Vision 312Plus

Description

Vision 312Plus is a robust 12.1" touchscreen display with built-in, high-end Vision 3 display controller with a quad-core multimedia processor and solid protection for use in off-highway vehicles. Beside various communication interfaces the display is ready for direct connection of 4 cameras and enables audio output via integrated loudspeaker. The Vision 312Plus is optically bonded for perfect sunlight readability, the housing is sealed, and the device withstands extreme temperature, shocks and vibrations.

Specifications

Display diagonal size	12.1" 16:10 aspect ratio
Dimensions	306 mm x 212 mm x 34 mm (46 mm incl. connector)
Weight	2.1 kg
Resolution	1280 (W) x 800 (H) pixel
LCD type	TFT (thin film transistor) active matrix
Backlight	LED

Optical characteristics

Luminance	1000 cd /m² typ.
Viewing angle	V = ± 89° H = ± 89°
Contrast ratio	1000:1

Maximum ratings

Operating temperature	-30 to +70 °C (ambient)
Storage temperature	-30 to +85 °C
Supply voltage	8 to 32 V

Standards

CE	2014/30/EU
UKCA	SI 2016 no. 1091
E-Mark	ECE 10R
EMC	ISO 13766 EN 13309 ISO 7637-3
ESD	ISO 13766 ISO 10605
Electrical	ISO 16750-2
Ingress Protection	EN 60529 IP65 ISO 20653 IP6k5
Climatic	ISO 16750-4
Mechanical	ISO 16750-3

System components

- NXP i.MX6 application processor, 32bit ARM, 1 GHz, QuadPlus core
- 8 GB eMMC Flash, 2 GB RAM
- RTC buffered by supercapacitor
- Display backlight auto-dimmable via ambient light sensor
- Internal temperature sensors for ambient and CPU temperature
- Panel or cabin mount, landscape or portrait orientation
- Projective capacitive touchscreen
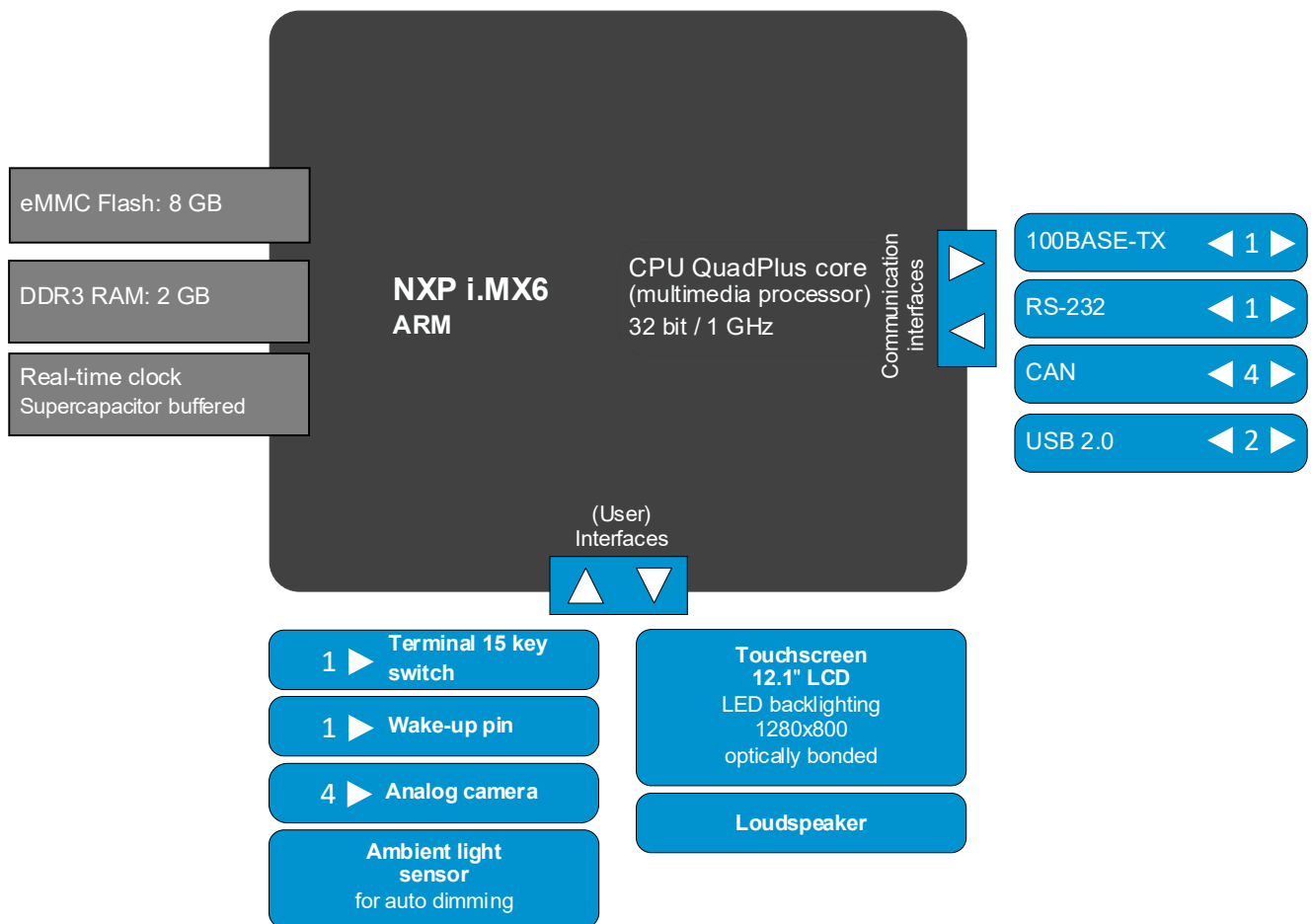- Optically bonded

Interfaces

- 4 x video input for external composite video cameras (four simultaneous video streams)
- 4 x CAN (one ISOBUS compliant), 25 kbit/s up to 1 Mbit/s
- 1 x 100Base-TX Ethernet
- 2 x USB 2.0 (1 x OTG and 1 x HOST)
- Terminal 15 for ignition input
- RGB status LED
- 1 x RS-232
- 1 x integrated loudspeaker

Software

- Available with the software platform MATCH® by HYDAC Software.
- Programmable with CODESYS® V3 with enhanced target visualization, including support for CANopen® master or C/C++
- Display of videos, pdf-files and animations
- Picture-in-picture functionality
- Sleep mode - wake-up to full operation within less than half a second. Configurable wake-up sources: touchscreen, wake-up input, RTC and CAN interfaces

Reverse polarity protection and protection of all external interfaces (except USB) against short circuit to GND and BAT+.

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Block diagram