



Blue Sky Network

**HE7200A-BB2327**

INSTALL GUIDE

VERSION 1.5

PART# 200804

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This manual is available in PDF format by contacting our office at:



Blue Sky Network, 5333 Mission Center Road Suite 220, San Diego, CA, 92108

Phone: +1 858 551 3894 | Fax: +1 858 551 3891

E: [support@blueskynetwork.com](mailto:support@blueskynetwork.com) | W: [www.blueskynetwork.com](http://www.blueskynetwork.com)

**Revision History**

<b>Date</b>	<b>Revision</b>	<b>By</b>	<b>Description</b>
2015-05-12	1.0	MP	Initial version DRAFT HE7200A-BB2327 Install Guide
2015-05-15	1.1	TR	Technical specification updates
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## Introduction

This installation guide covers the features of the HawkEye 7200A-BB2327, part number: 200800. Since there is no user interaction directly with the system there is a separate user guide detailing the features of the Blue Sky Network SkyRouter systems for managing and interacting with the HE7200A-BB2327.

## Hawkeye 7200A-BB2327

The GTI HE7200A-BB2327 offered by Blue Sky Network is a modular product line that consists of an Iridium 9523-based voice/data core platform 'black box' (BB) with an interface to allow future product implementations. The HE7200A BB2327 will be an FAA certified product with a "D" connector for power and future accessory options as well as female antenna connectors for GNSS and Iridium. The unit will derive power from the aircraft electrical bus and will exist through a 3A circuit breaker. Input power to the box can be from 10V-30VDC. It is expected that the box will power on when the aircraft Master Switch is turned "on" and turn "off" when the Master Switch is turned "off". The unit is designed to operate without any human interaction and performs its' own self-test before sending any data.

Once on, the product will send periodic position reports and other events (e.g. take-off and landing) derived from the GNSS receiver and transmitted over the Iridium Satellite Network. All parameters (e.g. frequency of reporting) are set by the customer remotely and sent to the unit over the Iridium Satellite Network using SkyRouter, the cloud based back end designed and operated by Blue Sky Network.

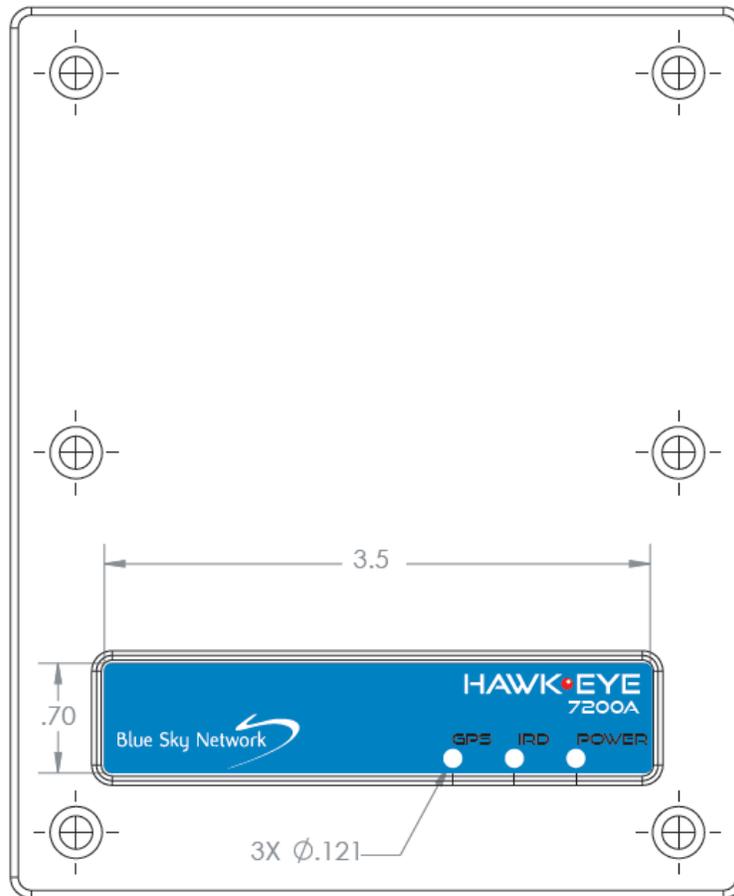
On SkyRouter, the owner and any other customer authorized users can autonomously track the aircraft anywhere in the world in virtual real-time. The unit function can be thought of as a satellite-based transponder except the owner controls who might see the aircraft in flight.

## Product Image



## Front Panel Description

### LED Layout



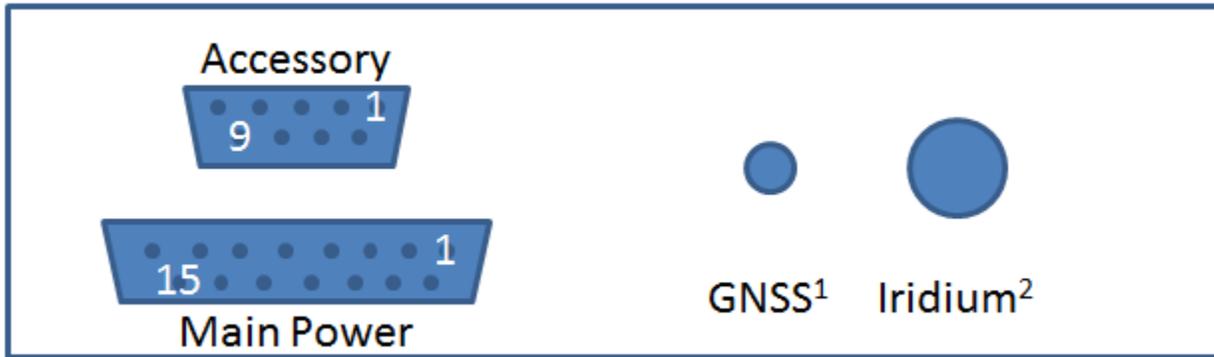
### Power On & Boot LED Procedure

When power is first applied to the HE7200A product, all three LED's will be on and solid for 2 seconds. Then, the GNSS and Iridium LED's will turn off. At this point the device has passed the boot stage.

