



# Antenna Selection Table

This section is designed to provide detailed information for each antenna that can be used for Cisco Industrial Routers and Industrial Wireless Access Points. This document also contains selection tables for the Cisco antennas and accessories, as well as basic compatibility information with Cisco Industrial Routers and Access Points Cisco antennas and accessories, as well as installation scenarios, and technical specifications and diagrams of the available antennas. Read all of the safety precautions before you begin installation.

The Antennas section is in three parts:

- [Currently Supported Antennas](#)

These are the antennas that are currently fully supported for deployments.

- [Planned EOS Antennas](#)

These are the antennas that are planned to reach their End Of Service. They are not recommended for new deployments.

- [EOS Antennas](#)

These are antennas that have reached their End Of Service.

The following tables list the currently supported antennas, planned EOS, and EOS antennas for Cisco Industrial Routers and Industrial Wireless Access Points.

## Currently Supported Antennas

All of the currently supported antennas are broken down by functional groups. They are:

- [Cellular 2G/3G/4G Antennas](#)

- [GPS/GNSS Antennas](#)

- [WPAN, ISM, and LoRaWan Antennas](#)

- [Wi-Fi Antennas](#)

- [Single Band 2.4 GHz Antennas](#)

- [Single Band 5 GHz Antennas](#)

- [Dual Band 2.4 GHz + 5 GHz Antennas](#)

**Note:** In all cases throughout this guide, Indoor Enterprise products are not listed.

## Cellular 2G/3G/4G Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco 5-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-5-4G2WL2G1-O)</a>.</p> <p>Transportation omnidirectional 5-element antenna for 2G, 3G, 4G cellular, GPS, and dual-band WiFi 2.4 GHz and 5 GHz.</p> <p>Antenna has 2 ports for 2G, 3G, 4G, 2 ports for dual band 2.4 / 5.8 GHz WiFi, and 1 port for GPS.</p>	<p>2 x 4G LTE, TNC(m)</p> <p>2 x 2.4/5 GHz WiFi, RPTNC(plug)</p> <p>1 x GPS SMA(m)</p>	<p>4G LTE 698-960, 1448-1511, 1710-2400, 2500-2700 MHz.</p> <p>2.4 dBi typical, 2.9 dBi max 698-960 MHz</p> <p>4.2 dBi typical, 4.8 dBi max 1448-1511 MHz</p> <p>4.9 dBi typical, 6.5 dBi max 1710-2700 MHz</p>	<p>Good fit for IR829.</p> <p>Can be used with other products such as IR809 or IR807, but has extra WiFi elements not required for those products.</p> <p>Instead consider ANT-3-4G2G1-O for products without WiFi.</p>
<p><a href="#">Cisco Cellular and GPS 3-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-3-4G2G1-O)</a>.</p> <p>Cellular 3-in-1 Two port 2G, 3G, 4G and 1 port GPS Vehicle Mount and Fixed Infrastructure Antenna, with three ports.</p>	<p>2 x 4G LTE, TNC(m)</p> <p>1 x GPS SMA(m)</p>	<p>4G LTE 698-960, 1448-1511, 1710-2400, 2500-2700 MHz</p> <p>2.6 dBi typical, 3.8 dBi max 698-960 MHz</p> <p>3.8 dBi typical, 4.3 dBi max 1448-1551 MHz</p> <p>4.6 dBi typical, 5.5 dBi max 1710-2700 MHz</p>	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 router</p> <p>CGR1120 use case requires adapters</p>
<p><a href="#">Cisco Dual LTE-Single GPS Multi-band Antenna Installation Guide (4G-LTE-ANTM-O-3-B)</a>.</p> <p>Cellular 3-in-1 Two port for 2G, 3G, 4G LTE and one port for GPS</p> <p>Integrated indoor and outdoor Antenna with three ports.</p>	<p>2 x 4G LTE, TNC(m)</p> <p>1 x GPS SMA(f)</p>	<p>4G LTE 698-960, 1710-2700 MHz</p> <p>2.5 dBi typical 698-960 MHz</p> <p>2.5 dBi typical 1710-2700 MHz</p>	<p>IR1101 with P-LTE cellular module</p>
<p><a href="#">Cisco Cellular 2-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-2-4G2-O)</a>.</p> <p>Two port 2G, 3G, and 4G antenna with two elements.</p> <p>This dual port LTE antenna does not have an active GPS antenna (compared to ANT-3-4G2G1-O which does), and is useful for cases when there is no GPS required, or when GPS is connected to a completely separate GPS antenna.</p>	<p>2 x 4G LTE, TNC(m)</p>	<p>4G LTE: 698-960, 1448-1511, 1710-2400, 2500-2700 MHz</p> <p>2.6 dBi typical, 3.8 dBi max 698-960 MHz</p> <p>3.8 dBi typical, 4.3 dBi max 1448-1511 MHz</p> <p>4.6 dBi typical, 5.5 dBi max 1710-2700 MHz</p> <p>No GPS element and no WiFi.</p>	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 router.</p> <p>CGR1120 use case requires coax adapters</p>

