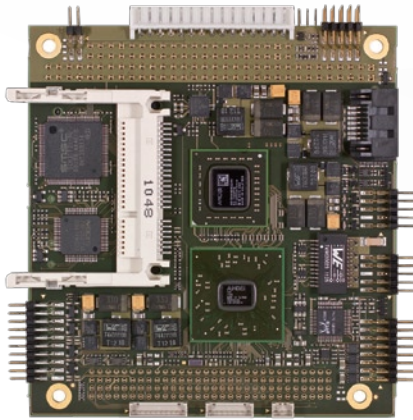


Cool FrontRunner-AF

PC/104-Plus Single Board Computer with
AMD® G-Series Processor



Features

- AMD Fusion® APU, single and dual core
- Up to 4 GB DDR3 RAM
- Graphics: Radeon HD6320 (T56N), Radeon HD6250 (T40R)
- LVDS: 1920 x 1200 resolution
- Gigabit Ethernet, 6x USB 2.0
- SATA port
- High Definition Audio
- Power consumption: max. 18 W
- Extended temperature range: -40°C +85°C
- Supports Smart Embedded Management Agent (SEMA) functions

Specifications

Core System

Processor	AMD® T40R, 1.0 GHz, single core AMD® T56N, 1.65 GHz, dual core
BIOS	EFI 2x SPI Flash (fail save)
Board Format	PC/104-Plus 96 mm x 90 mm (3.775" x 4.050")
Platform controller hub	AMD® Hudson-E1 Fusion
ISA Bus	PC/104 via LPC to ISA bridge
PCI Bus	PC/104, 3.3V compliant Peripherals need their own 3.3V supply
SPI Bus	Yes
Watchdog	Yes (1 second to 255 minutes)
PS/2	Yes

Video

Graphics	Radeon HD6320, 500MHz (T56N) Radeon HD6250, 280MHz (T40R)
VGA	Yes
LVDS	Dual channel, 18/24-bit 1920 x 1200 pixel at 60 Hz

Audio

HD audio	ALC886
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Ethernet

10/100/1000 Mbit

Multi I/O and Storage

RAM (max.)	Up to 4GB DDR3 SO-DIMM
USB	6x USB 2.0
Serial	2x RS-232/422/485
SATA	1x SATA 6 Gb/s 1x CFast slot

Super I/O

	SCH3112
GPIO	8

Power

RTC Backup	Lithium battery, CR1225 replaceable
Power Supply	5 V ±5 % All voltages are generated on-board
Power Consumption	10W to 18W, depending on processor and memory
SEMA	Condition monitoring, with power sense

