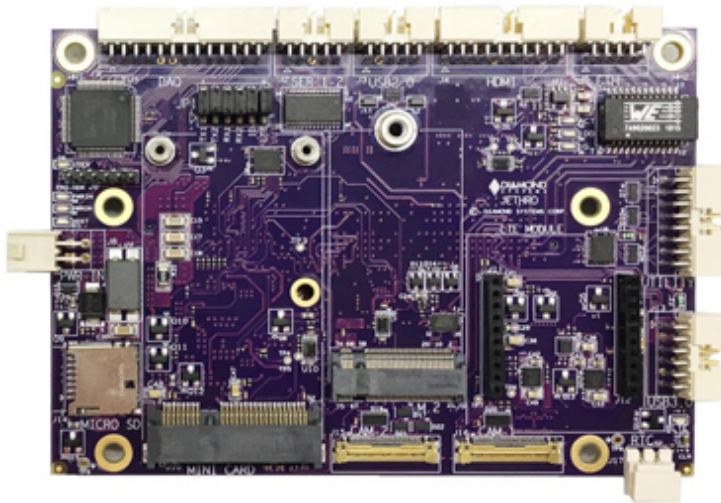
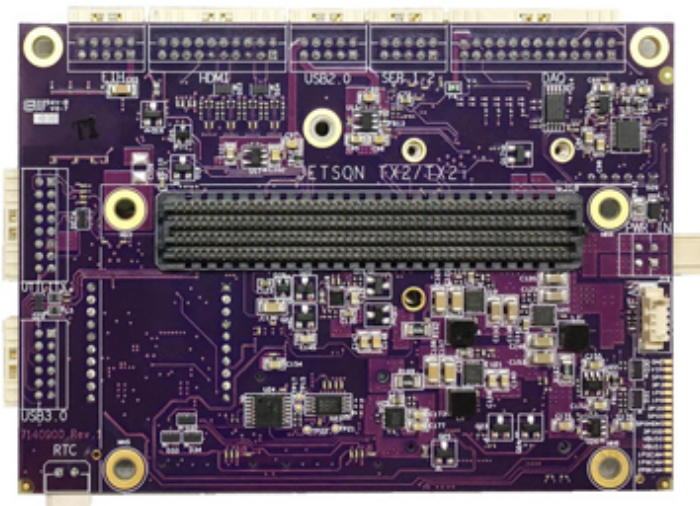


JETHRO JETHRO™ Miniature, I/O-rich carrier board
for NVidia Jetson TX2 / TX2i module



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



Jethro Carrier for Jetson TX2/TX2i (2.0x3.4" / 50x87mm) Bottom

FEATURES

- 2x 4-channel CSI camera inputs
- 1x 10/100/1000 Ethernet
- 1x USB 3.0 + 2x USB 2.0
- 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
- 1x PCIe MiniCard expansion socket with USB
- 1x M.2 2242 SATA socket for SSD up to 256GB
- 1x Micro-SD socket
- 1x Nimbeline™ Skywire® modem socket
- Latching connectors for all I/O for increased ruggedness
- Input voltage: 9-18VDC (with TX2 installed) / 5.5-18VDC (with TX2i installed)
- Dimensions: 107mm x 76mm / 4.2" x 3.0"
- Operating temperature: -40 to +85°C

Jethro offers a compact, low cost solution for implementation of high-performance computing solutions based on the NVidia Jetson TX2/TX2i computer modules. Jethro provides access to most 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 Jethro to interface to the "real world" of analog and digital sensors and controls.

All I/O on Jethro uses latching connectors for increased resistance to shock and vibration. This plus an operating temperature range of -40 to +85°C make Jethro an ideal choice for deploying Jetson computing technology in vehicle or outdoor environments.

Diamond provides a complete Linux BSP for Jethro 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

