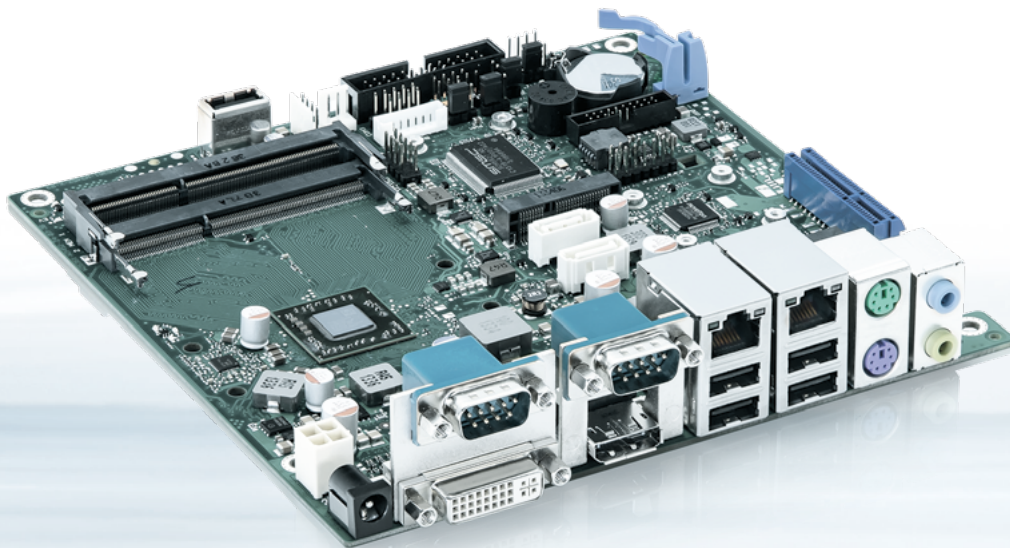


# D3313-S mITX

## Industrial Series

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### AMD Embedded G-Series SoC Platform for AMD FT3/FT3B SoC Processor

- ▶ 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

POSSIBILITIES START HERE

# D3313-S mITX

## Industrial Series

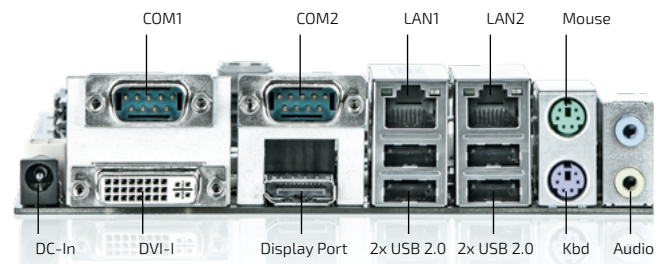
The Kontron D3313-S mITX Motherboard is equipped with AMD Embedded G-series processors. Combined with the comprehensive feature set it's the perfect fit for KIOSK, casino gambling, POS,

thin clients, industrial PCs and other applications with high power consumption efficiency and enhanced operating temperature (0 °C - 60 °C) needs.

### ▶ PRODUCT HIGHLIGHTS

- ▶ DDR3 1333/1600 SDRAM (SO-DIMM)
- ▶ AMD Radeon integrated graphics on board: DVI-I, DP V1.2 and Dual Channel LVDS support
- ▶ PCIe x4 connector and Mini-PCI Express®
- ▶ HD Audio
- ▶ Dual GbE LAN
- ▶ Serial ATA III onboard
- ▶ mSATA (SATA III) socket support
- ▶ USB 2.0 and USB 3.1 Gen1 onboard
- ▶ 8 Bit GPIO onboard
- ▶ 3 x serial port and 1 x parallel port onboard
- ▶ Designed for fanless operation

- ▶ BIOS-Boot & OS – HW Watchdog onboard
- ▶ Dual-Range DC Power Supply 12 V / 19-24 V