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Outdoor Omnidirectional Antenna for 2G/3G/4G Cellular (ANT-4G-OMNI-OUT-N).</a></p> <p>Outdoor Omnidirectional Antenna for 2G/3G/4G Cellular antenna is designed to cover domestic LTE700/Cellular/PCS/AWS/MDS, WiMAX 2300/2500, and GSM900/GSM1800/UMTS/LTE2600 bands.</p>	<p>N-Type female</p>	<p>1.5 dBi 698-960 MHz</p> <p>2 dBi 1448-1511 MHz</p> <p>3.5 dBi 1710-2700 MHz</p>	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 and CGR1240.</p> <p>In most cases adapters or cables are required.</p>
<p><a href="#">Cisco Multiband Panel Outdoor 4G MIMO Antenna (ANT-4G-PNL-OUT-N).</a></p> <p>Multiband Panel Outdoor 4G MIMO dual-port antenna designed to cover cellular 4G bands.</p>	<p>Dual type N female direct connector</p>	<p>698-960 MHz 8.0-10.0 dBi</p> <p>1710-2170 MHz 6.0-8.5 dBi</p> <p>2200-2400 MHz 6.5-9.5 dBi</p> <p>2500-2700 MHz 8.5-9.5 dBi</p> <p>Antenna is not designed to operate in 1448-1511 MHz Japan band. Does not have high gain.</p>	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 and CGR1240.</p> <p>In most cases adapters or cables are required.</p>
<p><a href="#">Cisco Multiband Indoor 4G Volcano Antenna (ANT-4G-CM-IN-TNC).</a></p> <p>Multiband Indoor 4G Ceiling-mount Volcano Antenna.</p>	<p>1 x TNC (m)</p>	<p>1 dBi 698-960 MHz</p> <p>3 dBi 1710-2700 MHz</p>	<p>IR807, IR809, and IR829</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 and CGR1240.</p> <p>For CGM / CGR use case adapters are required</p>
<p><a href="#">ANT-MP2-I-OUT-M and ANT-MP2-I-O-SS-M Antenna and Cable Kits.</a></p> <p>For 4G cellular use you need the ANT-MP2-I-O-SS-M antenna kit. The kit has qty 2 antennas and cables needed for Main and Aux cellular ports.</p> <p>ANT-MP2-I-OUT-M is for 915 MHz WPAN, and only has a single antenna and cable in the kit.</p> <p>Designed for direct mounting on the CGR1240 and has an MCX connector.</p>	<p>MCX jack</p>	<p>0.9 dBi typical, 2.8 dBi max 698-960 MHz</p> <p>3.0 dBi typical, 4.3 dBi max 1710-2700 MHz</p> <p>4.0 dBi typical, 5.0 dBi max 2300-2700 MHz</p> <p><b>Note:</b> Degraded performance in Japan 1448-1511 MHz band.</p>	<p>ANT-MP2-I-O-SS-M kit is compatible with CGM-3G and CGM-4G in CGR1240 chassis.</p> <p>The antennas are not mechanically compatible with the CGR1120 chassis.</p>

