AMA Advanced Flight System Committee 2024 Remote ID Modules Status Report



Basics of a Remote-ID Module

amadistricti@modelaircraft.org

The Primary Components of a RID-module are the GPS Receiver and the Bluetooth Transmitter. The purpose of the GPS Receiver is to acquire dynamic data on the location of the model aircraft its latitude, longitude, and altitude, from its launch point through its flight path and until it lands. The Bluetooth Transmitter's purpose is to broadcast by means of radio waves the dynamic data and a time mark at least every second, and static data like the serial number of the RID-module every four seconds to any personal wireless devices in range. This could be the smartphones of the public, law enforcement, critical infrastructure managers, or air traffic controllers for safety, security, or situational awareness.

The GPS Receiver determines the model aircraft's location by measuring the time it takes to receive radio wave signals from at least four satellites and subtracting the time the signal was transmitted from the time it was received to determine its distance from each satellite. The extrapolated GPS coordinate distances for each time mark of signal data are converted into the model aircraft's location as latitude, longitude, geometric altitude, and calculated velocity data at the time of take-off (launch position of UAS) and while in flight in the National Air Space.

The Bluetooth Transmitter's embedded microcontroller (MCU) inputs the GPS's location and velocity data of the model aircraft for each time mark into its random-access memory (RAM) for dynamic data. The MCU's read-only flash memory for static data is factory configured with the fixed serial number of the RID-module which the user provides to his/her FAA registration account number. The MCU processes the content data of both MCU memories using a software algorithm to turn the data elements into individual packets. The packets are each sent via frequency hopping radio waves using 40 different frequencies in the 2.402 – 2.481 GHz ISM band at a speed of 2 Mbit/s. in a process called advertising messages because they don't require acknowledgment or pairing with a person's smartphones that's within rage receiving the messages being broadcast and displayed on their device.

2024 REMOTE-ID MODULES REPORT

AMA Advanced Flight System Committee
Andy Argenio – AMA District 1 VP
amadistricti@modelaircraft.org

AMA's Advanced Flight Systems Committee members Tyler Dobbs,

Tony Stillman, and Andy Argenio have been participating in meetings since 2020 with developers of Remote-ID (RID) modules to evaluate their systems, specifications, and test results. In the past few years AMA members flew model airplanes with modules affixed to them from seven of the manufacturers. The modules tested proved to be easy to set up, configure, and use the recommended cell/iPad display apps. The position data of longitude, latitude, and altitude including the serial number, velocity, and the flight tracking broadcasted and displayed on cell phones/iPads were accurate at ranges over a kilometer. There wasn't any noted RF interference with the onboard R/C systems.

On March 16, 2024, recreational RC flyers will have to affix an FAA-approved RID module on/in their model aircraft to fly at other than their club FRIA sites. To aid flyers who may want to purchase a module the online PDF version of this AMA RID Module Status Report is updated when a module is listed on the FAA Declaration of Compliance webpage. This report allows pilots to view a chart on page 2 that lists each of the RID modules with their prices and specifications for easy comparisons with active links to seller's websites and datasheets on the GPS receiver and Bluetooth (BT) broadcast module's chips for those who want to explore more technical data.

All the modules listed have met or exceeded the FAA's § 89.320 minimum performance requirements including ASTM F3411-22a standards. Today's GNSS/GPS receiver module chips can achieve horizontal position accuracies of between 5ft. to 10 ft. and vertical accuracy of 16 ft. or less 95% of the time. This exceeds FAA's horizontal accuracy requirements of 100 ft., and vertical accuracy of 150 ft. 95% of the time. The maximum broadcast range of the modules is limited to the Bluetooth (BT) range of about 2 km.

When this report was updated (3/18/24), there were 18 Remote-ID modules on the page 2 chart that included 16 plug & play modules and 2 for drones already equipped with GPS. The following 6 modules from uAvionix, Pierce Aerospace, FliteTest, Horizon Hobby, Holy Stone and Z-RID are available in the USA for ordering. The popular modules from Dronetag in the Czech Republic, and Blue Mark in the Netherlands, may also be ordered and shipped to the USA. Dronetag is expected to have a distributor retailing their modules in the USA soon.