### ▶ TECHNICAL INFORMATION

<b>SYSTEM</b>	<b>PROCESSOR MEMORY</b>	D3313-S1: AMD Embedded GX-210HA SOC 2x SO DIMM Socket (1.5 V / 1.35 V), max. 16 GByte, Single Channel DDR3-1333 (CL9)
<b>VIDEO</b>	<b>GRAPHICS</b>	D3313-S1: AMD Radeon HD8210E
<b>AUDIO</b>	<b>AUDIO CODEC AUDIO INTERFACE</b>	Realtek ALC 671 5.1-channel, High Definition Audio
<b>NETWORK CONNECTION</b>	<b>ETHERNET</b>	2x Realtek RTL 8111G, 10/100/1000, PXE- & WoL Support, Teaming Support
<b>PERIPHERAL CONNECTION</b>	<b>USB</b>	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)
	<b>SERIAL PORT</b>	2x RS232 (DB9 rear)
	<b>OTHER I/Os</b>	1x RS232 (by header) 1x LPT (by header) 1x 8-bit GPIO (by header)
<b>STORAGE &amp; EXPANSION</b>	<b>SATA</b>	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
<b>POWER</b>	<b>CONNECTOR</b>	12 V / 19-24 V (max. 5 A via external DC connector / max. 8 A via internal DC connector)
	<b>INPUT VOLTAGE</b>	Onboard CPU Core Voltage Regulator
<b>FIRMWARE</b>	<b>BIOS</b>	AMI Aptio 4.x UEFI BIOS modified and adapted by Fujitsu Technology Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS Update, Quick Boot, Logo Boot, Quiet Boot, Plug & Play, Automatic DRAM and PCI Configuration, BIOS Support for S.M.A.R.T., Advanced Power Management, configurable LVDS support, integrated HW diagnostic tool, EraseDisk Feature
	<b>WATCHDOG REAL TIME CLOCK</b>	2-Level WD (BIOS Boot WD / OS WD) Integrated

## ▶ TECHNICAL INFORMATION

<b>SYSTEM CONTROL &amp; MONITORING</b>	<b>FP HEADER SECURITY</b>	1x Header for Reset button, HDD LED, Power button, Power LED 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)
<b>COOLING</b>	<b>FAN</b>	2x PWM Fan (CPU/System) 1x Fanless Heatsink, up to 10 W TDP (optional) 1x Fanless Heatpipe Cooler, up to 15 W TDP (optional)
<b>SOFTWARE</b>	<b>OS SUPPORT</b>	MS Windows XP32, 7-32, 7-64, 10-64 Linux-32, 64
<b>MECHANICAL</b>	<b>DIMENSIONS (L x W)</b>	Mini-ITX 6,7" x 6,7" (170 x 170 mm)
<b>CERTIFICATION</b>	<b>EMC &amp; SAFETY</b>	CE; TÜVus acc. IEC62368-1 (CSA/UL compliance), CB (TUEV-NCB), FCC-B verified

## ▶ MOTHERBOARD VERSIONS

	<b>PROCESSOR</b>	<b>GRAPHICS</b>	<b>MEMORY</b>	<b>DISPLAY OPTIONS</b>
<b>D3313-S1 eKabini</b>	GX-210HA 1.0 GHz Dual Core	Radeon™ HD 8210E 300 MHz	DDR3 / 1333 <sup>i)</sup>	1x DVI-I max. 1920 x 1200  1x DP V1.2 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

