

Reliable Connectivity Below [Means Going Above and Beyond]

Helical Antennas

Ideal for 900 MHz, 2.4 or 5.8 GHz

IOT • Mining • Underground

Video / Data Transfer / VoIP Phones / LCD Screens



UNDERGROUND MINING



SUBWAY SECURITY



SUBTERRANEAN TUNNELS



ELEVATORS

TACO circularly polarized signals communicate with linearly polarized antennas such as handhelds, regardless of their antenna orientation. Traditional linear polarized signals can drop up to 20dB when antennas are not held in the same orientation as each other.

TACO Helicals are directional, giving you the most signal possible in the direction you need it. Many other underground solutions use omni antennas, which cast energy in every direction, reducing signal level and increasing reflections.

Those are just a few of the benefits you will realize with our superior Helical antennas!

TACOTM
ANTENNA

TACO Reaches Higher [So You Can Connect Deeper]

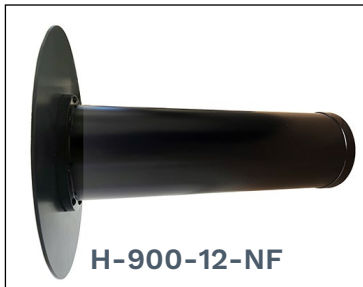
Helical Antennas

You need underground wireless coverage, but severe reflection makes connectivity difficult. TACO Helical antennas are the solution. The reflected signal of our circularly polarized helical simply reverses polarization, resulting in less interference and superior multi-path rejection than with conventional linearly polarized antennas.

No matter what your mining operation, TACO's helicals offer reliability and consistency, even under the most difficult conditions.

900 MHZ Helical Antennas **H-900-12-NF**

A clean signal and a low VSWR across its entire 690 MHz to 1.0 GHz band makes the H-900-12-NF helical antenna suitable for almost any application, including drone jamming, public safety, mining, video surveillance, warehousing, and more. Its high quality internal components protected by an all-weather, impact resistant polycarbonate radome allow it to withstand almost any environment.



APPLICATIONS

Wi-Fi Mesh, WiMax, ISM, VOiP, Point-to-Point, tunnels, mining applications, elevator shafts, video surveillance, downtown corridors, parking lots, wireless security cameras, warehousing.

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE -MHZ	690-1000
IMPEDANCE - Ω	50
GAIN - dBic	12
F/B RATIO - dB	>20
VSWR (max)	2:1
POLARIZATION	43
HPBW - °	43
MAX POWER - W	100
TERMINAL TYPE	NF/SMAF*

*Available as an option

MECHANICAL SPECIFICATIONS

LENGTH FROM BOTTOM OF GROUND PLANE – IN (CM)	18.6 (47.2)
GROUND PLANE DIAMETER – IN (CM)	12.0 (30.5)
RADOME DIAMETER – IN (CM)	5.0 (12.7)
BULKHEAD BASE DIAMETER – IN (CM)	6.0 (15.2)
CAP DIAMETER – IN (CM)	5.1 (13.0)
ANTENNA WEIGHT – LBS (KG)	4.3 (2.0)
ANTENNA COLOUR	FLAT BLACK**

NOTE: Various mount options available

**Other colours available

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2.4 GHZ Helical Antennas

Standard **H1024** & High Gain **H2024**

Circular polarized helical antennas are enclosed with an anti-static coated, polycarbonate radome for protection from the environment. The higher gain H2024 and bi-directional BDH2024 are available in right-turn or left-turn helix. All models include a mast mount, and wall and ceiling mounting is also available as an accessory (CM-1). These antennas are ideally suited to harsh environments that have severe reflections from rock faces, mining equipment, metal surfaces and water.

ELECTRICAL SPECIFICATIONS

MODEL	H1024	H2024
FREQUENCY RANGE -GHz	2.4-2.5	2.4-2.5
GAIN - dBic	13.8	17.4
IMPEDANCE - Ω	50	50
F/B RATIO - dB	36	31
VSWR (max)	1.5:1	1.5:1
POLARIZATION	RHCP STD	RHCP STD
HPBW - °	35	24
MAX POWER - W	50	50
TERMINAL TYPE	N FEMALE	N FEMALE

APPLICATIONS

Wi-Fi Mesh, WiMax, ISM, VOiP, Point-to-Point, tunnels, mining applications, elevator shafts, video surveillance, downtown corridors, parking lots, wireless security cameras, warehousing.