Prices vary because the RID module may be with or without battery and case or have different versions of GNSS/GPS satellite receiver and Bluetooth (BT) broadcast module chips. The ultra-micro size and lightweight module chips and those with better position accuracy, and range cost more. The BT 5.0/5.1 version chips cost more because they draw much less current, provide more hours of runtime, and at 2Mb/sec doubling the data transmit rate and providing better error correction than the older BT 4.0+ versions. Those with features that allow for logging of flight data or data telemetry to user's transmitters and/or network capability will cost more. When and where manufacturing is done and shipped from can add to selling prices. FAA's \$50 estimate cost of modules in 2020 was based on module chips that are now obsolete with less transmission range of data and accuracy.

We recommend that members who want to fly at non-FRIA sites using RID modules keep checking the following chart at www.amadistict-i.org/rids to determine RID module selling prices, availability, and specifications.

	Α	В	С	D	E	F	G	Н	I
	RID-Module & Website	Availability	Price	Weight	Size inch	Battery	Bluetooth IC Chip	GPS IC Chip	Features
1	uAvionix - pingRID	In stock	\$299	21 gr.	1.0 x 0.7 x 1.7	2 hours	ESP32-C3-MINI-1	SAM-M8Q	In a case
	Montana, USA					Lipo	v5.0		
2	Blue Mark – Db121pcb	In stock	\$86	5 gr.	1.3 x 1.4 x .19	Requires	ESP32-C3-	ATGM336H	PC board
	Netherlands, Eur.					5-14 v	<u>WROOM-02</u> v5.0	<u>5N31</u>	
3	Blue Mark – Db121	In stock	\$108	11	1.4 x 1.5 x 1.0	Requires	ESP32-C3-	ATGM336H	In a case
	Netherlands, Eur.			grams		5-14 v	<u>WROOM-02</u> v5.0	<u>5N31</u>	
4.	Blue Mark – Db120	In stock	\$119	25 gr.	1.9 x 1.5 x 1.0	3 hours	ESP32-C3-	ATGM336H	In a case
	Netherlands, Eur.					Lipo	<u>WROOM-02</u> v5.0	<u>5N31</u>	
5.	Blue Mark-Db122fpv	In stock	\$64	4.5 gr.	1.0 x 1.0 x 0.16	Requires	ESP32-C3-	For Drones	For FPV
	For drones with GPS					4.5-15 v	<u>WROOM-02</u> v5.0	with GPS	
6.	<u>Drone Def. AeroPing</u>	In stock	\$190.49	38 gr.	1.8 x 2.3 x	8 – 14	ESP32-C3-MINI-	GPS chip	In a case
	United Kingdom				0.79	hours	<u>1U</u> v5.0	Not published	
7.	<u>Dronetag - Beacon</u>	In stock	\$219	16 gr.	1.5 x 1.0 x 0.6	8 – 16	LAIRD BL653	MIA-M10Q	In a case
	Czech Republic		еВау			hours	v5.1		
8.	<u>Dronetag Mini</u> network	In stock	\$325	32 gr.	2.1 x 1.3 x 0.6	8 - 16	LAIRD BL653	MIA-M10Q	In a case
	Czech Republic					hours	v5.1		Network
9.	Discontinued								
10.	<u>Dronetag-Basic Solution</u>	In stock	\$89	3 gr.	0.66 x 0.55	Requires	<u>ANNA-B412</u>	MIA-M10Q	PCB/case
	Czech Republic				x 0.19	3.3-17 v	v5.1		Telemetry
11.	<u>Dronetag-DRI</u>	In stock	\$55	1.5 gr.	0.89 x 0.62 x	Requires	<u>ANNA-B412</u>	For Drones	PC board
	Czech Republic			No case	0.19	3.3-17v	v5.1	with GPS	
12.	Aerobits idME	In stock	\$108	4 gr.	1.24 x 0.61 x	Requires	ESP32 SERIES	ZOE-M8B	In a case
	Poland				0.29	5.0v	v5.0		
13.	Discontinued								
14.	B1 Remote ID Beacon	In stock	\$275	30 gr.	2.87 x 0.94	6 hours	LAIRD BL654	GPS chip	In a case
	Pierce Aerospace USA				x 0.75	Lipo	v5.0	Not published	
15.	<u>EZ-ID</u>	In stock	\$99.99	10 gr.	Not published	Requires	NFR52849	SAM-M8Q	PC board
	FliteTest Ohio, USA				yet.	2S to 8s	v5.0		or case
16.	SKY ID SPMA9500	In stock	\$99.99	14 gr.	1.38 x 0.90	Requires	Bluetooth v5.0	MIA-M10Q	In a case
	Horizon Hobby IL, USA				x 0.65	3.3-9 v	not publish yet		Telemetry
17.	HOLY STONE HSRID01	In stock	\$89.99	14 gr.	1.54 x 1.18	5 hours	Bluetooth v5.0	GPS chip	In a case
	AMAZON, USA		\$77 eBay		x 0.51	Lipo	Not published	Not published	
18.	Z-RID Lite	10 Day Ship	\$84.99	30 gr.	1.57 x 1.57	4 hours	Bluetooth v4-v5	GPS chip	In case
	USA Sales	time.			X 1.18	Lipo	Not published	Not published	

