Cross Domain Development Kit | XDK

Start your Sensor X - perience

BOSCH
Invented for life

The universal programmable sensor device & prototyping platform for any IoT use case you can imagine!

Make use of the power to monitor, control and analyze your product remotely over Bluetooth or Wireless Network. In this way, devices, products or machines become connective and smarter. XDK is now released for 24/7 usage giving you the freedom to use it either for short-term proof of concepts or long-term projects. Inclusive of multiple Micro-Electromechanical Systems (MEMS) sensors, various parameters for condition monitoring or predictive maintenance get recorded.

You can decide between a rapid prototyping kit (XDK110) and as a professional bundle (XDK Node) in a package of 10 pieces.

*The **XDK110** device was designed for rapid prototyping and allows users an easy transition from prototype to mass production by providing a clear road to product development.*

*The **XDK Node** – Professional Bundle includes 10 pieces of XDK110 devices with an optimized scope of delivery which enables a cost effective deployment for larger projects and simplifies the installation.*

BUILT-IN SENSORS

Accelero-meter | Acoustic sensor | Digital light sensor | Gyroscope | Humidity sensor | Magneto-meter | Pressure sensor | Temperature sensor

APPLICATION ADVANTAGES

- All-in-one sensor kit: no need for component selection, hardware assembly, or deployment of a real-time operating system
- Algorithm library
- Example code in open source licensing
- Drivers for all system components included
- Secure data protocol
- Small form factor (Length 60 mm x Width 40 mm x Height 22 mm; Weight 54 g)
- Built-in lithium ion rechargeable battery
- Functional extendibility via the included extension board
- High-level API for the standard user and low-level API for the power user
- PC and MAC based development tools for Windows, LINUX and MacOS make it an easy to work with tool for any developer
- CE, FCC, IC, IMDA, ACMA, NTC and NBTC certified | further on request

INCLUDED IN DELIVERY

XDK110 - Rapid Prototyping Kit

- XDK Development Kit
- "XDK Gateway" extension board for easy access to additional MCU functionality
- 10 cm connector cable
- Micro USB 2.0 connector cable
- Mounting plate and screws

XDK Node – Professional Bundle

- Bundle of 10 XDK110 devices (without "XDK Gateway" and without 10 cm connector cable)
- Micro USB 2.0 connector cable
- Mounting plate and screws

MAIN COMPONENTS

- Bluetooth 4.0 low energy IEEE 802.15.1
- Wireless LAN IEEE 802.11b/g/n
- 32-Bit microcontroller (ARM Cortex M3), 1MB Flash, 128 kB RAM
- Internal Li-Ion rechargeable battery 560 mAh
- Integrated antennas

BOSCH
Invented for life

OPERATING CONDITIONS

Indoor use	
Operating temperature range	-20 °C ... 60 °C, (0 °C ... 45 °C for battery charging)
Storage temperature range	-20 °C ... 60 °C
Humidity range	10...90 %rH (non-condensing)
IP Rating	IP 30 (IEC 60529)
Supply Voltage	5 V DC

MEASUREMENT RANGES

Accelerometer	±2 ... ±16 g (programmable)
Gyroscope	±125 °/s ... ±2000 °/s (programmable)
Magnetic field strength	±1300 µT (X,Y-Axis); ±2500µT (Z-Axis)
Light sensor	0.045 lux ... 188,000 lux ; 22-bit
Temperature	-20 °C ... 60 °C [limited by XDK operating conditions]
Pressure	300...1100 hPa
Humidity	10...90 %rH (non-condensing) [limited by XDK operating conditions]

SAMPLING RATE

Accelerometer BMA280	2000 Hz
Gyroscope BMG160	2000 Hz
Magnetometer BMM150	300 Hz
Hum./Press./Temp. BME280	182 Hz
Inertial Measurement Unit BMI160	1600 Hz (Accelerometer); 3200 Hz (Gyroscope)

SOFTWARE

Free software download for XDK110 & XDK Node from the website (https://xdk.io/software-downloads)

- Integrated development environment supplied with XDK Workbench (Eclipse)
- LWM2M communication protocol
- Extensive libraries and modular source code enable the developer to fully understand the system
- Datagram Transport Layer Security (DTLS)

USER INTERFACE

- Power switch
- Green system LED to display the state of charging
- 3 programmable status LEDs (red, orange, yellow)
- 2 programmable push-buttons
- Micro SD card slot
- Interface for J-Link Debug-probe
- Interface for extension board

GET IN CONTACT WITH US

Bosch Connected Devices and Solutions
E-Mail: support@bosch-connectivity.com

VISIT OUR WEBSITE

www.xdk.io

Technical data subject to modification without notice.

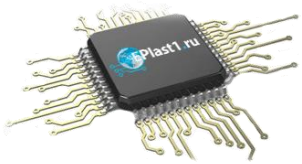
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.