MECHANICAL SPECIFICATIONS

MODEL	H1024	H2024
LENGTH – IN (CM)	13.1 (33.3)	31.1 (79.5)
GROUND PLANE DIAMETER – IN (CM)	5.5 (13.8)	5.5 (13.8)
HOUSING	POLYCARBONATE	POLYCARBONATE
WEIGHT – LBS (KG)	1.1 (0.5)	1.6 (0.7)
MOUNTING OD – IN (CM)	1.625 (4.1)	1.625 (4.1)



Bi-Directional **BDH2024**



TACO Antenna's new bi-directional, anti-static Helical Antenna is designed for the Wi-Fi 2.4 - 2.5 GHz frequency band. It is based on our H2024 high gain Helical Antenna and is available in both right and left-turn helix.

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE -GHz	2.4-2.5
GAIN - dBic	15
IMPEDANCE - Ω	50
VSWR (max)	2.2
POLARIZATION	R or LHCP
HPBW - °	23
MAX POWER - W	50
TERMINAL TYPE	N FEMALE

MECHANICAL SPECIFICATIONS

LENGTH – IN (CM)	60.4 (153.5)
GROUND PLANE DIAMETER – IN (CM)	5.5 (13.8)
HELICAL DIAMETER	2.0 (5.1)
WEIGHT – LBS (KG)	2.5 (1.1)
MOUNTING OD – IN (CM)	2.0 (5.1)

APPLICATIONS

Ideal for underground corridors, mining, security and other wireless applications.

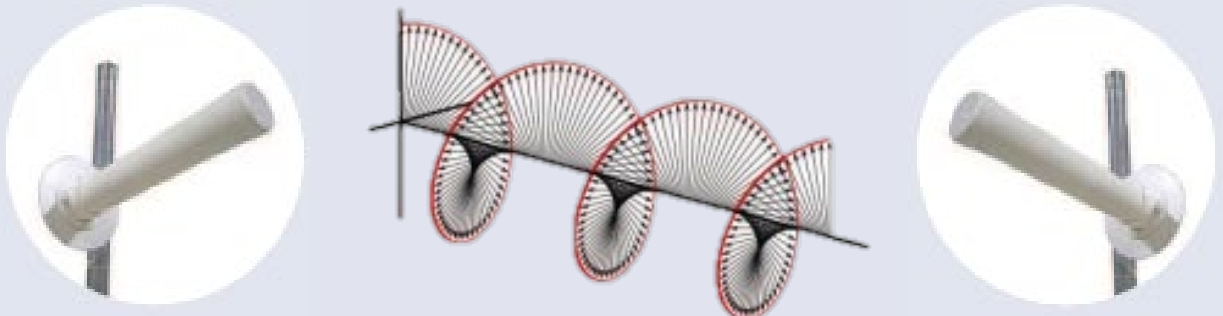
TACO ANTENNA

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SPEC0064_G03

Circular Polarization



5.8 GHZ Helical Antennas H2058

The TACO model H2058 is a right hand circular polarized antenna ranging from 5.7 to 5.85 GHz. The antenna is enclosed with an anti-static plastic radome for protection from the environment. It can be mounted to a mast or wall and ceiling mounts are also available as an accessory (CM-1). This antenna is ideally suited to harsh environments that have severe reflections from metal surfaces and water.



APPLICATIONS

Wi-Fi, ISM, RFID, VOiP, Point-to-Point, warehousing, tunnels, mining applications, elevator shafts, video surveillance, downtown corridors, parking lots, wireless security cameras.

ELECTRICAL SPECIFICATIONS

FREQUENCY RANGE -GHz	5.7 - 5.85
GAIN - dBic	15.0
IMPEDANCE - Ω	50
F/B RATIO - dB	33
VSWR (max)	1.5:1
POLARIZATION	RHCP
HPBW - °	28
MAX POWER - W	50
TERMINAL TYPE	N FEMALE

MECHANICAL SPECIFICATIONS

LENGTH – IN (CM)	12.0 (30.5)
GROUND PLANE DIAMETER – IN (CM)	5.5 (13.8)
HOUSING	POLYCARBONATE
WEIGHT – LBS (KG)	1.4 (0.7)
MOUNTING OD – IN (CM)	1.625 (4.13)

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