DRONE SCANNER APPs: One of the most popular Apps available for iOS and Android devices. For android:

https://play.google.com/store/apps/details?id=cz.dronetag.dronescanner&hl=en_US&gl=US and for iPhone:

https://apps.apple.com/us/app/drone-scanner/id1644548782

AIR SENTINEL APP: For Android devices available at:

https://play.google.com/store/apps/details?id=com.app.airsentinel&hl=en_US&gl=US and

OPEN DRONE ID OSM: For Android devices available at:

at https://play.google.com/store/apps/details?id=org.opendroneid.android osm&hl=en&gl=US

NOTE – **For a FliteTest EZ-ID** module uses a **proprietary APP** since it requires registering their EZ-ID module to use/open the App and although the App works, its tracking accuracy from reviewers wasn't as good as the Drone Scanner App which also provides additional useful data information beyond the EZ-ID and FAA requirements.

Unfortunately, not all cell phones especially older legacy models work with all the current Remote-ID modules which utilize Bluetooth 4+/5 to receive the advertised message.

CHART IS UPDATED AS NEW RID MODULES BECOME AVAILABLE For the latest versions of this report go to https://amadistrict-i.org/rids

(1)



FAA Compliance Report

Remote-ID User & Install Guide

Bluetooth Manual ESP32-C3-MINI-1

Digi-Key Bluetooth
Chip Datasheet



\$299.00

uAvionix Corporation 300 Pine Needle Lane Bigfork, MT 59911 (844) 827-2372

Meeting the FAA's Remote ID mandate has never been easier.

The pingRID module is small, lightweight, and easy to attach to any drone, pingRID will keep you flying with trusted aviation-grade avionics from uAvionix. Whether you're flying for recreation or commercial part 107, pingRID has you covered.



uAvionix announces pingRID for FAA Mandated Remote ID Broadcast for Drones

02/28/23 | Press Release

Remote ID Broadcast module for drones, pingRID. The aviation-grade, small, lightweight, and easily attached transmitter is the fastest and simplest way for drone operators to be compliant with the FAA Remote ID rule. uAvionix is pleased to apply its avionics experience by delivering a product that meets the FAA's requirements without sacrificing the drone operators' time or aircraft performance," notes Paul Beard, uAvionix CEO and Academy of Model Aeronautics Hall of Famer. "A license plate for your drone needn't be complex or require an application to run and with pingRID, you simply charge, attach and fly – it's that easy."

The uAvionix pingRID comes pre-configured and ready for use out of the box. After assigning the pingRID unique identification number to the aircraft's registration with the FAA, operators are free to attach the battery-powered device to their drone and prepare for flight. A simple set of LED indicators provides status on the battery charge, device readiness for flight, and inflight operations. The ultra-compact, lightweight design fits most aircraft without impacting performance, and is quickly rechargeable via USB-C.