### Post Boot LED Blink Patterns

- The Power LED – This LED should remain on and solid as long as power is being properly applied to the device.
- The Iridium LED – This LED will blink repeatedly while the device is searching for signal. The LED will be solid when the device has a satellite fix.
- The GNSS LED – This LED will blink repeatedly while the device is searching for signal. The LED will be solid when the device has a satellite fix.

Interface View



MAIN POWER PIN LAYOUT

DB15 Connector	I/O	AWG
1	VIN+	20 AWG
2	VIN-	20 AWG
3	DO1	24 AWG
4	DO2	24 AWG
5	DI1	24 AWG
6	DI2	24 AWG
7	DGND	24 AWG
8	AI1	24 AWG
9	AGND	24 AWG
10	232 RXD	24 AWG
11	232 TXD	24 AWG
12	SHUNT	24 AWG
13	SHUNT	24 AWG
14		N/A
15		N/A

ACCESSORY PIN LAYOUT

DB9 Connector	I/O	AWG
1	485 - A	24 AWG
2	GND	24 AWG
3	TIP	24 AWG
4	RING	24 AWG
5	GND	24 AWG
6	485-B	24 AWG
7		N/A
8		N/A
9		N/A

GNSS<sup>1</sup>

Connector Type: SMA (f)  
 Antenna Frequency: 1560 to 1606 MHz  
 Antenna Type: Active  
 GNSS Channels: GNSS L1 C/A, GLONASS L1

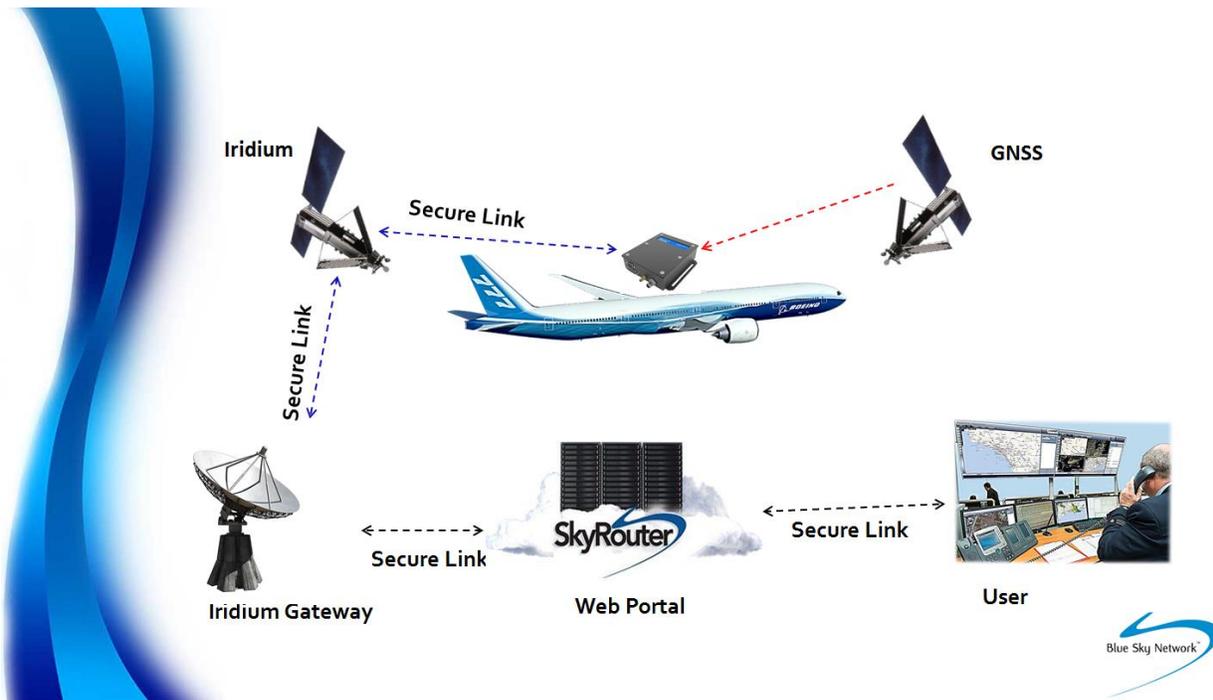
IRIDIUM<sup>2</sup>

Connector Type: TNC (f)  
 Antenna Frequency: 1616 MHz to 1626.5 MHz  
 Antenna Type: Passive

## SkyRouter

The SkyRouter portal ties together Blue Sky Networks data solutions in an integrated and user-friendly way. By accessing the SkyRouter Web-site users can do the following:

- Advanced device tracking on a global, layered map including satellite imagery and standard street maps.
- Event notification for emergency, take-off, landing, inactive unit, speeding, moving and not-moving and more.
- Playback past trips and view detailed reports.
- 2-way email messaging to and from devices in the field.
- Update and request the current state of parameters on devices in the field.
- Manage alert settings.
- Management of a device fleet, including assignment of units to groups and creation of additional user accounts.
- Manage naming of the units and many other visual characteristics.



