MOTHERBOARDS
Industrial Series

▼

In addition to long-term availability (min. 5 years plus extended lifecycle option of up to 1 year), industrial series motherboards offer a multitude of add-on functions and services. They combine the product maturity and production quality of high volume manufacturing base with the special requirements of industrial applications. Additionally, industrial series motherboards come with special hardware and service features and extensive software tools.

▶

SPECIAL FEATURES

The motherboards components of the industrial series are designed for long-term, continuous operations (24/7) in an extended temperature range and high system load. Industrial motherboards are specified for a temperature range between 0 and 60 ° Celsius. Kontron motherboards "Designed by Fujitsu" of the industrial series are applicable in many branches:

▶ Industrial Automation
▶ Medical Equipment
▶ Digital Signage
▶ Gaming / Gambling
▶ Vending / POS / ATM / Kiosk / Ticketing
▶ Video Surveillance

kontron
S&T Group

About Kontron – Member of the S&T Group

Kontron is a global leader in IoT/Embedded Computing Technology (ECT). As a part of technology group S&T, Kontron offers a combined portfolio of secure hardware, middleware and services for Internet of Things (IoT) and Industry 4.0 applications. With its standard products and tailor-made solutions based on highly reliable state-of-the-art embedded technologies, Kontron provides secure and innovative applications for a variety of industries. As a result, customers benefit from accelerated time-to-market, reduced total cost of ownership, product longevity and the best fully integrated applications overall.

For more information, please visit: **www.kontron.com**

About the Intel® Internet of Things Solutions Alliance

From modular components to market-ready systems, Intel and the 400+ global member companies of the Intel® Internet of Things Solutions Alliance provide scalable, interoperable solutions that accelerate deployment of intelligent devices and end-to-end analytics. Close collaboration with Intel and each other enables Alliance members to innovate with the latest IoT technologies, helping developers deliver first-in-market solutions.

Intel and Atom are registered trademarks of Intel Corporation in the U.S. and other countries.
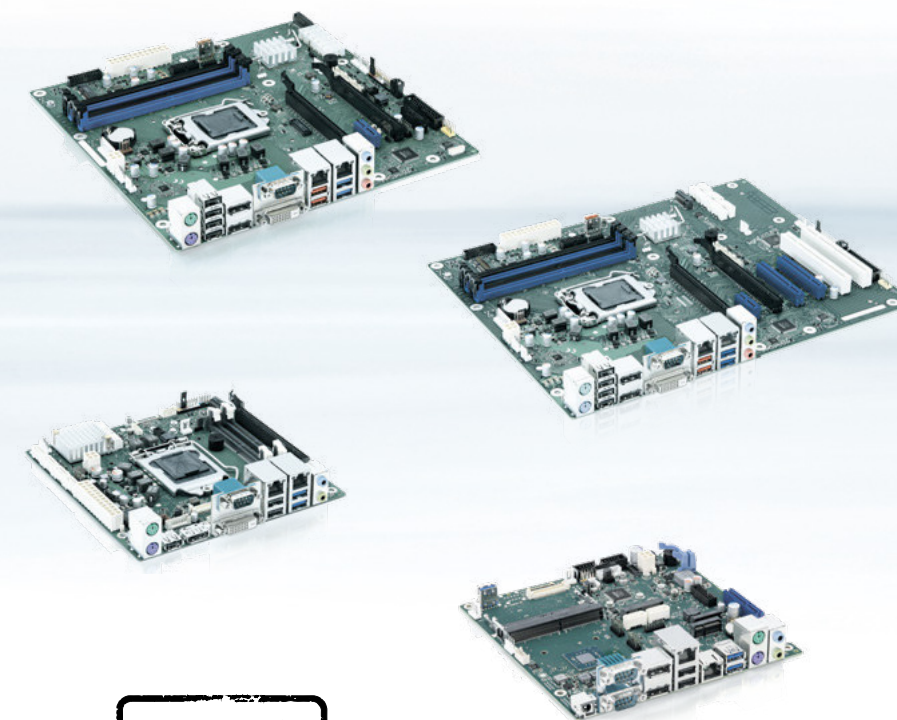
▼