Tech Specs

Specification	Value					
Compliance	FAA 14 CFR Part 89, DoC RID000000132, ASTM F3411-22					
Protocols	Bluetooth 4 Legacy, Bluetooth 5 Long Range					
Frequency	2402 MHz to 2480 MHz					
Size	25.40 x 16.63 x 43.42 mm					
Weight	21 grams					
Charging Connector	USB-C					
Battery	Internal Li-ion (740 mWh)					
Indicators	Charge LED, Status LED 2 hours on a single charge					



Blue Mark Drone Website

Bluetooth Manual ESP32 C3 WROOM

Bruggenmorsweg 10, 7521ZV **Enschede, The Netherlands**

+31 53 711 2104 info@bluemark.io

Drone Beacon Transponder

FAA Compliance Report

Digi-Key Bluetooth Chip Datasheet





DroneBeacon Db121pcb RemoteID **Broadcast Module**

\$86.00



DroneBeacon Db121 RemoteID **Broadcast Module**

\$108.00



DroneBeacon Db120 RemoteID **Broadcast Module**

\$119.00

FAA approval PRODUCT PAGE

RID000000089

Short-range radio

MANUAL

Bluetooth and WiFi 2.4GHz, output power (ERP): + 20 dBm (100 mW)

Positioning

GPS, GLONASS, 2.5m positioning precision < 35 seconds for first fix

Antennas

3 dBi WLAN/BLE antenna (IPEX connector)

O dBi GPS antenna (IPEX connector)

Power

2-pin JST-GH 1.25mm connector 5 -14 V

auxiliary unpopulated 2.54mm 2-pin header 5 - 14 V

LED lights

status, configuration mode

Fastening mechanism

4x M2 screws

Operating temperature -5°C to +40°C

Dimensions - 33 x 35 x 5 mm

Weight - 5 grams (including antennas)

FAA approval PRODUCT PAGE

RID000000088

MANUAL Short-range radio

Bluetooth and WiFi 2.4GHz, output power (ERP): + 20 dBm (100 mW)

Positioning

GPS, GLONASS, 2.5m positioning precision < 35 seconds for first fix

Antennas

0 dBi WLAN/BLE antenna (internal omni-directional high-performance PCB antenna)

0 dBi GLS antenna

Power

2-pin JST-GH 1.25mm connector 5

- 14 V

LED lights

status, configuration mode

Enclosure

plastic (nylon)

Fastening mechanism

3M dual-lock or M5 screws using the screw noses

IP rating

IP43

Operating temperature

-5°C to +40°C

Dimensions

36 x 38 x 28 mm.

Weight - 11 grams

FAA approval PRODUCT PAGE

RID00000058

MANUAL Short-range radio

Bluetooth and WiFi 2.4GHz, output power (ERP): + 20 dBm (100 mW)

Positioning

GPS, GLONASS, 2.5m positioning precision < 35 seconds for first fix

Antennas

0 dBi antenna (internal omnidirectional high-performance PCB antenna)

Battery

LiPo 3.7V 600 mAh, battery life > 3

hours charging, 5V USB-C, 1 hour

from a discharged state

LED lights

charging, battery level (4x), configuration mode

Enclosure

plastic (nylon)

Fastening mechanism

3M dual-lock or M5 screws using the screw noses

IP rating IP43

Operating temperature

-5°C to +40°C

Dimensions

48 x 38 x 28 mm.

Weight - 25 grams

(5) Db122fpv FOR FPV OPERATIONS Bluetooth broadcast module only and will require a GPS receiver. \$76.00

Size - 01x01x0.16 Weight - 4.5 grams

(6) Drone Defence AeroPing

FAA Compliance Report

Bluetooth Manual ESP32-C3-MINI-1U

Digi-Key Bluetooth
Chip

AeroPing Website

ESP32-C3-MINI-1U DATASHEET



Drone Innovation Centre, Retford, UK +44 (0) 843 289 2805 info@dronedefence.co.uk



AeroPing operates in a highly independent fashion. It has its own power source and sensors for position, altitude, temperature, pressure, speed and direction.

