



BELGIAN SHEPHERD

HPUE Optimized PRO Series Antenna



The Belgian Shepherd HPUE Optimized PRO Series is a 4G/5G, omni-directional antenna, with up to 4X4 MIMO cellular, up to 3 MIMO Wi-Fi elements, Band 14, and GPS. The Belgian Shepherd HPUE Optimized is designed for high performance of 600 MHz – 6 GHz and specifically tuned for Band 14 for public safety transportation & fleet.

This PRO series, IP67 rated antenna is a mobile external antenna with a curved top design that is power wash safe for public safety fleets. The Belgian Shepherd HPUE is the ideal network solution for rural regions that require long distance connectivity with challenging terrain.

Patent Pending



1st to 5G

Configurations 4:1 | 6:1 | 9:1

Transportation & Fleet | Assured Wireless AW12 | Urban Coverage Holes



Long Range

Connect in Rural & Urban Environments

High Power User Equipment

Maximum Range, Coverage, & Capacity

Durable

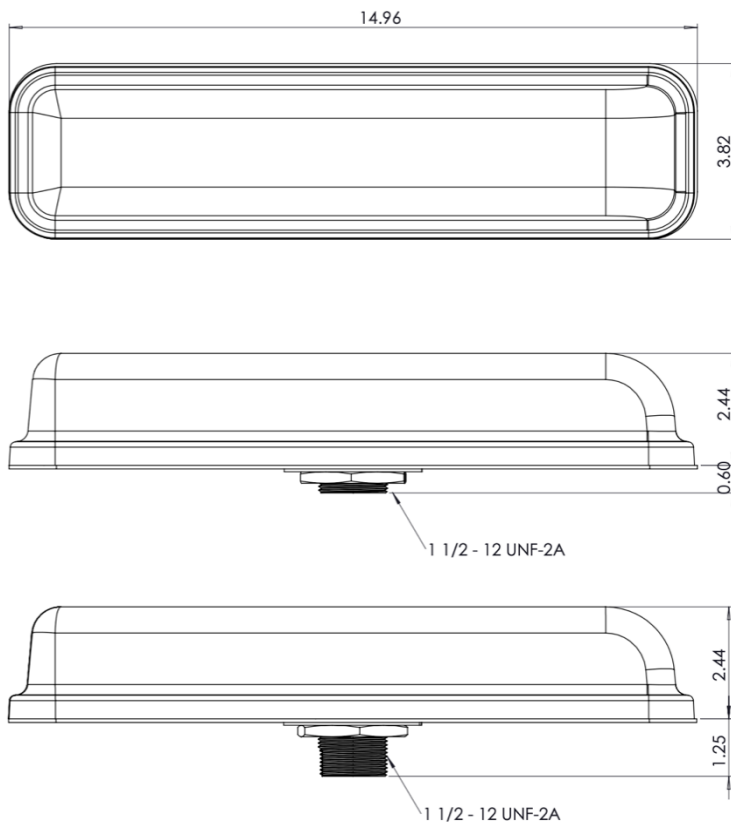
IP67 Rated & Power Wash Safe

- Up to 4X4 MIMO CELLULAR
- Up to 3 MIMO WI-FI
- BAND 14
- OMNI-DIRECTIONAL
- GPS/ GNSS
- 600 MHz – 6 GHz
- 2.44 in X 3.82 in X 14.96 in

Specifications

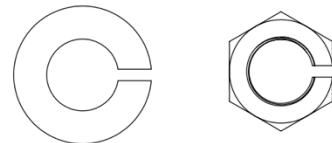
Frequencies			
4G/5G Cellular	617-894 MHz 1710-2700 MHz 3300-4000 MHz 5150-5925 MHz	Wi-Fi	2400-2483.5 MHz 4900-5900 MHz
4G/5G Bands			
North America	B2, B4, B5, B7, B12, B13, B14, B17, B25, B26, B29, B30, B41, B46, B48, B66, B71 n2, n5, n12, n25, n26, n41, n48, n66, n71, n77		
EMEA	B1, B3, B7, B20, B28, B42, B43, B46 n1, n3, n28, n77, n78		
Mechanical		Environmental	
Dimensions	2.44 inch X 3.82 inch X 14.96 inch	Operating Temperature	-30 °C to 85°C OR -22°F to 180°F
Mounting	Single 1.5 inch	Ingress Protection	IP67

