



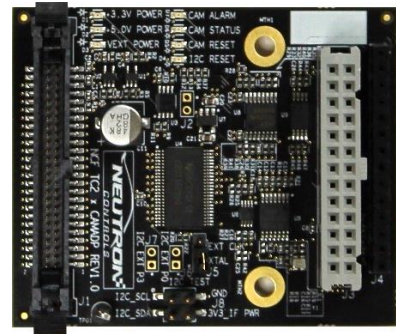
REDLINE™

RAPID ENGINEERING DEVELOPMENT SYSTEMS

Modular Platforms Designed by Engineers for Engineers

RDL-ITFCAM-001

INTERFACE MODULE FOR ADAS CAMERA SENSORS
(TO BE USED WITH APTINA DEMO 2X EVALUATION BOARD SERIES)



Overview

Designed for use with our REDline™ Carrier board, this Module provides all necessary interfacing and bridging capabilities for direct connection of the AURIX™ MCU Platform Module to the original Aptina Imaging™ (now ON Semiconductor®) sensor product line.

Compatible with multiple resolution, CMOS/CCD type, and monochrome/RGB image sensors.

Supports up to 16-bit parallel RGB interface (Data, HSYNC, VSYNC, CLK).

The Module allows DEMO 2X series of image sensor evaluation board being directly plugged into it, while connecting the Module to REDline™ Carrier board with variable length off-the-shelf twisted pair ribbon cable.

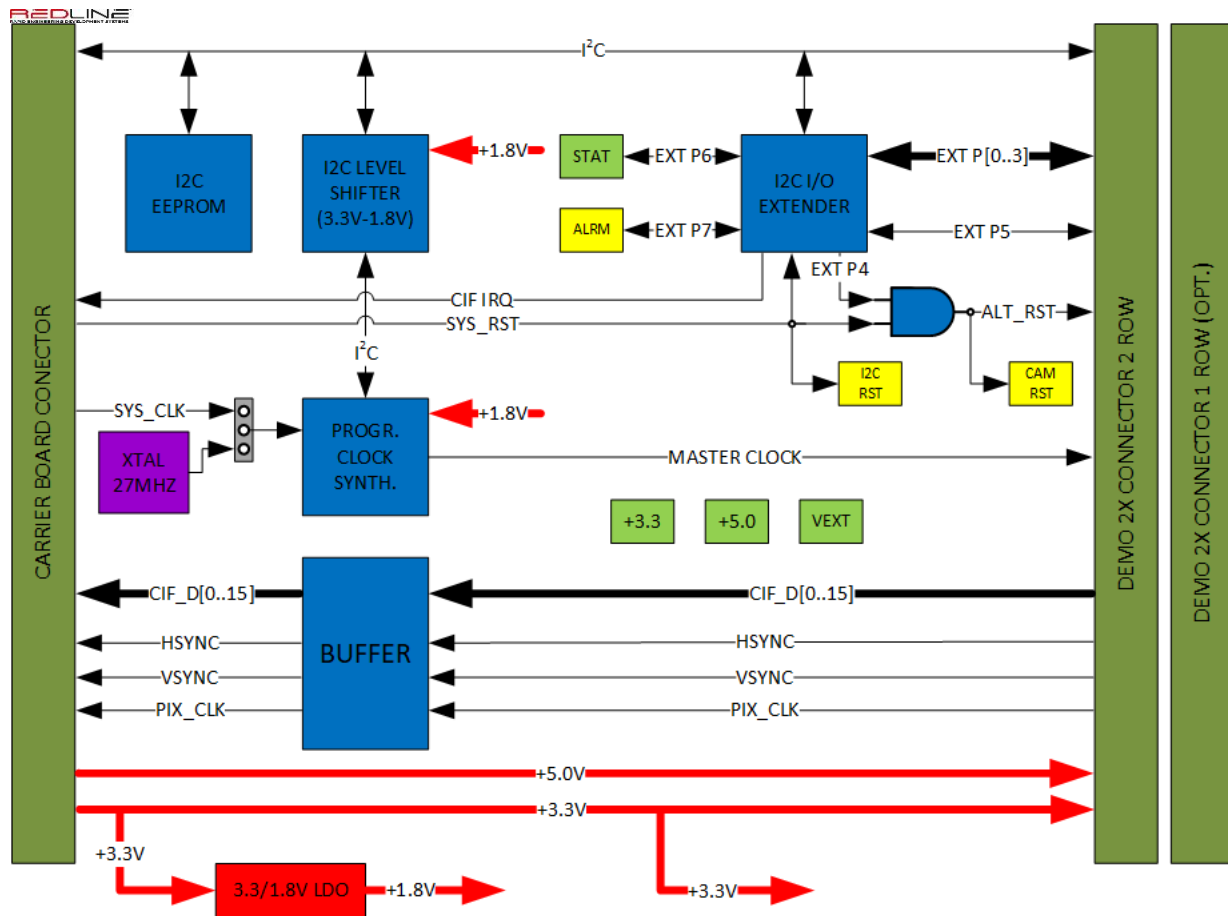
Highly configurable Master PLL-based source allows image feed synchronization to either local oscillator or AURIX™ MCU core clock frequency.

A complete hardware development support package is available including: schematics, BOM, layout, gerbers, PCB stack-up, and high-speed signal design rules.

Features

- Supplies the necessary +5V and +3.3V power rails to the image sensor evaluation board.
- Provides highly flexible master clock options off a PLL clock synthesizer with deep M/N divider, zero-PPM accuracy and Spread-Spectrum Clock (SSC) capability.
- Local 27MHz crystal/oscillator or MCU sourced jumper selectable clock input to the clock synthesizer.
- Up to 230MHz output Master clock frequency.
- I²C programmable Master clock frequency, phase, strength, and SSC spread.
- Up to 96MHz input pixel clock frequency.
- Buffered parallel RGB interface for separated power domains' signal crossing.
- Twisted pair ribbon cable connection allowing for flexible image sensor positioning as well as reducing EMI profile.
- LED indication on +5V, +3.3V, VEXT and System Reset signals.
- "Status" and "Alarm" s/w controlled LED.
- Extensions available to accommodate DEMO 3 standard evaluation board with parallel RGB interface.

Block Diagram



Compatibility

The Module is designed to work with AURIX™ Base Carrier Development Platform

Part Number: **RDL-DEVCDP-00x**

Check with Neutron Controls sales team for DEMO 2X evaluation board P/N compatibility (purchased separately).

Example P/N: **MT9M031I12STCH-GEVB** (ON Semiconductor®)

Ordering Information

Module Part Number: **RDL-ITFCAM-001** (see datasheet for exact ordering options)

Supplier: Neutron Controls, 350 Palladium Drive, Suite 102 Ottawa, Ontario, Canada K2V 1A8

WWW.NEUTRONCONTROLS.COM