Embedded Recipes

Avenger96 Boards sponsored by DH electronics

96 Boards

ST

STM32 MP1

www.dh-electronics.com

TOP 100
top100.de
Top-Innovator
2021

DH electronics
Your Digital Heroes.

DH electronics
Your Digital Heroes.

Company overview

- www.dh-electronics.com
- info@dh-electronics.com
- Serving the global market
- 25 RND engineers
- 30+ years of experience
- Value-based cooperation

Added value

- Standard and customized solutions from one hand
- Long-term availability
- Fast time-to-market
- Competent support
- Open Source Community

Technical expertise

- Embedded Systems
- Industry and building Automation
- Internet of Things
- Artificial Intelligence
- Autonomous Systems
- Robotics

Innovation is our passion

TOP 100 — Top-Innovator 2021
TOP 100 — Top-Innovator 2019

DHSOM
Solderable & pluggable System on Modules

DHCON
Controls & Connectivity

IP 192.168.65.1
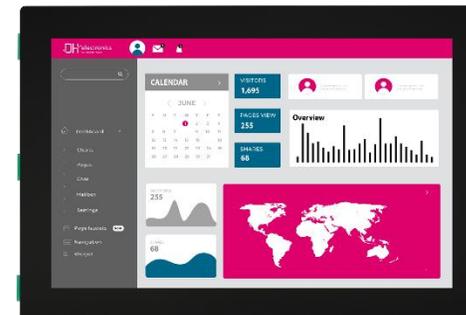Status OK

DHMI
Touch Panel Computer

SERVICES
Customer-oriented

- Full-service provider
- SW & HW development
- Project management
- Testing & certification
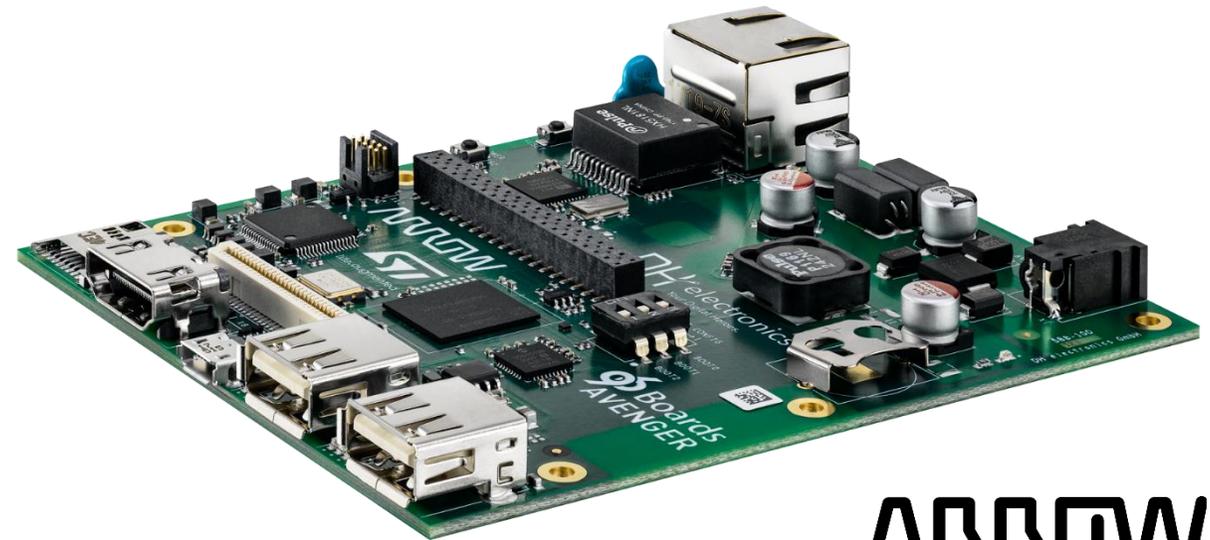- Individual support
- Trainings & workshops

DH electronics | AVENGER96

Avenger96 Development Board with DHCOR STM32MP15

- Reference design for solderable DHCOR STM32MP15
- Bluetooth and WiFi on board
- GB Ethernet
- HDMI interface
- microSD card
- eMMC
- Multiple USB connections
- Display connector
- Buttons and LEDs for prototyping
- Compatible with accessories of the 96Boards Community
- Purchasing through our partner Arrow Electronics