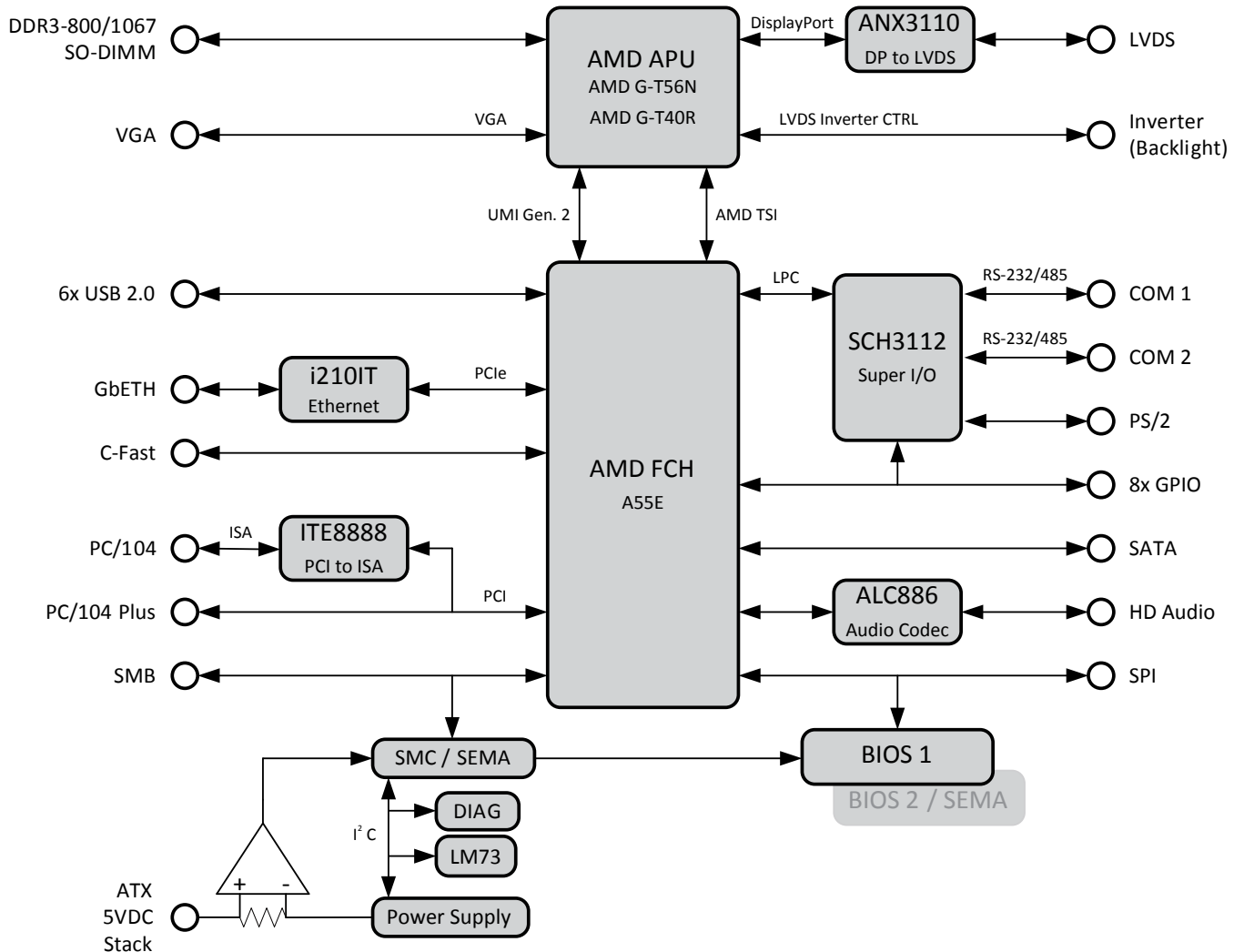
Mechanical and Environmental

Cooling	T40R: passive T56N: active
MTBF	172.356 hours at 25°C
Operating Temperature	Standard: 0°C to +60°C Industrial: -20°C to +70°C Extended: -40°C to +85°C (only T40R)
Panel Backlight	+12 V, +5 V, including control signal
Shock/Vibration	Non-operating: 40G peak-to-peak, 11ms duration, MIL-STD-202G Method 213B Operating: 11.95 Grms, 50-2000 Hz, each axis, MIL-STD-202G Method 214A
Status LED	HDD, power mode, live, 2x Ethernet, watchdog

Operating Systems

Standard Support	Windows XP, Windows XPe, Windows 7, Windows Embedded Standard 7, Linux
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Functional Diagram



Ordering Information

Modules

Model Number	Description/Configuration
703-0028-10	PC/104-Plus, CFR-AF, AMD T56N, 1.65 GHz DC, incl. heat spreader, 0°C to +60°C
803-0028-10	PC/104-Plus, CFR-AF, AMD T56N, 1.65 GHz DC, incl. heat spreader, -20°C to +70°C
703-0029-10	PC/104-Plus, CFR-AF, AMD T40R, 1.0 GHz SC, incl. heat spreader, 0°C to +60°C
803-0029-10	PC/104-Plus, CFR-AF, AMD T40R, 1.0 GHz SC, incl. heat spreader, -20°C to +70°C
903-0029-10	PC/104-Plus, CFR-AF, AMD T40R, 1.0 GHz SC, incl. heat spreader, -40°C to +85°C

Accessories

Model Number	Description/Configuration
760-0029-10	RAM, DDR3, SO-DIMM, 2GB, 0°C to +60°C
960-0029-10	RAM, DDR3, SO-DIMM, 2GB, -40°C to +85°C
760-0030-10	RAM, DDR3, SO-DIMM, 4GB, 0°C to +60°C
960-0030-10	RAM, DDR3, SO-DIMM, 4GB, -40°C to +85°C
763-0022-10	Cable set, CFR-AF
765-0049-11	Heat sink, passive, CFR-AF
765-0049-12	Heat sink, active, CFR-AF