

ams delivers industry's first sensor module to integrate universal remote control, barcode emulation, color sensing, proximity and 3D gesture detection

Low-profile, optical sensor module reduces board space requirements and lowers smartphone BOM cost

Unterpremstaetten, Austria (20 July, 2015), ams AG (SIX: AMS), a leading provider of high performance sensors and analog ICs, launched today a new series of advanced optical sensing modules, the TMx4903, integrating multiple functions including universal remote control, barcode emulation, RGB color sensing, proximity and 3D gesture detection in a low-profile 5.0x2.0x1.0mm package.

The high level of integration in the TMx4903 modules reduce board space requirements and lowers bill of material (BOM) cost while delivering exciting new capabilities required by today's smartphones. By integrating multiple optical sensing functions, and an IR LED in a module, the TMx4903 devices help to simplify smartphone board layouts giving greater flexibility to system designers. The low-profile package also helps designers to meet consumer demand for sleeker, slimmer and more aesthetically pleasing smartphone designs.

The module variants in the series, the TMD4903 and TMG4903, perform accurate color and proximity sensing, and integrate an IRBeam IR pattern generator. The IR pattern generator emits remote control beam patterns for any standards-compliant consumer product. The URC capability is also compatible with the Android™ Consumer.IR programming interface for remote-control applications on smartphones. Mobeam™ 1D barcode emulation for use at retail point-of-sale (POS) terminals is also supported.

The TMG4903 device also provides the industry's most advanced touchless IR gesture-sensing capability. ams' new 3D gesture technology enables the recognition of complex hand gestures, supplementing simple north-south and east-west 2D gestures supported by ams' 1st generation TMG3992 gesture sensor.

The TMx4903 new 3D gesture and proximity capability draws on the modules' automatic adjustment of the IR LED's timing and power output, minimizing noise and power consumption while optimizing sensitivity and dynamic range. The TMx4903 incorporates innovative circuit techniques which rejects ambient light noise. Automatic calibration removes electrical artifacts caused by noise and optical cross-talk. This integrated intelligent LED drive capability eliminates the requirement for the application processor to control LED driving functions which simplifies the phone's software implementation and reduces processing capability required for instantaneous gesture recognition.



Press Release
ams launches highly integrated TMx4903
optical sensing module

'Today's leading smartphones are known for integrating cutting-edge technology, functionality and aesthetics. The space savings enabled by the use of the TMD4903 or TMG4903 help OEMs to set new standards of integration in the smartphone industry', said Darrell Benke, Senior Product Marketing Manager for ams.

The TMD4903 and TMG4903 are available now in production volumes. Unit pricing for the TMD4903 is \$2.00 and the the TMG4903 is \$2.50 in order quantities of 1,000.

Evaluation boards for the TMD4903 and TMG4903 are available for qualified opportunities. For additional information and to contact a local ams sales office or distributor to request samples, please go to www.ams.com/Color-Sensor/TMD4903 as well as www.ams.com/Gesture-Sensor/TMG4903

About ams

ams is a global leader in the design and manufacture of advanced sensor solutions and analog ICs. Our mission is to shape the world with sensor solutions by providing a seamless interface between humans and technology. ams' high-performance analog products drive applications requiring extreme precision, dynamic range, sensitivity, and ultra-low power consumption. Products include sensors, sensor interfaces, power management and wireless ICs for consumer, communications, industrial, medical, and automotive markets.

With headquarters in Austria, ams employs over 1,700 people globally and serves more than 8,000 customers worldwide. ams is listed on the SIX Swiss stock exchange (ticker symbol: AMS). More information about ams can be found at www.ams.com.

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