infiniDome Solutions

GPSdome-LightHouse

The industry's most disruptive, future-proof, GNSS Anti Jamming Solution

OtoSphere-LightHouse* is a compact, rugged, and cost-effective GNSS anti-jamming module, designed to ensure continuous navigation and autonomous operation in environments affected by GNSS interference.
Equipped with advanced, field-upgradeable anti-jamming algorithms and real-time monitoring capabilities, LightHouse delivers robust protection against both current and emerging GNSS threats. Optimized for commercial ground, aerial, and maritime platforms, its compact and lightweight form factor enables easy integration providing high-end GNSS resilience without compromise.

**Designed for non-military platforms and applications.*

Unique advantages

- **Software-defined**
  Upgradeable anti jamming algorithms
- **Wide receiver compatibility**
  Works with legacy and modern GNSS receivers
- **Configurable protection**
  1 or 2 protected GNSS bands
- **Passthrough support**
  Optional 1 or 2 unprotected GNSS bands
- **Low power**
  3W average consumption
- **Low latency**
  Group delay < 100ns
- **Optimized design**
  Compact, lightweight, and efficient
- **Jamming detection**
  Real-time jamming status, power levels

Product Dimensions

	Type	Weight	Size
Enclosed	**Single Band**	180g (6.35oz)	80x78.5x28 mm 3.15×3.09×1.10 in
	Dual Band	200g (7.05oz)	80x78.5x33.5 mm 3.15×3.09×1.32 in
OEM	**Single Band**	80g (2.82oz)	76x55x22.2 mm 2.99×2.17×0.87 in
	Dual Band	100g (3.53oz)	76x55x30.8 mm 2.99×2.17×1.21 in

Mounting: 4 x M3 screw (not supplied).

Performance

Protected Frequency*	Single Band L1/E1, L2, L5, G1 Optional Secondary Band: L1/E1, L2, L5, G1
Passthrough	Optional L1/E1, L2, L5, G1
Latency	> 100ns
Compression Point	-23dBm
Path Gain	+/-3dB

*Does not support M-Code and SAASM.

LED Indicator

Flashing Green	Standby mode, Bypass mode
Green	Stop mode (Service)
Flashing Green/Orange	System active, jamming detected
Flashing Orange	High power Jamming detected
Red	Error state

RF Interfaces

	Connector	Description
Antennas Input	A1,A2	50Ω SMA 2.7-14VDC, Max 40mA per connector, 15dB -40dB gain
Receiver Output	RX1	50Ω SMA
	RX2*	50Ω SMA

**Not protected - For secondary receiver/heading calculations.*

Wire Connection Description

power Supply	6-32 VDC Avg ~ 3W**	Positive (+)	Red
		GND (-)	Black
Dry Contacts	Jamming indication Max 32V 50mA	Positive	Purple
		Negative	Green
UART*	Status and Maintenance	UART RX	Gray
		UART TX	Yellow
		VCC 5v+	White
		GND	Blue

** No Built-in GNSS receiver.*
** For Single Band version.

Environmental

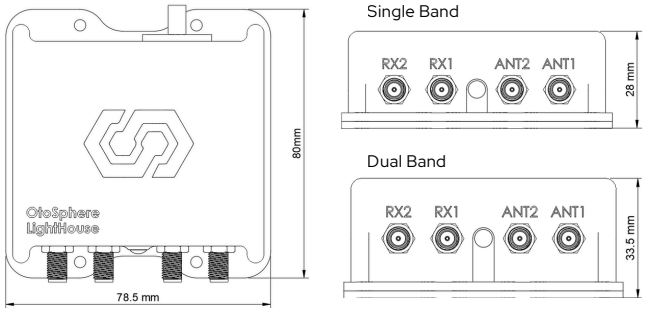
Operating Temperature	-40°C to 71°C -40°F to 159.8°F	
IP Rating	**Enclosed**	IP65
	OEM	NO

Safety & Compliance

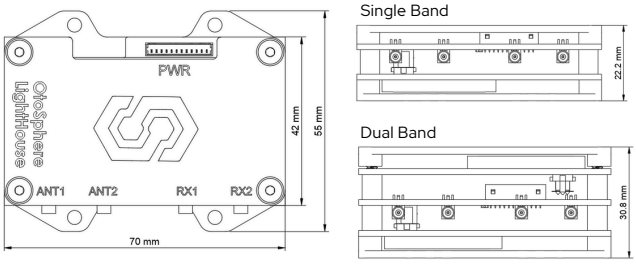
FCC Compliant | **CE Compliant** | **RoHS Compliant**

Product Dimensions

Enclosed



OEM



Ordering Information

OtoSphere-LightHouse — X – X – X X – X

Protected frequency	Type	Passthrough frequency*	Second Receiver**
1 – GPS L1/GALILEO E1 **2** - GPS L2 **3** - GPS L5 **4** - GLONASS G1	**E** – Enclosed **O** – OEM	**0** - null **1** – GPS L1/GALILEO E1 **2** - GPS L2 **3** - GPS L5 **4** - GLONASS G1 *Does not support M-Code | SAASM	**1** – Yes **2** – No ** Not Protected

infiniDome Solutions
Tel: +1 (917)694-4642 • info@infinidome.com • www.infinidome.com
119 West 72nd Street, Suit 343, New York, NY 10023, USA