

DESIGNCORE™ RVP-TDA2x DEVELOPMENT KIT



A rugged Development Kit in a finalized product form-factor lets you evaluate Advanced Driver Assistance System (ADAS) technology under realistic on-vehicle conditions.

Rugged Vision Platform (RVP) with TI TDA2x Automotive Processor

SPEED DEVELOPMENT OF AUTONOMOUS VISION-BASED NAVIGATION SYSTEMS

The DesignCore™ RVP-TDA2x Development Kit accelerates your development of autonomous vision-based navigation systems for automotive, transportation, and materials-handling applications.

The Development Kit is based on advanced vision 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 options

- TDA2x SoC processor (default)
- DRA74x "Jacinto 6" processor (option)

Peripherals for default SoC (may vary with SoC option)

- FPD-Link III video inputs (8)
- HDMI and FPD-Link III video display outputs
- Ethernet, CAN bus, USB3.0, and serial connectivity

Compact, rugged packaging for on-vehicle testing

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

APPLICATIONS

Advanced Driver Assistance Systems (ADAS)

- Front or rear camera
- 3D surround view + car black box (CarBB)
- Radar
- Driver monitoring
- Camera monitoring systems (CMS)/mirror replacement

In-vehicle infotainment and telematics

- In-vehicle displays
- 3D navigation
- High-definition multimedia

Autonomous shipping and transportation systems

Autonomous guided vehicles (AGV)

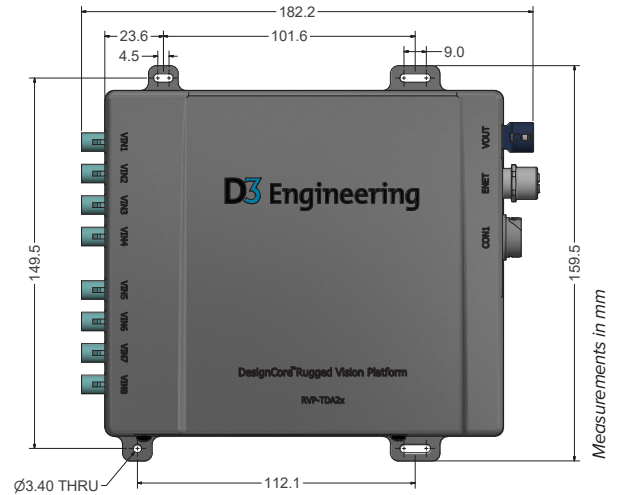
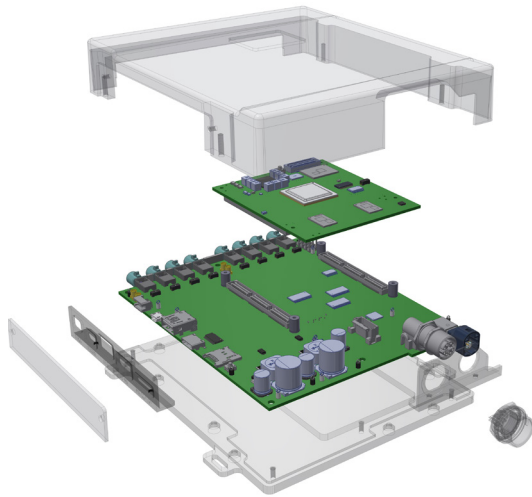
Collaborative robotics