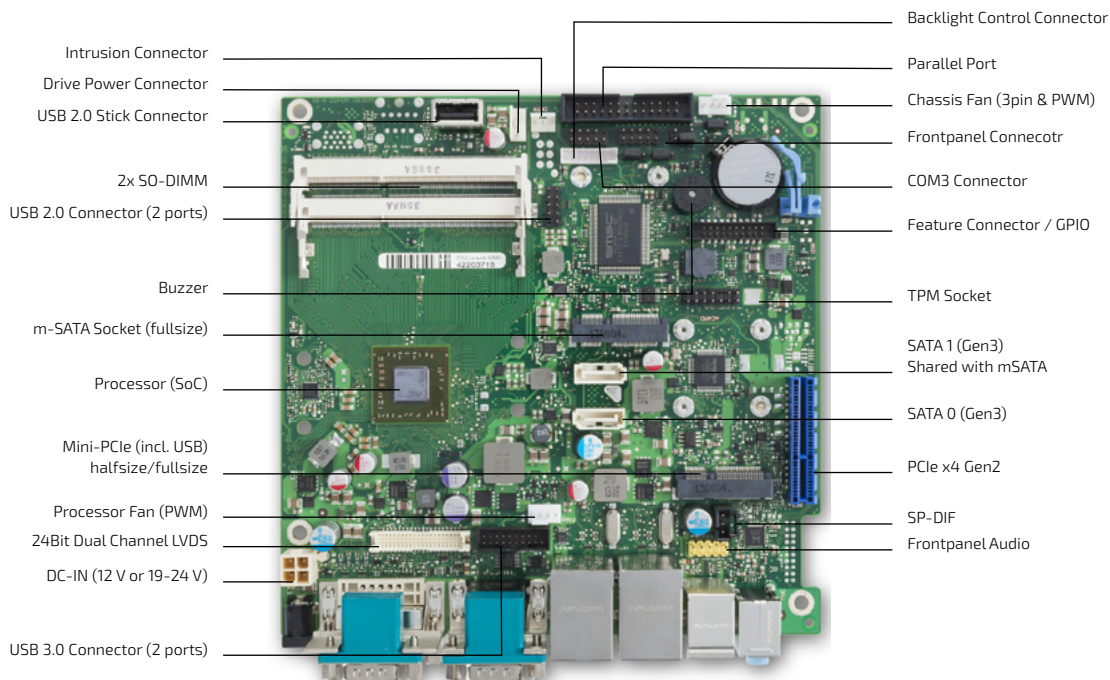
i) DDR3-1600 modules useable

## ▶ POWER SUPPLY REQUIREMENTS

<b>SOURCE</b>	<b>VOLTAGE</b>	<b>MIN. PS LOAD</b>
DC-In (auto range)	12V +/- 10 % or 19-24 V +10 % / -15 %	5 A (external connector) 8 A (internal connector) <sup>A</sup>

A) See TechNotes document for power supply details

## CONNECTOR / SOCKET DIAGRAM



## TECHNICAL INFORMATION

FEATURES		
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) Motherboard 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

\*) Via optional DVI-I / VGA interface connector resp. DVI-I / HDMI interface connector  
 \*\*) Support for AC'97 audio frontpanel possible via BIOS Setup option  
 \*\*\*) CPU fan = 4 pin PWM, system fan = 4 pin PWM or 3 pin (selectable via BIOS Setup)

## ▶ ORDERING INFORMATION

ARTICLE	PART NO.	DESCRIPTION
D3313-S1 mITX	F5120-V98	AMD embedded G-Series SOC, AMD Dual-Core GX-210HA (1.0 GHz/9 W)
<b>ACCESSORIES</b>		
FANLESS HEATSINK (9 W) + BACKPLATE	F5000-C006	For D3313-S1
RISERCARD 1X PCIE X4	F5000-R006	D3318
SERIAL PORT CABLE	F5000-K005	400 mm, full size slot bracket
MINI PCIE TO M.2 ADAPTER	F5000-M003	D3436-S
AC ADAPTER	F5000-P006	19 V/65 W
DRIVE POWER CABLE	F5000-K001	For SATA HDD/SATA Slimline DVD
SMARTCASE™ S710	F5000-J002	Chassis Kit
FANLESS HEATPIPE COOLER (15 W) + BACKPLATE	F5000-C007	For D3313-S1

## ▶ GLOBAL HEADQUARTERS

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