Simply attach it easily to a drone, and it is ready to be used.

Data can then be accessed in real-time by drone fliers and any relevant authorities with the necessary permissions through our AeroTracker platform. (NOTE MAY NEED RECONFIGUATION TO WORK IN USA)

AeroPing RRP is \$ 190.49 per module, to get additional info go to the AeroPing website and complete a form.

(7)

Dronetag Beacon

Dronetag Beacon Website

FAA Compliance Report

Bluetooth Manual Laird BL653

BUY INFO CLICK \$ 219





Dronetag s.r.o. Veltruská 602/16 190 00 Praha 9, Czech Republic +420 602 870 462 info@dronetag.cz

Digi-Key Bluetooth Chip

BL653 Chip Datasheet



Short-range radio - Bluetooth 2.4GHz

Sensors - GNSS, barometer, accelerometer

Positioning - GPS L1, GLONASS L1, Galileo E1, SBAS

Built-in Antennas Bluetooth and GNSS Optional Antennas Bluetooth via MMCX plugs

External ports 3.3V extension connector and 5V Micro USB

Battery LiPo 3.7V 200 mAh

Battery life 8-16 hours (depending on the configuration)

Charging 5V Micro USB

Charging time - 2 hours from a discharged state

Average current consumption - 15mA Maximum current consumption - 100mA

Enclosure - plastic

Fastening mechanism - 3M Dual-lock SJ4570

IP rating - IP43

Operating temp. -20 °C to +60 °C (-4 °F to 140 °F) Dimensions - 37 \times 26 \times 16 mm (1.5 \times 1.0 \times 0.6 in)

Weight - 16 grams (0.56 oz.)

Slap-on device so your drone can legally fly. Effortless way to let your drone fly safe & compliant in EU and US regions. Direct/Broadcast Remote Identification device compatible with any drone.

What is the difference between this product and ESP32-based ones?

Some Remote ID manufacturers tend to select ESP32 microcontrollers as the base of their OEM solutions without further research. However, *ESP32 systems are well known for questionable production quality, common overheating, electromagnetic noise, and interference issues. Since Remote ID is a crucial aircraft component,* its malfunction can easily force the drone to land in a dangerous situation. **Even though ESP32**MCUs can be more price-competitive, we will never allow our customers to take such unnecessary risks.

Therefore, Dronetag DRI is built on industrial components of non-Chinese origin, and each unit goes through production testing.

Why is it not a good idea to use Bluetooth and Wi-Fi RID simultaneously?

Most Remote ID implementations transmitting Bluetooth and Wi-Fi simultaneously don't implement radio coexistence protocols. This means the radio chip is overwhelmed with transmitting requests despite insufficient radio capacity to send out those data. The result is that the device sends out corrupted data at unreliable frequencies (not fulfilling the requirements in standards) while **creating unnecessary electromagnetic noise and interference.**

Where is the device manufactured?

All the devices are manufactured in Prague, Czech Republic, Europe. But the manufacturing site can be changed depending on the customer's needs.

Dronetag Beacon is the bare minimum solution for Direct / Broadcast Remote via Bluetooth 4 and 5. It ensures that your drone is detectable to all air traffic participants and allows you to track the drone in real-time. It may be attached to any drone regardless of its manufacturer and makes you complain with new EU and US regulations.







BUY INFO CLICK \$325

Bluetooth Manual Laird BL653

Digi-Key Bluetooth Chip

BL653 Chip Datasheet

Professional Remote ID Designed for professional pilots. Combination of both Network & Direct / Broadcast Remote ID to make your drone flight safe & compliant.

Network Remote Identification

Dronetag Mini transfers your drone's position and identification to our cloud. By displaying the real-time data in our app Dronetag enables advanced drone operations and coordination of manned and unmanned traffic in the same airspace.

Direct (Broadcast) Remote Identification

Your drone's info is transmitted via Bluetooth to up to 1.5 km (0.9 miles). With our Direct Remote ID, you fulfil all the new regulation necessities, and you are free to fly & touch the sky!

