MOTHERBOARDS
Extended Lifecycle Series

The standard lifecycle of desktop motherboards is 12 months to a maximum of 18 months. Taking into consideration the enormous expense necessary for certification and engineering, that time frame is too narrow for many commercial applications. To solve this problem, Kontron offers selected motherboards for an extended lifecycle with min. 36 months.

SPECIAL FEATURES

The motherboards components of the Extended Lifecycle Series are designed for long-term, continuous operations (24/7) in an extended temperature range and high system load. Extended Lifecycle motherboards are specified for a temperature range between 0 and 50 °Celsius.

Kontron motherboards “Designed by Fujitsu” of the Extended Lifecycle Series are applicable in many branches:

- Public and Corporate Tenders
- Video Surveillance
- Medical Systems
- Webhosting
- CAD Workstations

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, together with its sister company S&T Technologies, 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

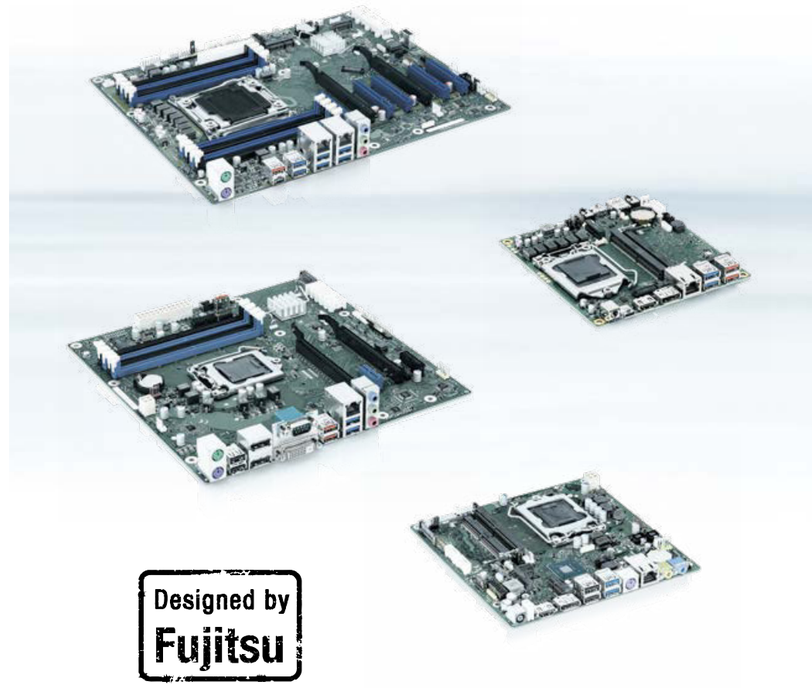
Kontron S&T AG

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

www.kontron.com

The Extended Lifecycle Series

MOTHERBOARDS



Designed by Fujitsu

PROLONGED LIFECYCLE
Availability up to 3 years

SEMI-INDUSTRIAL FEATURES
24/7 continuous operation at 50°C

PROFESSIONAL LIFECYCLE MANAGEMENT
Regular Notifications on Motherboard Updates

POSSIBILITIES START HERE kontron S&T Group

MOTHERBOARDS

Extended Lifecycle Series








		D3598-B ATX	D3598-G ATX	D3642-B µATX	D3643-H µATX	D3644-B µATX	D3674-B Thin mITX	D3654-B mSTX	D3664-B mSTX
BASEBOARD	DIMENSIONS	9.6" x 12" (243.8 x 304.8 mm)	9.6" x 12" (243.8 x 304.8 mm)	9.6" x 9.6" (243.8 x 243.8 mm)	9.6" x 9.6" (243.8 x 243.8 mm)	9.6" x 9.6" (243.8 x 243.8 mm)	6.7" x 6.7" (170 x 170 mm)	5.5" x 5.8" (140 x 148 mm)	5.5" x 5.8" (140 x 148 mm)
	CHIPSET	Intel® C422	Intel® X299	Intel® Q370	Intel® B360	Intel® C246	Intel® H310	Intel® H310	Intel® Q370
CPU SUPPORT	PROCESSOR	Intel® Xeon® W-21xx/-22xx Processors Future Intel® Xeon® W Processors	Intel® Core™ i7-78xxX/-98xxX processors Intel® Core™ i9-79xxX/-98xxX/-99xxX/-109xxX Processors Future Intel® Core™ X-Series Processors	Intel® Core™ 8th/9th Gen Processor Series	Intel® Core™ 8th/9th Gen Processor Series	Intel® Core™ 8th/9th Gen & Xeon® Processor Series	Intel® Core™ 8th/9th Gen Processor Series	Intel® Core™ 8th/9th Gen Processor Series	Intel® Core™ 8th/9th Gen Processor Series
	PROCESSOR SOCKET	Intel LGA2066	Intel LGA2066	Intel® LGA1151	Intel® LGA1151	Intel® LGA1151	Intel LGA1151	Intel LGA1151	Intel LGA1151
	MAX. PROCESSOR POWER CONSUMPTION	165 W	165 W	95 W	95 W	95 W	65 W	65 W	65 W
	CPU TDP LIMITING OPTION	-	-	yes	yes	yes	yes	yes	yes
	HIGH EFFICIENCY CORE VOLTAGE REGULATOR	yes	yes	yes	yes	yes	yes	yes	yes
MEMORY	MAX. CAPACITY/ NUMBER OF SOCKETS	512 GByte/8 ECC Support	128 GByte/8	64 GByte/4	64 GByte/4	64 GByte/4	32 GByte SO/2	32 GByte SO/2	32 GByte SO/2