Dimensions



Hardware Accessories Included

PTA0761



Product Images



Electrical Specifications for 4:1 & 6:1

ID & Unit	Port	Parameters	Typ.
Radiated Efficiency (%)	CELL 1, 2, B14	617-894 MHz	70
	CELL 1, 2, B14	1710-2700 MHz	80
	CELL 1, 2, B14	3400-4000 MHz	60
	CELL 1, 2, B14	5150-5925 MHz	50
	Wi-Fi 1, 2	2400-2483.5 MHz	70
	Wi-Fi 1, 2	4900-5900 MHz	70
Peak Gain (dBi)	CELL 1, 2, B14	617-894 MHz	5
	CELL 1, 2, B14	1710-2700 MHz	7
	CELL 1, 2, B14	3400-4000 MHz	7
	CELL 1, 2, B14	5150-5925 MHz	5
	Wi-Fi 1, 2	2400-2483.5 MHz	7
	Wi-Fi 1, 2	4900-5900 MHz	8

Return Loss 50Ω (dB)	CELL 1, 2, B14	617-894 MHz	8
	CELL 1, 2, B14	1710-2700 MHz	10
	CELL 1, 2, B14	3400-4000 MHz	7
	CELL 1, 2, B14	5150-5925 MHz	5
	Wi-Fi 1, 2	2400-2483.5 MHz	7
	Wi-Fi 1, 2	4900-5900 MHz	8
Isolation (dB)	CELL 1 to 2	617-894 MHz	7.5
	CELL 1 to 2	1710-2700 MHz	18
	CELL 1 to 2	3400-4000 MHz	20
	CELL 1 to 2	5150-5925 MHz	20
	B14 to CELL 2	617-894 MHz	15
	B14 to CELL 2	1710-2700 MHz	23
	B14 to CELL 2	3400-4000 MHz	23
	B14 to CELL 2	5150-5925 MHz	25
	Wi-Fi 1, 2	2400-2483.5 MHz	17
	Wi-Fi 1, 2	4900-5900 MHz	18
Polarization (dBi)	CELL, B14, Wi-Fi		Linear
Max Input Power (Watts)	CELL, B14, Wi-Fi		10
RF Connectors	CELL, B14 Wi-Fi		SMA(M) RPSMA(M)
RF Cable Type	CELL, B14, Wi-Fi		LSR200
<ul style="list-style-type: none"> • Electrical specifications based on antenna with a 2 ft x 2 ft external ground plane. • Isolation, return loss, and peak gain do not include cable loss. • SMA connectors have a max torque of 3-5 inch lbs. • NF connectors have a max torque of 6.2-9.7 inch lbs. • Parsec is currently phasing out inventory with LTE on our Cellular cables (now labeled CELL). For cables labeled LTE, please refer port "CELL" in the data sheets and installation instructions. 			

GNSS Electrical Specifications for 4:1 & 6:1

ID & Unit	Port	Parameters	Typ.
Antenna + Preamp Gain (dBic)	GPS	1570-1581 MHz	33
Polarization	GPS		RHCP
Filter Rejection (dB)	GPS	1625 MHz	12
GNSS Preamp Voltage (mA)	GPS		2.2 to 5
GNSS Preamp Current (mA)	GPS		5 to 15
RF Connector	GPS		SMA(M)
RF Cable Type	GPS		LSR100

