Spacely Carrier for NVIDIA® Jetson™ TX2/TX2i/TX1

Connect Tech’s Spacely Carrier for NVIDIA® Jetson™ TX2/TX2i/TX1 is an ideal product for unmanned vehicle applications, or any application where situational awareness is critical. Spacely enables users to simultaneously connect up to 6 MIPI CSI-2 cameras as well as offering built-in expansion for a GPS/GNSS module.

This carrier includes a multi-I/O port specifically designed to allow easy connection to OEM Autopilots such as the Pixhawk. Other onboard interconnects include 2x GbE, 1x HDMI, USB 3.0, USB 2.0, USB CLIENT, as well as miniPCIe and mSATA expansion.

### FEATURES

- **Connect up to 6 MIPI CSI-2 Camera Inputs**
- **Tailored IO for easy connection to Pixhawk Autopilot**
- **2x GbE, 1x uHDMI, 2x USB 3.0, 2x USB 2.0, 1x USB CLIENT, 1x miniPCIe Slot, mSATA Slot**
- **2x UART, I2C, SPI, 16 GPIO all at +3.3V IO**
- **Extended Temperature Range -40°C to +85°C (Spacely Carrier)**

### Specifications

<table>
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<tr>
<th>Compatibility</th>
<th>NVIDIA Jetson TX2, NVIDIA Jetson TX2i, NVIDIA Jetson TX1</th>
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| GPU           | Jetson TX2/TX2i: NVIDIA Pascal™, 256 CUDA cores (Up to 1.3 GHz)  
                             Jetson TX1: NVIDIA Maxwell™, 256 CUDA cores (998 MHz) |
| CPU           | Jetson TX2/TX2i: HMP Dual Denver/2MB L2 + Quad ARM® A57/2MB L2  
                             (Up to 2 GHz)  
                             Jetson TX1: 64-bit ARM® A57 CPUs |
| Networking    | 2x Gigabit Ethernet (10/100/1000 Mbps) |
| Display Output| 1x HDMI 1.4a (microHDMI) |
| Camera Inputs | • 6 x2 Lane MIPI CSI-2  
                             OR  
                             • 3 x4 Lane MIPI CSI-2 |
| USB           | 2x USB 3.0 Ports  
                             1x USB CLIENT  
                             2x USB 2.0  
                             1x USB 2.0 to miniPCIe Slot |
| Storage       | 1x mSATA Full Sized Slot  
                             1x microSD Card Slot |
| UART          | 2x 3.3V from TX2/TX2i/TX1 UART0 and UART1 |
| I2C           | I2C Channel 1 @ 3.3V IO |
| CAN           | 1 x CAN 2.0b Port |
| GPIO          | 16 bits of 3.3V (level shifted GPIO) |
| Optional Sensor Expansion | 1x GPS/GNSS Module (optional) |
| User Expansion| 1 x miniPCIe Slot with PCIe, USB + SIM |
| LEDs          | GbE LEDs, PWR, S3# |
| Input Power   | Wide Input +12V to +22V DC |
| SPI           | SPI Channel @ 3.3V IO |
| Dimensions    | 125mm x 95mm (4.92” x 3.74”) |
| Operating Temperature | -40°C to +85°C (-40°F to +185°F) |

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[1] The Jetson TX2/TX1 Module is rated for -25°C to +80°C (measured at thermal heat plate)