	RAM SPEED	DDR4 2666/2933 SDRAM (Quad Channel)	DDR4 2666/2933 SDRAM (Quad Channel)	DDR4 2400/2666	DDR4 2400/2666	DDR4 2400/2666 ECC support	DDR4 2400/2666	DDR4 2400/2666	DDR4 2400/2666
GRAPHICS	ONBOARD GRAPHICS	-	-	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12	Intel® UHD Graphics; DX 12
	GRAPHICS INTERFACES	-	-	DVI-D/2x DP V 1.2 Optional VGA-Ext. D3653	DVI-D/2x DP V 1.2 Optional VGA-Ext. D3453	DVI-D/2x DP V 1.2 Optional VGA-Ext. D3453	HDMI V 1.4/DP V 1.2	HDMI V 1.4/DP V 1.2	HDMI V 1.4/DP V 1.2 /USB 3.1 Gen2 Type-C (DP Alt Mode)
ETHERNET	ONBOARD LAN CONTROLLER	Intel® i219LM Intel® i210AT	Intel® i219LM Intel® i210AT	Intel® i219LM	Intel® i219LM	Intel® i219LM	Realtek RTL 8111G	Realtek RTL 8111E	Intel® i219LM
	IAMT/VPRO	yes/-	-/-	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.	Stereo	Stereo
	ONBOARD CONTROLLER	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC671	Realtek ALC255	Realtek ALC671	Realtek ALC671
	BUZZER/SPEAKER/ S/PDIF HEADER	yes/yes/-	yes/yes/-	-/yes/-	-/yes/-	-/yes/-	-/yes (Stereo)/-	-/yes/-	-/yes/-
EXTENSION SLOTS	PCIE X16/X8/X4/ X1/PCI	2/5/-/-/-	2/5/-/-/-	2/-/-/2/-	2/-/-/2/-	2/-/-/2/-	-/-/-/-/-	-/-/-/-/-	-/-/-/-/-
	MINI-PCIe/MSATA	yes/-	yes/-	-	-	-	1x M.2 Key M Socket (2280) for PCIe based M.2 Modules (4 lanes)	1x M.2 Key M Socket (2280) for PCIe based M.2 Modules (4 lanes)	1x M.2 Key M Socket (2280) for PCIe based M.2 Modules (4 lanes)
	M.2 SSD (PCIE AND/OR SATA)	PCIe @ 4lanes; Key-M (2280)	PCIe @ 4lanes; Key-M (2280)	1x M.2 Key M Socket (2280) for PCIe (4 lanes) based M.2 Modules	1x M.2 Key M Socket (2280/22110) for PCIe (4 lanes) based M.2 Modules	1x M.2 Key M Socket (2280) for PCIe (4 lanes) based M.2 Modules	yes	yes	yes
	M.2 WLAN (KEY-E)	-	-	yes	-	yes	-	-	-
EXTERNAL/ INTERNAL CONNECTORS	USB PORTS 3.1 GEN2/3.1 GEN1/2.0/ STICK SOCKET	2/10/2/yes	2/10/2/yes	2/6/4/yes	2/4/4/-	2/6/4/yes	-/4/5/-	-/4/4/-	2/5/2/-
	SATA PORTS/SATA RAID	8/yes	8/yes	6/yes	4/-	6/yes	2/-	1/-	1/-
	COM PORT INT. HEADER/ EXT. // PARALLEL PORT INT. HEADER	1/- // -	1/- // -	-/1// -	-/1// -	-/1// -	1/-// -	-/-// -	-/-// -
POWER SUPPLY OPTIONS	EXTERNAL SUPPLY	-	-	-	-	-	19-24 V	19 V	19 V
	INTERNAL SUPPLY	ATX PSU	ATX PSU	ATX PSU	ATX PSU	ATX PSU	12 V or 19-24 V	-	-
MISCELLA-NEOUS	FAN SPEED CUSTOMIZING	yes	yes	yes	-	yes	yes	yes	yes
	TPM V2.0	yes (Infineon)	yes (Infineon)	yes (Infineon)	yes (Intel®)	yes (Infineon)	yes (Intel®)	yes (Intel®)	yes (Intel®)
	CHASSIS INTRUSION SUPPORT	yes	yes	yes	-	yes	yes	-	-
	HW WATCHDOG	yes	yes	yes	-	yes	yes	yes	yes
	MISCELLANEOUS	Intel® VROC Support USB 3.1 Gen2 Type-C, Win7 & Win10 Support 2x PCIe x16 (@16 Lanes) 1x USB Type-C (Rear)	Intel® VROC Support USB 3.1 Gen2 Type-C, Win10 Support 2x PCIe x16 (@16 Lanes) 1x USB Type-C (Rear)	-	M.2 - 2280/2210	-	Onboard LVDS 24bit, M.2 (WLAN/Bluetooth) Key E M.2 SSD - PCIe Key M, GPIO (8Bit) Dual-Range DC Power Supply 12 V/19-24 V	19 V DC Power Supply 1 x USB Type-C (Front)	19 V DC Power Supply 1x USB Type-C (front) 1x USB Type-C (Rear, incl. DP Alt Mode)

Learn more about motherboards „Designed by Fujitsu":
www.kontron.com/products/boards-and-standard-form-factors/motherboards/