## FAA/JAA APPROVAL

### General

Acceptance for the installation and use of the HE7200A-BB2327 must be sought through the appropriate offices of the Federal Aviation Administration (FAA), Joint Aviation Authorities (JAA) or other certifying agency.

The HE7200A Satellite System is approved by the FAA (Federal Aviation Administration) as compliant with the airworthiness requirements as defined in 14 CFR (Code of Federal Regulations), Part 23.

STC Number: FAA STC SA02590LA.

### Installation & Operational Approval Procedures

A functional ground test procedure and an operational flight check procedure should be used to verify proper installation, functional performance and electromagnetic compatibility with existing aircraft systems.

### Instructions for Continued Airworthiness

The HE7200A components require no routine servicing or maintenance. The installation has no additional overhaul time limitations.

### Environmental Qualification

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#### HE7200A-BB2327 MODEM UNIT

The HE7200A modem unit has been tested to RTCA/DO-160G, Sections 4, 6, 8, 10, 21

.

## Technical Specifications

### Environment

Operating Temperature:	-30°C to + 70°C
Operating Humidity:	≤ 75% Relative Humidity
Storage Temperature:	-40°C to + 85°C
Storage Humidity:	≤ 93 % Relative Humidity
Certifications:	RTCA/DO-160G, Section 4, 6, 8, 10, 21

### Electrical

Input Voltage Range:	10 – 32VDC
Input Power (max):	15W

### Physical

Dimensions:	5.5"x5.61"x1.6"
Weight:	~1 Lb.

### Iridium

Connector Type:	TNC (f)
Antenna Frequency:	1616MHz to 1626.5MHz
Antenna Type:	Passive

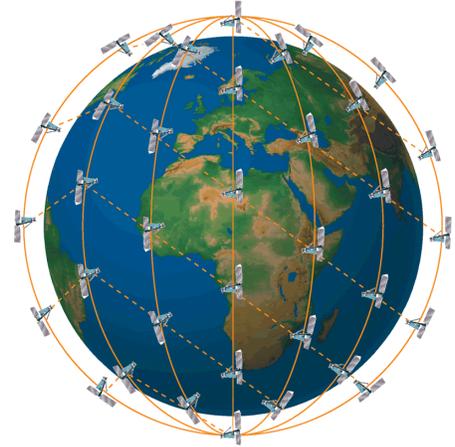
### GNSS

Connector Type:	SMA (f)
Antenna Frequency:	1560 to 1606MHz
Antenna Type:	Active:
GNSS Channels:	GNSS L1 C/A, GLONASS L1

## Hawkeye 7200A-BB2327 Features

### Features

- **True Global Coverage** – The Iridium global network of 66 low-earth-orbit (LEO) satellites offer faster connection times and true global coverage, so you know where your important assets are all of the time.
- **Faster, More Accurate Positioning Reports** – The HE7200A-BB2327 offers concurrent satellite communication with 3 global satellite positioning (GNSS) systems, providing faster, more accurate positioning reports.
- **SkyRouter Command Center** – The HE7200A-BB2327 communicates directly to SkyRouter, Blue Sky Network's web portal—where you can track, update, communicate and manage all your assets.
- **Advanced Device-Side Geo-Fencing** – The device connects directly with SkyRouter, which supports advanced variable response (AVR) geo-fencing. It allows owners to create radius or polygonal fences, variable responses and alerts.



Authorities (JAA) and other certifying agencies to approve permanent installation inside Part 23, 25, 27, & 29 aircraft.

- **Add-on Accessories** – The HE7200A-BB2327 provides the base platform to allow future upgrades to add additional functionality such as voice connectivity, emergency events, & Bluetooth connectivity for text messaging and operation with most smart phones.
- **External autonomous battery packs** – Optionally support tracking operations even in the event of aircraft power loss.

- **Satellite Voice Service** – With an integrated satellite telephone system, users can easily connect any standard dialer and headset system to the HE7200A-BB2327 and communicate directly with anybody anywhere.

- **Dedicated Installation & Maximum Performance**– The airworthiness compliant HE7200A-BB2327 allows the Federal Aviation Administration (FAA), Joint Aviation

## Installation & Wiring

### General Information

Generally, modification of the aircraft consists of installing a dedicated single-channel or dual-channel Iridium antenna with connections for the HE7200A-BB2327.

**NOTE: ALL AIRCRAFT ANTENNAS REQUIRE PROFESSIONAL INSTALLATION.**

### License Requirements

The HE7200A-BB2327 has no licensing requirements.

### Cooling Air Requirements

The HE7200A-BB2327 has very low power usage so forced air cooling is not required for any of the components. However, units should be kept away from heat sources.

### Aircraft Interfaces

The HE7200A-BB2327 operates independent of aircraft navigation systems. Therefore, no aircraft interface is required other than the 10 – 32 VDC Power Input, Power Return and Chassis Ground.