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><b>Cisco Integrated 4G Low-profile Outdoor Saucer Antenna (ANT-4G-SR-OUT-TNC).</b></p> <p>Integrated 4G Low-profile Outdoor Saucer Antenna.</p>	15 foot LMR 195 cable with TNC(m)	0.8 dBi 698-960 MHz 0.5 dBi 1448-1511 MHz 0.2 dBi 1710-2700 MHz	IR807, IR809, and IR829  C819HG-LTE and C819HG-4G  CGM-3G and CGM-4G modules with CGR1120 and CGR1240.  For CGM / CGR use case adapters are required.
<p><b>Cisco 3G/4G LTE and LTEA Omnidirectional Dipole Antenna (LTE-ANTM-D).</b></p> <p>LTE-ANTM-D is a high performance indoor antenna for use in the 698-960, 1448-1511 and 1710-2690 MHz frequency bands.</p> <p>LTE-ANTM-D antennas have high standalone efficiency, and maintain high efficiency when directly installed on front plate of a small or medium size Cisco router. However, depending on chassis size and a variety of other electromagnetic considerations, installing the antenna directly on the chassis is not always recommended.</p>	1 x TNC(m)	2 dBi, 698-960 MHz 2.8 dBi, 1447-1511 MHz 3.7 dBi, 1710-2690 MHz	IR807, IR809, and IR829  C819HG-LTE and C819HG-4G  CGM-3G and CGM-4G modules in CGR1120 (with additional adapters & cable accessories)
<p><b>Cisco 4G LTEA, 4G LTE, and 3G Omnidirectional Dipole Antenna (LTE-ANTM-SMA-D).</b></p> <p>LTE-ANTM-SMA-D is a high performance indoor antenna for use in the 698-960, 1448-1511 and 1710-2690 MHz frequency bands.</p> <p>LTE-ANTM-SMA-D antennas have high standalone efficiency, and maintain high efficiency when directly installed on front plate of a small or medium size Cisco router. However, depending on chassis size and a variety of other electromagnetic considerations, installing the antenna directly on the chassis is not always recommended.</p>	1 x SMA(m)	2 dBi, 698-960 MHz 2.8 dBi, 1447-1511 MHz 3.7 dBi, 1710-2690 MHz	IR1101 with P-LTE cellular module

GPS/GNSS Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><b>Cisco 5-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-5-4G2WL2G1-O).</b></p> <p>Transportation omnidirectional 5-element antenna for 2G, 3G, 4G cellular, GPS, and dual-band WiFi 2.4 GHz and 5 GHz.</p> <p>The ANT-5-4G2WL2G1-O integrated GPS RF front end is designed to reject collocated RF interference.</p> <p><b>Note:</b> The ANT-5-4G2WL2G1-O antenna is listed under multiple antenna guide sections due to support of multiple technologies.</p>	<p>Cellular - TNC male</p> <p>WLAN - RP-TNC male</p> <p>GPS - SMA male</p>	<p>1 dBi zenith, plus 27dB amplifier gain</p> <p>4G LTE 698-960, 1448-1511, 1710-2400, 2500-2700 MHz</p> <p>Plus 1 port GPS, and 2 ports for dual band WiFi.</p> <p>1575.42 +/- 1 MHz, GPS L1</p>	<p>Good fit for IR829.</p> <p>Can be used with other products such as IR809 or IR807, but has extra WiFi elements not required for those products.</p> <p>Instead consider ANT-3-4G2G1-O for products without WiFi.</p>
<p><b>Cisco Cellular and GPS 3-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-3-4G2G1-O).</b></p> <p>Three port antenna with two elements designed to cover the 698-960, 1448-1511 and 1710-2700 MHz cellular bands and one GPS element.</p> <p>The ANT-3-4G2G1-O antenna is listed under multiple antenna guide sections due to support of multiple technologies.</p> <p>The ANT-3-4G2G1-O integrated GPS RF front end is designed to reject collocated RF interference.</p>	<p>Cellular - TNC male</p> <p>GPS - SMA male</p>	<p>1 dBi zenith, plus 27dB amplifier gain</p> <p>Active GPS antenna, 1575.42 +/- 5 MHz</p>	<p>IR807, IR809, and IR829 IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>CGM-3G and CGM-4G modules with CGR1120 router</p> <p>CGR1120 use case requires ANT-ADPTR-Q-TNC adapters, as CGR1120 router has a QMA(f) GPS connector, and CGM-3G and CGM-4G modules have QMA(f) cellular connectors</p>