Use Case
Object Detection using SSD MobileNet with the
Avenger96 maker board based on DHCOR STM32MP1
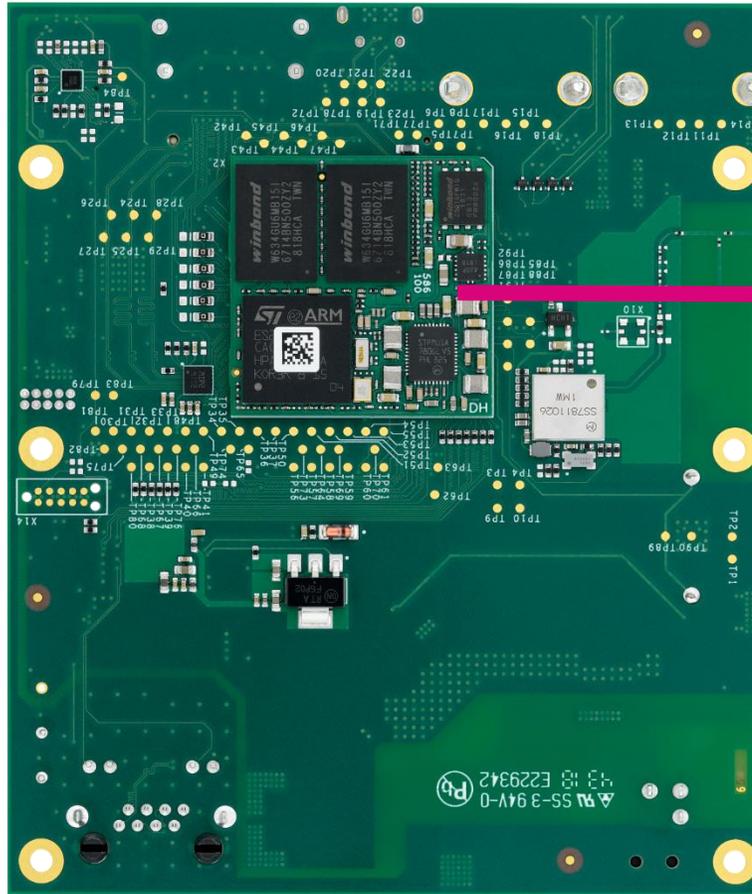https://www.youtube.com/watch?v=hItko60S1Wo

DH electronics | DHCOR STM32MP15

DHCOR STM32MP15

- Solderable SOM for high quantities
- Robust and cost-efficient
- 2x ARM Cortex-A7 up to 650 MHz
- 1x ARM Cortex-M4 up to 209 MHz
- 3D GPU Vivante
- 1GB DRAM
- Plenty of IOs

Multi-application processor for

- Home & building automation
- Laboratory & measurement
- eMobility & transportation
- Machinery & plant engineering
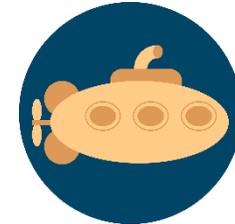- Medical technology & healthcare

DHCOR STM32MP15 top and bottom

DH electronics | AVENGER96 SOFTWARE

U-Boot Bootloader
- Completely upstream
- Appreciate the great cooperation with DENX
- Maintained by DH electronics

Linux Kernel
- Completely upstream
- Appreciate the great base support from STMicroelectronics
- Maintained by DH electronics

OE / Yocto image (uses latest LTS versions)
- BSP layer on GitHub (https://github.com/dh-electronics/meta-dhsom-stm32-bsp)
- Pre-configured via the kas tool (https://github.com/dh-electronics/kas-dhsom)
- Maintained by DH electronics

DH electronics | GETTING STARTED

How to get started with your Avenger96 board

- Grab a board during the Embedded Recipes for free
- Write the current image to a µSD card
  - ➔ Get the latest image by scanning the QR code on the box
- Connect HDMI display, USB mouse and USB keyboard
- Connecting the Avenger96 board to the power
  - ➔ Power supply in the range of 8V to 18V DC is needed.
- That's it, have fun ☺

- If accessories need look here:
  - 96Boards 12V power supply:
    https://www.96boards.org/product/power/
  - 96Boards serial adapter:
    https://www.arrow.com/en/products/tresor/arrow-development-tools
- Important things on the Avenger96 product page (getting there via QR code on the box):
  https://www.dh-electronics.com/en/embedded-products/development-carrier-boards/detail/avenger96-maker-board
  - Link to the latest pre-built image
  - "Getting Started Guide" in the download section (all you need for the Avenger96)

**QR code on the Avenger96 box
to get the latest image**

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