### Power Input

The only component of the HE7200A-BB2327 requiring aircraft power is the modem unit. The HE7200A-BB2327 power interface supports wide voltage input in the range of 10V to 32V DC. The following input connections are the most commonly used:

- 28 VDC nominal, typically less than 0.5A
- 12 VDC nominal, typically less than 1A

A single 3-amp circuit breaker is recommended to protect the aircraft power distribution system.

### Equipment Required But Not Supplied

1. Circuit Breaker: Pull Type Required for HE7200A-BB2327 Modem Unit

### Wire Harness Fabrication & Installation Considerations

Referring to the appropriate section of this manual, assemble a wiring harness as required for the installation. All wires must be MIL-SPEC in accordance with current regulations. Two-conductor shielded wire must be used where indicated and be MILSPOEC- 27500 or equivalent specification. Shields should only be grounded at the Modem Unit end of the interconnect cable. Other ends remain floating. It is imperative that the correct wiring be used and that proper stripping, shielding, grounding, crimping and soldering techniques be used at all times. Failure to correct techniques may result in poor performance, electrical noise or unit failure.

## Power Wiring

To assure that the HE7200A-BB2327 will operate properly down to its rated minimum input voltage, ensure that power wires of at least the recommended size are connected in accordance with the installation drawings. It is recommended that power and ground wires are a twisted pair to reduce signal noise.

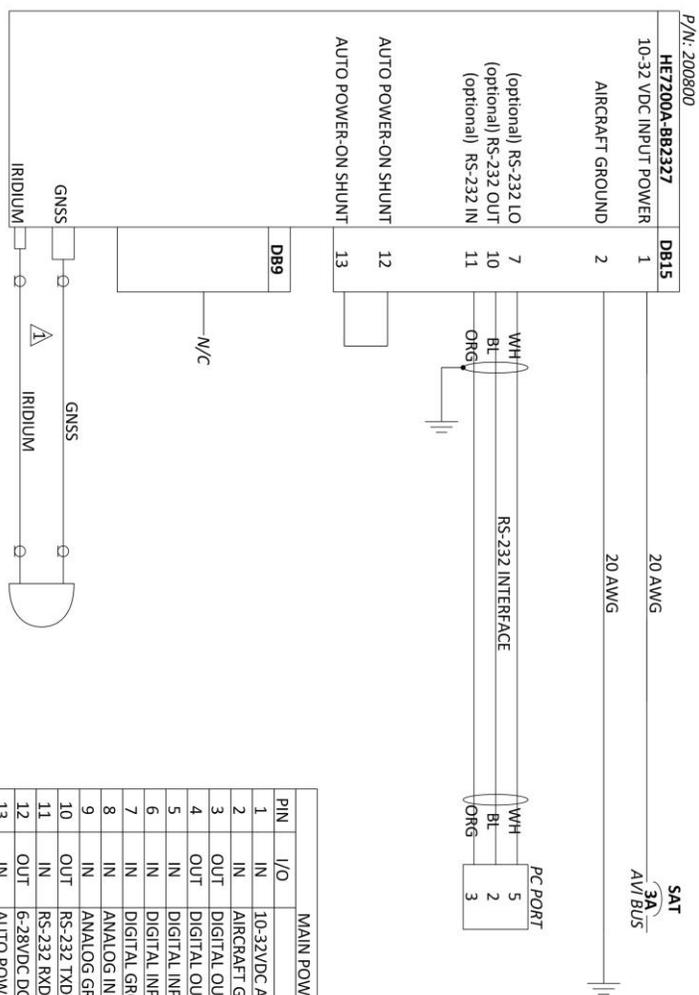
## Ground Bonding

In order to assure installation characteristics match the DO-160 RF and Lightning test conditions, ensure that ground wires of at least the recommended size are installed and these wires are connected to a bonded aircraft ground.

## Cable & Wire Harness Routing Considerations

- The length and routing of cables must be carefully planned before starting the installation.
- Avoid sharp bends in the cable.
- Do not locate the cable near aircraft controls.
- Observe all appropriate sections of FAR Parts 23, 25, 27, and 29, as well as AC43.13-1B and AC 43.13-2A. Damage caused by improper installation will void product warranty.
- In order to ensure optimum performance, the HE7200A-BB2327 and associated wiring should be kept a minimum of three feet from high noise sources and not routed with cables from high power sources.

# Wiring Diagram



PIN	I/O	DESCRIPTION
1	IN	10-32VDC AIRCRAFT POWER IN
2	IN	AIRCRAFT GROUND
3	OUT	DIGITAL OUTPUT #1 (RESERVED FOR FUTURE USE)
4	OUT	DIGITAL OUTPUT #2 (RESERVED FOR FUTURE USE)
5	IN	DIGITAL INPUT #1 (RESERVED FOR FUTURE USE)
6	IN	DIGITAL INPUT #2 (RESERVED FOR FUTURE USE)
7	IN	DIGITAL GROUND
8	IN	ANALOG INPUT #1 (RESERVED FOR FUTURE USE)
9	IN	ANALOG GROUND
10	OUT	RS-232 TXD TO EXTERNAL DEVICE
11	IN	RS-232 RXD FROM EXTERNAL DEVICE
12	OUT	6-28VDC DC VOLTAGE AUTO POWER-ON ENABLE
13	IN	AUTO POWER-ON INPUT
14	N/A	N/A
15	N/A	N/A

