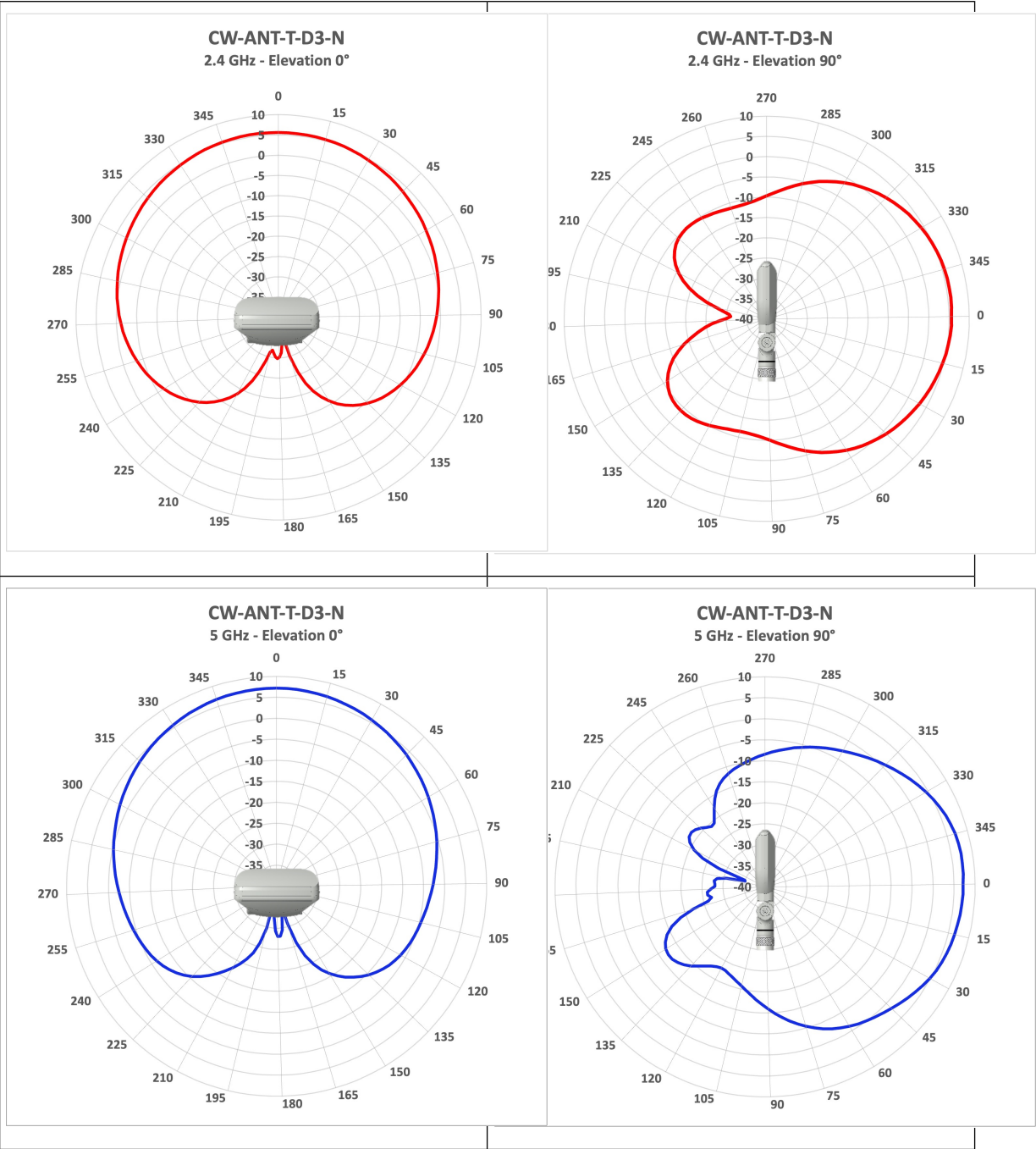
Table 2: Parameters and values

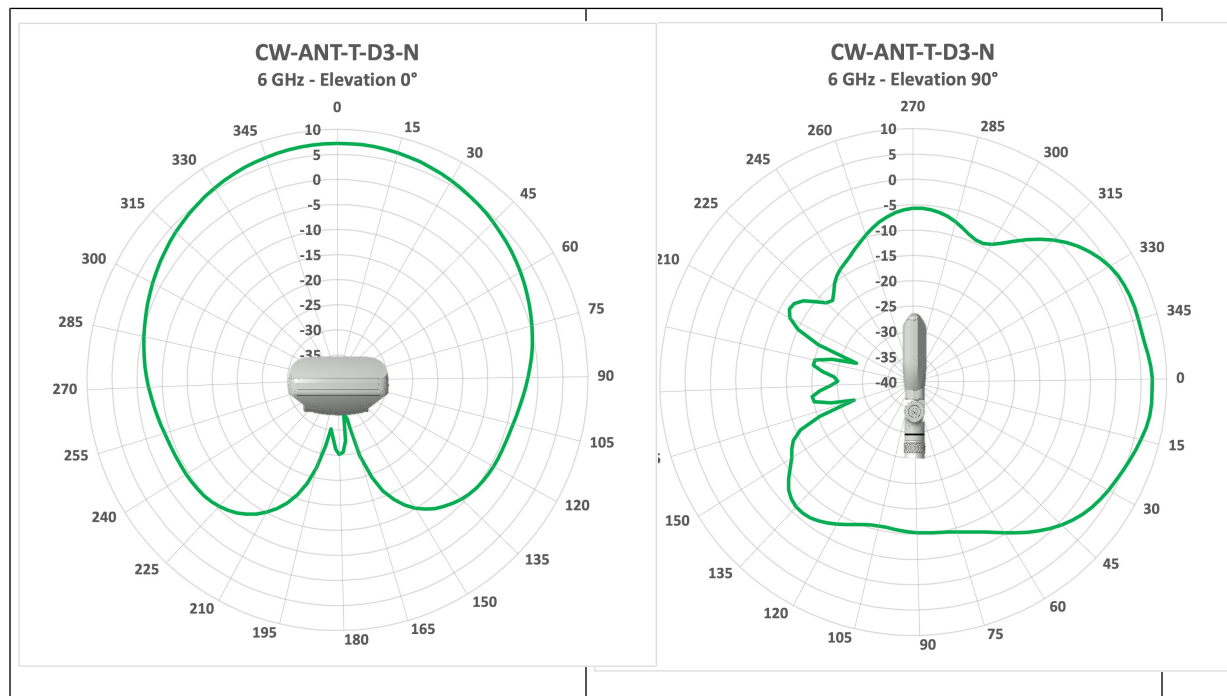
Parameters	Value starting range	Value ending range
Operating frequency range	2400–2500 MHz	5180–7125 MHz
Peak Gain (6dBi)	2400	2500
Peak Gain (7.5dBi)	5158	5900
Peak Gain (7.5dBi)	6000	7125
Average Az Beamwidth	2400-2500: 118	
Azimuth Plane 3-dB Beamwidth –V-Pol	95°	148°
Azimuth Plane 3-dB Beamwidth–H-Pol	144°	150°
Azimuth Plane 6-dB Beamwidth –V-Pol	120°	172°
Azimuth Plane 6-dB Beamwidth –H-Pol	171°	179°
Elevation Plane 3-dB Beamwidth–V-Pol	44°	30°
Elevation Plane 3-dB Beamwidth–H-Pol	34°	33°
VSWR	<2.0	<2.0
Front-to-back ratio (V-Pol)	> 20 dB	> 20 dB
Front-to-back ratio (H-Pol)	> 10 dB	> 10 dB

Azimuth and Elevation Radiation patterns

These illustrations show the CW-ANT-T-D3-N antenna radiation patterns:

