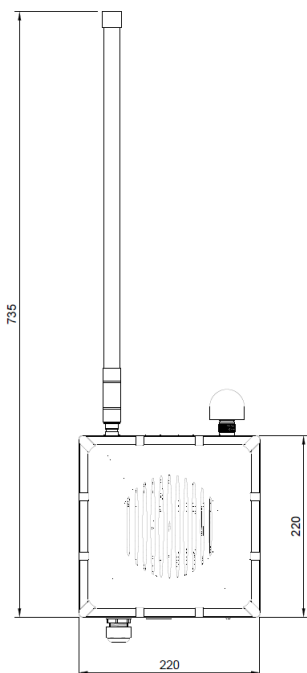


## Technical Specifications for the G-1090 Receiver

### Features

Functions	Receiver of ADS-B, Mode-S, Mode A/C, FLARM (in option) signals
ADS-B, Mode-S, A/C receiver	1090 MHz
ADS-B, Mode-S, A/C range	10-290 Mi. (20-400 km) depending on aircraft avionics emitting power
FLARM receiver (in option)	868 MHz (for Europe)
FLARM range	Up to 30 Mi. (60 km) depending on FLARM installation on the aircraft
Geographic area	ADS-B, Mode-S, Mode A/C communication modes are used worldwide. FLARM is available in specific areas at different frequencies.
Data availability	All data is available via internet connection to INVOLI server
Aircraft position precision	ADS-B: GPS precision for horizontal positioning, $\pm 50$ ft (15 m) for vertical, Mode-S, A/C: depending on receivers' layout (MLAT) FLARM: $\pm 100$ ft (30 m) for horizontal positioning, $\pm 100$ ft (30 m) for vertical
Messages latency	Max 2.2 s



### Interfaces

GNSS	Dedicated, GPS.
Antenna connectors	N-type, Female
Ethernet	RJ45, DHCP
Mobile connectivity (in option)	4G: LTE Band 1/2/4/5/7/28 (FDD 700/850/1700/1900/2100/2600 MHz). 3G UMTS (850/1900/2100/1700 MHz) A SIM card with data plan is required (not provided)

1090 MHz Antenna	Omnidirectional, 5 dbi, 51cm long, fiberglass
868 MHz Antenna (in option with FLARM)	Omnidirectional, 9 dbi, 63cm long, fiberglass

### Electrical data

Power supply	48/56 V (PoE)
Power consumption	Max 8 W

### Environmental data

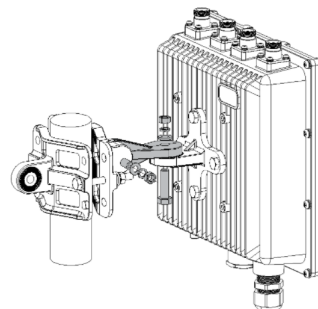
Operating temperature	-4 to 194 °F (-20 to 50°C)
Protection from dust/water	IP66
Pressure compensation	

### Dimensions

8.6 x 8.6 x 4.3 inch (220 x 220 x 110 mm), without antenna  
Max 6.6 lb (3 kg)

### Installation

Transmission on 1090 MHz frequency works on line of sight. To maximize coverage, the G-1090 should be installed in an area where obstacles are not covering the sky. The G-1090 is equipped with a mounting system for installation on horizontal/vertical poles.



### Server connection

All G-1090 Receivers should be connected to the internet to Multilateration processing (note that Mode S or Mode A/C messages are available only when triggered by 1030 MHz interrogations). All data detected by a network of G-1090 is available via JSON protocol on WSS connection to the INVOLI server.

### Further information

For more information and quote, please contact [info@involi.com](mailto:info@involi.com)

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