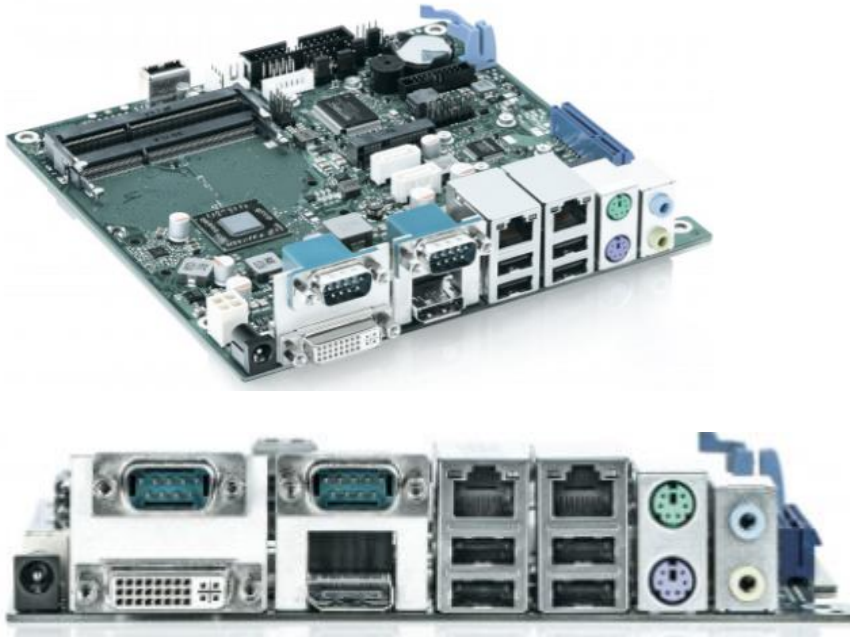


CEX – D3313-S mITX

AMD Embedded G-Series SoC Platform for

AMD FT3 / FT3B SoC Processor



• Features

- DVI-I, DP V1.2 and Dual Channel LVDS support
- mSATA and Mini-PCI Express® onboard
- HW Watchdog
- Dual GbE LAN, 3x COM, GPIO
- 12 V & 19-24 V power supply option

Specifications

System	
Processor	D3313-S1: AMD Embedded GX-210HA SOC D3313-S4: AMD Embedded GX-222GC SOC D3313-S6: AMD Embedded GX-424CC SOC
Memory	2x SO DIMM Socket (1.5 V / 1.35 V), max. 16 GByte, Single Channel DDR3-1333 (CL9) / DDR3-1600 (CL11) / DDR3-1866 (D3313-S6 only) SDRAM Unbuffered, no ECC. Effective memory speed depends on installed SoC.
Video	
Graphics	D3313-S1: AMD Radeon HD8210E D3313-S4/-S6: AMD Radeon R5E
Audio	
Audio Codec	Realtek ALC671
Audio Interface	5.1-channel, High Definition Audio Codec
Network Connection	
Ethernet	2x Realtek RTL 8111G, 10/100/1000, PXE- & WoL Support, Teaming Support
Peripheral Connection	
USB	4x USB 2.0 (Typ A rear) 2x USB 3.1 Gen1 (by header) 2x USB 2.0 (by header) 1x USB 2.0 (internal Typ A plug)
Serial Port	2x RS232 (DB9 rear) 1x RS232 (by header)
Other I/Os	1x LPT (by header) 1x 8-bit GPIO (by header)
Storage & Expansion	
SATA	1 x PCIe x4 (Gen2); “mechanical open slot” for usage of x16 cards 1 x Mini-PCIe (Gen2) incl. USB2.0; support for halfsize & fullsize cards 1 x mSATA (SATA-III); support for fullsize modules
PCIe/PCI Slots	PCIe x16: 1x Gen3, Support for lane split (8+8 or 8+4+4)
Power	
Connector	12 V / 19-24 V (max. 5 A via external DC connector / max. 8 A via internal DC connector)
Input Voltage	Onboard CPU Core Voltage Regulator
Firmware	
BIOS	AMI Aptio 5.x (UEFI) BIOSmodified and adapted by Fujitsu Technology

	Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS and CPU Microcode Update, Quick Boot, Logo Boot, Quiet Boot, Plug & Play, Automatic DRAM Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3/S4, Wake on time from S5. Boot support for M.2 SSD (AHCI / NVME) BIOS integrated HW Diagnostic Tool, Watchdog Support No legacy OS support, no MBR installation (UEFI only due to Intel restrictions)	
Watchdog	3-Level Watchdog (BIOS/BIOS Post/OW HW)	
Real Time Clock	Integrated	
System Control		
FP HEADER	1x Header for Reset button, HDD LED & Internal Speaker, Power button, Power LED	
Security	Recovery BIOS, System and BIOS Password, Boot Sequence Control for each drive, Serial Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, Harddisk Password incl. "Silent Password" option (no keyboard entry required)	
Cooling		
Fan	2x PWM Fan (CPU/System) 1x Fanless Heatsink, up to 10 W TDP (optional) 1x Fanless Heatpipe Cooler, up to 15 W TDP (optional)	
Software		
OS Support	MS Windows XP32, 7-32, 7-64, 10-64 Linux-32, 64	
Mechanical		
Dimensions (L x W)	Mini-ITX: 6.7" x 6.7" (170 x 170 mm)	
Certifications		
EMC & Safety	CE; cTÜVus acc. IEC60950-1 (CSA/UL compliance), CB (TUEV-NCB), FCC-B verified	
Power Supply Requirements		
Source	Voltage	Min. PS Load
DC-In (Auto range)	12V +/- 10 % or 19-24 V +10 % / -15 %	5 A (external connector) 8 A (internal connector)