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco GPS Antenna (ANT-GPS-OUT-TNC)</a>.</p> <p>Active GPS antenna, integrated 15' LMR-100 cable with RA-TNC(male).</p> <p>The ANT-GPS-OUT-TNC integrated GPS RF front end is designed to reject collocated RF interference.</p>	<p>Right-angle TNC male</p>	<p>Active GPS antenna, 4.0 dBi min at Zenith, 1575.42 MHz, plus 25dB amplifier gain</p>	<p>CGR1120 router use case requires ANT-ADPTR-Q-TNC adapter. Router has a QMA(f) GPS connector</p> <p>LoRaWAN gateways, IXM-LPWA-800-16-K9IXM-L PWA-900-16-K9 directly attached. No adapter needed, as IXM products have TNC(f) GPS connector.</p> <p>IR510 use case requires LTE-ADPT-SM-TF adapter. IR510 has SMA(f) GPS connector</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p> <p>IR807, IR809, and IR829</p> <p>All of these use cases require a LTE-ADPT-SM-TF adapter as these routers have a SMA(f) GPS connector.</p> <p>Instead of a standalone ANT-GPS-OUT-TNC antenna please consider using a multi-element antenna that combines LTE and GPS antennas in a single antenna product such as: ANT-5-4G2WL2G1-O or ANT-3-4G2G1-O</p>

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Indoor/Outdoor Active GPS Antenna (GPS-ACT-ANTM-SMA).</a></p> <p>Active GPS antenna that can be physically connected to the Cisco Integrated Services Routers (ISRs) and Cisco Enhanced High-Speed WAN Interface Cards (EHWICs) to receive GPS broadcasts from satellites.</p> <p>GPS-ACT-ANTM-SMA has GPS filters, but all the filters are after the LNA. Therefore, antenna may not be suitable for co-location with strong RF transmitters.</p>	SMA male	Active GPS antenna, 4 dBi Zenith, 1575.42 MHz, plus 27dB amplifier gain	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>C819HG-LTE and C819HG-4G</p>
<p><a href="#">Cisco Dual LTE-Single GPS Multi-band Antenna Installation Guide (4G-LTE-ANTM-O-3-B).</a></p> <p>Cellular 3-in-1 Two port for 2G, 3G, 4G LTE and one port for GPS</p> <p>Integrated indoor and outdoor Antenna with three ports.</p> <p>The 4G-LTE-ANTM-O-3-B integrated GPS RF front end is designed to reject collocated RF interference.</p>	SMA-Male	<p>2.5 dBi typical 698-960 MHz</p> <p>2.5 dBi typical 1710-2700 MHz</p> <p>One port with GPS element.</p>	IR1101 with P-LTE cellular module

## WPAN, ISM, and LoRaWan Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Outdoor 5 dBi Omni Antenna for 863–928 MHz WPAN, LoRaWan, and ISM (ANT-LPWA-DB-O-N-5).</a></p> <p>5 dBi Outdoor Omni-directional Antenna for the Cisco WPAN, LoRaWan, ISM modules and routers.</p>	Type N Female	<p>5.2 dBi 860–876 MHz</p> <p>5.3 dBi 902–928 MHz</p>	<p>IR509, IR510, IR529, and IR530</p> <p>WPAN CGM-WPAN-FSK-NA and CGM-WPAN-OFDM-FCC modules in CGR1240 and CGR1120</p> <p>LoRaWAN gateways, IXM-LPWA-800-16-K9 IXM-LPWA-900-16-K9</p>
<p><a href="#">Cisco WPAN Dipole Antenna (ANT-WPAN-OD-OUT-N).</a></p> <p>Omnidirectional, vertically polarized single-port antenna designed to cover the 860–928 MHz frequency bands for worldwide ISM operation.</p>	Type N male	<p>WPAN 860–928 MHz.</p> <p>1.5 dBi max</p>	<p>IR509, IR510, IR529, and IR530</p> <p>WPAN CGM-WPAN-FSK-NA and CGM-WPAN-OFDM-FCC modules in CGR1240 and CGR1120</p>
<p><a href="#">Cisco Vandal Resistant Omni-directional Dome Antenna for 860–928 MHz ISM, WPAN and LoRaWAN (ANT-UN-MP-OUT-QMA).</a></p> <p>Vandal Resistant Omni-directional Dome Antenna for ISM, WPAN and LoRaWAN routers.</p>	QMA (male), right angle	1.5–2.0 dBi typical 860–928 MHz	IR509 and IR510
<p><a href="#">Cisco WPAN Yagi Antenna (ANT-WPAN-Y-OUT-N).</a></p> <p>Directional, linearly polarized, mast mount Yagi antenna with a pigtail with N female connector.</p>	18" RG8 pigtail with N female connector	<p>WPAN 860–928 MHz.</p> <p>9 dBi typical, 10 dBi max</p>	Advanced Range Extenders only. IR529UBWP-915D/K9 and IR529UWP-915D/K9 only.
<p><a href="#">ANT-MP2-I-OUT-M and ANT-MP2-I-O-SS-M Antenna and Cable Kits.</a></p> <p>For 4G cellular use you need the ANT-MP2-I-O-SS-M antenna kit. The kit has qty 2 antennas and cables needed for Main and Aux cellular ports.</p> <p>ANT-MP2-I-OUT-M is for 915 MHz WPAN, and only has a single antenna and cable in the kit.</p> <p>Designed for direct mounting on the CGR1240 and has an MCX connector.</p>	MCX jack	0.9 dBi typical, 2.8 dBi max, 860–928 MHz	<p>CGR1240</p> <p>Connected Grid Modules</p> <p>ANT-MP2-I-OUT-M kit is compatible with CGM WPAN modules for use with CGR1240 chassis.</p> <p>The antennas are not mechanically compatible with the CGR1120 chassis.</p>