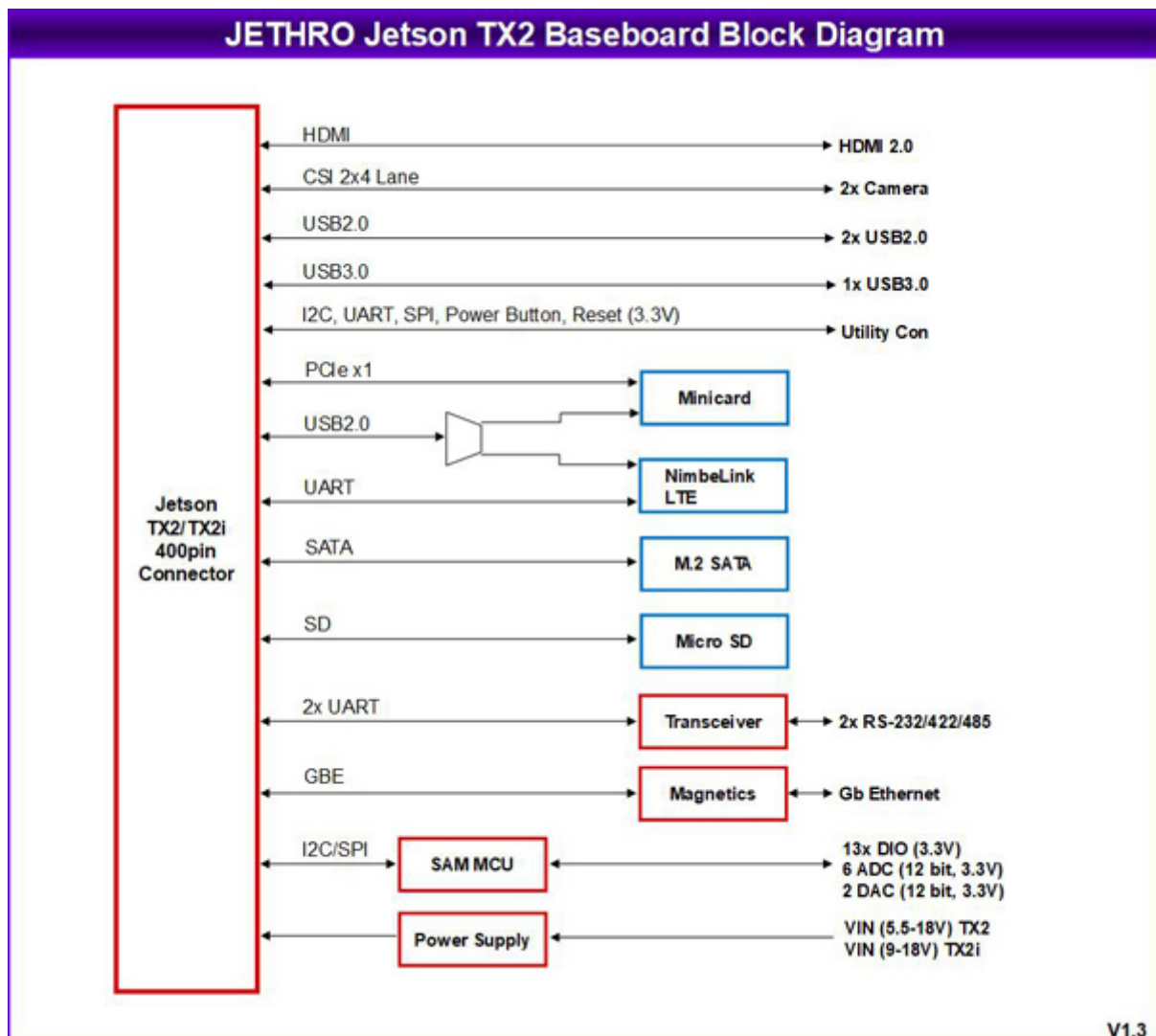
◆ Mass Storage

Jethro contains an M.2 2242 size socket for the addition of up to 256GB of additional SATA-based mass storage. A micro-SD socket is also provided.

◆ Expansion capabilities

A PCIe minicard socket enables the installation of additional I/O to meet the needs of diverse applications. A modem socket on Jethro enables the installation of cost-effective and pre-approved Nimbeline™ Skywire® cellular modems featuring a range of global cellular standards.

