

GSatMicro

Specification Overview



Processor

32 bit ARM

Communication Chipsets

GPS Chip

GPS Networks: GPS + Galileo or GPS + GLONASS

Bluetooth Low Energy 4.0

FCC ID: PVH0950

Manufacturer: u-blox Malmo AB

Frequency: 2402 – 2480MHz

Power: 0.0021 W

Iridium 9602 SBD transceiver

FCC ID: Q639603N

Manufacturer: Iridium Satellite LLC

Frequency: 1616 – 1626.5MHz

Power: 1.479 W

Data Network

Iridium

Inputs and Outputs

RS232 Interface

USB Interface

2x Relay Outputs @ 2A

2x Analog Inputs (0V to 30V DC)

Sensors

Accelerometer

Digital compass

Security

256-bit AES Encryption

Weight and Dimensions

External Dimensions: 2.1875" x 1.9375" x 3.5" (55.5mm x 49.25mm x 89mm)

Internal Dimensions: 1.77" x 1.34" x 1.77" (45mm x 34mm x 45mm)

Weight: 4.5 ounces (127.5 grams)

Power and Battery

Power Connections:

USB DC Input (4.5V to 5.5V)

High Voltage DC Input (7.5V to 36V) (protected to 40V DC)

Battery:

Battery Type: Internal LiPo 2500mAh with PTC

Battery Charge Time USB: 4-6 hours

Battery Charge Time DC: 2-3 hours

Operating System

Embedded Lua (eLua)

Performance

Channels: 52

Frequency: LI - 1,575 MHz

Sensitivity GPS: Tracking: -165 dBm, Navigation: -160 dBm, Acquisition (cold start): -147 dBm

Sensitivity GLONASS: Tracking: -163 dBm, Navigation: -159 dBm, Acquisition (cold start): -147 dBm

Position Accuracy (autonomous): < 2.5 m CEP

Time To First Fix: Hot Start: < 1s, Warm Start: < 30s

Time To First Fix: Cold Start: < 35s

Environment

Nominal Battery Performance At Temperature Under Load

2.3Ah @ 20C @ 1A

2.02Ah @ -10C @ 1A

1.82Ah @ -20C @ 1A

1.57Ah @ -25C @ 1A

.2Ah @ -30C @ 1A

.2Ah @ -30C @ 1A

Waterproof and Intrusion Protection

IP67 Rating

- Liquid Immersion, up to 1 m depth

- Dust tight. No ingress of dust; complete protection against contact (dust tight).

Other

LED notification lights

Satellite - Orange

GPS - Orange

Power - Green

Message/Bluetooth - Blue

Emergency - Red