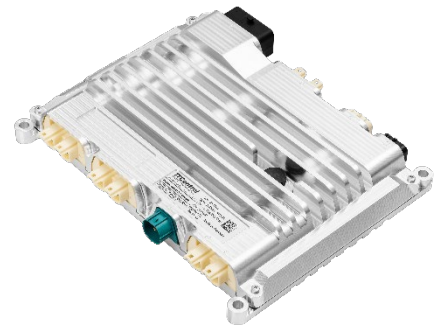# Multi-Purpose Computing Platform – Fusion 622

General Description

Fusion is a computing platform with a high-performance multicore processor, which can drive multiple remote displays and offers rich 1000BASE-T1, 100BASE-T1 and 199BASE-TX connectivity.

The separation of computing unit from the display functions allows for freedom in the deployment of application windows and flexibility in the number of displays and their position in the machine cabin.

Specifications

Parameter		Unit
ECU Dimensions	244 x 198 x 45	mm
Dimensions for minimum connector release clearance	294x314x45	mm
Weight	1833	g
Connector	2x HSD Display connectors 1x MOLEX 48-Pin Automotive Connector 6x H-MTD *BASE-T1 2x HSD 100BASE-TX 2x HSD USB	
Operating Temperature	-40 to 70	°C
Operating Altitude	0 to 4000	m
Supply Voltage	9 to 32	V
Peak Supply Voltage	40	V_{max}
Supply Current at 12/24V without load	680 / 360	mA_{max}
Standby Current wakeup disabled at 12/24V	<1 / <1	mA_{max}
Standby Current wakeup enabled at 12/24V	<2 / <4	mA_{max}
Total Load Current	9.3	A_{max}
Standards		
Cybersecurity	ISO 21434	
CE-Mark	2014/30/EU 2006/42/EC 2011/65/EU	
E-Mark	ECE-R10 Rev.6	
EMC	ISO 14982 ISO 13766 EN 61131-2-8/-9/-10	
ESD	ISO 10605	
Electrical	ISO 16750-2 ISO 7637-2,-3	
Ingress Protection	IP67 IP6K9K	
Climatic	ISO 16750-4	
Mechanical	ISO 16750-3	

Features

- NXP i.MX8 QuadMax application processor
- RAM 4GB
- FLASH 16GB
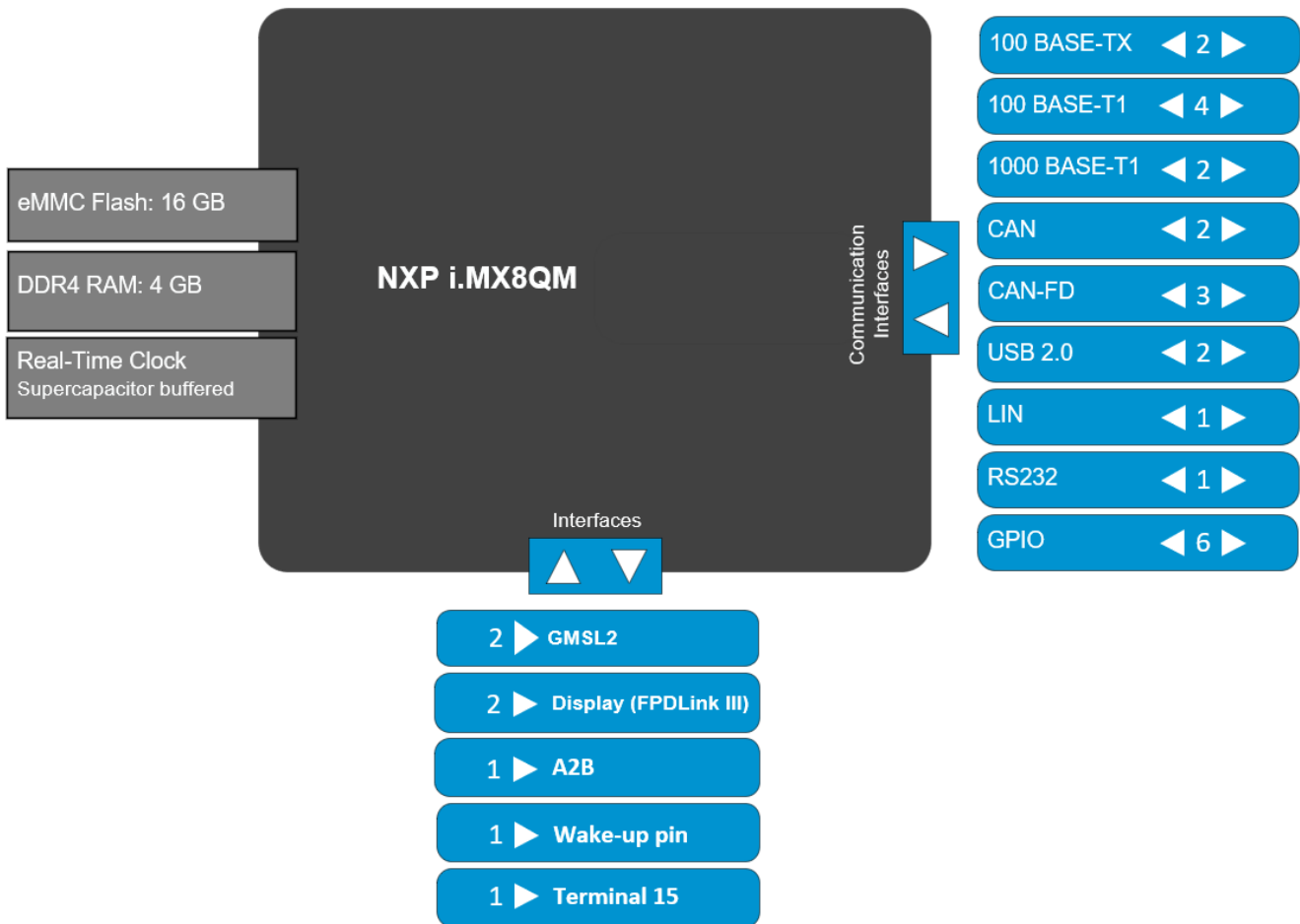- RTC buffered by supercapacitor