(intel) | IoT Solutions Alliance
Premier

Global Headquarters

Kontron S&T AG

Lise-Meitner-Str. 3-5
86156 Augsburg, Germany
Tel.: +49 821 4086-0
Fax: +49 821 4086-111
info@kontron.com

www.kontron.com

MOTHERBOARDS

▼

Designed by Fujitsu

▶ **LONG LIFECYCLE**
Availability up to 7 years

▶ **ENHANCED HARDWARE FEATURE SET**
24/7 continuous operation at 60°C

▶ **EXTENSIVE POWERFUL SOFTWARE TOOLS**
Customization of Motherboards

POSSIBILITIES START HERE **kontron** S&T Group

▼

		D3646-S ATX	D3641-S µATX	D3633-S mITX	D3634-S mITX	D3543-S mITX	D3544-S mSTX
BASEBOARD	DIMENSIONS	9.6" x 12" (243.8 x 304.8 mm)	9.6" x 9.6" (243.8 x 243.8 mm)	6.7" x 6.7" (170 x 170 mm)	6.7" x 6.7" (170 x 170 mm)	6.7" x 6.7" (170 x 170 mm)	5.5" x 5.8" (140 x 148 mm)
	CHIPSET	Intel® C246	Intel® C246	Intel® Q370	Intel® H310	Intel® Embedded SoC	Intel Embedded SoC
CPU SUPPORT	PROCESSOR	Intel® Core™ 8th/9th Gen & Xeon® Processor Series	Intel® Core™ 8th/9th Gen & Xeon® Processor Series	Intel® Core™ 8th/9th Gen. Processor Series	Intel® Core™ 8th/9th Gen. Processor Series	S1: Dual-Core J4005 SoC (2.70 GHz/10W) S2: Quad-Core J4105 SoC (2.50 GHz/10W) S3: Quad-Core J5005 SoC (2.80 GHz/10W)	S1: Dual-Core J4005 SoC (2.70 GHz/10W) S2: Quad-Core J4105 SoC (2.50 GHz/10W) S3: Quad-Core J5005 SoC (2.80 GHz/10W)
	PROCESSOR SOCKET	LG A1151	LG A1151	LG A1151	LG A1151	-	-
	MAX. PROCESSOR POWER CONSUMPTION	95 W	95 W	95 W	95 W	10 W	10 W
	CPU TDP LIMITING OPTION	yes	yes	yes	yes	-	-
	HIGH EFFICIENCY CORE VOLTAGE REGULATOR	yes	yes	yes	yes	yes	yes
MEMORY	MAX. CAPACITY/ NUMBER OF SOCKETS	64 GB/4	64 GB/4	32 GB SO/2	32 GB SO/2	24 GB SO/2	16 GByte SO/1
	RAM SPEED	DDR4 2400/2666 ECC support	DDR4 2400/2666 ECC support	DDR4 2400/2666	DDR4 2400/2666	DDR4 2400	DDR4 2400
GRAPHICS	ONBOARD GRAPHICS	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	S1: Intel® UHD Graphics 600 S2: Intel® UHD Graphics 600 S3: Intel® UHD Graphics 605	S1: Intel® UHD Graphics 600 S2: Intel® UHD Graphics 600 S3: Intel® UHD Graphics 605
	GRAPHICS INTERFACES	DVI-D/2x DP V1.2 Optional VGA-Ext. D3653	DVI-D/2x DP V1.2 Optional VGA-Ext. D3653	DVI-D/2x DP (V 1.2)/LVDS/eDP V 1.4 (2 Lanes Supported)	DVI-D/DP (V 1.2)/LVDS/eDP V 1.4 (2 Lanes Supported)	2x DP V 1.2; LVDS; eDP V 1.4	2x DP V 1.2; LVDS; eDP V 1.4
