### Current Activity

Niklas Söderlund

2016-07-12

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# Niklas Söderlund

Background:

- Stockholm, Sweden
- M.Sc from Royal Institute of Technology in Stockholm (2004 2009)

Previous Employments:

- Research engineer at Swedish Defence Research Agency (2009 2010)
- Linux engineer at Ericsson (2010 2014)
- Self employed at Ragnatech (2014 present)

Renesas:

- Trail assignment, PFC for EMEV2 end of 2014
- Base contracts + additional tasks since beginning 2016

# VIN Gen3 support

- Driver is public but not yet merged upstream
- Supports resource sharing between all 8 VIN channels by VIN groups
- Capable of runtime muxing of the 4 possible shared CSI2 input sources and per VIN digital input where available (VIN4 and VIN5)

#### Future work

- Address review comments and get it merged upstream
- UDS Scaler support
- Adaptions to V4L2 changes needed to support ADV7482

### Prototype public

### Future work

- Address review comments (if any) and get it merged upstream
- Adaptions to V4L2 changes needed to support ADV7482 (if needed)

• Prototype public

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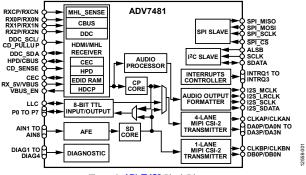


Figure 1. ADV7481 Block Diagram

#### Blocker

The ADV7482 have two video outputs, 4-lane and 1-Lane CSI2. The V4L2 framework do not support subdevices with two independent video outputs and needs to be extended.

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### Future work

- Add V4L2 support for independent video outputs
- Add controls (Brightness, Gamma, etc)
- Add EDID programming support
- Detect input format changes (Interrupt + V4L2 Event)
- Add cropping and scaling support
- Power management
- I2C slave addresses from DT