

Bridge-AT

Device Data sheet

Version 1.0.0



Bridge-AT Datasheet

Bridge-AT is a Bluetooth to Wi-Fi gateway device that gathers temperature measurements from Stratosfy sensor devices via Bluetooth and sends data to Stratosfy cloud platform via Wi-Fi. The unit also contains a built-in ambient temperature sensor. This hardware unit is AC-powered with a backup battery to support a power outage.

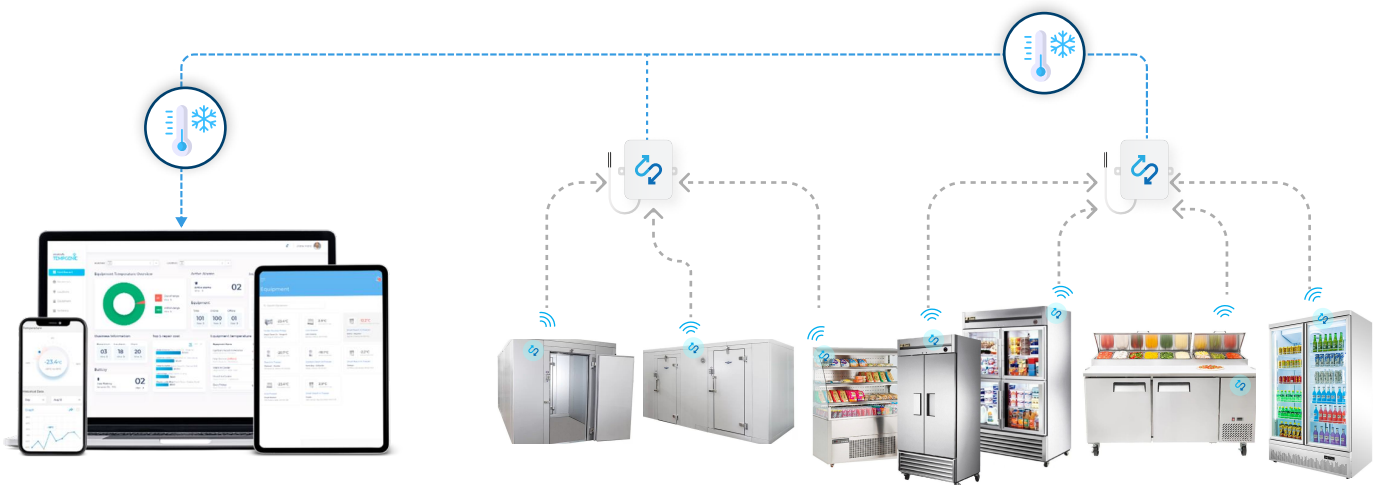
Bridge-AT devices are Bluetooth 5 to Wifi gateways that relay signals between Stratosfy sensor devices and the Stratosfy's cloud Platform. In combination with the corresponding Stratosfy Cloud platform, Bridge-T devices enable Stratosfy sensor devices to be able to transfer temperature measurements and battery measurements to Stratosfy's cloud platform. The unit also contains a built-in ambient temperature sensor and can transmit the ambient temperature measurements autonomously to Stratosfy cloud platform. When Wi-Fi connection is down, then the gateway continues to function and stores sensor measurements. When Wi-Fi connection is resumed, gateway transmits these measurements to the cloud platform.

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

Apart from functioning as a gateway, Bridge-AT device has a built-in ambient temperature sensor. Hence, Bridge-AT can function itself as a temperature measurement sensor that can transfer measurements to Stratosfy cloud platform via a Wi-Fi connection. Bridge-AT devices have an operating range of 0°C to 60°C (32°F to 140°F), and a scanning range of 15 feet.

The Bridge-AT device runs Stratosfy Bridgenius and Blugenius firmwares. Bridge-T devices are typically meant to be installed at exterior interfaces of different refrigeration equipment such as walk-in coolers and walk-in freezers.



Technical Specifications

Model Number : STSFYG002

Part Number : STSFYBT005

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

2.4GHz (40 channels)

Number of Channels

(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

Chip antenna, 1.1 dBi

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: - 40 °C to +125 °C

Physical

Dimensions in mm (Length x Width x Height)

110 × 100 × 42

Mounting Method

Screw Wall Mounting

Housing Material

ABS Plastic

Color

White

Weight

135 grams

Battery

Type

Li-ion 18650 Rechargeable battery (backup battery)

Nominal Voltage

3.7V

Capacity

3000mAh

Lifetime

24 hours (backup battery)

Technical Specifications

Chemical and Mechanical Resistance

Water Not Waterproof, IP61 Rating

Withstands Exposure To UV Resistant, Impact Resistant

Thermal

Storage 32°F to 86°F (0°C to +30°C)

Operating Temperature 32°F to 140°F (0°C to 60°C)

Other

Standards FCC / IC

Warranty 1 year

Others LEDs & Button

Accessories

Replaceable Backup battery



Type :
Lithium Batteries

Capacity :
3500mAh

Lifetime :
24 hours (backup battery)

Rated Voltage :
3V DC (2*1.5V batteries)

Power plug



Rated Input Voltage :
AC 100- 240V 0.35A 50/60Hz

Output Current :
2A

Certification :
PSE, UL, CE

Output Voltage :
5V

Size :
40 × 34 × 21 mm

USB Cable



USB Type :
Type -C

Cable Length :
1m / 39.37 in, 2m / 78.7 in

Function :
3A Fast Charging

Velcro tape/3M tape



3M Velcro hook and
loop dual lock tape 1
inch squares