Spot® EAP 2

Spot EAP 2 enhances the autonomy, computation, and communications available on the Spot platform.

Improve Spot's autonomous navigation with lidar providing a sensing range up to 100 meters. Easily configure inputs such as sensors, cameras, and other devices and process data collected into actionable insights.

Features

- Lidar enhances autonomy by mapping 100m around Spot
- Compact CPU and GPU with customizable inputs and outputs
- 5, 12, and 24V regulated power output
- RJ45 standard ethernet adapter
- IP54 — Easy cable sealing to maintain IP54 rating
- Built-in 5G/LTE modem with CBRS support for private networks and option to use AT&T's public network
- Comes with sample computer vision model

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Specifications

DIMENSIONS

Length = 224 mm (8.8 in)
Width = 173 mm (6.8 in)
Height (with antenna) = 246 mm (9.7 in)
Height (without antenna) = 64 mm (2.5 in)
Mass/Weight (with antenna) = 3.6 kg (7.9 lbs)
Mass/Weight (without antenna) = 3.1 kg (6.8 lbs)

PROCESSING (JETSON XAVIER NX)

CPU = 6-core NVIDIA Carmel ARM V8.2 64-bit CPU with 6MB Lw + 4MB L3 cache
GPU = 384-core NVIDIA Volta GPU with 48 Tensor cores
Memory = 16GB 128-bit LPDDR4x at 51.2 GB/s

LIDAR

Model = Velodyne VLP-16
Sensor = 16 Channels
Measurement Range = 100 m
Range Accuracy = Up to ±3 cm
Field of View (vertical) = +15.0° to -15.0° (30°)
Angular Resolution (vertical) = 2.0°
Field of View (horizontal) = 360°
Angular resolution (horizontal/azimuth) = 0.1° – 0.4°
Rotation Rate = 5 Hz – 20 Hz
Laser Product = Class 1 eye-safe per IEC 60825-1:2007 & 2014
Laser Wavelength = 903 nm
Power = 8 W
Voltage = 9-18 V
Other = Integrated web server for monitoring and configuration

SECURITY

Disk Encryption =
SSD encrypted with standard LUKS technology
Network Encryption =
Connections encrypted with TLS 1.2 and 1.3
Authentication =
Access to services restricted to authenticated users
Secure Boot =
Tamper-proof filesystem with hardware root of trust
Firmware Verification =
Firmware updates must be cryptographically signed

CONNECTIVITY AND STORAGE

5G/LTE = User-installable SIM card. AT&T is the supported 5G provider in the United States; however, customers also have the option of utilizing their own private 5G network. For international customers, users must obtain their own SIM from a local carrier for which there may be additional network restrictions.
Ethernet = GbE interface, unmanaged 2 port Ethernet switch for additional connectivity
Storage = 512GB SSD*
USB 3.1 = 2x USB 3.1 ports with support for 4.5W
USB-C = 1x USB-C port with support for 50W power delivery and video out
SD Card = 1x SD card slot
Other Connections =
E-Stop interface
PPS output
GPIO (Configurable to PWM output)
I2C Ports
Power Outputs =
48V or robot battery voltage for Spot Explorer models
24V, 50W
12V, 50W
5V, 30W

MODEM SUPPORTED BANDS (TELIT FN980)

Regions = North America, EMEA, APAC
5G FR1 = n1, n2, n3, n5, n7, n8, n12†, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79
LTE = 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29DL, 30, 32, 34, 38, 39, 40, 41, 42, 43†, 46(LAA) 48(CRS), 66, 71
WCDMA = 1, 2, 3, 4, 5, 6, 8, 9, 19

ENVIRONMENT

Storage Temperature = -40 to 70°C
Operating Temperature = -20 to 55°C
Ingress Protection = IP54

*Actual storage available will be less due to operating system.
†Noted bands will be supported in a future release.

Contact

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