PRODUCT LINE DATA SHEET

DESIGNCORE™
RVP-AM572x DEVELOPMENT KIT

D3 Engineering

Accelerate development and field-testing of vision systems for industrial vehicles, materials handling, collaborative robotics and more.

Rugged Vision Platform (RVP) with TI AM572x Multimedia Processor

SPEED DEVELOPMENT OF VISION-BASED SYSTEMS

The DesignCore™ RVP-AM572x Development Kit accelerates your development of vision-based systems for industrial, robotics, transportation, and materials-handling applications.

The Development Kit is based on advanced multimedia processors from Texas Instruments and D3's advanced vision software framework. It enables synchronous acquisition of eight 1080p HD video streams with real-time vision processing and analytics.

Developed using a design-for-manufacture (DFM) process, the Development Kit has an optimized layout and BOM. With D3's design services, this Development Kit lets you concentrate on your value-add and get to market faster.

FEATURES

Texas Instruments SoC processor

- AM572x Sitara™ ARM processor

Peripherals

- FPD-Link III video inputs (8)
- HDMI and FPD-Link III video display outputs
- Ethernet, CAN bus, USB 3.0, and serial connectivity

Compact, rugged packaging for field testing

- Production-intent design
- Ready for rapid development with D3 Engineering design services

APPLICATIONS

Industrial vehicle systems

- Front or rear camera
- 3D around view monitoring
- Vehicle black box (operational recorder)
- Radar
- Operator monitoring
- Camera monitoring systems (CMS)/mirror replacement

Autonomous shipping and transportation systems

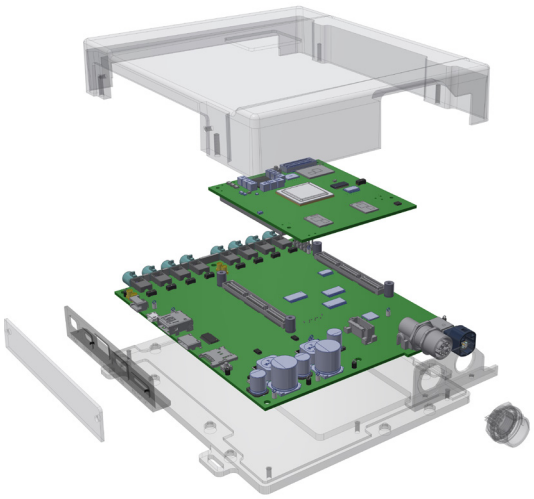
Autonomous guided vehicles (AGV)

