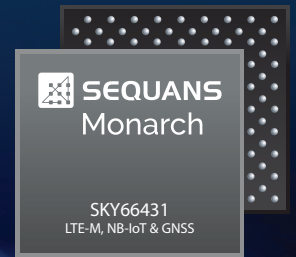


LTE-M, NB-IoT & GNSS

Monarch 2 SKY66431 SiP

Low Power System-in-Package



Co-developed by Sequans and Skyworks, the Monarch® 2 SKY66431 is an ultra-compact System-in-Package (SiP) designed for LTE-M and NB-IoT applications. With a conformal shielding for durability and environmental resistance, the Monarch 2 SKY66431 achieves an industry-leading compact footprint of just 8.8 x 11.3 x 1.585 mm in a BGA package. It integrates the complete RF front end, transceiver, power management, RAM, crystals, and baseband modem into a single multi-band LTE radio solution, supporting global connectivity across the 698–2200 MHz frequency range. Additionally, the Monarch 2 SiP optionally includes low-power GNSS functionality and delivers remarkably high levels of security and reliability.

Monarch 2 LTE Platform

At the heart of Monarch 2 SKY66431 SiP is a flexible platform offering a variety of services. For instance, it includes an open SDK environment allowing customer application development, a LwM2M-based FOTA service, advanced security features and an optional integrated GNSS capability, notably optimized in power consumption.

Highlights

- + System-in-Package for ultra-small device
- + Conformal shielding for durability and environmental resistance
- + Worldwide bands for global coverage on public and private networks
- + Location services with integrated GNSS
- + Edge processing with an open SDK
- + Ultra-low power
- + Industrial grade: trusted by the most demanding LPWA applications

System-in-Package	Regions	LTE Bands Supported	GNSS
SKY66431	Worldwide	1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 66, 85	Optional

Applications



Asset Tracking



Utility Meters



Industrial Sensors



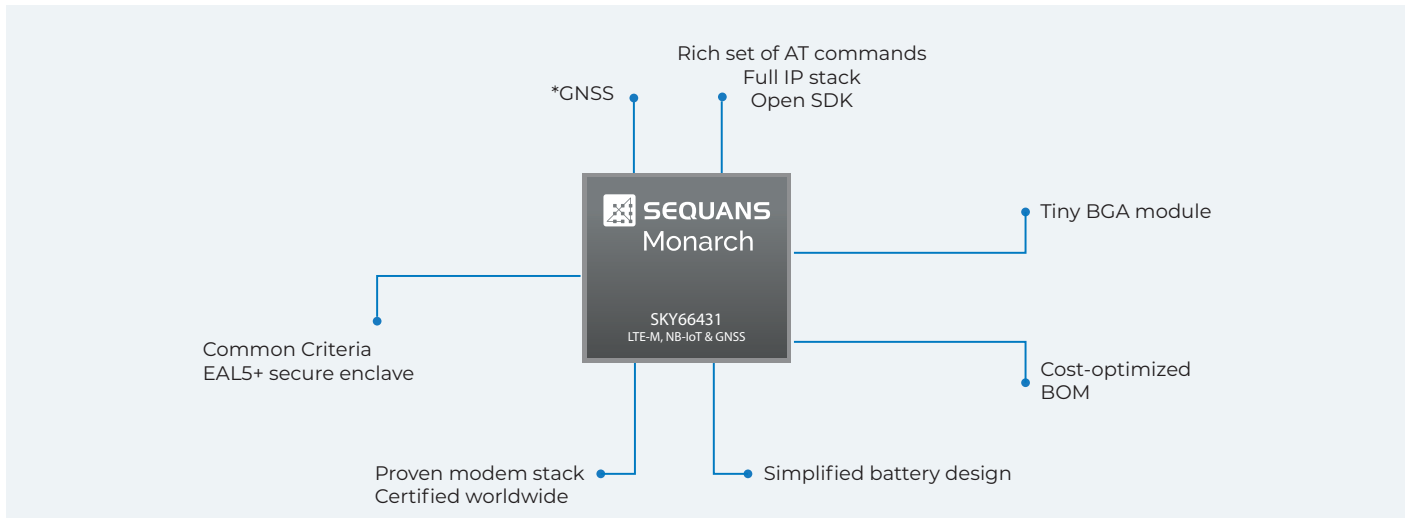
Health & Fitness Bands



Smart Home

Monarch 2 SKY66431 SiP

Low Power System-in-Package with LTE-M, NB-IoT & GNSS



LTE Modem

- + System-in-Package integrates baseband, transceiver, RF front end, RAM memory, crystals and power management
- + 8.8 x 11.3 x 1.585 mm (max) BGA package, 0.5 and 1 mm pitch
- + Single-SKU with support for LTE bands:
 - 1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28, 66, 85
 - Various private LTE networks are also supported (list available on demand)
- + 3GPP Release 14 (upgradeable up to Release 17)
- + Max transmit power up to +23dBm
- + Power supply: 2.8-5.5V

Throughput

- + LTE Cat M1: up to 1.1 Mbps (DL) / 0.3 Mbps (UL)
- + LTE Cat NB1/NB2: up to 105 kbps (DL) / 80 kbps (UL)

Interfaces

- + JTAG, I2C, SPI, ADC, UART x3
- + GPIO including multiple module wake inputs and high precision LTE-synchronized GPIOs
- + Quad-IO SPI interface (QSPI) for Flash access
- + USIM x1 (ISO7816)
- + 50 Ohm LTE antenna interface
- + Dedicated GNSS RF input

Software

- + Field proven LTE-M & NB-IoT LTE software stack
- + Rich set of AT commands compatible with previous generation
- + IP and non-IP data delivery
- + Certified LwM2M stack (FOTA)
- + TCP/IP stack enabling HTTP(S), MQTT(S), CoAP to connect to cloud platforms
- + AT Command driven GNSS navigation modes

Environmental

- + Operating temperature range: -40 C to +85 C
- + Silver (Ag) free conformal shielding, Halogen free, GaAs free
- + Storage: JEDEC MSL 3

Certification

- + GCF, PTCRB and major MNOs
- + FCC, ISED/IC, RED, UKCA, ACMA

SKY66431 EVK

Connect to worldwide LTE-M & NB-IoT networks and get GNSS location

Also includes :

- + Global SIM card from Soracom with for 3 months connectivity (up to 30 USD)
- + One MiniUSB cable, embedded antenna with antenna tuner
- + GNSS antenna



SKY66431 EVK

MORE INFORMATION
HERE



** optional*
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