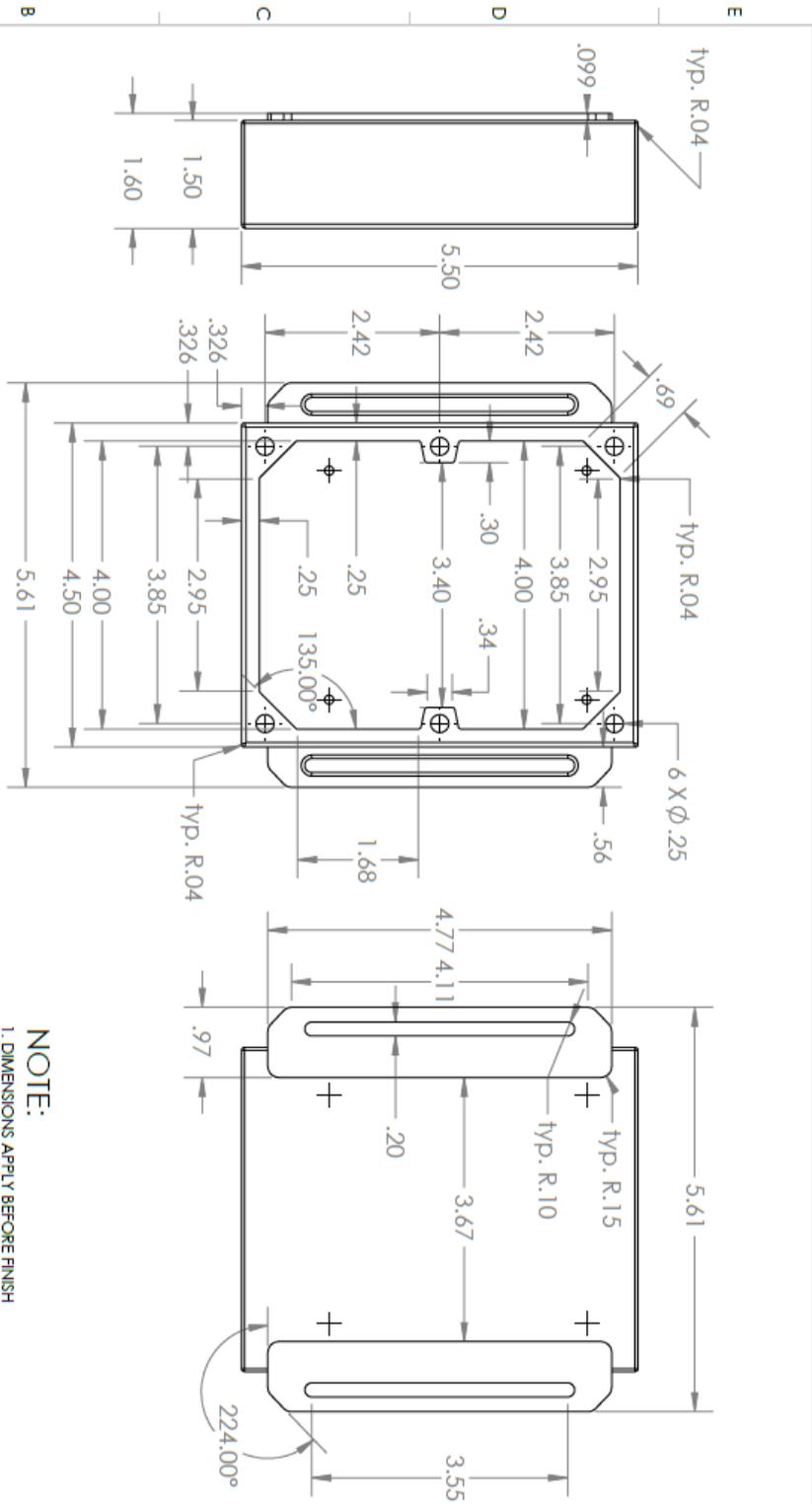
PIN	I/O	DESCRIPTION
1	I/O	RS-485-A PORT (RESERVED FOR FUTURE USE)
2	I/O	RS-485 GROUND (RESERVED FOR FUTURE USE)
3		POTS TIP
4		POTS RING
5	I/O	RS-485 GROUND (RESERVED FOR FUTURE USE)
6	I/O	RS-485-B PORT (RESERVED FOR FUTURE USE)
7	N/A	N/A
8	N/A	N/A
9	N/A	N/A

NOTES:  
1. ALL WIRES 24 AWG OR LARGER UNLESS OTHERWISE SPECIFIED.

- SHIELDED TWISTED SHIELD TERMINATED TO DC GROUND
- SHIELDED TWISTED SHIELD FLOATING (NOT TERMINATED)
- COAXIAL CABLE
- N/C DEFICTS NO CONNECTION

Mechanical Specifications

Drawing for Reference Only, see 3D file for details



REV.	DESCRIPTION	DATE
B	Flange Change	11/07/14
A	Initial Release	09/11/14

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**GILCOM TECHNOLOGIES**

DIMENSIONS ARE IN INCHES	
UNLESS OTHERWISE SPECIFIED:	TOLERANCES:
FRACTIONAL: ± 1/64	ANGULAR: MACH ± 1 BEND ± 1
TWO PLACE DECIMAL ± .01	THREE PLACE DECIMAL ± .005
MATERIAL: .07" ALUM 5052 H32 QQ-A-250/8 or ALUM 6160-T6	
FINISH: Powder Coat Flat Black (FED-STD-595B color number 37038) per MIL-C-247 12A TYPE I, CLASS 1, Masking per note	
PCB REV	DWG TYPE
N/A	0
DWG. OG: JSM	DATE: 11.07.2014
SCALE: 1:2	SHEET 2 OF 5
TITLE: HE7200A BASE UNIT ENCLOSURE	DRAWING NUMBER: GTI 200810
REV B	

