ClearFog GTR L8

Datasheet

Marvell A385 based industrial networking PoE NVR platform

Embedded Edge Computing

Overview

Introducing ClearFog GTR A385 – a family of powerful feature-rich industrial platforms, including the GTR S4 and GTR L8. ClearFog GTR is built for harsh environments, industrial infrastructure, and edge security, and features PD/PSE Power over Ethernet support – allowing developers a simple way to implement local device networks.

ClearFog GTR A385 features an array of 8 x 1GbE copper switched LAN connections, 1 x 1GbE WAN interface and an SFP connector (up to 2.5GbE). Other features include USB 3.0 port, 3 x mPCIe (1 x LTE), up to 2GB DDR3L memory, eMMC (8GB by default), GPIO header, and supports Linux Kernel 4.4x and Ubuntu 16.04. The platform also supports 2 x SATA (7 pin) as possible replacements for 2 x mPCIe slot.

ClearFog GTR L8 Highlighted Features

- Marvell's A385 dual-core Cortex Arm A9 (1.3GHz) processor
- Power over Ethernet (PoE) PD/PSE support (up to 802.3bt)
- 8 x LAN 1GbE, 1 x WAN 1GbE and 2 x SFP 2.5GbE
- Up to 2GB DDR3L (64 bits wide)
- Various assembly options

System Specifications

ClearFog GTR A385 L8	
Processor	Marvell ARMADA A385 dual-core Cortex Arm A9 (up to 1.3Ghz)
Memory & Storage	Up to 2GB on-board DDR3L 2 x SATA (7 pin)* eMMC (8GB by default)
Connectivity & Interfaces	8 x 1GbE switched LAN (RJ45) 1 x 1GbE WAN (RJ45) 3 x mPCIe* (1 x mPCIe supports LTE) 1 x USB 3.0 2 x SFP (up to 2.5GbE)
I/O	GPIO header Indication LEDs User push buttons MicroUSB for UART development
Power over Ethernet (PoE)	8 x 1GbE LAN supporting 802.3at/af/bt type 4 PSE PoE** 1 x 1GbE WAN supporting up to 802.3bt type 4 PD PoE
OS	Linux kernel 4.4x Ubuntu 16.04
Power	12V or 54V in DC jack (when PSE supported)
Environment	Ambient temperature: -40°C to 85°C Enclosed Ambient temperature: -40°C to 70°C CPU die temperature: 0°C to 115°C Humidity (non-condensing): 10% - 90%
Dimensions (WxL)	177mm X 110mm
Enclosure	Ruggedized Metal Enclosure

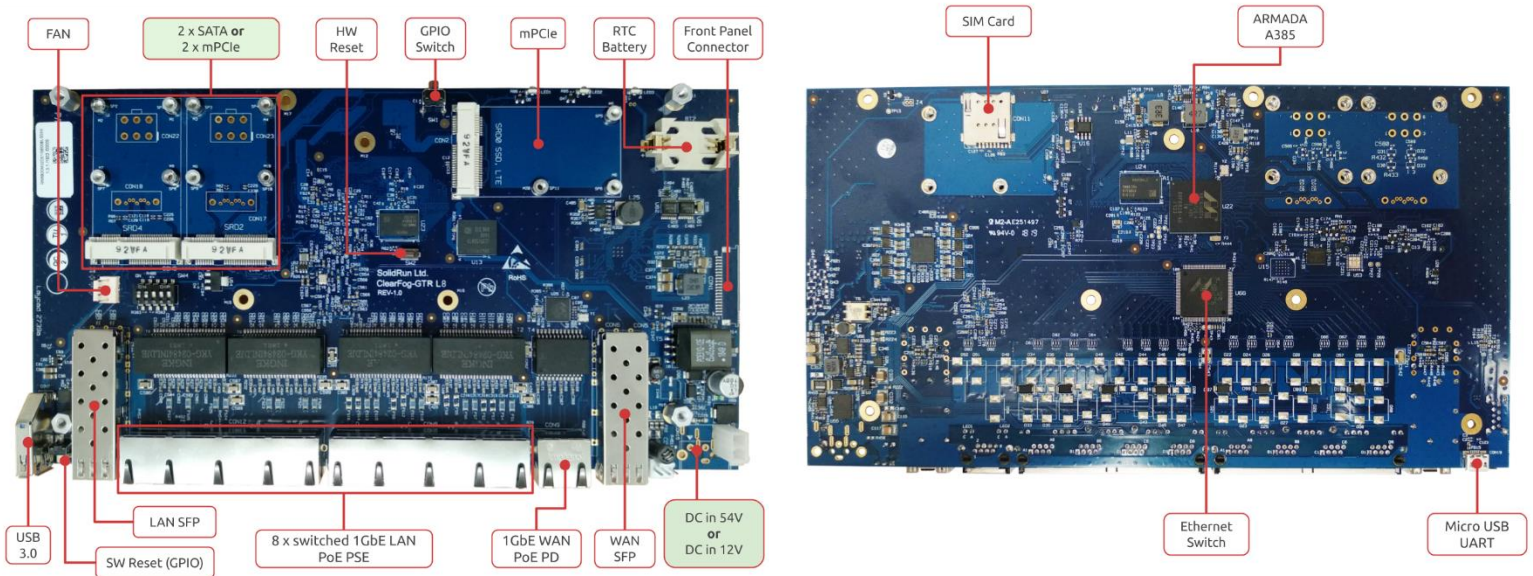(*) Assembly option: 2 x SATA (7 pin) replace 2 x mPCIe slots.
(**) 802.3bt supported only for 4 of the RJ45 ports