Electrical Specifications for 9:1

ID & Unit	Port	Parameters	Typ.
Radiated Efficiency (%)	CELL 1, 2	617-698 MHz	40
	CELL 1, 2	698-894 MHz	50
	CELL 1, 2	1710-1850 MHz	75
	CELL 1, 2	1850-2700 MHz	80
	CELL 1, 2	3300-4000 MHz	70
	CELL 1, 2	5150-5925 MHz	35
	CELL 3, 4	617-698 MHz	25
	CELL 3, 4	698-894 MHz	35
	CELL 3, 4	1710-1850 MHz	65
	CELL 3, 4	1850-2700 MHz	70
	CELL 3, 4	3300-4000 MHz	60
	CELL 3, 4	5150-5925 MHz	40
	B14	758-798 MHz	75
	Wi-Fi 1-3	2400-2483.5 MHz	75
Wi-Fi 1-3	4900-5900 MHz	75	
Peak Gain (dBi)	CELL 1, 2	617-698 MHz	2.5
	CELL 1, 2	698-894 MHz	3.5
	CELL 1, 2	1710-2200 MHz	6.5
	CELL 1, 2	2200-2700 MHz	7
	CELL 1, 2	3300-4000 MHz	6
	CELL 1, 2	5150-5925 MHz	4.5
	CELL 3, 4	617-698 MHz	0.5
	CELL 3, 4	698-894 MHz	1
	CELL 3, 4	1710-2200 MHz	5.5
	CELL 3, 4	2200-2700 MHz	7
	CELL 3, 4	3300-4000 MHz	7
	CELL 3, 4	5150-5925 MHz	4
	B14	758-798 MHz	5
	Wi-Fi 1-3	2400-2483.5 MHz	7
Wi-Fi 1-3	4900-5900 MHz	8	
Return Loss 50Ω (dB)	CELL 1, 2	617-894 MHz	6.5
	CELL 1, 2	1710-2700 MHz	10
	CELL 1, 2	3300-4000 MHz	4
	CELL 1, 2	5150-5925 MHz	2
	CELL 3, 4	617-894 MHz	5
	CELL 3, 4	1710-2700 MHz	7
	CELL 3, 4	3300-4000 MHz	6.5
	CELL 3, 4	5150-5925 MHz	2
B14	758-798 MHz	15	

	Wi-Fi 1-3	2400-2483.5 MHz	10
	Wi-Fi 1-3	4900-5900 MHz	10
Isolation (dB)	CELL	617-698 MHz	5
	CELL	698-894 MHz	6
	CELL	1710-2700 MHz	12
	CELL	3300-4000 MHz	12
	CELL	5150-5925 MHz	22
	B14	758-798 MHz	9
	Wi-Fi	2400-2483.5 MHz	14
	Wi-Fi	4900-5900 MHz	17
Polarization (dBi)	CELL, Wi-Fi		Linear
Max Input Power (Watts)	CELL, Wi-Fi		10
RF Connectors	CELL, B14 Wi-Fi		SMA(M) RPSMA(M)
RF Cable Type	CELL, B14, Wi-Fi		LSR200
<ul style="list-style-type: none"> • Electrical specifications based on antenna with a 2 ft x 2 ft external ground plane. • Isolation, return loss, and peak gain do not include cable loss. • SMA connectors have a max torque of 3-5 inch lbs. • NF connectors have a max torque of 6.2-9.7 inch lbs. • Parsec is currently phasing out inventory with LTE on our Cellular cables (now labeled CELL). For cables labeled LTE, please refer port "CELL" in the data sheets and installation instructions. 			

GNSS Electrical Specifications for 9:1

<i>ID & Unit</i>	<i>Port</i>	<i>Parameters</i>	<i>Typ.</i>
Antenna + Preamp Gain (dBic)	GPS	1570-1581 MHz	33
Polarization	GPS		RHCP
Filter Rejection (dB)	GPS	1625 MHz	12
GNSS Preamp Voltage (mA)	GPS		2.2 to 5
GNSS Preamp Current (mA)	GPS		5 to 15
RF Connector	GPS		SMA(M)
RF Cable Type	GPS		LSR100

