

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 /m ² 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

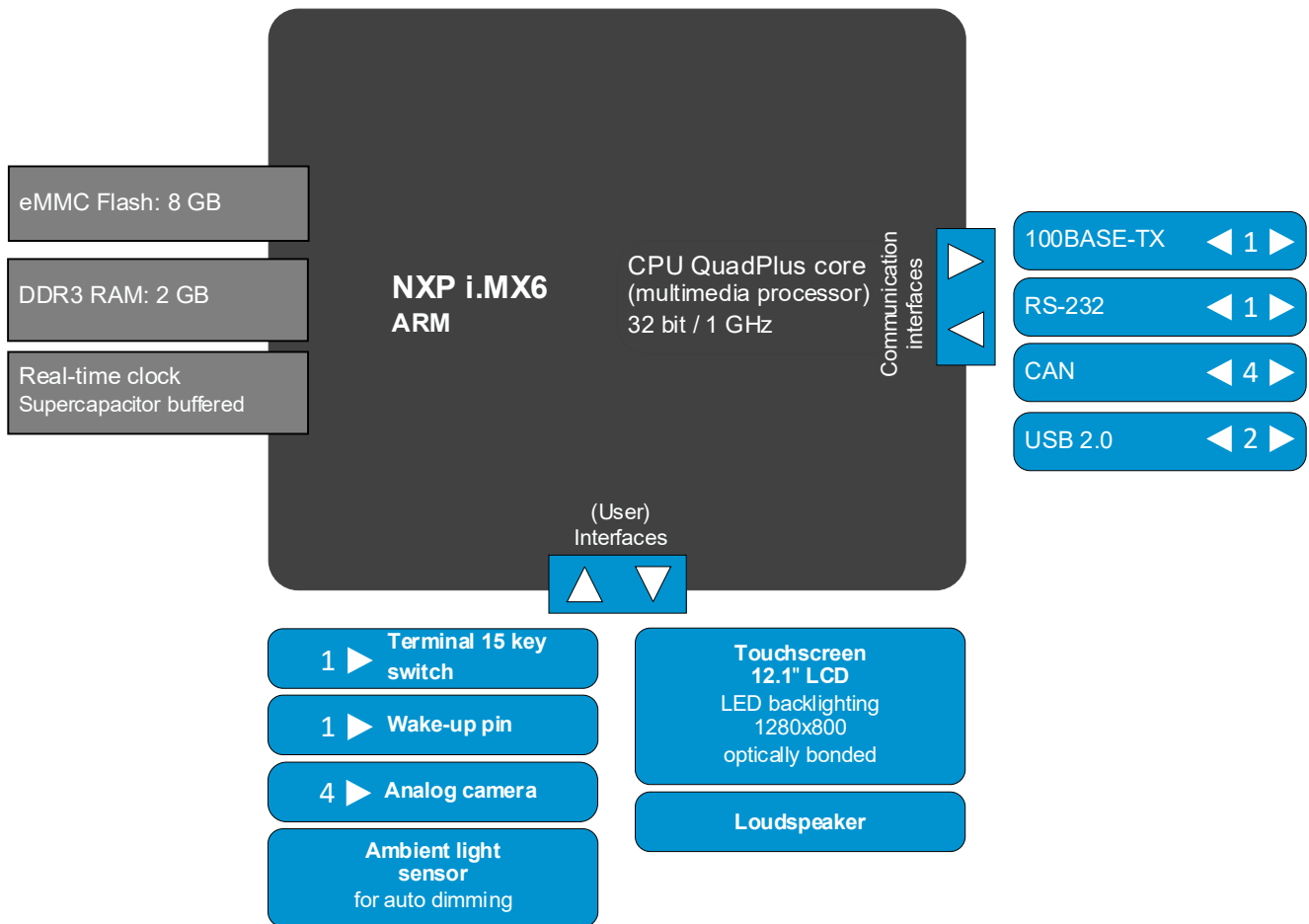
- 4 x video input for external composite video cameras (four simultaneous video streams)
- 4 x CAN (one ISOBUS compliant), 25 kbit/s up to 1 Mbit/s
- 1 x 100Base-TX Ethernet
- 2 x USB 2.0 (1 x OTG and 1 x HOST)
- Terminal 15 for ignition input
- RGB status LED
- 1 x RS-232
- 1 x integrated loudspeaker

Software

- 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+.

Block diagram



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