Motherboard Versions

	Processor	Graphics	Memory	Display Options
D3313-S1 eKabini	GX-210HA 1.0 GHz Dual Core	Radeon™ HD8210E 300 MHz	DDR3 / 1333 ⁱⁱⁱ	for all versions: 1x DVI-I
D3313-S4 SteppeEagle	GX-222GC 2.2 - 2.4 GHz ⁱ⁾ Dual Core 10/15 W TDP ⁱⁱ⁾	Radeon™ R5E 655/800 MHz	DDR3 / 1600	max . 1920 x 1200 1x DP V1.2
D3313-S6 SteppeEagle	GX-424CC 2.4 GHz Quad Core 25 W TDP	Radeon™ R5E 655/800 MHz	DDR3 / 1600 DDR3 / 1866	max. 3840 x 2160 1x LVDS 24Bit Dual Channel max. 1920 x 1200 max. 2 independent displays (DVI-I & DP or DVI-I & LVDS) Supports DirectX11 / DirectX11.1

i) Nominal / Boost Mode

ii) Configurable max. TDP (BIOS Option)

iii) DDR3-1600 modules useable

Technical Information

Features		
Board Size: Mini-ITX: 6.7" x 6.7" (170 x 170 mm)		+
VGA* / DVI / DisplayPort / LVDS / HDMI*		+ / + / + / + / +
Stereo Audio / Multich. Audio / Buzzer / int. Speaker Support		+ / - / + / -
Dual LAN Gbit / 100 Mbit / 10 Mbit		+ / + / +

	LAN ASF / AoL / WoL / Boot / DASH Support SATA / ATA / RAID / mSATA FireWire™ / USB 2.0 / USB 3.1 Gen1 FAN monitored & controlled CPU / AUX1 / AUX2 TEMP monitored CPU / onboard Sensors / external Sensors	- / - / + / + / - + / - / - / + - / + / + + / + / - + / + / -
Special Features	Silent Fan / System Guard / Silent Drives Recovery BIOS / Desk Update / Multi Boot HDD Password / HW Diagnostic Tool / EraseDisk / TPM Boot Logo Option HW Watchdog: BIOS POST WD / BIOS Boot WD / OS WD Operating Mode 24-7 / 8-5 (hrs per day - days per week) Mainboard operating temperature range (chassis inside)	+ / + / + + / + / + + / + / + / - + - / + / + + / - 0 °C – 60 °C
Internal connectors	DIMM Sockets (DDR3 1333/1600/1866, SO-DIMM) PCI Express® x4 Slot (Gen2) / PCI Slot (32Bit, 33 MHz) Mini PCI Express® Slot (incl.USB 2.0) / Socket for TPM 1.2 module SATA (600) / ATA / Floppy / CF Card / mSATA (600) Frontpanel HD Audio (9-Pin "Azalia")** / SPDIF OUT USB 2.0 channels / USB 3.1 Gen1 channels Specific socket for internal USB stick (USB 2.0) Serial Port (COM3) / Parallel Port (LPT) FAN*** CPU / System (AUX1) / System (AUX2) SMBus (Case Temperature) / Intrusion (Case Open) LVDS Dual Channel / Backlight Inverter Feature Connector (8 Bit General Purpose I/O) Frontpanel (Power Switch, LEDs, Intel 10 pin header) Onboard Power Output (+5 V/2 A, +12 V/2 A) for drives Onboard (internal input) DC-In 12 V / 19-24 V @ 8 A max.	2 1 / - 1 / 1 2 / - / - / - / 1 1 / 1 2 / 2 1 1 / 1 1 / 1 / - - / 1 1 / 1 1 1 1 1
External connectors	VGA Sub D* / DVI-I / HDMI* / DisplayPort Audio In / Line out (or driver configuration) LAN (RJ-45) PS/2 Mouse / Keyboard USB 2.0 / USB 3.1 Gen1 Serial (RS232, FIFO, 16550 compatible) DC-IN (external input) 12 V/19-24 V @ 5 A max	- / 1 / - / 1 1 / 1 2 1 / 1 4 / - 2 1
<p>*) Via optional DVI-I / VGA interface connector resp. DVI-I / HDMI interface connector</p> <p>**) Support for AC'97 audio frontpanel possible via BIOS Setup option</p> <p>***) CPU fan = 4 pin PWM, system fan = 4 pin PWM or 3 pin (selectable via BIOS Setup)</p>		