**NOTE:**  
 1. DIMENSIONS APPLY BEFORE FINISH  
 2. REMOVE ALL BURRS AND BREAK SHARP EDGES .015 MAX  
 3. POWDER COAT FLAT BLACK PER FINISH CALLOUT MASKING PER NOTE  
 4. DO NOT POWDER COAT SURFACES INDICATED

## Antenna Requirements

This guide does not cover antenna installation requirements completely and this section is intended to provide general information about the antenna and its general installation configuration. The installation of the antenna should be completed prior to installing the HE7200A-BB2327. For optimum performance, the antenna must be installed on the upper surface of the aircraft fuselage, away from the vertical stabilizer and with an unrestricted view of the sky down to eight degrees above the horizon (similar to a GNSS antenna).

**NOTE: Transmission from the antenna may be affected by and can affect the operation of other systems; it is the operator's responsibility to evaluate the location for any possible RF interference. In particular the Iridium frequency is near the allocated GNSS band. The device should be positioned at least 39 inches (1 meter) from any L-band antennas, particularly GNSS, TCAS and Transponder antennas.**

### Minimum Antenna Requirement:

- Iridium: 1616MHz to 1626.5MHz, Passive
- GNSS: 1560MHz to 1606MHz, Active

### Antenna Cable Requirement:

The signal loss budget, including the antenna cable and all connectors, from the antenna to the HE7200A unit is < 1.5dB @1626MHz. Measured Voltage Standing Wave Ratio, or VSWR, of the coax cable assembly, antenna and any bulkhead feed-through adapter must be less than 1.5 to 1.

### Antenna Cable Routing Recommendations:

- The length and routing of cables must be carefully planned before starting the installation.
- Avoid sharp bends in the cable. Exceeding the minimum bend radius of the antenna coax cable may result in permanent degradation of the cable loss.
- Do not locate the cable near aircraft controls.
- Observe all appropriate sections of FAR Parts 23, 25, 27, and 29, as well as AC 43.13-1B and AC 43.13-2A
- In order to ensure optimum performance, the HE7200A and associated wiring should be kept a minimum of three feet from high noise sources and not routed with cables from high power sources.

## Activation

**Your HawkEye 7200A-BB2327 device must be activated prior to use.** By default, all Blue Sky Network tracking devices are shipped to customers in an un-activated state. All activation requests must be submitted by the Blue Sky Network SkyRouter Administrator on file.

An activation request can be submitted through our website, the link is shown below. You should receive an immediate email confirmation that your request has been submitted and another email once the requested services have been activated. Please make sure your contact details are accurate, this is how we contact you if there are any problems processing your request.

<https://blueskynetwork.com/support/activation/>

NOTE TO INSTALLERS: It is not possible to temporarily activate devices for installation testing, please contact the SkyRouter Administrator/Device owner in order to activate.

## Configure

### Parameters

Before using your HawkEye 7200A-BB2327 it is recommended that you take time to check and update the parameters on the device to prevent unexpected data usage. By default Blue Sky Network configures the HawkEye 7200A-BB2327 at the factory default setting of 1 hour reporting.

The HawkEye 7200A-BB2327 system parameters are all managed using the SkyRouter system.

Administrators of SkyRouter can customize the parameters from the SkyRouter interface and update devices remotely (device must be powered on and have sufficient signals to receive the update.) Please consult your SkyRouter user manual for more specific information about sending parameter updates.

Adjusting the parameters on your device will change the behavior of your device. Some parameters control the frequency at which normal position reports are sent, and other will generate events that will be sent in addition to your normal position reports.

**NOTE: Modifying parameters will have an impact on your data usage and associated service charges.**

### Hawkeye 7200A-BB2327 Parameter Explanation

Normal Position Reports	
Time Based Reporting	
Time Based Status	This option will enable or disable normal position reports to be generated based upon a timer.
Time Based Interval	Normal position reports will be generated at this interval.
Distance Based Reporting	
Distance Based Status	This option will enable or disable normal position reports to be generated based upon a distance that has been displaced.
Distance Based Interval	Normal position reports will be generated when the device has displaced this distance.
Altitude Based Reporting	
Altitude Based Status	Turn Altitude based reporting ON/OFF
Trigger Altitude (ft.)	Determine the altitude above which a different GNSS reporting interval should be in effect.
Interval (sec)	GNSS reporting interval above trigger altitude.
Perimeter Range Reporting	
Perimeter Range Status	Turn Perimeter Range GNSS reporting ON/OFF
Range (ft.)	Determine the range within which the unit will start reporting at the perimeter range interval. The unit will check every "regular GNSS reporting interval" to determine whether the unit has moved more than the Perimeter Range distance from the previous measurement. If it has not, the perimeter range interval will be in effect.
Interval (sec)	Perimeter range mode reporting interval.
Time Specified Reporting (4 options)	
Time Specified Reporting Status	This option will enable or disable a normal position report being sent with the associated time specified reporting time.
Time Specified Reporting Time	If the time specified reporting status is enabled a report will be sent at this time.
Event Reporting	
Excessive GNSS Speed Event	