## Wi-Fi Antennas

**NOTE:** Cisco has the broadest selection of WiFi antennas in the industry. Not all combinations of antennas and routers are supported or tested. For detailed information about antennas supported please check the documentation available for your router or access point.

For easier reference, this guide splits the WiFi Antennas into 3 different categories:

- [Single Band 2.4 GHz Antennas](#)



- [Single Band 5 GHz Antennas](#)
- [Dual Band 2.4 GHz + 5 GHz Antennas](#)

In addition to the information found in this guide, another detailed source for Cisco WiFi antennas, Access Points and deployment considerations can be found here:

[Cisco Aironet Antennas and Accessories Reference Guide](#)

### Single Band 2.4 GHz Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Aironet 2.4 GHz 13-dBi Directional Antenna (AIR-ANT2413P2M-N)</a>.</p> <p>2-Element Patch Array designed for outdoor use with Cisco Industrial Wireless Access Points.</p>	Type N Male	<p>WiFi 2.4 Ghz</p> <p>13 dBi</p>	<p>IW3702 in FlexPort mode only</p> <p>IW3702 use case requires N-type cables.</p> <p>Supported on the IR829GW family, not recommended for the IR829-2LTE as the antenna is single band.</p> <p>IR829 use case requires cables and adapters.</p> <p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in single band mode. Requires N-type cables.</p>
<p><a href="#">Cisco Aironet Omnidirectional Antennas AIR-ANT2450V-N, AIR-ANT2450VG-N, AIR-ANT2450V-N-HZ, and AIR-ANT2450HG-N</a>.</p> <p>Omnidirectional antennas designed for outdoor use with Cisco Aironet Outdoor Access Points.</p>	Type N Male	<p>WiFi 2.4 GHz</p> <p>5 dBi</p>	<p>Cisco Aironet 1552H, 1552S, 1552WU, IW-6300, ESW-6300.</p> <p>IW/ESW-6300 must be configured in single band mode.</p>
<p><a href="#">Cisco Aironet 8-dBi Omnidirectional Antenna (AIR-ANT5180V-N)</a>.</p> <p>Omnidirectional antenna designed for outdoor use.</p>	Type N Male	<p>WiFi 2.4 GHz</p> <p>8 dBi</p>	<p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in single band mode.</p>