Part Number Key

Part number example of a 6:1 Belgian Shepherd (HPUE Optimized): PRO6BS2L142WG15B

Description	Abbreviation	Part Number
All PRO Series	PRO	PRO
Number of Antennas in Housing/Configuration	6:1	PRO6
Antenna Abbreviation for Belgian Shepard	BS	PRO6BS
Number of CELL Elements	#L	PRO6BS2L
Band 14 Specifically for HPUE Optimized Products	14	PRO6BS2L14
Number of Wi-Fi Elements	#W	PRO6BS2L14W
Number of GPS Elements (usually only 1 GPS per antenna, therefore we simply list G and no number)	G	PRO6BS2L142WG
Cable Length Measured in Feet: 01=1', 15=15'	01, 15, etc.,	PRO6BS2L142WG15
Radome Color - B for Black, W for White	B or W	PRO6BS2L142WG15B
If SMA Connector, Simply Leave Blank		PRO6BS2L142WG15B
Leave Blank for Standard 1.25" Bolt S=Short Bolt of 0.6"	S	PRO6BS2L142WG15BS
Custom connectors and cable kits are available. Please contact us for more information at sales@parsec-t.com.		

Ordering

Standard Antennas

Config.	Part Number	Description
4:1	PRO4BS2L14G15B	2 Cellular, Band 14, GPS, 15 ft Cable, Black
	PRO4BS2L14G15BS	2 Cellular, Band 14 GPS, 15 ft Cable, Black, Short Bolt
	PRO4BS2L14G15W	2 Cellular, Band 14, GPS, 15 ft Cable, White
6:1	PRO6BS2L142WG15B	2 Cellular, Band 14, 2 Wi-Fi, GPS, 15 ft Cable, Black
	PRO6BS2L142WG15BS	2 Cellular, Band 14, 2 Wi-Fi, GPS, 15 ft Cable, Black, Short Bolt
9:1	PRO9BS4L143WG15B	4 Cellular, Band 14, 3 Wi-Fi, GPS, 15 ft Cable, Black
	PRO9BS4L143WG15BS	4 Cellular, Band 14, 3 Wi-Fi, GPS, 15 ft Cable, Black, Short Bolt

Non-Standard Antennas

Config.	Part Number	Description
4:1	PRO4BS2L14G15WS	2 Cellular, Band 14, GPS, 15 ft Cable, White, Short Bolt
6:1	PRO6BS2L142WG15W	2 Cellular, Band 14, 2 Wi-Fi, GPS, 15 ft Cable, White
	PRO6BS2L142WG15WS	2 Cellular, Band 14, 2 Wi-Fi, GPS, 15 ft Cable, White, Short Bolt
9:1	PRO9BS4L143WG15W	4 Cellular, Band 14, 3 Wi-Fi, GPS, 15 ft Cable, White
	PRO9BS4L143WG15WS	4 Cellular, Band 14, 3 Wi-Fi, GPS, 15 ft Cable, White, Short Bolt

Additional Hardware Accessories

<i>Accessory</i>	<i>Part Number</i>
Round Plate Pole Mount Bracket, 1.5" Hole	PTA0149H
Rectangle Pole Mount Bracket, 1.5" Hole	PTA0638
Customizable Pole Mount Bracket	PTA0640
Roof Mount Bracket Assembly with L Bracket, 1.5" Hole	PTA0641
Magnetic Boot Mount – Black	PTA0329
Replacement Rooftop Gasket	PTA0292
Gasket Assembly – Dodge Charger	PTA0342
Gasket Assembly – Ford Explorer	PTA0341
Gasket Assembly – 2021 Ford Explorer	PTA0643
One-Side Adhesive Gasket	PTA0454
Hardware Kit for 1.5" Shaft – Nut/Washer	PTA0761
1.5" Star Washer	PTA0257
Ground Plane with Adhesive Back, 20 in x 20 in, Can Be Cut to Size	PTA0587
Lightning Arrestor – SMA(F) to SMA(F)	PTA0476
Lightning Arrestor – N(F) to N(M)	PTA0736
SMA Wrench, Key Chain	PTA0194
Service: Cable Sleeving (Priced Per Ft)	Cable Sleeving



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