Connect Tech

QUARK CARRIER BOARD
FOR NVIDIA® JETSON XAVIER™ NX
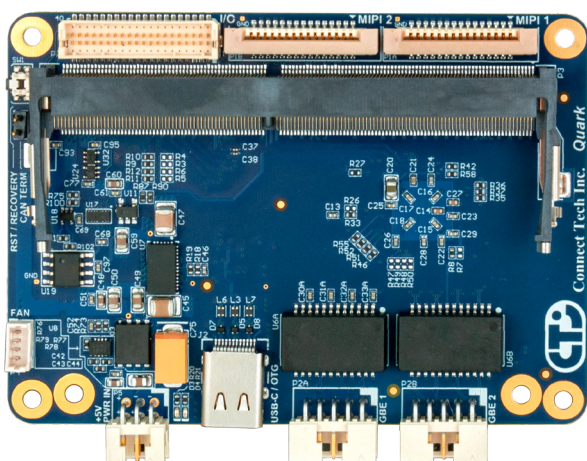
PART NUMBER: NGX004

The Quark carrier board is an ultra small and feature rich carrier for AI Computing at the Edge.

Just slightly larger than the Jetson SODIMM module, Quark is ideal for vision applications, inference, and unmanned payloads. Since the Quark carrier board is compatible with the Jetson Nano, TX2 NX, and Xavier NX modules, users can seamlessly transition between modules depending on their AI processing requirements.

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Quark's design includes a rich I/O set as well as positive locking IO connectors optimized for rugged environments.

FEATURES

✓ Smaller than the Dev Kit: 82.6mm x 58.8mm

✓ 1x USB 3.1, 2x GbE, 2x 2-lane MIPI CSI-2, 1x USB OTG

✓ 1x SD card slot, 3x 3.3V UART, 2 x I2C, and 1x SPI

✓ +5V DC Input

SPECIFICATIONS WHEN USED WITH JETSON XAVIER NX MODULE

Ethernet	2x 1000BASE-T Ports (Connector: Positive Locking Pin Headers) 1x GBE from Jetson GBE Port 1x GBE from PCIe x1 i210 PHY	**USB + OTG**	1x USB 3.1 (Gen 3) (USB Type-C Connector) w/ USB0 OTG connection
Dimensions	82.6mm x 58.8mm (3.25" x 2.31")	**Storage**	1x Micro SD Card Slot
MIPI Cameras	2x 2-lane MIPI CSI-2 (Connector: 1-1734248-5) • 15-pin FPC 1mm Pitch Connector	**Misc Interfaces**	Connector: 40-pin DF20 • 3x 3.3V TTL UARTs (1x CONSOLE) • 8 GPIOs 3.3V TTL (1x PWM Capable) • 2x I2C 3.3V • CAN 2.0b • 1x SPI
Operating Temperature	-25°C to +85°C (-13°F x 185°F)	**Display Output**	None (Headless Operation only)
FAN	1x 4-pin Fan Connector (5V 1x4 Picoblade)	**Power Input**	+5V DC Input (Positive Locking MiniTek Connector)
Power - RTC Battery	3-Pin RTC Battery Connector (Rev C and onwards)	**Weight**	33g (1.16oz) (no module)
Warranty and Support	1 Year Warranty and Free Support		
Specification changes when used with Jetson Nano	1x USB 3.1 depreciated to Gen 2 CAN 2.0b unavailable	**Specification changes when used with Jetson TX2 NX**	1x USB 3.1 depreciated to Gen 2

RoHS

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