Table 3: Radiation patterns



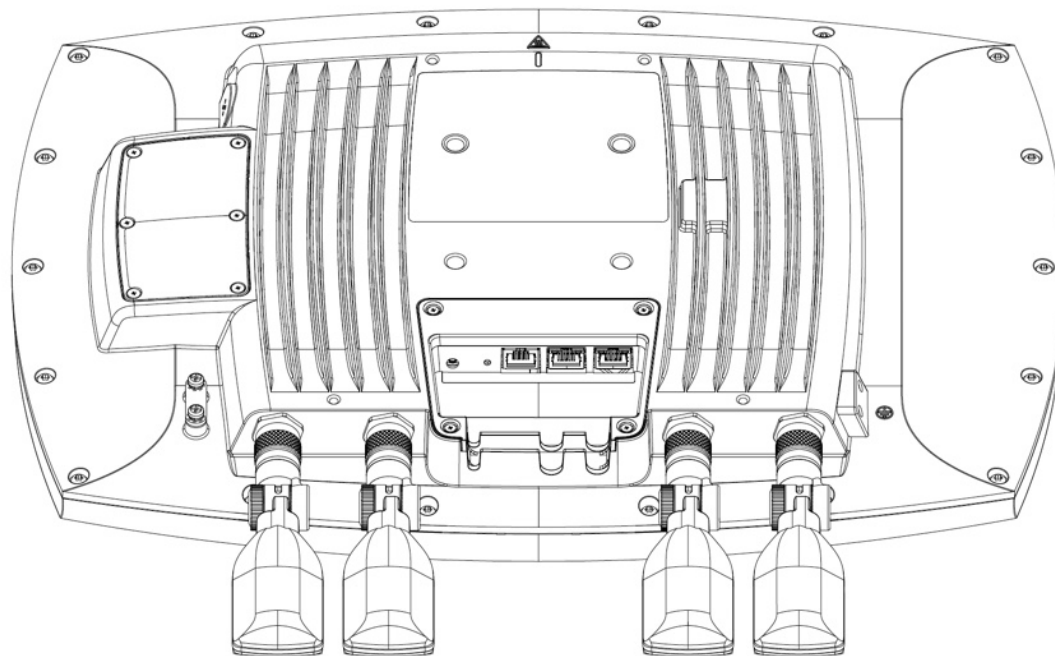


Antenna information

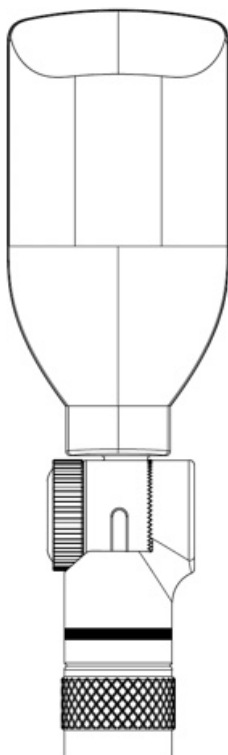
Features

The CW-ANT-T-D3-N antenna is a single-port, triple-band, directional antenna designed for Wi-Fi 7 access points. The Cisco Wireless 9179F Wi-Fi 7 Access Point supports four CW-ANT-T-D3-N antennas.

Figure 2: CW9179F with CW-ANT-T-D3-N antenna



For more information about Cisco Wireless 9179F Wi-Fi 7 Access Point, see [Cisco Wireless 9179F Series Wi-Fi 7 Access Point Hardware Installation Guide](#).



These are the features.

- Suitable for both indoor and outdoor use (IP66/IP67 rated).
- Integrated with support for self-identifying antenna (SIA) feature.
- Includes N-Type male connector and articulating joint (pivots $\pm 90^\circ$).
- Frequency bands: 2400–2500 MHz, 5180–7125 MHz.
- Supports operating temperatures from -40°C to 65°C .

Safety precautions

Safety notes

Each year, hundreds of people are killed or injured when attempting to install an antenna. In many of these cases, the victim was aware of the danger of electrocution but did not take adequate steps to avoid the hazard.

For your safety and to help you achieve a sound installation, read and follow these safety precautions. *They may save your life!*

Before you install:

