Vision 305e

Description
Vision 305e is a robust 5.0" touchscreen display with a built-in controller. Along with an Ethernet interface, two USB 2.0 inputs, an analog camera input and an audio output, the display is equipped with an ambient light sensor, a multi-colour LED and an integrated loudspeaker. The Vision 305e display is optically bonded for perfect sunlight readability. The device's housing is IP6k5 rated and can withstand extreme temperatures as well as shocks and vibrations.

Specifications

Display diagonal size	5.0", 15:9 aspect ratio
Dimensions	163 x 99.7 x 40.8 mm
Weight	560 g
Resolution	800 (W) x 480 (H) pixels
LCD type	TFT color graphic; optically bonded; capacitive touch
Backlight	LED

Optical Characteristics

Luminance	800 cd /m² typ.
Viewing angle	V = +/- 70 deg.
	H = +/- 70 deg.
Contrast ratio	700:1

Maximum Ratings

Operating temperature	-30 to +75 °C (ambient)
Storage temperature	-40 to +85 °C
Supply voltage	8 to 36 V

Standards

CE-Mark	2014/30/EU
E-Mark	ECE 10R
EMC	ISO 14982
	EN 13309
	EN 50498
	ISO 61000-6-2
	ISO 61000-6-4
Ingress protection	ISO 20653 IP6k5

System components

- NXP i.MX6 application processor, 32-bit ARM, 800 MHz, single core
- 4 GB Flash, 512 MB RAM
- RTC buffered by supercapacitor
- Display backlight auto-dimmable via ambient light sensor
- Stand-alone or in-dash mount, landscape or portrait orientation
- Projective capacitive touchscreen
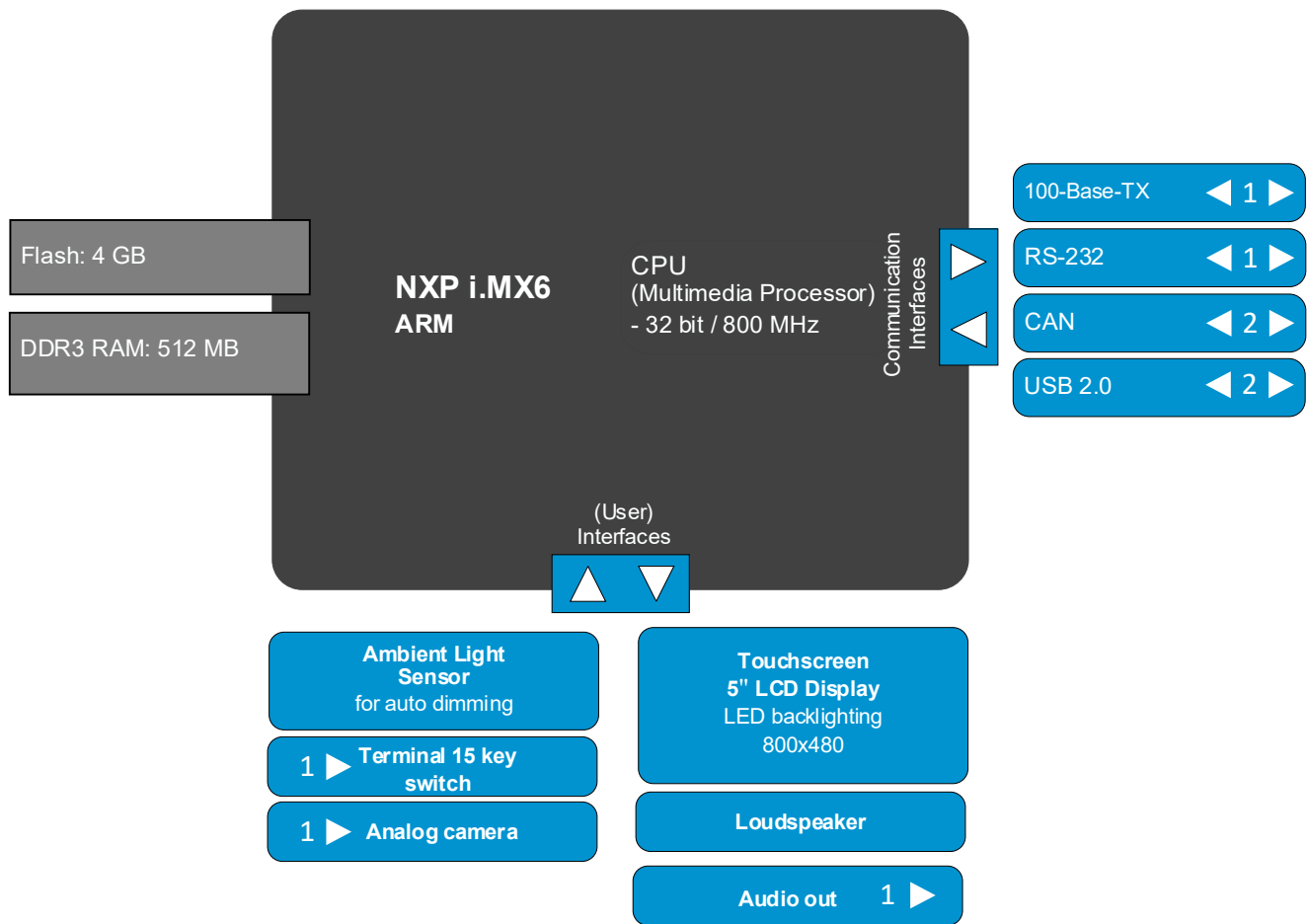- Optically bonded

Interfaces

- 1 x video input for external composite video cameras
- 2 x CAN, 10 kbit/s up to 1 Mbit/s
- 1 x 100 Base-TX (standard Ethernet)
- 2 x USB 2.0 (type A)
- 1 x RS-232
- Terminal 15 key switch (ignition)
- RGB Status LED
- 1 x integrated loudspeaker
- 1 x audio (line out L/R)

Software

- Available with the software platform MATCH® by HYDAC Software.
- Programmable with CODESYS® V3 with TargetVisu, including support for CANopen® master or C/C++.

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

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Block diagram

NXP i.MX6

ARM

CPU
(Multimedia Processor)
- 32 bit / 800 MHz

Communication Interfaces

Flash: 4 GB

DDR3 RAM: 512 MB

100-Base-TX ◄ 1 ►

RS-232 ◄ 1 ►

CAN ◄ 2 ►

USB 2.0 ◄ 2 ►

(User)
Interfaces

Ambient Light Sensor
for auto dimming

1 ► **Terminal 15 key switch**

1 ► **Analog camera**

**Touchscreen
5" LCD Display**
LED backlighting
800x480

Loudspeaker

Audio out 1 ►