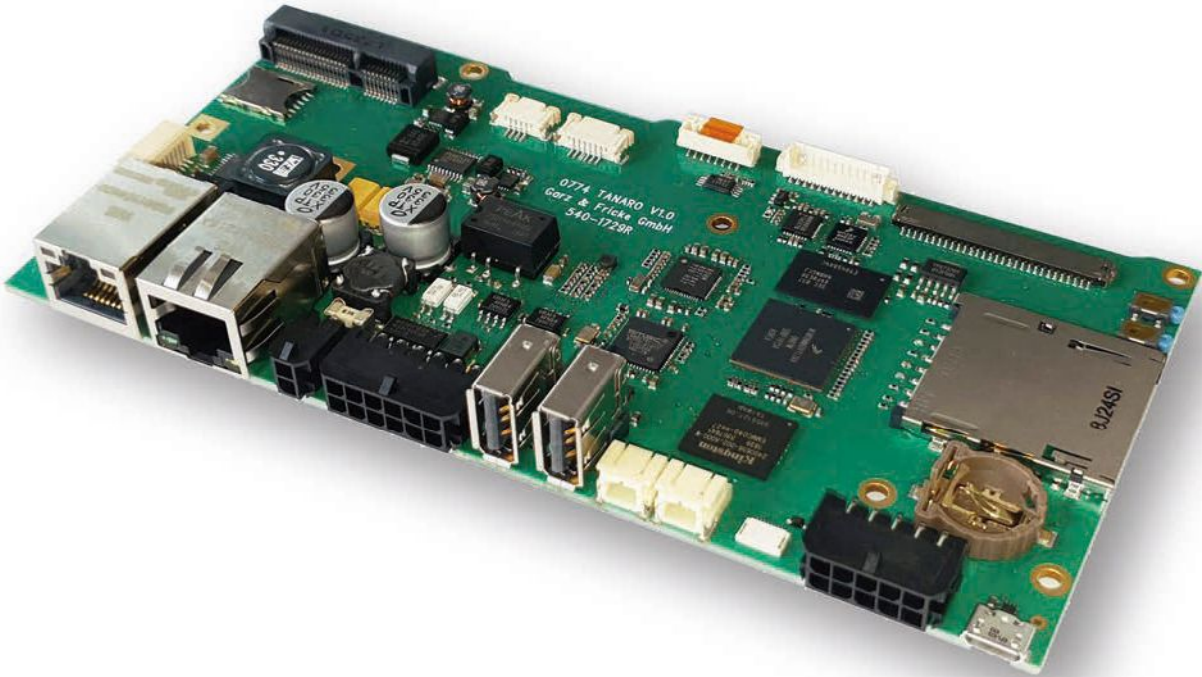


# TANARO core

## ARM Cortex-A53 Single Board Computer



Our IOT solution: PCIe interface for wireless connectivity and two Ethernet ports.



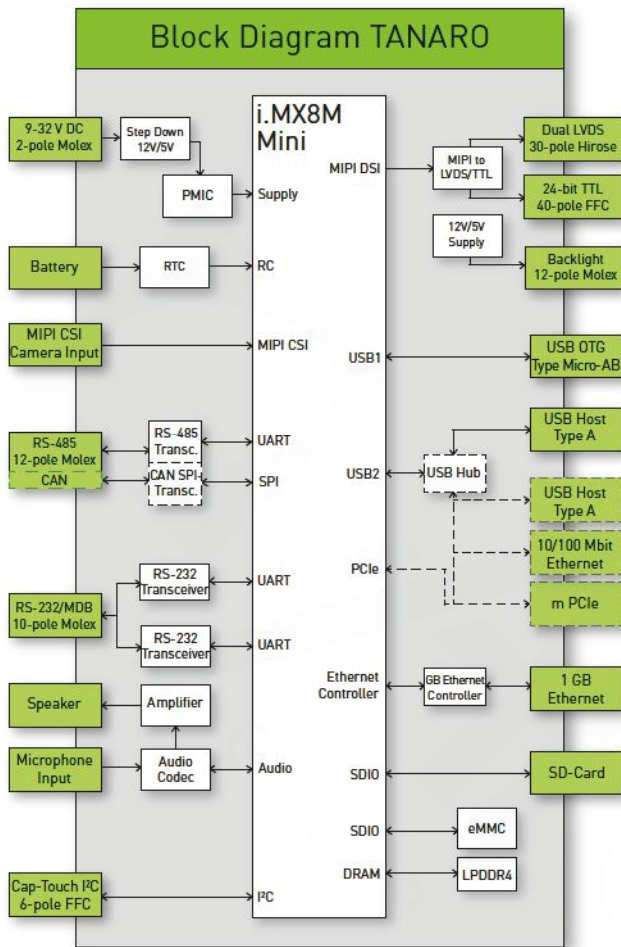
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1 GB 4 GB	OpenGL	PCI EXPRESS	micro SD	RS-232	RS-485 CAN	Camera
Cortex A53 i.MX8		Audio	USB 2.0	SPI / I <sup>2</sup> C	Ethernet	TTL / LVDS MIPI-DSI