ETHERNET	ONBOARD LAN CONTROLLER	Intel® i219LM Intel® i210AT	Intel® i219LM Intel® i210AT	Intel® i219LM Intel® i210AT	Intel® i219LM	Intel® i210 Realtek RTL8111G	Intel i210 Realtek RTL8111G
	IAMT/VPRO	yes/yes	yes/yes	yes/yes	-/-	-/-	-/-
AUDIO	TYPE	5.1 Multich.	5.1 Multich.	5.1 Multich.	5.1 Multich.	5.1 Multich.	5.1 Multich.
	ONBOARD CONTROLLER	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC671
	BUZZER/SPEAKER/ S/PDIF HEADER	yes/yes/yes	yes/yes/yes	yes/yes/yes	yes/yes/yes	yes/-/yes	yes/-/yes
EXTENSION SLOTS	PCIE X16/X8/X4/X1/PCI	2/2/-/1/2	2/-/-/2/-	1/-/-/-/-	1/-/-/-/-	-/-/1 /-/-	-/-/-/-/-
	MINI-PCIE/MSATA	-	-	yes/-	yes/-	yes/-	-/-
	M.2 SSD (PCIE AND/OR SATA)	1x M.2 Key M Socket (2280) for PCIe (4 lanes) based M.2 Modules	1x M.2 Key M Socket (2280) for PCIe (4 lanes) based M.2 Modules	1x M.2 Key M Socket (2242/2260/2280) for PCIe (4 lanes) based M.2 Modules	1x M.2 Key M Socket (2242/2260/2280) for PCIe (2 lanes) based M.2 Modules	PCIe (1 lane) & SATA; Key-B (2242/2260/2280)	PCIe (1 lane) & SATA; Key-B (2242/2260/2280)
	M.2 WLAN (KEY-E)	yes	yes	-	-	yes	yes
EXTERNAL/INTERNAL CONNECTORS	USB PORTS 3.1 GEN2/3.1 GEN1/2.0/STICK SOCKET	2/4/6/yes	2/4/6/yes	2/4/6/yes	-/4/5/-	-/4/6/yes	-/4/5/-
	SATA PORTS/SATA RAID	6/yes	6/yes	4/yes	4/-	2/-	2/-
	COM PORT INT. HEADER/EXT. // PARALLEL PORT INT. HEADER	3/1//yes	3/1//yes	1/1//-	1/1//-	2/2//yes	2/-//-
POWER SUPPLY OPTIONS	EXTERNAL SUPPLY	-	-	-	-	8–36 V	8–24V
	INTERNAL SUPPLY	ATX PSU	ATX PSU	ATX PSU or single 12 V	ATX PSU or single 12 V		
MISCELLANEOUS	FAN SPEED CUSTOMIZING	yes	yes	yes	yes	yes	yes
	TPM V2.0	yes (Infineon)	yes (Infineon)	yes (Infineon)	yes (Intel®)	yes (Intel®)	yes (Intel®)
	CHASSIS INTRUSION SUPPORT	yes	yes	yes	yes	yes	yes
	HW WATCHDOG	yes	yes	yes	yes	yes	yes
	MISCELLANEOUS	GPIO (8Bit) 4x COM	GPIO (8Bit) 4x COM	Onboard LVDS 24bit & eDP Mini-PCIe (Halfsize/Fullsize Support) & M.2 SSD (PCIe), GPIO (8Bit) COM: RS-232/-422/-485 Supported	Onboard LVDS 24bit & eDP Mini-PCIe (Halfsize/Fullsize Support) & M.2 SSD (PCIe), GPIO (8Bit) COM: RS-232/-422/-485 Supported	No Legacy OS Support 4x COM (1x incl. RS-232/-422/ -485 Support)	No legacy OS Support COM: RS-232/-422/-485 Supported