PRODUCT BRIEF

XENSIV™ Sensor Shield

Seamless hardware compatibility between sensors, microcontroller and connectivity

Elevate your IoT development with the XENSIV™ Sensor Shield, offering a robust array of sensors for precise data collection.

This shield is a powerhouse of sensor technology, featuring a 60GHz radar, temperature, pressure, motion sensors, and a disruptive CO2 sensor based on photoacoustic spectroscopy. This shield also features a MEMS microphones, and a high-contrast TFT display, connecting to baseboard MCUs via the Arduino™ Uno header.

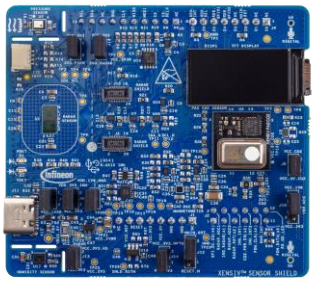
The XENSIV™ Sensor Shield kit package includes a SHIELD_XENSIV_A sensor shield that contains a 0.96-inch TFT display, BGT60LTR11AIP radar sensor, humidity and temperature sensor, motion sensor, magnetometer sensor, DPS368 pressure sensor, PASCO2V15 CO2 sensor, IM72D128V PDM microphones, SLS32AIA OPTIGA™ Trust M, and a QWIIC connector.

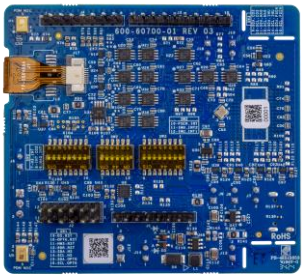
The XENSIV™ Sensor Shield is compatible with any Arduino™ UNO development platform from Infineon; the CY8CKIT-062S2-43012 can be used as the baseboard with the CYW920829M2EVK-02 EVK for Bluetooth® connectivity.

The ModusToolbox™ Software Environment can be used to develop and debug the required firmware project with the PSOC™ 6 or AIROC™ CYW20829 device present on the baseboards. Provided as a collection of development tools, libraries, and embedded runtime assets, ModusToolbox™ Software is architected to provide a flexible and comprehensive development experience.

The included kit guide provides details on the shield contents, such as hardware, schematics, and BOM.

For more information visit XENSIV™ Sensor Shield webpage.





Key features

- XENSIV™ 60GHz Radar sensor
- XENSIV™ disruptive CO2 sensor
- XENSIV™ pressure & temperature sensor
- Digital humidity and temperature sensor
- Two XENSIV™ MEMS digital microphones
- Six-axis inertial measurement unit
- Digital geomagnetic sensor
- OPTIGA™ Trust M security solution
- SPI-based TFT display
- Headers compatible with Arduino UNO R3
- ModusToolbox™ support with integrated device drivers

Key benefits

- Plug and play connection to MCU kits
- Precise data from diverse sensors
- Crystal-clear audio input
- Advanced presence detection
- Reliable humidity & temperature tracking
- User-friendly development environment

Key Applications

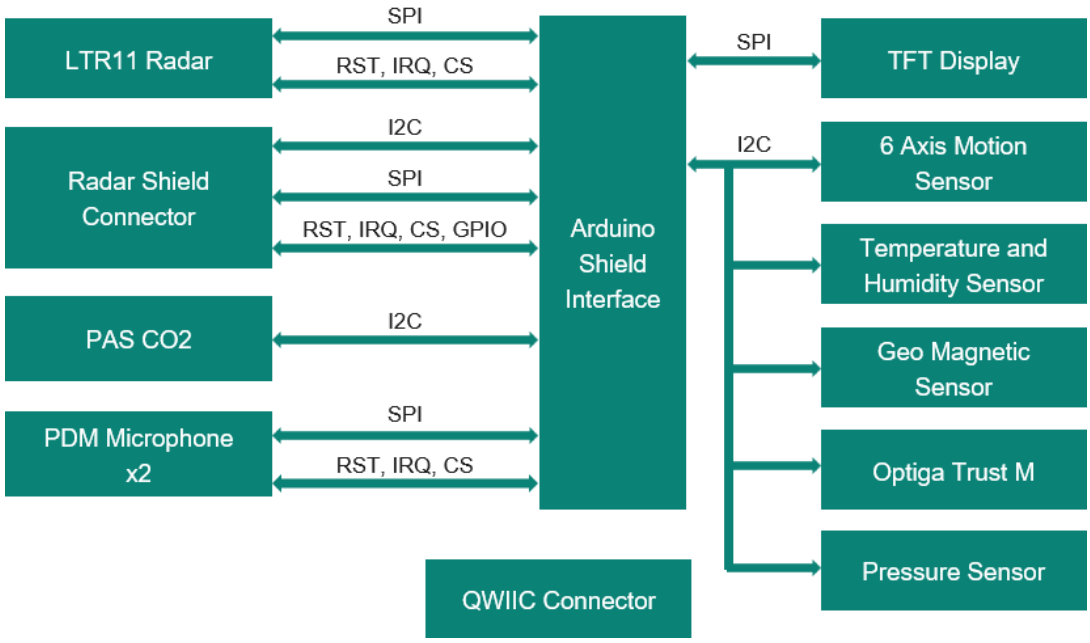
Smart Home and Building	Home Entertainment
	Room air conditioners & HVAC
	Home Appliances
	Security Systems

PRODUCT BRIEF

Ordering Part Numbers

PN	Description	Package
SHIELD_XENSIV_A	XENSIV™ Sensor Shield kit	Kit
CYW920829M2EVK-02	AIROC™ CYW20829 Bluetooth® LE MCU Evaluation Kit	Kit
CY8CKIT-062S2-43012	PSOC™ 62S2 Wi-Fi BT Pioneer Kit	Kit

Block Diagram



Important Links

- Find out more about the kit **components here**
- XENSIV™ PAS CO2 sensor portfolio and technical documentation, visit the CO2 sensors webpage
- XENSIV™ pressure sensor portfolio and technical documentation, visit the pressure sensors webpage
- XENSIV™ 60 GHz RADAR sensor product portfolio and technical documentation, visit the XENSIV™ 60 GHz radar MMICs webpage
- XENSIV™ MEMS microphone portfolio and technical documentation, visit the XENSIV™ MEMS microphones for consumer electronics webpage
- OPTIGA™ Trust M portfolio and technical documentation, visit the OPTIGA™ Trust M webpage
- PSOC™ 62 - General Purpose microcontrollers based on dual core Arm Cortex-M4, Arm Cortex-M0+
- AIROC™ CYW20829 Bluetooth® LE 5.4 MCU with Industry's best range, Dual ARM Cortex M33
- ModusToolbox™ software functionality and releases, visit the ModusToolbox™ software webpage

www.infineon.com

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