Cellular - LTE-M and Narrowband IoT (NB-IoT)
Cellular bands: 3, 8, 20 for the EU and 2, 4, 12 for the US

Bluetooth 2.4GHz

Sensors - GNSS, barometer, accelerometer
Positioning - GPS L1, GLONASS L1, Galileo E1, SBAS
SIM card - Chip SIM soldered on the mainboard
Built-in Antennas Internal LTE, Bluetooth and GNSS
Optional Ant. External LTE and Bluetooth via plugs

External ports 3.3V extension connector and 5V Micro USB Battery LiPo 3.7V 500 mAh

Battery life 8-14 hours (depending on the configuration)

Charging 5V Micro USB

Charging time 2 hours from a discharged state

Average current consumption 50mA

Maximum current consumption 1A

Enclosure plastic

Fastening mechanism 3M Dual-lock SJ4570

IP rating IP43

Operating temperature -20 °C to +60 °C

-5°C to +40°C

Size 54x35x15 mm (2.1x1.3x0.6 in)

Weight 32 grams (1.1 oz)

(9) Zephyr Systems

A US reseller of the OEM's Blue Mark Db120 Remote-ID module. All specifications are the same as module (2).







FAA Compliance Report

Bluetooth Manual Anna-B412

DigiKey Anna-B412

DigiKey MIA-M10Q

DRONETAG BASIC SOLUTION (BS) - THE RETAIL PRICE IS \$89.00

Dronetag BS is the best Remote ID solution for FPV pilots, aeromodelers, and recreational pilots. BS offers affordable Broadcast / Direct Remote capability as defined by FAA and EASA. It is the smallest and lightest Remote ID solution making it easier than ever for aeromodelers and FPV pilots to comply with regulations while enjoying their favorite hobby.

External Bluetooth and **Positioning antennas** are not included, you may use your own antennas, or **you can buy one of these**:

- Combined Bluetooth + GNSS Positioning Antenna (U.FL) \$9.90
- GNSS Positioning Antenna Compact Size (U.FL) \$4.90
- o Bluetooth Antenna Ultra Small (U.FL) \$4.90
- o Bluetooth Antenna High Performance (U.FL) \$4.90

Dronetag s.r.o. Veltruská 602/16 190 00 Praha 9, Czech Republic +420 602 870 462

The BS can be powered from up to 17V power input, or you can consider optionally using the small 3.7V Li-Po batteries (e.g., 50 mAh can run up to two hours). Batteries must have a JST SH 3-pin connector.

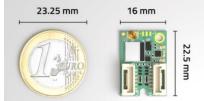
Data sheet

Remote ID types Broadcast (US) Short-range radio Bluetooth 2.4GHz Average current consumption 15 mA Maximum current consumption 50 mA Mounting - Adhesive or Velcro Operating temperature -40°C to +85°C Dimensions- 0.66 x 0.55 x 0.19 in Weight - 3 grams, No Case or Battery Standard ones - configurable in Dronetag app Input voltage 3.3 - 17V Input voltage regulator Low-noise buck converter Remote ID Standards ASD-STAN EN 4709-002 & ASTM F3411-22 Certifications Uses FCC/CE approved module Remote ID technology Bluetooth 5.1 Long Range 1.86 miles/3 km

Product Details (new adding 2 wire antennas)

- Easy installation and compatibility with various aircraft hardware setups
- Real-time tracking and Remote ID compliant with the FAA rule.
- Powered from the existing aircraft or a small LiPo battery (up to 17V input) No LED Status Notification Yet
- Configuration and firmware updates via Dronetag App
- Can be used as GNSS input to Betaflight controller*
- Can be used as a telemetry module for popular RC radios* Spektrum & Futaba
- Flight information logging to flash memory for easy visualization in Dronetag App, Google Earth, or similar*

(11)





Dronetag DRI Website

FAA Compliance Report

Bluetooth Manual Anna-B4

\$ 55.00

For manufacturers to equip their new drone models with technology for Direct / Broadcast remote identification (RID). Connect our factory-ready modules to your drone's flight controller. Dronetag DRI is compatible with all standard Pixhawk controllers running PX4 or Ardupilot. Plug it into your TELEM port, configure the appropriate baud rate, and you are ready to fly. DRI may come with a U.FL connector for an external antenna (for carbon fuselage) or with an internal antenna already on board.