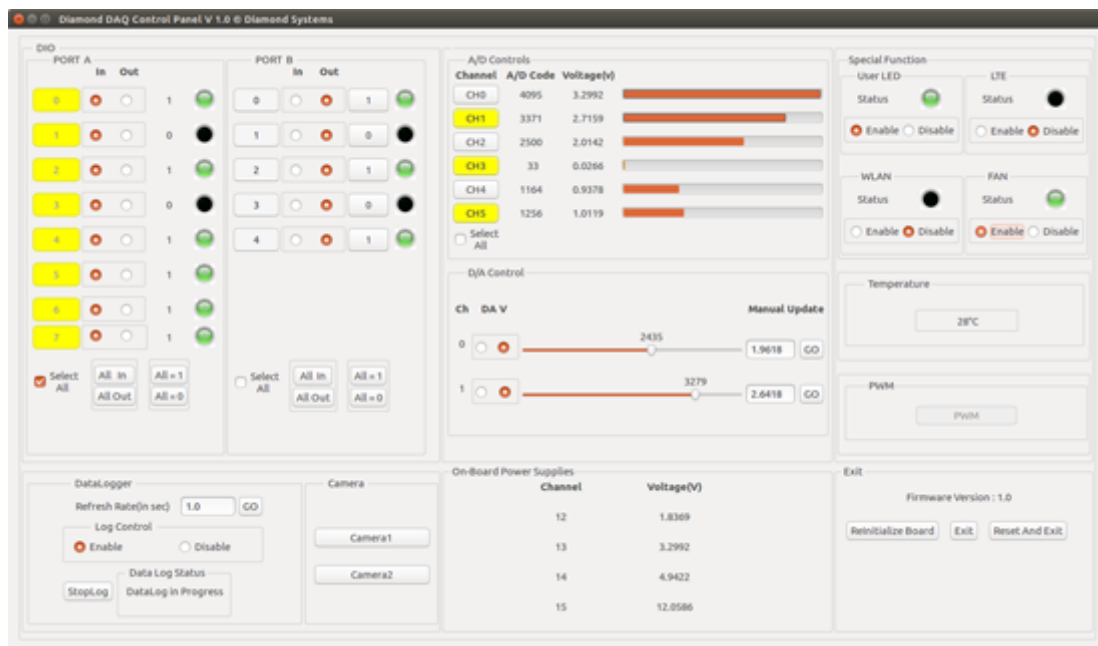
◆ Jethro Block Diagram



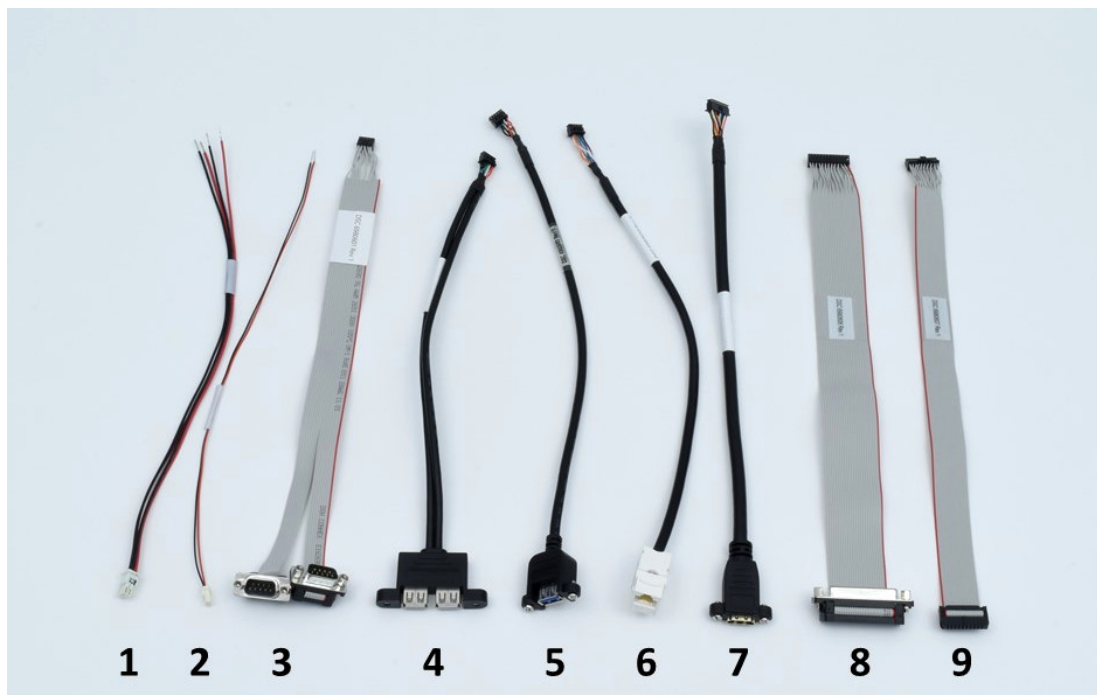
◆ Data Acquisition

Jethro 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.



Cable kit, Jethro Latching type



CK-JETHRO-01 includes the following cables:

No.	Qty	Cable	Description	Drawing
1	1	6981507	Power Cable, IPD 2x2 to Leads, 20AV	Show
2	1	6980524	External battery cable, discrete wires	Show
3	1	6980601	Dual serial port cable, 2x DB9 male	Show
4	1	6980602	Dual USB 2.0 cable, 2x USB 2.0 type A	Show
5	1	6980603	Dual USB 3.0 type A, latching	Show
6	1	6980604	Ethernet cable, RJ-45 socket	Show
7	1	6980605	HDMI Cable	Show

8	1	6980606	DAQ Cable	Show
9	1	6980607	Utility I/O cable, 2x10 latching to 2x10 2mm IDC ribbon	Show

◆ Ordering Information

◆ Models and Accessories

◀ JETHRO

available models:

JET-BB01 Jethro baseboard for Jetson TX2/TX2i module, standard model with DAQ Available
Please [login](#) or [signup](#) for an online quote request.

◀ Cables and accessories

available models:

- CK-JETHRO-01** Cable kit, Jethro Latching type
- 6981507** Power Cable, IPD 2x2 to Leads, 20AV
- 6980524** External battery cable, discrete wires
- 6980601** Dual serial port cable, 2x DB9 male
- 6980602** Dual USB 2.0 cable, 2x USB 2.0 type A
- 6980603** Dual USB 3.0 type A, latching
- 6980604** Ethernet cable, RJ-45 socket
- 6980605** HDMI Cable
- 6980606** DAQ Cable
- 6980607** Utility I/O cable, 2x10 latching to 2x10 2mm IDC ribbon

Please [login](#) or [signup](#) for an online quote request.

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