Avago Technologies Solutions for
Smart Phone Applications
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Avago Technologies provides cutting-edge features and capabilities enabling the world’s most prominent handset manufacturers to enrich the smart phone user experience. Avago products not only have a direct impact on the human interface and user experience, but are also enabling the new small size integrated smart phone handsets.

ChipLEDs for LCD Status and Backlighting

The Avago Advantage
Avago Technologies offers an extensive range of high quality chipLEDs which are small in size, highly efficient and low power consumption; to meet demands for virtually any surface mount lighting requirement.

Featured Products
- ASMT-C and HSMx-C Series surface-mount ChipLEDs – 0603 (1.6 x 0.8mm), blue & green, 0805 (2.0 x 1.2 mm), 1206 (3.2 x 1.6mm), right angle, reverse mount, multi-color, bi-color surface mount chipLEDs.

Power Amplifiers, FBAR Duplexers, and GPS Front-End Modules for RF Front-End

The Avago Advantage
Avago CoolPAM™ technology power amplifier modules combine excellent efficiency and linearity to increase battery life and talk time. Avago FBAR duplexers provide excellent insertion loss and isolation while increasing talk time, while FEMs (Front End Modules) provide improved performance in a smaller package size by combining both PA and Duplexer into one.

In addition, GPS amplifier/front-end modules make it easy to integrate GPS capability into handsets.

Featured Products
- ACPM-5001/2/4/5/8 – Bands 1, 2, 4, 5 and 8 Multimode (UMTS/CDMA/LTE) power amplifier modules, 3x3mm package with integrated coupler
- ACPM-2001/2/5/8 – UMTS Data Card power amplifier modules, 3x3mm package with integrated coupler
- ACPM-7354 – Dual-band CDMA power amplifier modules, 3x5mm
- WS1105/WS1405 – CDMA Cellular and PCS power amplifier modules, 3x3mm
- AFEM7750 and AFEM-7758 – CDMA Cellular and PCS FEMs (Front End Modules), 4x7mm
- ACPM-7868 – GSM/EDGE power amplifier module
- ACMD-7xxx, ACMD-6xxx – CDMA, UMTS, LTE duplexers
- ACPF-xxxx – CDMA, UMTS, LTE, WIFI, WiMAX point filters
- ACFM-7xxx – CDMA PCS/Cellular FBAR Quadplexer and Quintplexer (with GPS filter)
- ALM-xx12, ALM-xx06, MGA-635T6, MGA-231T6, MGA-24106 – GPS low-noise amplifier/front-end module
**Ambient Light Sensors**

**The Avago Advantage**

The APDS-930x is a low-voltage digital ambient light photo sensor that converts light intensity to digital signal output capable of direct I2C interface. The sensor comes in a miniature chipLED lead free surface mount package whose spectral response is close to the CIE standard photopic observer. It is ideal for applications in which the measurement of ambient light is used to control display backlighting.

**Featured Products**

- APDS-93xx Series - Miniature surface mount ambient light photo sensors

**Proximity Sensors**

**The Avago Advantage**

Avago Technologies offers a broad product portfolio of proximity sensors to meet diversified applications. Highly integrated ambient light sensor and proximity sensor solutions are also available. The proprietary metal shielding package design used by Avago reduces cross talk, and these devices come in compact packages which help to save board space.

**Featured Products**

- APDS-9800-021 – Integrated ambient light and proximity sensor
- APDS-9120-020 – Integrated proximity sensor
- AEDS Series photointerrupters

**Auto-Focus And Zoom Lens Motor Control**

**The Avago Advantage**

Avago Technologies offers motor control solutions that are ideal for the small motors and packaging in digital cameras. Avago offers the world’s smallest encoder and very low power optocouplers that are ideal for these applications.

**Featured Products**

- ACPL-x6xL Family Low Power Optocouplers
- AEDR-8400 Family Miniature Encoders

**Optical Finger Navigation**

**The Avago Advantage**

Avago Technologies’ optical finger navigation sensors provide an ultra-thin optical navigation input solution suitable for battery- and power-sensitive applications such as mobile phones. There are no moving parts, which results in high reliability and less maintenance for the end user. In addition, precision optical alignment is not required, helping to facilitate high-volume assembly.

**Featured Products**

- ADBS-A320 – optical finger navigation sensor
- ADBL-A321 – Lens for ADBS-A320
- ADBS-A430 – optical finger navigation sensor with integrated lens

**Auto Focus Auxiliary Flash LEDs**

**The Avago Advantage**

Avago offers SMT (Surface Mount Technology) dome lamps which use an untinted, non-diffused lens to provide a high luminous intensity within a narrow radiation pattern.

**Featured Products**

- ASMT-FG10-NF00 – Green Auto Focus Auxiliary Flash LED
- ASMT-FJ10-ADH00 – Orange Auto Focus Auxiliary Flash LED
- ASMT-FJ60-AFJ00 – Orange Auto Focus Auxiliary Flash LED
- ASMT-FJ30-AB000 – Orange Miniature Auto Focus Auxiliary Flash LED
From the smartphone that keeps you in touch, to the fiber optic network that keeps a $10-billion corporation connected, we get our information these days through an ever-increasing array of sophisticated device technologies. And behind it all, are semiconductors that sense, illuminate, and connect the signals in order to process that digital data.

Avago Technologies is a leading supplier in III-V compound and silicon semiconductors providing an extensive range of analog, mixed signal and optoelectronics components that are backed by over 5,000 patents to approximately 40,000 end customers.

Our heritage of technical innovation dates back 45 years, and includes over 1,000 talented design and product engineers. We believe in strong customer service support and intense collaboration to create leading-edge proprietary technologies to solve customers' technical bottlenecks. In that way, our innovation helps bring your imagination to market.

**Avago products serve four diverse end markets**

**Wireless Communications** serving the smartphone/ handset and Base Station infrastructure markets with over 250 patents and leading-edge products that include:
- Power Amplifiers
- Front End Modules
- Film Bulk Acoustic Resonator (FBAR) Filters
- GPS LNAs
- Optical Finger Navigation
- LED Backlighting, Screen Illumination
- Ambient Light and Proximity Sensors

**Industrial and Automotive Electronics** for alternative energy power generation, electronic sign and signals, automated manufacturing, automotive lighting, GPS navigation, motor inverter system, battery charging and management, infotainment systems and vehicle safety systems with products that include:
- Inverters
- Isolation and Digital Optocouplers
- Optical Encoders
- Polymer Optical Fiber
- PLCC-2/4 LEDs, 0.5W LEDs

**Wired Infrastructure** for switches/routers, data centers, supercomputers and storage/ servers with over 200 patents in parallel optics alone and products that include:
- 120Gb Parallel Optic Arrays
- 20Gb SerDes ASICs in 40nm
- Storage Fibre Channel Transceivers
- QSFP/SFP Sonet Transceivers

**Consumer and Computing** peripherals for Optical/Laser mice, printers, white goods, DVD players, netbooks, Tablet PCs and laptops with over 100 patents and products that include:
- Optical and Laser Mouse Sensors
- Motion Control Optical Encoders
- Paper Level/Edge Proximity Sensors
- Display LEDs
- Status Indicator and Backlighting LEDs
- Ambient Light Photo Sensors
- Auto Focus Auxiliary Flash LED

Contact us for your design needs at: [www.avagotech.com](http://www.avagotech.com)

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