Industrial vehicle systems

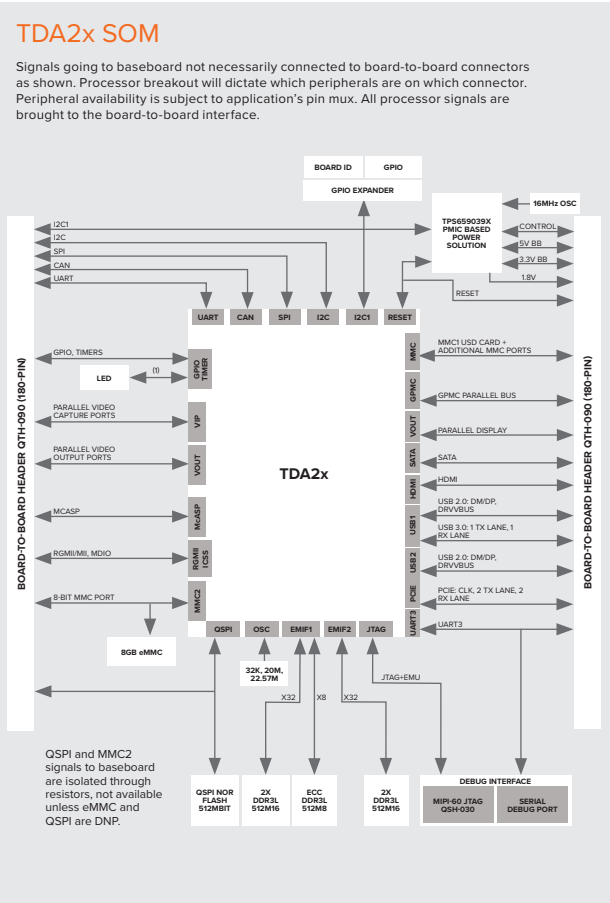
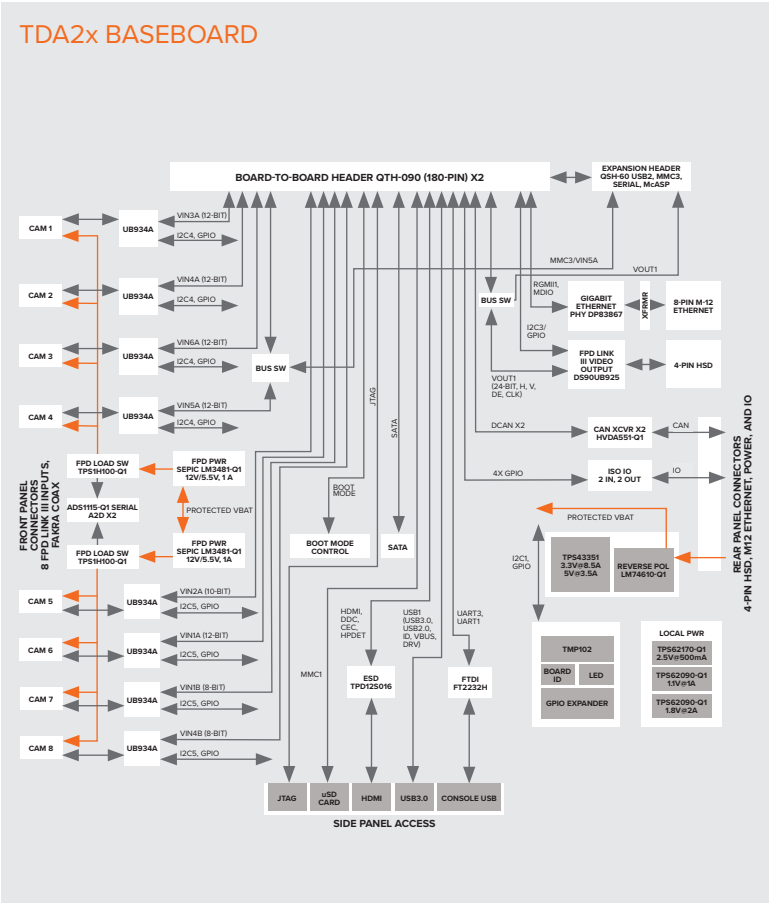
SPECIFICATIONS

TDA2x/J6 SoC

SPECIFICATIONS	TDA2x/J6 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)	2 with 2 CPUs
ISS Core(s)	none
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 Vision SDK
Expansion	I2C, UART, SPI, 3X 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 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.



ACCELERATE TIME TO MARKET WITH D3

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

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