Interfaces

- 3x CAN FD, 2x Standard CAN (1x ISOBUS compliant)
- 4x 100BASE-T1 + 2 x1000Base-T1
- 2x 100BASE-TX
- 2x FPD Link III Display Interface
- 2x GMSL2 Digital Camera Interface
- A2B Master Interface
- 2x USB 2.0
- 1x RS232
- 1x LIN
- 1x K15 Input
- 1x Wake-up pin
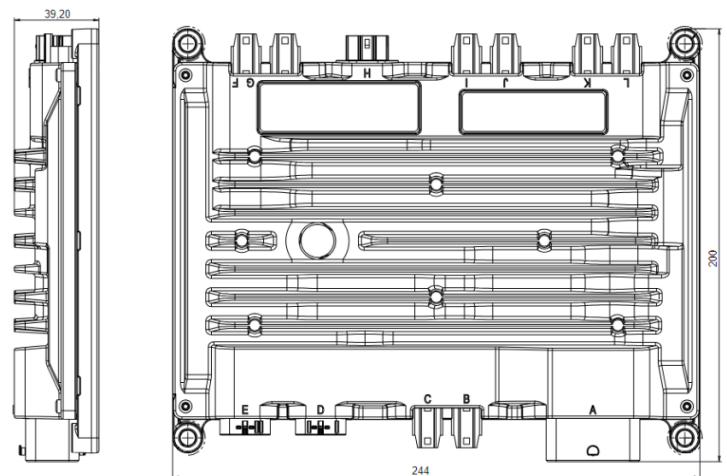- 6x GPIOs (2x HS DOUT and 4x DIN)

Software features

- Available with the software platform MATCH® by HYDAC Software.
- Linux Yocto OS on Performance Host

TTControl S.r.l. – Brixen, Italy
Tel. +39 0472 26 80-11,   office@ttcontrol.com, www.ttcontrol.com   **TTControl GmbH – Vienna, Austria**
Tel.: +43 1 585 34 34-0

![TTControl HYDAC INTERNATIONAL]

Block Diagram

100 BASE-TX	◄ 2 ►	
100 BASE-T1	◄ 4 ►	
1000 BASE-T1	◄ 2 ►	
CAN	◄ 2 ►	
CAN-FD	◄ 3 ►	
USB 2.0	◄ 2 ►	
LIN	◄ 1 ►	
RS232	◄ 1 ►	
GPIO	◄ 6 ►	

Communication Interfaces

Main: NXP i.MX8QM

- eMMC Flash: 16 GB
- DDR4 RAM: 4 GB
- Real-Time Clock — Supercapacitor buffered

Interfaces

- 2 ► GMSL2
- 2 ► Display (FPDLink III)
- 1 ► A2B
- 1 ► Wake-up pin
- 1 ► Terminal 15

Housing and Connector

Aluminum baseplate with metal top

For further information, including price and availability, please contact products@ttcontrol.com