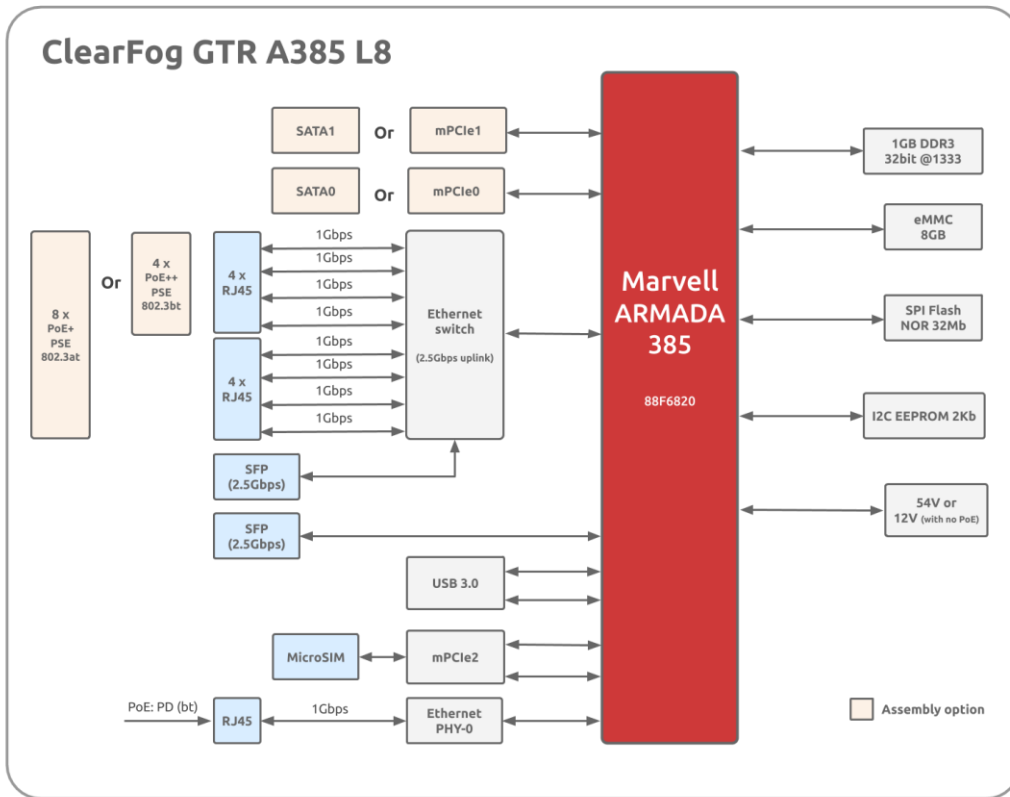# Available SKUs for ClearFog GTR L8

SKU	Description
SRM6820M02D01GE008L00IH	ClearFog GTR L8|2 x mPCIe|1GB DDR|8GB eMMC|Ind. Temp|R1.0
SRM6820MS1D01GE008L00IH	ClearFog GTR L8| 1 x mPCIe|1 x SATA|1GB DDR|8GB eMMC|Ind. Temp|R1.0
SRM6820S02D01GE008L00IH	ClearFog GTR L8|2 x SATA|1GB DDR|8GB eMMC|Ind. Temp|R1.0

(*) Different configurations available for MOQ

ClearFog GTR L8 Layout

Labels (left board, top): FAN | 2 x SATA **or** 2 x mPCIe | HW Reset | GPIO Switch | mPCIe | RTC Battery | Front Panel Connector

Labels (left board, bottom): USB 3.0 | SW Reset (GPIO) | LAN SFP | 8 x switched 1GbE LAN PoE PSE | 1GbE WAN PoE PD | WAN SFP | DC in 54V **or** DC in 12V

Labels (right board, top): SIM Card | ARMADA A385

Labels (right board, bottom): Ethernet Switch | Micro USB UART

ClearFog GTR L8 Block Diagram

ClearFog GTR A385 L8

- SATA1 Or mPCIe1
- SATA0 Or mPCIe0
- 8 x PoE+ PSE 802.3at **Or** 4 x PoE++ PSE 802.3bt
- 4 x RJ45 — 1Gbps (x4) — Ethernet switch (2.5Gbps uplink)
- 4 x RJ45 — 1Gbps (x4)
- SFP (2.5Gbps)
- SFP (2.5Gbps)
- USB 3.0
- MicroSIM — mPCIe2
- PoE: PD (bt) — RJ45 — 1Gbps — Ethernet PHY-0

Marvell ARMADA 385 (88F6820)

- 1GB DDR3 32bit @1333
- eMMC 8GB
- SPI Flash NOR 32Mb
- I2C EEPROM 2Kb
- 54V or 12V (with no PoE)

☐ Assembly option

Safety Notice

a. This device is to be used with Certified Power adaptor with output rated 12VDC, 1.5A. Power adapter must meet Limited power source (LPS) requirements.
b. Power adapter must meet local safety standards and requirements based on product intended use.
c. Power adapter must meet Operating environment conditions as specified above.

Disposal

Follow local regulations regarding disposal of the product. Dispose of your product in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited.

Help us protect the environment- recycle!

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Documentation

Additional documentation available at:
https://developer.solid-run.com/products/clearfog-gtr-a385/