ZIGGY ZIGGY™ Miniature, low-cost carrier board for NVidia Jetson TX2 / TX2i module

Ziggy Carrier for Jetson TX2/TX2i (2.0x3.4" / 50x87mm) Top View

FEATURES

1x 4-channel CSI camera input

1x 10/100/1000 Ethernet (RJ-45)

1x USB 3.0 Type A + 1x USB 2.0 Type A

1x USB 2.0 micro with OTG support

1x HDMI

2x RS-232

6x analog inputs, 12-bit resolution, 0-3.3V output range, up to 1Msps throughput

2x analog outputs, 12-bit resolution, 0-3.3V output range

12x digital I/O, 3.3V logic levels

Input voltage: 9-18V or 5.5-18V depending on installed Jetson module

Input voltage: 9-18VDC (with TX2 installed) / 5.5-18VDC (with TX2i installed)

Dimensions: 87mm x 50mm / 3.43" x 1.97" (same size as Jetson™ module)

Operating temperature: -40 to +85°C

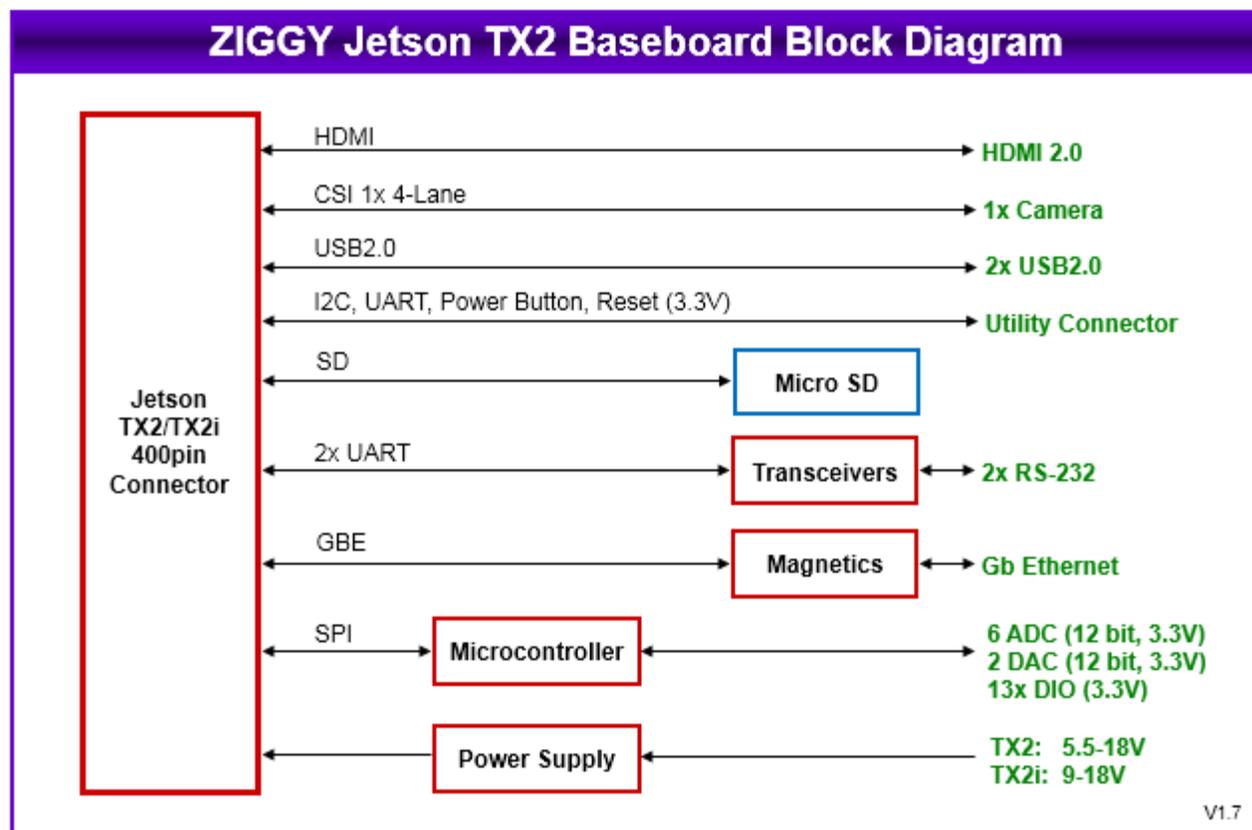**Angle view with TX2 module installed underneath**

Ziggy offers a compact, low cost platform for evaluation of Jetson computer modules as well as implementation of a marketable solution for AI and machine learning applications. Ziggy provides access to the most popular I/O features of the Jetson modules, including camera, Ethernet, USB, and serial. In addition it features a unique data acquisition circuit with analog input, analog output, and digital I/O to enable Ziggy to interface to the "real world" of analog and digital sensors and controls.

Diamond provides a complete Linux BSP for Ziggy with built-in support for all I/O including the

data acquisition features. A GUI provides convenient real-time control of the data acquisition I/O.
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The ZiggyBox™ is a cost-effective, compact, complete turnkey Jetson computing solution consisting of a Jetson TX2/TX21i module installed on a Ziggy carrier board and housed in an enclosure with table-top, wall mount, or DIN-rail mount capability.

