

Powertec 4G-5G Slim Ceiling Antenna, 700 to 4000 MHz, N Female

Model Number

HCEI-6940-3.N2

Order Code

ANT-BH-00010

Polarisation

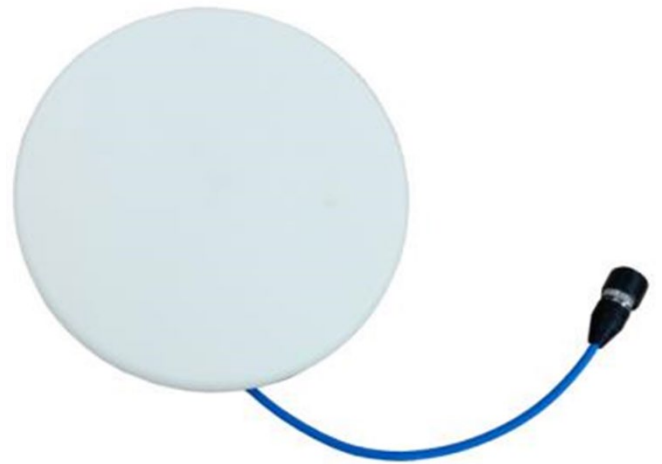
Linear, Horizontal

Design Type

Ceiling

RF Category

Cellular



Powertec's slimline ceiling antenna is the ideal solution for a clean, aesthetic appearance without sacrificing performance. The antenna has been shaped to generate a 360° hemisphere of signal for complete internal coverage when mounted on the ceiling.

Indoor ceiling-mount antennas, sometimes called dome antennas, are designed to be mounted to the ceiling of your building to consistently distribute mobile phone service from your repeater / booster system. The thin white design allows the product to be nearly invisible when mounted, yet provides a strong increase in 4G-5G cellular coverage when connected to an in-building repeater system.

The antenna provides consistent gain across the 4G-5G cellular range from 700 to 4000 MHz, with stable omnidirectional coverage. It is horizontally polarised to provide maximum isolation in smaller installation environments such as demountable temporary office buildings and containers. The antenna has a low-PIM design to protect the network when broadcasting multiple carriers from the one antenna.

- 4G LTE, 5G NR bands 698 to 4000 MHz
- Thin, aesthetically pleasing ABS radome
- Semi-Flexible blue RG-402 cable tail
- Ideal for commercial in-building coverage
- N, 4.3-10, NEX10 Female input connector options available, (N Female standard).

Antenna Technical Data

PHYSICAL CHARACTERISTICS

Construction Material	ABS Plastic	RF Connections	1
Radome Colour	White	Environmental Rating	Indoor Only
Dimensions	190 x 190 x 7.3 mm	Operating Temperature	-40 °C to 65 °C
Weight	0.25 kg	Mounting	Ceiling

ELECTRICAL SPECIFICATIONS

MECHANICAL SPECIFICATIONS

Input Impedance	50 Ω	Input Connector	N
Polarisation	Linear, Horizontal	Input Connector Gender	Female
Max. Input Power	50 W	Cable Series	RG-402
PIM, 3rd Order	< -150 dBc	Cable Length	300 mm

FREQUENCY RANGE	PEAK GAIN	VSWR	EL.	AVG. GAIN	EFFICIENCY
698 to 960 MHz	3 dBi	< 1.8:1	120°	-	-
1695 to 2200 MHz	4 dBi	< 1.8:1	85°	-	-
2300 to 2500 MHz	4 dBi	< 1.8:1	76°	-	-
2500 to 2700 MHz	5 dBi	< 1.8:1	70°	-	-
3300 to 4000 MHz	3 dBi	< 2.0:1	62°	-	-

EME Safety Report – Indoor Antenna



Electromagnetic Radiation (EMR) is a form of Electromagnetic Energy (EME). EME transmissions in the Radio Frequency (RF) bands are non-ionising and can only cause tissue damage through burns from high powered transmitters.

EMR hazards can be present when working with high powered transmitters and/or high gain antennas. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) have established limits on the level of RF energy that the public may be exposed to.

Exposure to RF reduces very rapidly with distance due to the inverse-square law. In free-space RF follows the inverse-square law due to its expanding wavefront as it spreads out uniformly in all directions.

The table below show the minimum safe distance for members of the public based on the antenna's peak gain when connected to common Powertec 4G-5G repeater models, under worst-case scenarios.

Calculations are based on the AS/NZS 2772.2 standard. Refer to <https://www.acma.gov.au/our-rules-eme> for more information.

BAND	FREQUENCY RANGE	ARPANSA LIMIT	CEL-FI G31 / G32	CEL-FI G41 / G51 / QUATRA
B28 (700 MHz)	703 to 803 MHz	3750 mW/m ²	0.04 m	0.07 m
n5, n26 (850 MHz)	814 to 894 MHz	4500 mW/m ²	0.04 m	0.06 m
B8 (900 MHz)	880 to 960 MHz	4500 mW/m ²	0.04 m	0.06 m
B3 (1800 MHz)	1710 to 1880 MHz	9000 mW/m ²	0.03 m	0.05 m
B1 (2100 MHz)	1920 to 2170 MHz	10000 mW/m ²	0.03 m	0.04 m
B7 (2600 MHz)	2500 to 2690 MHz	10000 mW/m ²	0.03 m	0.05 m
n78 (3500 MHz)	3300 to 3800 MHz	10000 mW/m ²	0.03 m	0.04 m

Determination: this antenna is safe for use by members of the public.



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