

# Spot<sup>®</sup> 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



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



## 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<sup>†</sup>, 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<sup>†</sup>, 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.

<sup>†</sup>Noted bands will be supported in a future release.

## Contact

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