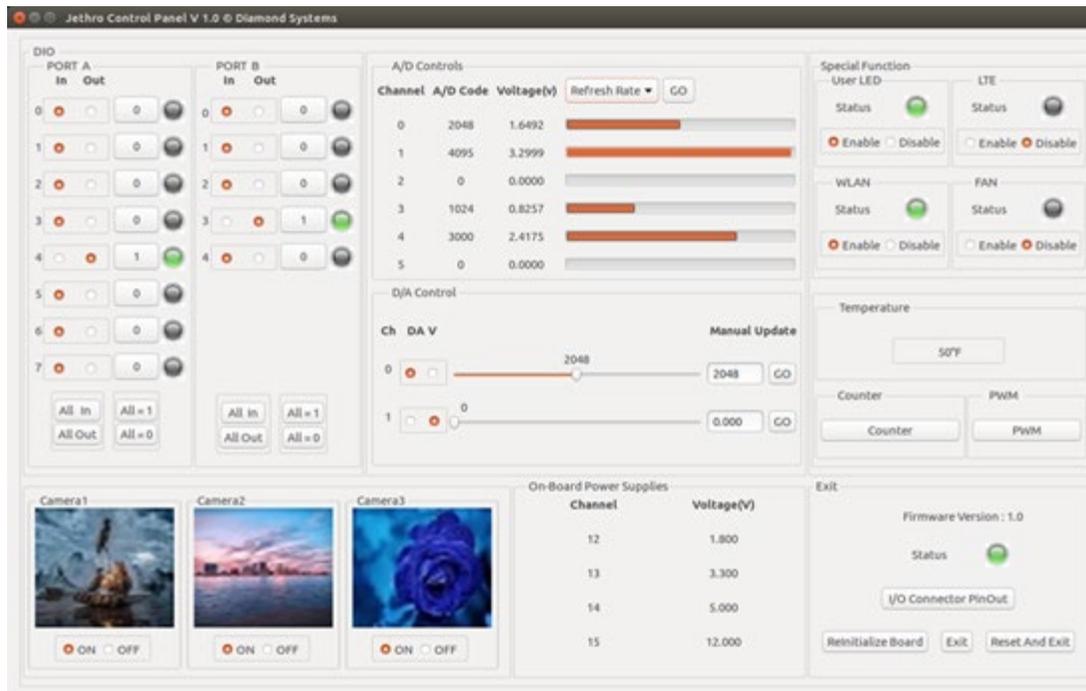### ◆ Ziggy Block Diagram

◆ Ziggy Box System

The ZiggyBox solution incorporates the Ziggy carrier board in a sturdy, miniature box. Everything needed for a complete system is provided in the ZiggyBox. Easy access connectors ensure data acquisition, Ethernet, HDMI, USB3.0 and USB2.0,WIFI, BT and COM/DIO are accessible. One side

of the Ziggy Box is dedicated for heat sink cooling and providing a solution with a fan.

◆ Data Acquisition

Ziggy contains a full-fledged analog and digital I/O circuit that provides control and monitoring of real-world events such as sensor inputs, temperature control, keypads/switches, and industrial processes. The 6 analog inputs feature 0-3.3V input range and programmable 12-bit up to 16-bit resolution, with user-controllable filtering and averaging for noise reduction. The 2 analog outputs offer 12-bit resolution and 0-3.3V output range. The 13 DIO feature 3.3V logic levels. All features are supported by Diamond's built-in data acquisition driver software, featuring a programming library with application demos plus an interactive GUI-based control program that offers real-time access and control.

◆ Specifications

Camera Input	1x 4-channel CSI
Ethernet	1x 10/100/1000 (RJ-45)
USB 3.0	1x Type A + 1x USB 2.0 Type A
USB 2.0	1x micro with OTG support
HDMI	1x
RS-232	2x
Analog Input	6x analog inputs, 12-bit resolution, 0-3.3V output range, up to 1Msps throughput
Analog Output	2x analog outputs, 12-bit resolution, 0-3.3V output range
Digital I/O	12x digital I/O, 3.3V logic levels
Input voltage	9-18V or 5.5-18V depending on installed Jetson module
Input voltage	9-18VDC (with TX2 installed) / 5.5-18VDC (with TX2i installed)
Dimensions	87mm x 50mm / 3.43" x 1.97" (same size as Jetson™ module)
Operating temperature	-40 to +85°C

◆ Models and Accessories

ZIGGY
available models:

| ZIG-BB01 | Ziggy baseboard for Jetson TX2/TX2i module, standard model with DAQ | Available |
| ZIG-BB02 | Ziggy baseboard for Jetson TX2/TX2i module, no DAQ | Available |

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| ZIG-BB01 | Ziggy baseboard for Jetson TX2/TX2i module, standard model with DAQ | Available |
| ZIG-BB02 | Ziggy baseboard for Jetson TX2/TX2i module, no DAQ | Available |