# Arrow Head Provider/Consumer Demo - Device Temperature Measurement on Trenz Electronic TE0820 and TE0726. AH services on Raspberry Pi 3

Local Cloud

Arrow head framework source: https://github.com/arrowhead-f
This work is partially supported by ECSEL JU project
Productive 4.0 No. 737459: https://productive40.eu

Operator PC

Ethernet switch

TE0820

TE0726

Raspberry Pi 3

Processing System part of the device

4x A53
64 bit
1.2 GHz

**Arrow head Provider server example on the Zynq UltraScale+ TE0820 Zynq device temperature is provided for the arrow head framework. Support for: Debian Stretch, SciLab and SDSoC 2018.2 (30 examples).**

VFB

VFB

GPU
Mali
400

2x ARM R5
32 bit
600 MHz

2x A9
32 bit
650
MHz

**Arrow Head Consumer client example on 32 bit Zynqberry TE0726**

VFB

4x A53
BCM2837
64 bit
1.2 GHz

**Arrow Head Services on 64 bit Raspberry Pi 3 in Java. Database. DHCP Server.**

Programmable logic part of the device

SDSoC
HW

xadc

temperature

Full HD
Video
Input
IP Cores
60 FPS

Full HD
Video
Output
IP Cores
60 FPS

Full HD
Video
Output
IP Cores
60 FPS

Imageon FMC (LPC)

Display

**GUI**

- Petalinux 18.2 kernel
- SD card with 64 bit Debian “Stretch” FS
- Xfce4-panel desktop env.
- USB
- Kbd, Mouse
- Full HD HDMI display

HD
Video
Output
IP Cores
60 FPS

Display

**GUI**

- Petalinux 18.2 kernel
- SD card with 32 bit Debian “Stretch” FS
- Xfce4-panel desktop env.
- USB, Audio
- Kbd, Mouse
- HD HDMI display

**EW: Hall 3A/3A-240**

trenz electronic GmbH

www.trenz-electronic.de

ÚTIA

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