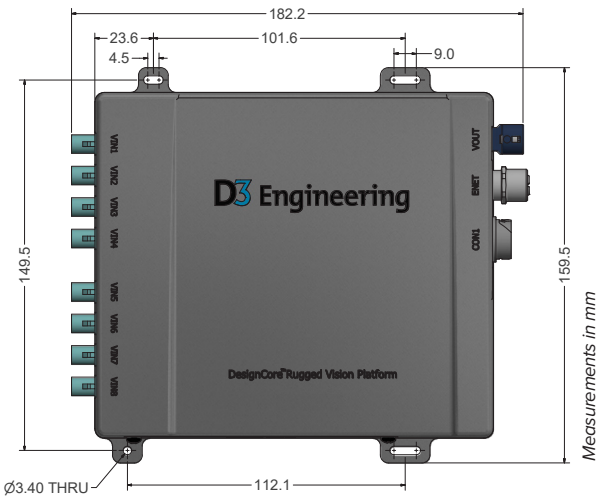
Collaborative robotics

Machine vision

SPECIFICATIONS

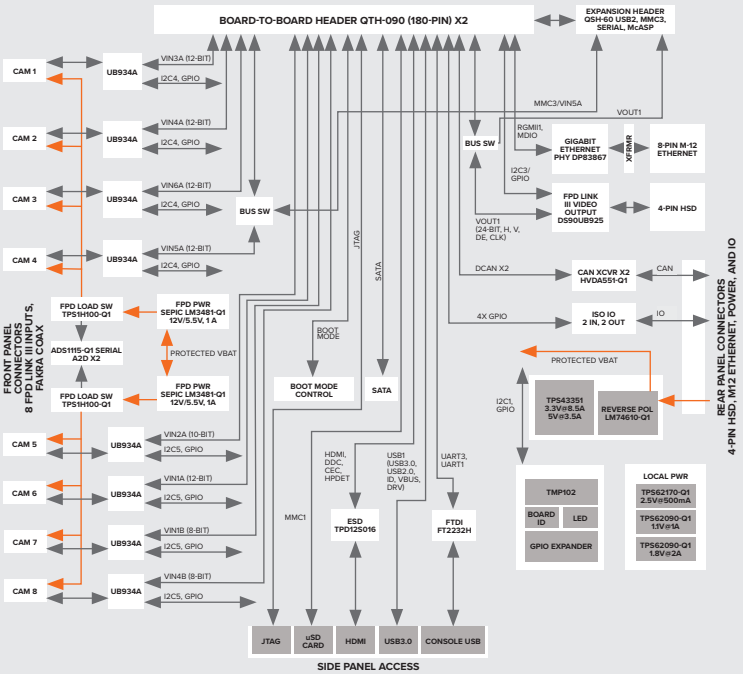
	AM572x SoC
DDR	4GB + ECC
eMMC	8GB
QSPI	512Mbit
FRAM (EEPROM)	512Kbit
Ethernet Gbit (DP83867)	1
Video Ports Capture	8 parallel
Display	1 HDMI and 1 FPD Link (independent)
CAN	2
UART (USB to UART bridge)	1 USB bridge, 1 logic level
uSD Card	1 external
Isolated IO	2 in and 2 out
USB	1 USB3.0/2.0
SATA	1 internal
A15 Core(s)	2
DSP Core(s)	2
IPU/M4 Core(s)	2 with 2 CPUs
EVE Core(s)	none (AM5728) I 4 (AM5729)
ISS Core(s)	2 with 2 CPUs
SGX 544 3D Accelerator(s)	2
GC320 2D Accelerator(s)	1
Ambient Temperature	–40C to 85C (enclosure)
Component Temperature	–40C to 85C (eMMC limited)
Power	9V to 40VDC with reverse bat
BSP	D3 software frameworks/ Linux + TI BIOS Processor SDK
Expansion	I2C, UART, SPI, 4X 8bit MMC, USB2.0, McASP, parallel camera
JTAG	60 pin and 14 pin with adapter
Enclosure	Rugged aluminum
Access Panel	14 pin JTAG, USB/UART, uSD card, HDMI, USB3.0/2.0





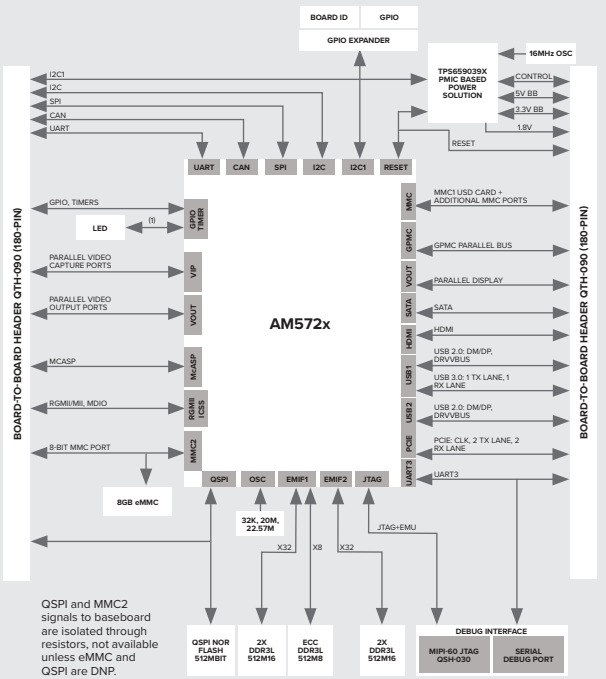
The RVP Development Kit features an optimized SOM board with advanced vision processor, firmware, and a customizable baseboard with IO, power, expansion interface, and more. We use the Development Kit to rapidly develop your Engineering Verification Test (EVT) unit.

AM572x BASEBOARD



AM572x SOM

Signals going to baseboard not necessarily connected to board-to-board connectors as shown. Processor breakout will dictate which peripherals are on which connector. Peripheral availability is subject to application's pin mux. All processor signals are brought to the board-to-board interface.



ACCELERATE TIME TO MARKET WITH D3

This kit enables rapid evaluation of vision technology in the field. Contact us for cameras and customization. The production-intent design accelerates further product development with D3 Engineering design services.

CALL: **585-429-1550**
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