

Stratosfy Bluetooth Wi-Fi Bridge

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FCC ID : **2A3CA - STSFYBRDG05** | IC : **27758 - STSFYBRDG05**

Contains FCC ID : **2AC7Z-ESPWROOM32D** | IC : **21098-ESPWROOM32D**

User Manual

Version 1.0.0

Stratosfy Bluetooth Wi-Fi Bridge Datasheet

Stratosfy Bluetooth Wi-Fi Bridge is a bluetooth to Wi-Fi gateway device that listens to data from Stratosfy Bluetooth beacon devices and sends data to Cloud via Wi-Fi. The unit can also transmit its own data to the cloud too. This hardware unit is DC power via USB Adapter with a backup battery(18650 model) to support a power outage.

Technology Highlights

- Bluetooth 5 and Wi-Fi compliant.
- High accuracy temperature sensor based device.
- Fully factory calibrated device.
- Supports iBeacon and Stratosfy Telemetry(proprietary) packets concurrently.
- Backup battery to support power outage

Stratosfy Bluetooth Wi-Fi Bridge devices are Bluetooth 5 to Wifi gateways that relay signals between Stratosfy Bluetooth beacon devices and Stratosfy's cloud system. In combination with the corresponding Stratosfy cloud system, Stratosfy Bluetooth Wi-Fi Bridge devices enable Stratosfy Bluetooth beacon devices to be able to transfer data such as sensor measurements and battery measurements.

Apart from functioning as a gateway, Stratosfy Bluetooth Wi-Fi Bridge device has built-in sensors too. Hence, Stratosfy Bluetooth Wi-Fi Bridge can also transfer its own sensor measurements to the Stratosfy cloud system via a Wi-Fi connection.

Stratosfy Bluetooth Wi-Fi Bridge devices have an operating range of 0°C to 60°C (32°F to 140°F), and a scanning range of 15 feet.

Stratosfy Bluetooth Wi-Fi Bridge device runs Stratosfy Bridgenius and Blugenius firmwares. Stratosfy Bluetooth Wi-Fi Bridge devices are typically meant to be installed at facilities with Wi-Fi connectivity.



Technical Specifications

Model Number : **STSFY-BRDG-05**

Electrical

AC Plugs / Charge Plug	USB-C
Rated Input	100-240V AC, 0.35A 50/60 Hz
Output	5V, 2.1A

RF Specifications

Standard Protocol	Bluetooth 5 , WiFi: 802.11 b/g/n
Frequency band	Bluetooth : 2.4GHz (40 channels), WiFi : 2.4 GHz (11 channels)
Number of Channels	Bluetooth : (40 channels) 3 Primary, 37 Secondary
Max Output Power	Bluetooth 5 : <10 dBm (e.i.r.p.) , WIFI: <20 dBm
Modulation	Bluetooth 5: GFSK WIFI: 802.11b, DSSS 802.11g, OFDM 802.11n, OFDM
Antenna / Gain	Bluetooth : Chip antenna, 1.1 dBi, WiFi : PCB antenna 2dBi
Mode of Operation	Bluetooth- Chip antenna/ 1.1dBi, WiFi- integral PCB trace antenna/ Mode of Operation: half-duplex
Data Rates	Bluetooth 5 : 1 Mbit/s; Cellular: Cat M1- Max. 588 (Downlink) Max. 1119 (Uplink)

Features

BLE Application Supported	iBeacon, Stratosfy Telemetry (Scannable packet types)
Processor Type	32-bit ARM Cortex-M4F @ 64MHz and Xtensa dual-core 32-bit LX6 microprocessor, operating at 160 MHz
Memory	4 MB Flash
Sensors	1) Ambient temperature sensor Range: -40°C to +125°C, Accuracy: ±0.1 °C: +35.8 °C to 41 °C; ±0.13 °C: 20.0 °C to 70.0 °C; ±0.25 °C: -40 °C to +125 °C 2) surface temperature sensor probe Range: -55°C to +125°C, Accuracy: ±0.5 °C: -10 °C to +85 °C; ±1 °C: -30 °C to +100 °C; ±2 °C: -55 °C to +125 °C

Physical

Dimensions in mm (Length x Width x Height)	110 x 100 x 42
Mounting Method	Screw Wall Mounting
Housing Material	ABS Plastic
Color	White
Weight	135 grams