### Single Band 5 GHz Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Aironet 5-GHz 13-dBi Directional Antenna (AIR-ANT5114P2M-N)</a>.</p> <p>2-Port Directional antenna with N-type connectors designed for use in outdoor environments.</p>	Type N Male	<p>WiFi 5 GHz</p> <p>13 dBi</p>	<p>IW3702 in FlexPort mode only</p> <p>IW3702 use case requires N-type cables.</p> <p>Supported on the IR829GW family, not recommended for the IR829-2LTE as the antenna is single band.</p> <p>IR829 use case requires cables and adapters.</p> <p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in single band mode. Requires N-type cables.</p>
<p><a href="#">Cisco Aironet Omnidirectional Antennas AIR-ANT5150VG-N and AIR-ANT5150HG-N</a>.</p> <p>Vertically and horizontally polarized omnidirectional antennas designed for outdoor use.</p>	Type N Male	<p>WiFi 5 GHz</p> <p>5 dBi</p>	<p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in single band mode.</p>
<p><a href="#">Cisco Aironet 8-dBi Omnidirectional Antenna (AIR-ANT5180V-N)</a>.</p> <p>Omnidirectional antenna designed for outdoor use.</p>	Type N Male	<p>WiFi 5 GHz</p> <p>8 dBi</p>	<p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in single band mode</p>

## Dual Band 2.4 GHz + 5 GHz Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco Dual Port, Dual Band Vehicle Mount and Fixed Infrastructure WLAN Antenna (ANT-2-WLAN-D-O).</a></p> <p>Dual Port, Dual Band Outdoor Vehicle Mount and Fixed Infrastructure WLAN Antenna, omnidirectional, vertically polarized, 2x2 MIMO, integrated 3 foot long LMR-240 cables with RP-TNC plug connectors.</p>	2 x 3 foot LMR-240 cables with RP-TNC(plug) connectors	<p>WiFi 2.4G/5G</p> <p>4.0 dBi typical, 5.1 dBi max 2400-2500 MHz</p> <p>6.5 dBi typical, 7.0 dBi max 4900-5875 MHz</p>	IR829
<p><a href="#">Cisco Aironet Four-Port Dual-Band Polarization-Diverse Antenna (AIR-ANT2513P4M-N).</a></p> <p>Four-port polarization-diverse patch array with an articulating mount for use on flat surfaces and masts, and is adjustable in both the horizontal and vertical planes. Designed for use in indoor and outdoor environments.</p>	Type N-Female Bulkhead	<p>WiFi 2.4G / 5G</p> <p>13 dBi</p>	<p>IW3702, IW-6300, ESW-6300</p> <p>Requires N-type cables</p>
<p><a href="#">Cisco Aironet Four-Element, MIMO, Dual-Band Ceiling Mount Omni-Directional Antenna (AIR-ANT2524V4C-R).</a></p> <p>Four-element, dual-band antenna designed for ceiling-mounting in an indoor environment.</p>	RP-TNC	<p>WiFi</p> <p>2.4 GHz band: 2 dBi</p> <p>5 GHz band: 4 dBi</p>	<p>IW3702</p> <p>IW3702 use case requires AIR-ACC370-NM-RF coaxial adapters</p>
<p><a href="#">Cisco Aironet Dual-Band MIMO Wall-Mounted Omnidirectional Antenna (AIR-ANT2544V4M-R).</a></p> <p>Four port dual-band wall-mounted omnidirectional antenna designed for indoor or outdoor use.</p>	RP-TNC	<p>WiFi</p> <p>2.4 GHz band: 4 dBi</p> <p>5 GHz band: 4 dBi</p>	<p>IW3702</p> <p>IW3702 use case requires AIR-ACC370-NM-RF coaxial adapters</p>
<p><a href="#">Cisco Aironet Dual-Band Omni-Directional Antenna (AIR-ANT2547V-N, AIR-ANT2547V-N-HZ, and ANT2547VG-N).</a></p> <p>Single port dual-band omni-directional antenna designed to directly attach to an outdoor access point or bulkhead N female connector.</p>	Type N-Male	<p>WiFi</p> <p>4 dBi 2400-2483 MHz</p> <p>7 dBi 5250-5875 MHz</p>	<p>IW3702, IW-6300, ESW-6300</p> <p>IR829</p> <p>IR829 use case requires cables and adapters.</p>
<p><a href="#">Cisco Aironet 2.4-GHz/5-GHz MIMO 4-Element Patch Antenna (AIR-ANT2566P4W-R).</a></p> <p>4-Element Patch Antenna designed for indoor and outdoor use.</p>	RP-TNC	<p>WiFi 2.4G/5G</p> <p>6 dBi in both bands</p>	<p>IW3702</p> <p>IW3702 use case requires AIR-ACC370-NM-RF coaxial adapters</p>

