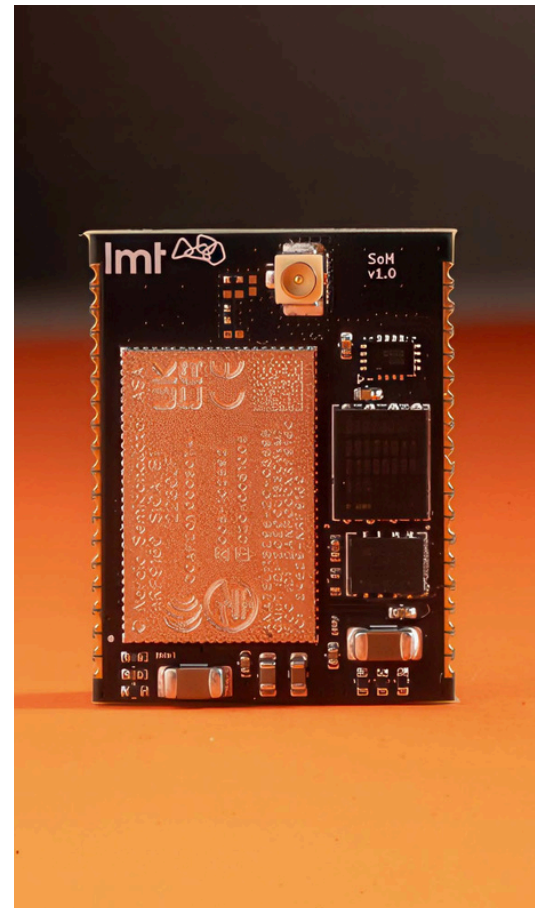


Overview

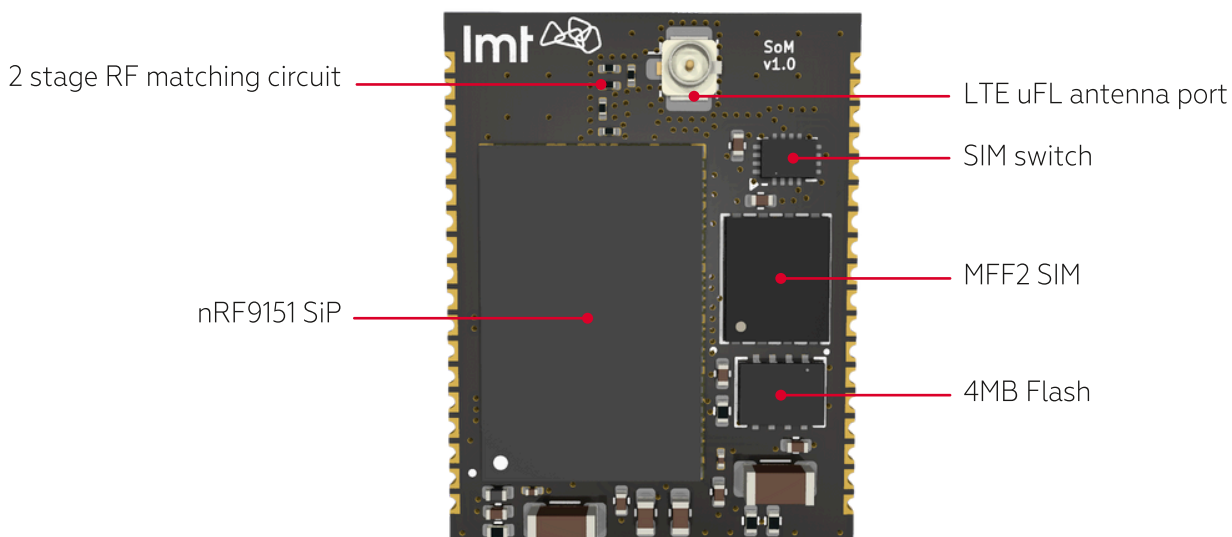
The IoT Shortcut SoM (System on Module) is a 20 x 26 mm easy to use cellular data pump. It is meant to be integrated into other cellular IoT product designs and can be soldered using SMT reflow process for high scalability. It is designed with low-power principles in mind, consuming as little as 7 μ A in deep sleep mode. It comes with IoT Shortcut easy-to-use FW SDK, which includes everything you need to jumpstart and scale your Cellular IoT project, even for a one-person team.

The module is built on latest cellular modem from Nordic Semiconductor nRF9151 and includes LTE-M & NB-IoT connectivity, an onboard ARM Cortex M33 application processor, perfectly matched RF path for antenna connection, MFF2 SIM, 4 MB of external flash memory and SIM switch that allows the user to switch the onboard SIM card and externally connected SIM card. And best of all – it's certified.

- As low-power as cellular IoT can get
- Simple integration through the IoT Shortcut cloud service
- Secure and power optimized protocol stack: UDP + CoAP + DTLS
- Zephyr based FW SDK
- Onboard ARM Cortex M33 application processor
- SIM switch for added SIM flexibility
- Additional 4MB of flash for all your data
- Matched RF path for best connectivity and power savings



Communication Module (SoM)



Technical specification



Power

Operating voltage	3.0 V to 4.3 V
Deep sleep power consumption	< 7 μ A at 3.6 V supply
1 upload power budget	25 mC (100 B payload, excellent signal conditions)



Physical

Dimensions	20 x 26 mm
Weight	Approx. 4 g

Features



Application processor:

- ARM Cortex M33 with 1 MB Flash and 256 KB RAM
- ARM Trustzone
- ARM Cryptocell 310



Connectivity:

- LTE Cat-M1, LTE CAT-NB1 (NB-IoT) with global coverage
- UDP + DTLS + CoAP protocol stack included in FW SDK
- PSM and eDRX support
- On-board MFF2 SIM & SIM switching circuit for external SIM
- GNSS



Memory:

- 1 MB Flash and 256 KB RAM included in nRF9151 application processor
- Additional 4 MB Flash available for logs, telemetry data and others



Peripherals:

- I2C / UART / SPI / I2S with EasyDMA
- Up to 8 12-bit, 200ksps ADC with Easy DMA
- Up to 4 PWM Units
- Both Tag-connect compatible and castellated SWD programming pins