

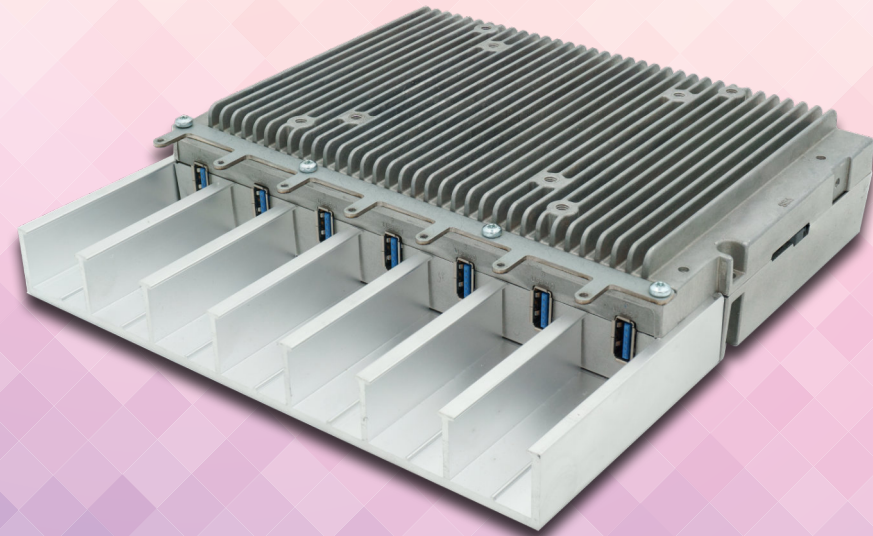


APPLICATIONS

The **modular EM ToughBox** is the perfect Plug&Play system solution, especially designed for low-power and noiseless applications since no fans or other rotating devices are used. It is a german engineered and high quality industrial computer system, offering the highest performance in tough environments.

- _ Rugged Industrial Systems
- _ Medical Solutions
- _ Automatic Control Panels
- _ Information Systems
- _ Measurement & Quality Control
- _ Public Terminal

MODULAR



Module rail holder is optional



Use the TB-M in harsh and tough environments. An optional extended temperature version is available.



Configure your system for different purposes. It works with a wide range of USB components.



The TB-M system is designed for hat rail mounting and can be expanded with an optional modular USB mounting carrier.



Expand your system with various USB adapter options.



Seven control LEDs allow to display various operating states.

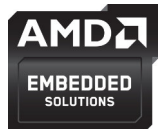


Operate and control your processes.

SPECIFICATIONS

CPU	AMD G-Series eKabini ¹
Max. memory	8 GB DDR3L / 1600 MHz
Gigabit Ethernet	Up to 3 Intel® I210 with IEEE1588
LTE/4G (OPTIONAL)	300 Mbps max./EMEA, APAC/ Diversity/GNSS
WiFi/BT (OPTIONAL)	802.11 AC with diversity/ Bluetooth Version 5
SSD (OPTIONAL)	mSATA / 64 GB - 512 GB
SD-Card	1 MicroSD-Card socket
USB ports	Up to 6 USB 3.1 Gen1 4 USB 2.0
DVI-I connector	1 DVI-I with VGA support
Sound	3.5 mm MIC In / headphone Out / line In
Health management	Hardware monitoring and Watchdog
Other	1 power and 6 status LEDs
Power supply	Min. 8 V / Max. 32 V (DC)
Fanless	Designed for fanless operation
Max. operating temp.	0°C to +60°C ambient commercial grade -40°C to +85°C ambient industrial grade
Max. storage temp.	-20°C to +85°C commercial grade -40°C to +85°C industrial grade
Max. rel. humidity	95 % @ 40°C, non-condensing
Housing	Aluminum case
Mounting	Stand alone or hat rail
Dimensions approx.	194 x 128 x 42 mm
Weight approx.	900 grams + options
Conformity	CE, ROHS, REACH
OS support	Microsoft® Windows® 10; Microsoft® Windows® 10 IoT Enterprise; Linux Ubuntu 18.04 LTS

¹10 years availability according to CPU manufacturers specification



MODULAR DESIGN ABUNDANT USB CONNECTIVITY



Ordering Code System	Description	Type
TBMA	Modular	GX-415GA / 4C / 4T / 1.5 GHz / 15 W
TBML	Modular	GX-210HA / 2C / 2T / 1.0 GHz / 9 W 2x Eth / 3x USB
TBML (industrial temp.)	Modular	GE-209HA / 2C / 2T / 1.0 GHz / 9 W
2GB-TBM	Main Memory	2 GB
4GB-TBM	Main Memory	4 GB
8GB-TBM	Main Memory	8 GB
KITBMMH1	Expansion	Module holder rail option

OVERVIEW

The modular EM ToughBox is powered by proven technology, including AMD G-series processors. The system is ready for multiple USB 3.0 devices.

Our optional modular USB mounting carrier can safely connect up to seven modules with the system.

SUMMARY

- ▶ Fanless operation
- ▶ 3 GBit Ethernet ports
- ▶ Ready for multiple USB 3.0 devices
- ▶ Extended temperature option

OPTION	Description
SSA	SATA SSD 64 - 512 GB
LTE	LTE/4G Modem
WBT	WiFi/BT card
W10	Microsoft® Windows® 10
WIE	Microsoft® Windows® 10 IoT Enterprise
LNX	Linux Ubuntu 18.04 LTS

SSA	LTE	WBT
X	X	-
X	-	X
-	X	X

SSA, LTE, WBT combination matrix

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