- If you are installing an antenna for the first time, for your safety and that of others, seek professional assistance. Your Cisco sales representative can explain which mounting method to use for the size and type of antenna you are about to install.
- Select your installation site with safety and performance in mind. Remember that electric power lines and phone lines look alike. For your safety, assume that any overhead line can kill you.
- Call your electric power company. Tell them your plans and ask them to look at your proposed installation. While it may seem like a minor inconvenience, it could save your life.
- Plan your installation carefully and thoroughly before you begin. Successful raising of a mast or tower is essentially a matter of coordination. Assign each person a specific task and know what to do and when to do it. One person should be in charge of the operation to issue instructions and watch for signs of trouble.
- When installing your antenna, remember:
 - *Do not* use a metal ladder.
 - *Do not* work on a wet or windy day.
 - *Do* dress properly: shoes with rubber soles and heels, rubber gloves, long-sleeved shirt, or jacket.
- If the assembly starts to drop, get away from it and let it fall. Remember, the antenna, mast, cable, and metal guy wires are all excellent conductors of electrical current. The slightest touch of these parts to a power line completes an electrical path through the antenna and the installer: *You!*
- If any part of the antenna system should contact a power line, do not touch it or remove it yourself. Instead, call your local power company. They would remove it safely.
- If an accident occurs with the power lines, call for qualified emergency help immediately.

For a list of all the warning statements and their translations, see *Translated Safety Warnings for Cisco Aironet Access Points* at:

http://www.cisco.com/c/en/us/td/docs/wireless/access_point/warnings/reference/guide/ap_warn1.html

Safety warnings

Translated versions of the following safety warnings are provided in the Safety Warnings for Cisco Aironet Antennas, which is available at <http://www.cisco.com>.



Warning

- Installation of the antenna near power lines is dangerous. For your safety, follow the installation directions.
- In order to comply with international radio frequency (RF) exposure limits, dish antennas should be located at a minimum of 8.7 inches (22 cm) or more from the bodies of all persons. Other antennas should be located a minimum of 7.9 inches (20 cm) or more from the bodies of all persons.
- Do not work on the system or connect or disconnect cables during periods of lightning activity.
- This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.
- Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, as they may cause serious injury or death. For proper installation and grounding of the antenna, refer to national and local codes (for example, U.S.: NFPA 70, National Electrical Code, Article 810; in Canada: Canadian Electrical Code, Section 54).

Antenna dimensions

CW-ANT-T-D3-N is

- Tri-Band
- Articulate N-Male
- Directional antenna.

The dimensions noted in these illustrations are all in millimeters, unless noted otherwise.

