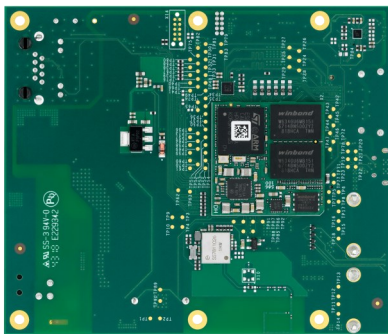
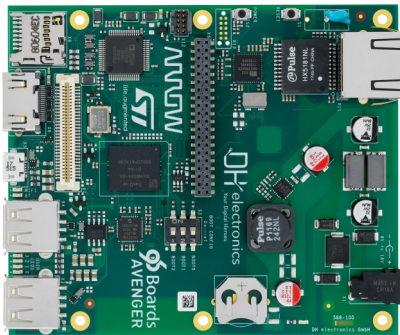
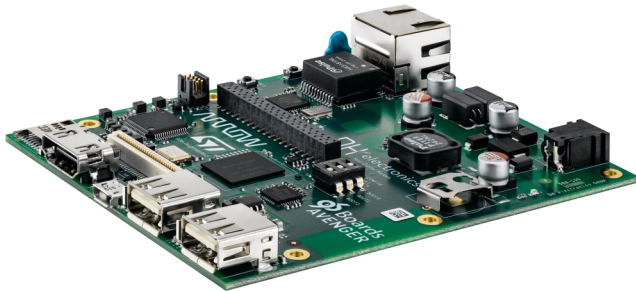


AVENGER96

96Boards, Consumer Edition



Cortex
Intelligent Processors by ARM

TECHNICAL DETAILS

Processors	STM32MP157AAC 2x ARM® Cortex-A7 up to 650 MHz 1x ARM® Cortex-M4 up to 209 MHz
GPU	1x 3D GPU Vivante® @ 533 MHz - OpenGL® ES 2.0
PMIC	STPMIC1A
DDR3 DRAM	1024 Mbyte @ 533 MHz
eMMC Flash	8 Gbyte, v4.51 interface
NOR Flash	2 Mbyte, Quad SPI interface
E²Prom	128 byte
microSD Socket	UHS-1 speed grade, v3.01
USB Host	2x type A, 2.0 high-speed
USB OTG	1x type micro-AB, 2.0 high-speed
HDMI	WXGA (1366x768) @ 60 fps, HDMI 1.4
WiFi / Bluetooth	WiFi 5 GHz & 2.4GHz IEEE 802.11a / b / g / n / ac Bluetooth® v4.2 (BR/EDR/BLE) PCB antenna
Ethernet	10 / 100 / 1000 Mbit/s, IEEE 802.3-compliant
Push-Buttons	Power and reset
Battery Socket	CR1216, CR1220 and CR1225
LEDs	4x green user controlled LEDs, 1x blue Bluetooth enabled, 1x yellow WiFi enabled, 1x red power supply okay
Boot Mode	3 bit boot mode switch
Debug Interface	JTAG interface via tag-connect
Supply [SYS_DCIN]	8 - 18 VDC
Temperature Range	0 - 40 °C
Dimensions	100 x 85 mm

Low Speed Expansion Connector

UART 0	Rx / Tx / Rts / Cts
UART 1	Rx / Tx
SPI 0	max. 52 Mbps
I2C 0	100 kHz, 400 kHz and 1000 kHz
I2C 1	100 kHz, 400 kHz and 1000 kHz
I2S	SAI interface in master mode
GPIOs	12 IOs
Supply	5 VDC, 1.8 VDC output, SYS_DCIN
RESET	Reset external request
POWER	Power on/off external request

High Speed Expansion Connector

MMC/SD	4 bit mode, v3.01 interface (only available if WiFi is not used)
MIPI CSI-2	2x Rx lanes
MIPI DSI	2x Tx lanes @ 1 Gbit/s
I2C 0	100 kHz, 400 kHz and 1000 kHz
I2C 1	100 kHz, 400 kHz and 1000 kHz
USB Host	2.0 high-speed

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BLOCK DIAGRAM

