Spot® CORE I/O

Spot CORE I/O enhances both the computation and communications available on the Spot platform.

Easily configure inputs such as sensors, cameras, and other devices to Spot and process data collected into actionable insights.

Features

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

Option to add lidar for enhanced autonomy (see Spot EAP 2)

Comes with sample computer vision model

Boston Dynamics

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) = 2.8 kg (6.3 lbs)
Mass/Weight (without antenna) = 1.4 kg (3.2 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

CONNECTIVITY AND STORAGE
5G/LTE = User-installable SIM card
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

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

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 45°C
Ingress Protection = IP54

*Actual storage available will be less due to Spot CORE I/O's operating system.
[†]Noted bands will be supported in a future release.

Contact

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