



Rhonda Software

Design House for Camera Products

Cameras of Various Types



Security Cams

- Active IR LEDs
- Retractable IR cut-off filter
- Ethernet streaming & PoE support
- WDR \ HDR

Baby Monitoring

- Wireless connectivity
- Dual power supply (battery & line)
- Night mode
- Two-way audio



VR Cameras

- Multiple lenses
- 8 lenses VR cam in portfolio
- Panoramic-aimed auto-exposure
- On-board & off-board video stitching



Cameras of Various Types



Flying Cameras

- Image stabilization
- 4K video
- Long-range wireless
- Replaceable optics support

Wearable Cams

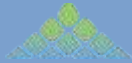
- Low power consumption
- Still & video recording
- BLE support
- Mobile device connection



Action Cams

- Slow motion capturing
- LTE connectivity
- Local & Remote video storage
- Environment sensors

Ambarella Partnership



Ambarella, Inc.







A world-wide developer of low-power Systems on a Chip (SoC) – solutions for high-definition and Ultra HD video compression and image processing.

Ambarella products are used in a variety of professional and consumer camera applications including security IP-cameras, sports cams, wearable cameras, VR-recorders, flying cameras and automotive video processing solutions.



Rhonda Software

Rhonda Software as a close **Ambarella's design partner** uses the most advanced Ambarella SoC models for the camera projects:

- [A12S](#) , [A12W](#)  (low-power)
- [A9SE](#)  (high performance)
- [H2](#)  (maximum performance)
- [S2L](#)  (IP cameras)
- [S3L](#)  (IP cameras, low-power)

We Can Help Your Camera Project

We design cameras based on Rhonda Camera SDK on top of low-level Ambarella SSP to accelerate time to market:

- Advanced **Video and Still** flows (multiple sensors, multiple streams)
 - Wide range of peripherals **drivers** (including Image sensor drivers) designed in-house
 - Variety of **connectivity** features (BT on RTOS, Wi-Fi on RTOS, BT/Wi-Fi on Linux, MFi, LTE, etc.)
 - Rhonda Rhio **Streaming** server (RTMP, HLS, Mpeg-dash, etc.)
 - Additional support for **Linux** features (v4l2, intercommunication between RTOS and Linux over standard sockets, etc.)
 - **Factory tools** for HW testing & per unit IQ calibration on the production line
- ...and many more features

**MOBILE
APPLICATIONS**

FACTORY SUPPORT

MIDDLEWARE

SOFTWARE

DRIVERS

CAMERA SDK

QUALITY ASSURANCE

TEST AUTOMATION

AAA ALGORITHMS

We Can Help Your Camera Project

Having a team of experienced EE engineers we are participating in Camera Hardware design definition taking **required level of responsibility** – from review and recommendations up to full EE design.

- Optimal Ambarella SoC model & part-number selection based on feasibility study
- Key HW components recommendations: Image Sensor, Connectivity modules, DRAM, Audio codec



Hardware Partners:

- **Sony Image Sensors Group**,
The manufacturer of highest quality image sensors for a wide variety of applications
- **Cypress Semiconductor**,
The manufacturer of advanced WiFi/BT silicon for IoT market. (formerly part of Broadcom)
- **Murata Manufacturing Co., Ltd.**
The manufacturer of finest WiFi/BT modules based on Cypress chips

We Can Help Your Camera Project

Our Image Quality experts armed with all required equipment and Know-How to tune the entire Ambarella SoC IQ Pipeline and deliver the best Camera IQ possible.

- Product specific **Lens & Image sensor** selection
- **Image Quality Lab** for thorough Optical system analysis
- **Baseline IQ tuning** of selected Optics & Image sensor
- **Factory IQ calibration** (per-unit calibration of each individual Optical system at the production line with quantitative success criteria and computer vision based validation algorithms)
- In-house **3A algorithms** implementation (Autofocus, Auto exposure, Auto color balancing) with additional capabilities for multi-sensor Cameras (e.g. for Virtual Reality cams)



Thank You!

Rhonda Software

Additional info:

[http://rhondasoftware.com/
software-solutions/imaging](http://rhondasoftware.com/software-solutions/imaging)

Contact us:

[http://rhondasoftware.com/
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