



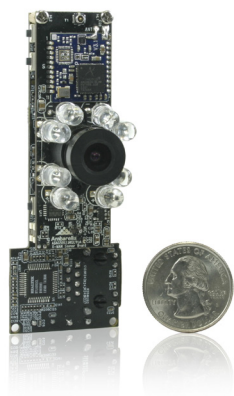
1080p30 Consumer IP Camera Reference Kit

Overview

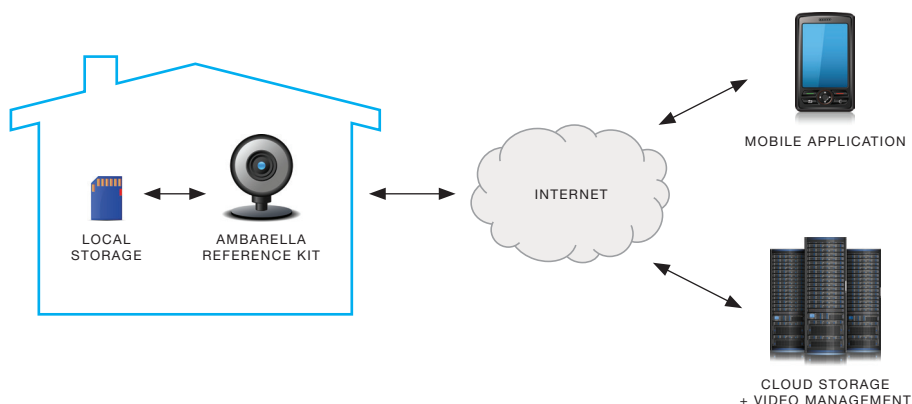
The Ambarella 1080p30 Consumer IP Camera Reference Kit enables fast development of Full HD consumer-targeted IP cameras and applications, including cloud-based home surveillance.

The reference kit features the Ambarella A5s SoC with SmartAVC (Smart Advanced Video Coding), Ambarella's latest H.264 technology that targets low bitrates. SmartAVC provides excellent video quality at low bitrates to reduce storage costs and improve the streaming experience. The kit further supports a 3 Mpixels sensor, IR LED night vision, WiFi, Ethernet, microSD card for local storage, and 2-way audio.

Optimized for low power, the total camera solution requires less than 2W for 1080p30 encoding to enable cost-effective and small form factor consumer designs.



1080p30 Consumer IP Camera Reference Kit



Consumer IP Camera System Diagram

Key Features

Low Power, Low Cost SoC Solution

- Based on the **Ambarella A5s66** SoC
- 528 MHz ARM1136J-S for applications
- Full HD 1920x1080p30 + 480p30 performance
- <2W full camera power at 1080p30

1080p30 SmartAVC Encoder

- Advanced scene-adaptive H.264 compliant algorithm
- Allows 1080p30 security content at 1Mbps, down to 100kbps for low-motion scenes
- Support for 4 concurrent H.264/MJPEG encodes
- Low-latency for network transmission

Advanced Imaging

- 3 MP Aptina AR0330 sensor (2.2um pixels), M12 lens with wide angle FOV
- 3 MP to 2 MP oversampling for full FOV and sharper images
- Day/Night with IR LEDs and Ambient Light Sensor
- MCTF 3D Noise Reduction for enhanced low-light
- Digital Pan/Tilt/Zoom
- Region-based intelligent motion detection

Efficient Development Platform

- Reference kit complete with necessary software and hardware documents for production
- Linux SDK for development and differentiation
- Middleware application, including APIs to connect to popular cloud services (contact Ambarella for more info.)
- iOS/Android mobile apps and cloud storage services available from Ambarella partners
- Debug board with RS232 connector

Versatile Consumer IP Camera Feature Set

- 802.11g/n WiFi module
- 10/100 Ethernet PHY
- MicroSD local storage (SDHC class 4 and above)
- Speaker and microphone for bi-directional audio
- Pre/post alarm event recording
- QR code with voice indicator for easy setup
- USB 5V power supply
- IR LED auto brightness control to prevent overexposure
- Unit size (with WiFi): 60mm x 20mm x 9mm (excl. lens and IR LEDs)

Contact www.ambarella.com/about/contact/inquiries.html

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