^{*} Functions that will be introduced later via firmware update



ul. Przestrzenna 11 70-800 Szczecin. Poland Aerobits is a Polish technology company that has been operating on a global market since 2017. We deal with miniaturization of avionic systems, such as aviation transponders. All solutions are based on a patented technology that allows to process radio signals on very small surfaces.

NOTE: These modules from Aerobits iDME are not FAA compliant YET, but the specs are provided since they have intentions of seeking FAA compliance as other European mfg. have recently done.



PRODUCT INFO

PRODUCT INFO

PRODUCT INFO

idME

Designed to meet requirements of remote drone identification and localization inASTM/ASD-STAN standard. Using the BLE broadcast technology the deviceprovides surveillance and drone operator identification capability based on anymodern mobile devices such as smartphone or tablet.

idME+

idME+ is designed to meet requirements of remote drone identification and localization in ASTM/ASD-STAN standard. Using the BLE broadcast technology, the device provides surveillance and drone operator identification capability based on any modern mobile devices such as smartphone or tablet.

idME PRO

idME PRO is the most advanced Remote ID with WI-FI and BLE technology. It can broadcast in dual technologies: Wi-Fi (NAN and Beacon frames) BT(BLE, and legacy frames). Using the BLE and WI-FI broadcast technology, the device provides surveillance and drone operator identification capability based on any modern mobile device such as a smartphone or tablet.

CLICK FOR USER MANUAL AND IDME DATA SHEETS

CLICK FOR USER MANUAL AND IDME+ DATA SHEETS

CLICK FOR USER MANUAL
AND IDME PRO DATA SHEETS

(13)



D063550

NOT FAA COMPLIANT WON'T WORK IN USA



Application Frequency Range Final Action Date

Application Details Not Loaded Yet... Exhibits Not Loaded Yet...

FAA Accepted but Exhibits not posted yet!
Check at: https://fcc.report/FCC-ID/D063550

Their unit is small in size, 20x30x8 mm very thin. It won't have the extra weight and cost of a battery and case... and may use a Y extension to the receiver's battery for power. It operates on 3.5 - 8.4 v. and draws only 18 ma. It appears to use internal antennas and a simple shrink-wrap casing like an ESC or some satellite receivers. We are waiting for Futaba & FAA to post additional information.

PIERCE A EROSPACE





B1 Remote ID Beacon

\$274.99

The B1 Remote ID beacon offers superior local broadcast performance to meet the FAA's Remote Identification requirements. The B1 comes from a military heritage and has been proven in national security operations with commercial and public safety operators. It is now available to all.

Made in the USA (With Import and US Components). Customer support in the USA.

Exceeds the ASTM F3411-22 Remote ID Standard.

WEBSITE

Features:

PIERCE AEROSPACE INC

- Built from Military Heritage info@pierceaerospace.net

- High Performance Local Broadcast Fishers, IN 46038

- Meets and Exceeds ASTM Standards

- 2+ km Range

- 6+ hr Runtime per Charge

- Designed and Made in the USA

Radio Specifications:

Antenna Type PCB Antenna
Frequency 2400-2480MHz
Radiation Pattern Omnidirectional
Max Output Power +18dBm conducted
Operational output power within FCC/ISED limits

Electrical Specifications:

Input Voltage Rating 3.75V - 6.00V
Input Amperage Rating 225 mA max
Input Wattage Rating 843 mW max
Battery Type Lithium Polymer
Battery Capacity 400mAh

Battery Endurance 6hr Charge Time 4hr

Mechanical Specifications:

Dimensions (LWD) 73mm x 24mm x 19mm

Weight 30g

Mounting Two Cable Tie Slots

Connector USB-C

Operating Temperature $-20 \, ^{\circ}\text{C}$ to $+76 \, ^{\circ}\text{C}$ Storage Temperature $10 \, ^{\circ}\text{C}$ to $+70 \, ^{\circ}\text{C}$

Operating Humidity 0% – 95% non-condensing Storage Humidity 0% – 70% non-condensing

FAA Compliance Report

Bluetooth Manual Laird BL654

BL654 Chip Datasheet



\$99.99

WEBSITE

Bluetooth Module NRF52840 GPS Module SAM-M8Q

Contract 11 in the second 11 in the seco

With Connector

or

or

Without Connector

Flite Test, in conjunction with Tritium Electronics, a leader in electronics assembly, has designed a USA-developed and manufactured Remote ID Broadcast Module, the Flite Test EZ ID which will be available in production volumes in August of 2023.

FT EZ ID provides an excellent, high-value solution for both RC model airplane pilots as well as recreational drone pilots. Its light, has internal antennas, and has integrated GPS and Bluetooth 4 and 5 transmitters. The FT EZ ID is also designed to be installed easily and then removed and installed on a pilot's entire fleet of recreational aircraft.



With Connector



Without Connector

- The GPS is integrated in the single-board, FT EZ ID and the chip is GPS an uBlox SAM-M8Q.
- The Bluetooth transceiver is a Nordic NRF52840 chip.
- The average power draw of the FT EZ ID is 10mA. This may spike as high as 100mA when establishing an initial fix and during other short operation intervals.
- The FT EZ ID has been tested in an unobstructed area transmitting at a distance of 1500ft.
- Cold start up is approximately 53 seconds and warm start is usually less than 20 seconds.
- The price of the FT EZ ID covers no recoverable expense to design, prototype and develop software as well as the rapidly rising cost of electronic components.
- FT EZ ID is a purpose-designed remote ID broadcast module for recreational pilots in the USA.
- THE FT EZ ID may be ordered from the Flite Test online store as well as select online retailers in the recreational RC and FPV industry.
- Software will be added in future for additional features beyond broadcasting.
- THE FT EZ ID transmits Bluetooth 4 and 5 for mobile devices.
- Flite Test Customer Support is available to respond to questions about the FT EZ ID. However, the FT EZ ID only requires power and then is ready to operate.
- The FT EZ ID may be installed anywhere inside or on the exterior of a recreational aircraft. Radio frequency
 performance of the FT EZ ID will improve if it is installed on the exterior of an aircraft

(16)





FAA COMPLIANCE REPORT CLICK





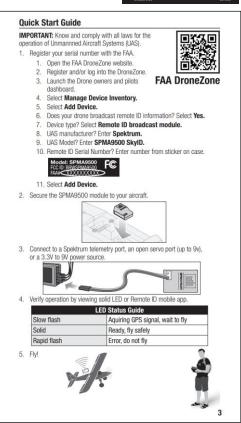


Watch Video Horizon and Spektrum are proud to announce the SkyID Remote Identification Module. This module should be available soon. SkyID provides GPS features through Spektrum telemetry but is also compatible with non-Spektrum radio systems as a standalone device.

\$99.99

Weight – 14 grams Size – 1.38" x .90" x 0.65" Power required – 3.3 – 9v or from RC receivers power







\$89.99



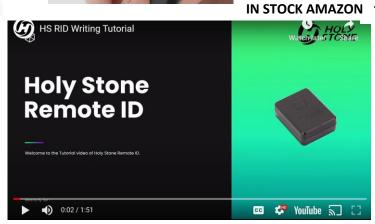


HOLY STONE
HSRID01
AMAZON, USA

SIZE:

MAZON 1.54 x 1.18 x 0.51"







ALSO
QR ACCESS TO VIDEO

(18)









Made in the USA

The Z-RID is engineered at MIT and manufactured in California. Other broadcast modules are manufactured and assembled overseas.

Plug and Play

The Z-RID is designed to be simple to setup, unlike other broadcast modules on the market. Take it out of the box, turn it on, and you are broadcasting.