Speeding Event Report Status	This option will enable or disable the transmission of a speeding report when an asset is travelling at a rate of speed that is greater than its known max speed limit.
Speeding Event Report Interval	Speeding events will be generated at this frequency when the asset speeding condition is active.
Speeding Event speed Limit	This is the max speed limit for the asset.
Speeding Event Transition Time	The device will activate the speeding event when the asset is travelling faster its known max speed limit for this period of time.
<b>Start Movement</b>	
Start Movement Report Status	This option will enable or disable the transmission of a moving report when the device was not moving and then begins to move again.
Movement Threshold (kph)	The device will use this speed to determine if it should begin monitoring the activation of a start movement.
Time Delay(sec)	When the starting speed threshold is detected the device will need to maintain a greater speed for this amount of time before we decide the device should send a start movement event.
<b>Stop Moving/Idle Event</b>	
Stop Movement Status	This option will enable or disable the transmission of a not moving report when the device was not moving.
Movement Threshold (kph)	The device will use this speed to determine if should begin monitoring the activation of a stop movement.
Time Delay(sec)	When the speed threshold is detected the device will need to maintain a lower speed for this amount of time before we decide the device should send a not moving event.
Report type	The device can continue to send not moving events or it can notify only once.
Reporting Interval	If the device is supposed to continue to report not moving events it will do so at this rate.
<b>Auto. Take-Off/Landing</b>	
Auto. Take-Off/Landing Status	Turn Automatic Take-Off/Landing ON/OFF
Take-Off Speed (knots)	When accelerating through this speed the unit will send a Take-Off message.
Landing Speed (knots)	When decelerating through this speed the unit will send a Landing message.
<b>Min. En-route Altitude</b>	
Min. En-Router Altitude Status	Turn MEA alert ON/OFF
Altitude	At this set altitude the unit will report a special type GNSS report to SkyRouter to identify that the aircraft has broken through the MEA.
<b>Power Settings</b>	
<b>Maximum Queue Length</b>	
Max Queued Messages	The maximum number of messages that the device will hold on to before determining them obsolete and removing them from memory. Memory limits apply as well.
<b>Event Flags</b>	
Power on	This option determines if a power on event is sent when the power button is pressed.

## Ground Test & Operational Flight Check Procedures

A functional ground test procedure and an operational flight check procedure should be used to verify proper installation and functional performance. In order to accomplish a quick functionality check (after installation is completed), position the aircraft outside of the hangar with no overhead obstructions. With all other aircraft systems powered down, apply aircraft power to the HE7200A-BB2327 modem unit.

1. Switch the HE7200A-BB2327 power on.
2. Observe the LED's. When power is first applied to the HE7200A, all three LED's will be on and solid for 2 seconds. Then, the GNSS and Iridium LED's will turn off. At this point the device has passed the boot stage.
3. Allow a couple of minutes to acquire both Iridium and GNSS signal. The respective LED's will light upon sufficient signal. Solid green indicates full signal.
4. Please refer to the "SkyRouter User Guide" for operation & configuration. A SkyRouter administrator or an authorized SkyRouter mobile app user should verify that position reports are being received and that the location is accurate.

If any difficulty is experienced with the functionality or operational performance of the HE7200A, please contact Blue Sky Network for assistance.

**The required logbook entries and FAA approvals are the responsibility of the installer and Blue Sky Network assumes no responsibility for either obligation.**

## Maintenance Considerations

### Inspection

Blue Sky Network recommends that the following checks are performed before each use:

1. Visually inspect the integrity of the mount and mounting bracket
2. Visually inspect the antenna installation for loose fasteners or corrosion.
3. Perform a functional check of the system (transmitting and receiving data)

## Appendix A – Product Warranty

### Product Warranty

PLEASE READ -- THIS DOCUMENT CONTAINS IMPORTANT NOTICES, WARRANTY INFORMATION AND LIMITATIONS ON YOUR RIGHTS

### Use & Installation

The HE7200A-BB2327 (“Product”) is intended to be used and installed on aircraft only. Installation of this Product and any of its component parts and any other work performed on the airframe during installation must be performed in accordance with federal aviation administration (“FAA”) regulations and all other applicable regulations and may require further FAA certification. This Product should be installed by a professional and is intended to be handled and used solely in accordance with FAA regulations and the most recent specifications and instructions distributed by Blue Sky Network, LLC (“Blue Sky”).

NO SUBSTITUTION ALLOWED FROM RECOMMENDATIONS WITHOUT *Blue Sky Network LLC* PERMISSION, TO MAINTAIN EQUIPMENT WARRANTY.

### Functionality

The functionality of this Product will, in significant part, depend on the service provider and the communications network used in conjunction with this Product. To the extent Blue Sky is also your service provider for this Product, then this Product is also subject to the terms and conditions of your service contract.

### Limited Warranty

This Product is the HE7200A-BB2327 P/N: 200800.

Blue Sky is the original equipment manufacturer for the modem unit (the “Warranted Components”). Blue Sky warrants that the Warranted Components shall be free from defects in materials and workmanship for a period of six (6) months from the date this Product is delivered to the first end-user purchaser (“Purchaser”) or the date this Product is first placed into satellite subscriber service, whichever occurs earlier. This warranty is not assignable or transferable by the Purchaser.