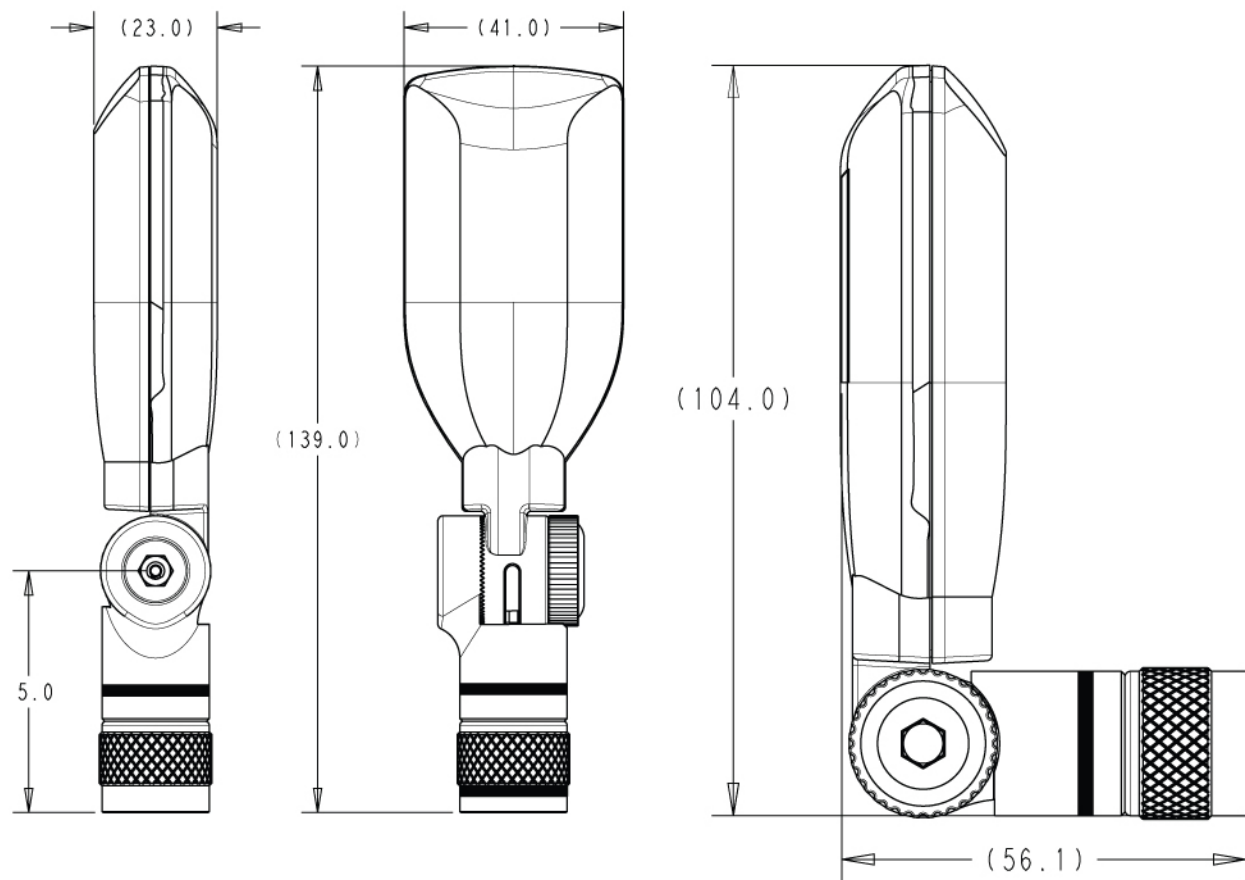
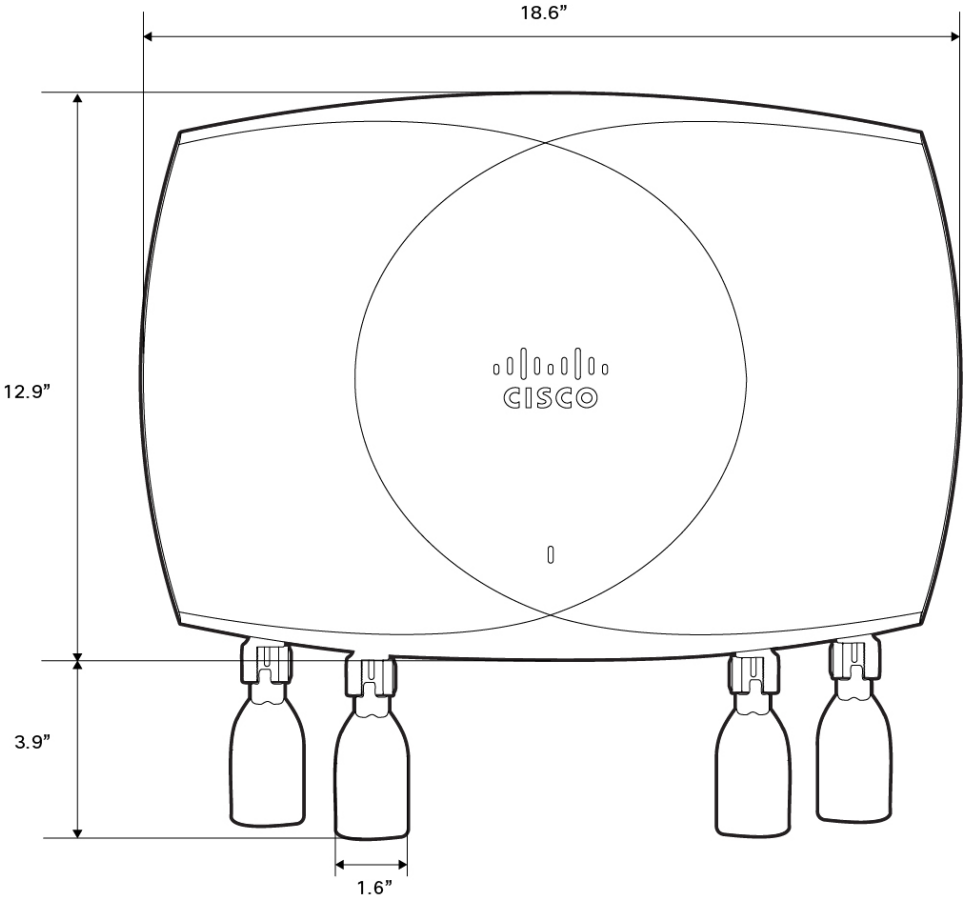
Figure 3: Antenna dimensions