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco 5-in-1 Vehicle Mount and Fixed Infrastructure Antenna (ANT-5-4G2WL2G1-O)</a>.</p> <p>Transportation omnidirectional 5-element antenna for 2G, 3G, 4G cellular, GPS, and dual-band WiFi 2.4 GHz and 5 GHz.</p> <p><b>Note:</b> The ANT-5-4G2WL2G1-O antenna is listed under multiple antenna guide sections due to support of multiple technologies.</p>	<p>Cellular - TNC male</p> <p>WLAN - RP-TNC male</p> <p>GPS - SMA male</p>	<p>2 ports with dual band WiFi 2.4G/5G.</p> <p>1 port GPS, and 2 ports for 700-2700 MHz cellular.</p> <p>4.8 dBi typical, 5.5 dBi max, 2400-2500 MHz</p> <p>5.8 dBi typical, 7.0 dBi max, 4900-5875 MHz</p>	<p>IR829</p>
<p><a href="#">Cisco Aironet Dual-band Dipole Antenna (AIR-ANT2524DB-R, AIR-ANT2524DG-R, and AIR-ANT2524DW-R)</a>.</p> <p>High-performance, dual-band dipole antenna designed for use with Cisco Aironet 2.4 GHz and 5 GHz radio products with dual-band reverse-polarity TNC (RP-TNC) antenna ports.</p>	<p>RP-TNC plug</p>	<p>WiFi 2.4G/5G</p> <p>2 dBi 2.4 GHz</p> <p>4 dBi 5. GHz</p>	<p>IW3702</p> <p>IW3702 use case requires AIR-ACC370-NM-RF coaxial adapters</p> <p>Matching antenna color is the white AIR-ANT2524DW-R</p> <p>IR829</p> <p>Matching antenna color is the black AIR-ANT2524DB-R</p>
<p><a href="#">Cisco Aironet 2.4 GHz and 5 GHz Dual-Band Polarization-Diverse Directional Array Antenna (AIR-ANT2566D4M-R)</a>.</p> <p>Four port dual-band polarization-diverse directional array antenna. It operates over the 2.4 GHz and 5 GHz Wi-Fi bands. It ships with an articulating mount for use on flat surfaces and masts, and is adjustable in both horizontal and vertical planes.</p>	<p>RP-TNC (with coupling ring)</p>	<p>2.4 GHz and 5 GHz</p> <p>6 dBi</p>	<p>IW3702</p> <p>IW3702 use case requires AIR-ACC370-NM-RF coaxial adapters</p> <p>IR829</p>
<p><a href="#">Cisco Aironet Dual-Band Omni-Directional Antenna (AIR-ANT2568VG-N)</a>.</p> <p>Single port dual-band omnidirectional antenna designed to directly attach to an outdoor access point or bulkhead N female connector.</p>	<p>Type N-Male</p>	<p>2.4 GHz and 5 GHz</p> <p>6 dBi 2400 - 2483 MHz</p> <p>8 dBi 5150 - 5925 MHz</p>	<p>IW-6300, ESW-6300</p>
<p><a href="#">Cisco Aironet 2.4-GHz/5-GHz 8-dBi Directional Antenna (AIR-ANT2588P3M-N)</a>.</p> <p>Three port directional patch array with an articulating mount for use on flat surfaces and masts and is adjustable in both the horizontal and vertical planes. Designed for use in indoor and outdoor environments.</p>	<p>Type N-Female Bulkhead</p>	<p>2.4 GHz and 5 GHz</p> <p>8 dBi in both bands</p>	<p>IW-6300, ESW-6300</p> <p>IW/ESW-6300 must be configured in dual-band mode. The middle port of the antenna is unused. Requires N-type cables.</p>

