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

Astro is specifically designed to work with the NVIDIA® Jetson™ TX2, TX2i, or TX1 supercomputer-on-module. The Astro Carrier provides access to features found on the Jetson TX2/TX2i/TX1 module in an extremely small footprint (87mm x 57mm/3.43” x 2.24”). It makes use of a high density, board-to-board connector that allows for use with Connect Tech’s off the shelf or custom designed break out boards.

**Specifications**

- **Compatibility**: NVIDIA Jetson TX2, NVIDIA Jetson TX2i, NVIDIA Jetson TX1
- **Dimensions**: 87mm x 57mm (3.43” x 2.24”)
- **Mini PCIe Expansion**:
  - 1x half size card or 1x full length card
  - PCIe and USB signaling (Mini PCIe)
- **Storage**: 1x mSATA, half size card
- **USB**:
  - 1x USB 3 port
  - 2x USB 2 ports
- **Network**:
  - 2x Gigabit (10/100/1000) Ports:
    - 1 from the Jetson Module
    - 1 from on-board Intel 82574 PHY/Controller
- **GPIO**: 4-bit GPIO
- **CAN BUS**: 1x CAN bus
- **Display**: 1x HDMI interface (Supports up to HDMI 2.0 UHD 4K [2160p] at 60Hz)
- **Audio**:
  - HD Audio
  - 1x stereo output
- **Serial**:
  - 2x RS-232/485 hardware selectable ports
- **Video Input**:
  - 1x MIPI CSI-2 (2-lane)
  - 2x GMSL*
  - Power-Driver-Loop Not supported, external power must be provided to GMSL Camera Module.
- **Misc. External Interfaces**:
  - I2C
  - System Control (PWR and RST buttons, etc.)
  - RTC battery input
- **Connectors**:
  - 90-pin QSH Samtec connector to be mated to Connect Tech Inc. breakout boards
- **Weight**:
  - ASG001 (Astro Carrier): 46 grams (with stand-offs attached)
  - XBG201 or XBG206 (Breakout Board): 51 grams
  - Jetson TX2/TX2i/TX1: 144 grams (with heatsink); 75 grams (without heatsink)
- **Environmental**:
  - -40°C to +85°C (-40°F to +185°F)

**Features**

- 2 Gigabit (10/100/1000) Ports
- USB and HDMI Ports
- Use with COTS or custom break out boards
- 87mm x 57mm (3.43” x 2.24”)
- Extended Temperature Range -40°C to +85°C (Astro Carrier)

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

Connect Tech Inc.
42 Arrow Road, Guelph ON Canada
Tel: 519.836.1291 Fax: 519.836.4878
Toll: 800.426.8979 (North America)
Email: sales@connecttech.com
www.connecttech.com

CTIX-00442.0.07 - 2019-04-15