Figure 4: Dimensions of the Antenna with AP



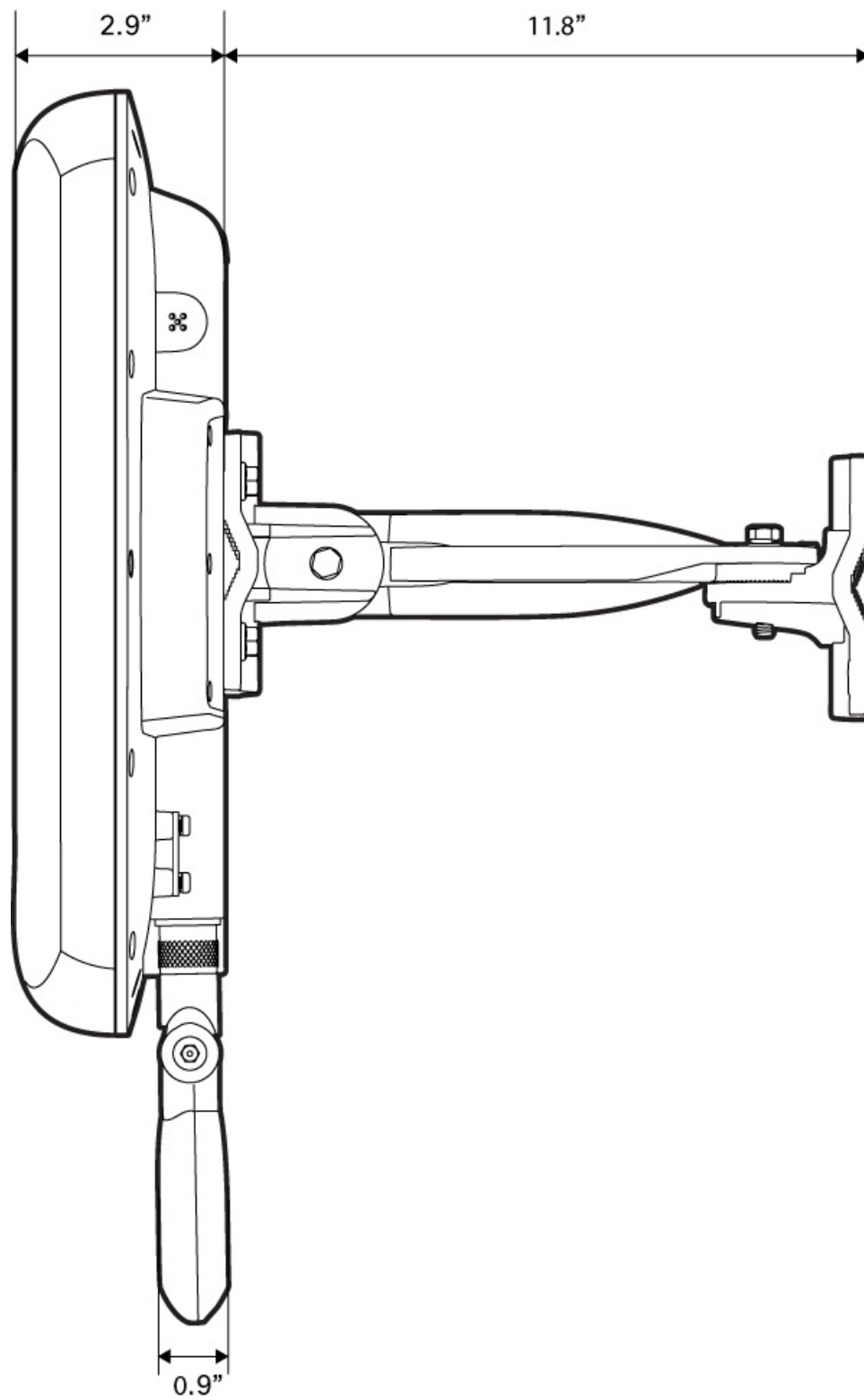


Figure 5: Assembly view of CW-ANT-T-D3-N Antenna