Blue Sky, at its option, shall at no charge to Purchaser either repair or replace Warranted Components that do not conform to this warranty, provided that the Warranted Components are returned in accordance with the instructions set out below and within the warranty period. These remedies are Purchaser’s exclusive remedies under this warranty. Repair may include the replacement of parts with functionally equivalent reconditioned or new parts. Warranted Components that have been repaired or replaced are warranted for the balance of the original warranty period. All Warranted Components for which replacements have been provided shall become Blue Sky’s property.

Blue Sky does not manufacture the antenna and therefore Blue Sky is not providing any warranty concerning this component. To the extent the manufacturer warrants the antenna and such warranty may be assigned and passed through to Purchaser, such warranty shall be assigned by Blue Sky and passed

through to the Purchaser. The Purchaser must deal directly with, and Blue Sky accepts no responsibility regarding the actions of, the manufacturer of the antenna.

Blue Sky does not warrant any installation, maintenance, or service of this Product or any component thereof not performed by Blue Sky.

Blue Sky is not responsible in any way for any damage to ancillary equipment or software which is attached to or used in connection with this Product, or for operation of this Product with any ancillary equipment or software, and all such equipment and software are expressly excluded from this warranty. Furthermore, Blue Sky is not responsible for any damage to this Product.

BLUE SKY ASSUMES NO RESPONSIBILITY FOR PAYMENT OF ANY REPAIR SERVICES PERFORMED BY THIRD PARTIES INCLUDING REMOVAL OF THE UNIT FROM THE AIRCRAFT, INSPECTION, PACKAGING, HANDLING, OR INSTALLATION UNLESS SUCH SERVICES ARE AUTHORIZED IN ADVANCE AND IN WRITING BY BLUE SKY.

## How to Get Warranty Service

Warranty service is available by contacting Blue Sky at the following telephone number (during business hours) or email address or by returning the Warranted Components to Blue Sky at the following address:

Blue Sky Network, LLC.  
5333 Mission Center Road Suite 220,  
San Diego, CA, 92108  
Phone: +1-858 551-3894  
E-mail: support@blueskynetwork.com

Purchasers are advised to contact Blue Sky Network at the above telephone number or email address for a consultation prior to returning Warranted Components. All Product shipped to Blue Sky must be shipped with freight, duties, and insurance prepaid. Purchaser must include with the Product a bill of sale (or other comparable proof of purchase), the Purchaser's name, address and telephone number, the tail number and serial number of the aircraft on which the Product was installed and a detailed description of the problem. Warranted Components that are repaired or replaced under this limited warranty shall be shipped to Purchaser at Blue Sky's expense for the freight and insurance and at Purchaser's expense for any applicable duties or other expenses of shipment.

Blue Sky reserves the right to make changes, upgrades, and improvements to this product without incurring any obligation to install such changes, upgrades, and improvements in previously manufactured products.

ANY SERVICE WORK PERFORMED BY A PARTY OTHER THAN BLUE SKY OR BY A PARTY NOT OTHERWISE AUTHORIZED BY BLUE SKY SHALL IMMEDIATELY VOID THIS LIMITED WARRANTY.

Please contact Blue Sky Network if you have any questions regarding Blue Sky's limited warranty.

## Disclaimers & Limitation of Liability

EXCEPT FOR THE LIMITED WARRANTY SPECIFICALLY PROVIDED HEREIN, ALL OTHER WARRANTIES ARE EXPRESSLY DISCLAIMED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS OR SUITABILITY FOR A PARTICULAR PURPOSE. ANY

LIABILITY SHALL BE LIMITED EXCLUSIVELY TO REPLACEMENT OR REPAIR OF THE WARRANTED COMPONENTS AS PROVIDED HEREIN. UNDER NO CIRCUMSTANCES SHALL LIABILITY EXIST FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RELATING TO THE HANDLING, INSTALLATION OR USE OF THIS PRODUCT. BLUE SKY SHALL NOT BE OBLIGATED OR LIABLE FOR, AMONG OTHER THINGS, DEFECTS CAUSED BY TAMPERING, MISUSE, ACCIDENT, ABUSE, NEGLIGENCE, IMPROPER STORAGE OR MAINTENANCE, USE IN A MANNER BEYOND WHICH THIS PRODUCT IS INTENDED TO BE USED AS SET FORTH IN BLUE SKY'S SPECIFICATIONS, IMPROPER REPAIR, POOR WORKMANSHIP OR USE OF DEFECTIVE MATERIALS BY SOMEONE OTHER THAN BLUE SKY, OR ANY OTHER CAUSE EXCEPT FOR DEFECTS IN MATERIALS OR WORKMANSHIP WITH RESPECT TO THE WARRANTED COMPONENTS AS DELIVERED BY BLUE SKY.

Some states do not allow the exclusion or limitation of incidental or consequential damages and some states do not allow limitations on how long an implied warranty may last; therefore, the above limitations or exclusions may not apply to you. The warranty provided herein gives you specific legal rights. You may also have other rights that vary from state to state. In the event any of the provisions of the limited warranty are found by statute or by applicable

## Support

Please do not hesitate to contact us either via email, phone or, for self-help, see <https://blueskynetwork.com/support> (case sensitive). Thank you for choosing Blue Sky Network!



Blue Sky Network, 5333 Mission Center Road Suite 220, San Diego, CA, 92108

Phone: +1 858 551 3894 | Fax: +1 858 551 3891

E: [support@blueskynetwork.com](mailto:support@blueskynetwork.com) | W: [www.blueskynetwork.com](http://www.blueskynetwork.com)