## Planned EOS Antennas

Table 1 Planned EOS Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
<p><a href="#">Cisco 4G Indoor Ceiling-Mount Omnidirectional Antenna (4G-ANTM-OM-CM).</a></p> <p>Designed for indoor use with Cisco 3G cellular Enhanced High-Speed WAN Interface Cards (EHWICs) and is compatible with Cisco 3G cellular products using a threaded Neill-Concelman (TNC) Male connector.</p>	TNC male	<p>1 and 1.5 dBi 700-960 MHz</p> <p>2 dBi 1448-1511 MHz</p> <p>1.7 and 3.2 dBi 1700-2200 MHz</p> <p>3 and 4 dBi 2500-2700 MHz</p>	<p>IR807, IR809, and IR829</p> <p>IR1101 with P-LTE cellular module</p> <p>CGM-3G and CGM-4G modules in CGR1120 (with additional adapters &amp; cable accessories)</p>
<p><a href="#">Cisco 4G/3G Omnidirectional Dipole Antenna (4G-LTE-ANTM-D).</a></p> <p>The 4G-LTE-ANTM-D omnidirectional dipole antenna is designed for indoor use with Cisco 4G and Cisco 3G wireless Integrated Services Routers Generation 2 (ISRs G2) and Enhanced High-Speed WAN Interface Cards (EHWICs).</p>	Articulated TNC male connector	<p>4G LTE 698-960, 1710-2170, 2500-2700 MHz.</p> <p>2 dBi</p>	<p>IR800</p> <p>CGR 1000</p> <p>Connected Grid Modules</p>
<p><a href="#">Cisco Indoor Swivel-mount Dipole Antenna (ANT-4G-DP-IN-TNC).</a></p> <p>Indoor Swivel-mount Dipole 3G/4G Antenna supported on the Connected Grid Router 1120 and is designed to support Cellular/PCS/AWS/MDS, WiMAX 2100/2300/2500/2600 and global GSM900/GSM1800/UMTS/LTE2600 bands.</p>	TNC male	<p>4G LTE 698-960, 1710-2400, 2500-2700 MHz</p> <p>0.5 dBi 698-960 MHz)</p> <p>2.2 dBi 1710-2700 MHz</p>	<p>IR800</p> <p>CGR 1000</p> <p>Connected Grid Modules</p>
<p><a href="#">Cisco Aironet 6.5-dBi Diversity Patch Antenna (AIR-ANT2465P-R).</a></p> <p>(AEOS date 04/30/2019)</p> <p>Diversity patch antenna designed for use with Cisco Aironet access points and bridges but can be used with any 2.4 GHz Cisco Aironet radio device that utilizes an RP-TNC connector.</p>	RP-TNC	<p>WiFi 2.4G</p> <p>6.5 dBi</p>	IR829

## EOS Antennas

Table 2 EOS Antennas

Part Number / Description	RF Connectors	Antenna Frequency Band Support and Gain	Industrial Products Where Supported
Outdoor Panel Antenna for WiMAX 1.8, 2.5, and 3.8 GHz.  Outdoor Panel Antenna for WiMAX 1.8, 2.5, and 3.8 GHz	N female (x2)	WiMAX 1.8, 2.5, 3.8 GHz.  16 +/- 1 dBi	CGR 1000  Connected Grid Modules
ANT-WM-INT-OUT-M  (Similar to ANT-MP2-I-O-SS-M, except covering 3.3-3.6 GHz)	MCX jack	3.3-3.8 GHz  N/A	WiMax CGM module only.
Cisco Multiband Panel Outdoor 3G Antenna (ANT-3G-PNL-OUT-N).  Multiband Panel Outdoor 3G antenna designed to cover cellular 3G bands.	Type N female	3G  10 dBi 806-960 MHz  11 dBi 1710-2170 MHz	CGM-3G modules only
Cisco Multi-purpose Integrated Antenna (ANT-MP-INT-OUT-M).  Multi-purpose integrated monopole antenna, chassis-mounted, omnidirectional, includes non-integrated coaxial cable. No cable (option class).	MCX jack	3G  2.8 dBi 806-960 MHz  3.5 dBi 1710-2170 MHz  4 dBi 2300-2700 MHz	CGM-3G only in CGR1240 chassis.  This antenna is not mechanically compatible with CGR1120 chassis
Cisco Outdoor Omni Antenna for 900 MHz WPAN (ANT-WPAN-OM-OUT-N).  Outdoor Omnidirectional Antenna for the 900 MHz WPAN module.  <b>Note:</b> Antenna will eventually be obsoleted in favor of the dual band 5 dBi, ANT-LPWA-DB-O-N-5	Type N female	WPAN 902-928 MHz only  4 dBi	IR509, IR510, and IR529 as well as WPAN CGM-WPAN-FSK-NA and CGM-WPAN-OFDM-FCC modules in CGR1240 and CGR1120