Online support at [www.garz-fricke.com](http://www.garz-fricke.com)

# TECHNICAL SPECIFICATION

## TANARO Single Board Computer



CPU	S	M
CPU Type	i.MX8M Mini Quad	
Core Class	ARM Cortex - A53, Cortex - M4	
Core Clock	A53: 1.8 GHz (commercial), M4: 400 MHz	
Features	Media Processing Engine (MPE) with NEON technology for SIMD: Floating Point Unit (FPU) Support of 64-bit Armv8-A architecture	
	A53: 32 KB L1 cache for instruction and 32 KB for data M4: 16 KB L1 cache for instruction and 16 KB for data	
HW Accelerators	3D GPU GC NanoUltra(OpenGL ES 2.0) 2D GPU GC320, 1080p60 H265, VP9 decoder, 1080p60 H264, VP8 decoder, 1080p60 AVC/H.264 encoder, VP8 encoder	
RTC	Accuracy: +/- 30 ppm at 25°C	
<b>Memory</b>		
eMMC Flash	4 GB MLC eMMC	
RAM Standard	1 GB LPDDR4	
SD Card Slot	4 bit MMC/SDIO/SD/SDHC	
<b>Operating Systems</b>		
Supported OS	Linux Yocto, Android	
<b>Communication Interfaces</b>		
Network	1x 1Gbit/s 100/10 Mbit/s Ethernet 1x 10/100 Mbit/s Ethernet	1x 1 Gbit/s Ethernet
USB 2.0	2x 480 Mbit/s Host (Type A) 1x 480 Mbit/s OTG (Type Micro-AB)	1x 480 Mbit/s Host (Type A) 1x 480 Mbit/s OTG (Type Micro-AB)
CAN Fieldbus / RS-485	1x CAN (ISO/DIS 11898) + 1x RS-485 galvanic isolated	1x RS 485
RS-232	2x RS-232 (RX/TX/CTS/RTS)	
<b>Wireless Communication</b>		
Wireless	WLAN 802.11 b/g/n; Bluetooth 4.0 LE	
<b>Camera</b>		
Camera Input	MIPI CSI	
<b>Audio</b>		
Speaker Output	1x speaker (connector), 1.5W RMS (8Ω)	
Audio Input	Microphone Input	
Audio Internal	1x speaker connector parallel to external output	
<b>Display and Touch</b>		
Display Interface	Dual Channel 24bpp LVDS; 24 bit TTL	
Touch Interface	PCAP I²C	
Backlight Interface	+12 V, +5V, on/off, PWM	
<b>Device Dimensions</b>		
W x H x D	159.0 x 18.0 x 80.0 mm	
Weight	102g	
<b>Power Supply</b>		
Supply Voltage	Nom. 13 to 32 V DC; max. 9 to 32 V DC	
Consumption	tbd.	
<b>Typical Environmental Conditions</b>		
Storage Temp.	-20 to +70 °C	
Operating Temp.	0 to +60 °C	
Humidity	5 to 95 % RH	
<b>Expansion Slot</b>		
mPCIe	mPCIe connector (for half size card)	

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