

# Powertec 4G-5G Wall Mount Panel Antenna, 700 to 4000 MHz

## Model Number

VSP-6940-7.N2

## Order Code

ANT-BH-WAL

## Polarisation

Linear, Vertical

## Design Type

Suspended Plate / Panel

## RF Category

Cellular



The Blackhawk Indoor Wall Mount Antenna is designed to provide mobile coverage inside a building when connected to a cellular repeater system. Indoor panel antennas are a lightweight and highly cost-effective means of projecting mobile coverage in a forward direction. An example may be placing the panel antenna facing down a hallway or on the rear wall of a supermarket.

Indoor panel antennas are considered “semi-directional”, where they aim to provide a moderate 5 to 7 dBi gain, which makes sure coverage is transmitted in a wide arc (between 60 and 90° depending on frequency band).

The antenna supports all major 4G and 5G mobile networks globally and has a low-PIM design to broadcast multiple carriers from the one antenna.

- 4G LTE, 5G NR bands 698 to 4000 MHz
- UV stable 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	RF Connections	1
Radome Colour	White	Environmental Rating	Indoor Only
Dimensions	180 x 158 x 60 mm	Operating Temperature	-40 °C to 65 °C
Weight	0.4 kg	Mounting	Wall bracket included

## ELECTRICAL SPECIFICATIONS

Input Impedance	50 Ω
Polarisation	Linear, Vertical
Max. Input Power	50 W
PIM, 3rd Order	< -150 dBc

## MECHANICAL SPECIFICATIONS

Input Connector	N
Input Connector Gender	Female
Cable Series	RG-402
Cable Length	300 mm

FREQUENCY RANGE	PEAK GAIN	VSWR	AZ.	EL.	F/B RATIO	INTER-PORT	XPI
698 to 806 MHz	5.5 dBi	< 2.0:1	92°	73°	> 8 dB	N/A	N/A
806 to 960 MHz	6.5 dBi	< 2.0:1	90°	68°	> 9 dB	N/A	N/A
1695 to 2700 MHz	8 dBi	< 1.7:1	65°	60°	> 14 dB	N/A	N/A
3300 to 4000 MHz	7 dBi	< 1.7:1	55°	35°	> 10 dB	N/A	N/A

# 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.

BAND	FREQUENCY RANGE	ARPANSA LIMIT	CEL-FI G31 / G32	CEL-FI G41 / G51 / QUATRA
B28 (700 MHz)	703 to 803 MHz	3750 mW/m <sup>2</sup>	0.05 m	0.09 m
n5, n26 (850 MHz)	814 to 894 MHz	4500 mW/m <sup>2</sup>	0.06 m	0.09 m
B8 (900 MHz)	880 to 960 MHz	4500 mW/m <sup>2</sup>	0.06 m	0.09 m
B3 (1800 MHz)	1710 to 1880 MHz	9000 mW/m <sup>2</sup>	0.05 m	0.07 m
B1 (2100 MHz)	1920 to 2170 MHz	10000 mW/m <sup>2</sup>	0.04 m	0.07 m
B7 (2600 MHz)	2500 to 2690 MHz	10000 mW/m <sup>2</sup>	0.04 m	0.07 m
n78 (3500 MHz)	3300 to 3800 MHz	10000 mW/m <sup>2</sup>	0.04 m	0.06 m

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



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