LTSCT Connectivity Modules
for Secure and Reliable Connection

LTSCT
L&T SEMICONDUCTOR TECHNOLOGIES LIMITED

Reliable and Secure Connectivity by L&T Semiconductor Technologies (LTSCT)

The demand for low-power, secure and reliable connectivity in moderate data-rate applications is increasing rapidly. Smart energy meters, asset tracking systems, point-of-sale terminals and fleet management systems are typical examples where secure and reliable connectivity is critical. LTSCT meets these requirements with its LTE CAT 1 bis LCC40 module, designed to deliver reliable cellular connectivity, robust security, certification readiness and a durable design proudly made in India.

Role of Modules in highly reliable connectivity segment

Companies today face mounting pressure to launch connected features faster, stay ahead of global regulations and future-proof platforms, all while hitting the aggressive cost targets. LTSCT offers a simplified solution in an ultra-small LCC+LGA package based module that combines reliable cellular 4G LTE CAT 1 connectivity, hardware security, robustness and OTA readiness into certified platforms at a lower cost. LTE CAT 1 technology is ideal for moderate data rate applications compared to NB-IoT or LTE-M technologies simply because it supports the use of existing LTE infrastructure, seamless handover and roaming, higher throughput and above all, lower latency. These modules have a built in cellular IoT modem and a high-performance RF front end for robust cellular connectivity. The module comes with multiple interfaces to connect with external processors, microcontrollers, sensors etc. to support a wide range of applications.

LCC40 Connectivity Module – Single module, Multiple applications

Our LCC40 connectivity modules are designed to be used across a wide range of applications including the following:

Smart Energy & Other Utility Meters:

LCC40 LTE Cat 1 bis module is a compact footprint, secure and reliable cellular connectivity module with optimized power efficiency ideal for smart energy meter and other utility metering applications including water meter, gas meter etc.

Point of Sales Terminals:

LCC40 through its built-in hardware security and reliable LTE connectivity enables integration with POS terminals for secure payment applications.
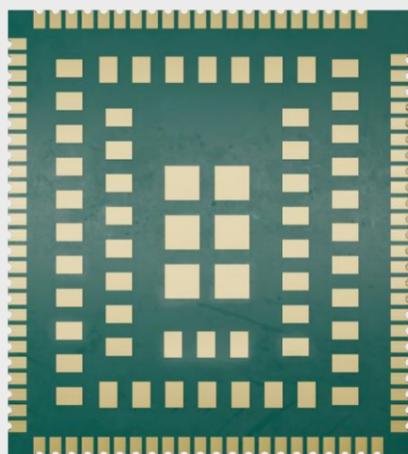
Asset Tracking Applications:

LCC40 modules could be used for asset tracking applications because they balance cost, coverage and power efficiency, making them ideal for IoT devices that need reliable connectivity and location services.

LCC40 Connectivity Module – Driven by performance

The LCC40 is a compact LTE Cat 1 bis module offering a robust set of hardware capabilities, including:

- A highly integrated IoT modem SoC supporting data rates of up to 10 Mbps downlink and 5 Mbps uplink

- An ARM Cortex processor embedded in the IoT modem SOC responsible for protocol handling and edge logic.

- Supports USB 2.0, UART, SPI, Audio I2S, SIM, I2C, ADC and GPIO interfaces

- Free RTOS operating system and power-saving modes (sleep / hibernate / eDRx), to accelerates low-power deployments.

- Supports Wi-Fi beacon frame detection that enables software-based positioning using surrounding access points.

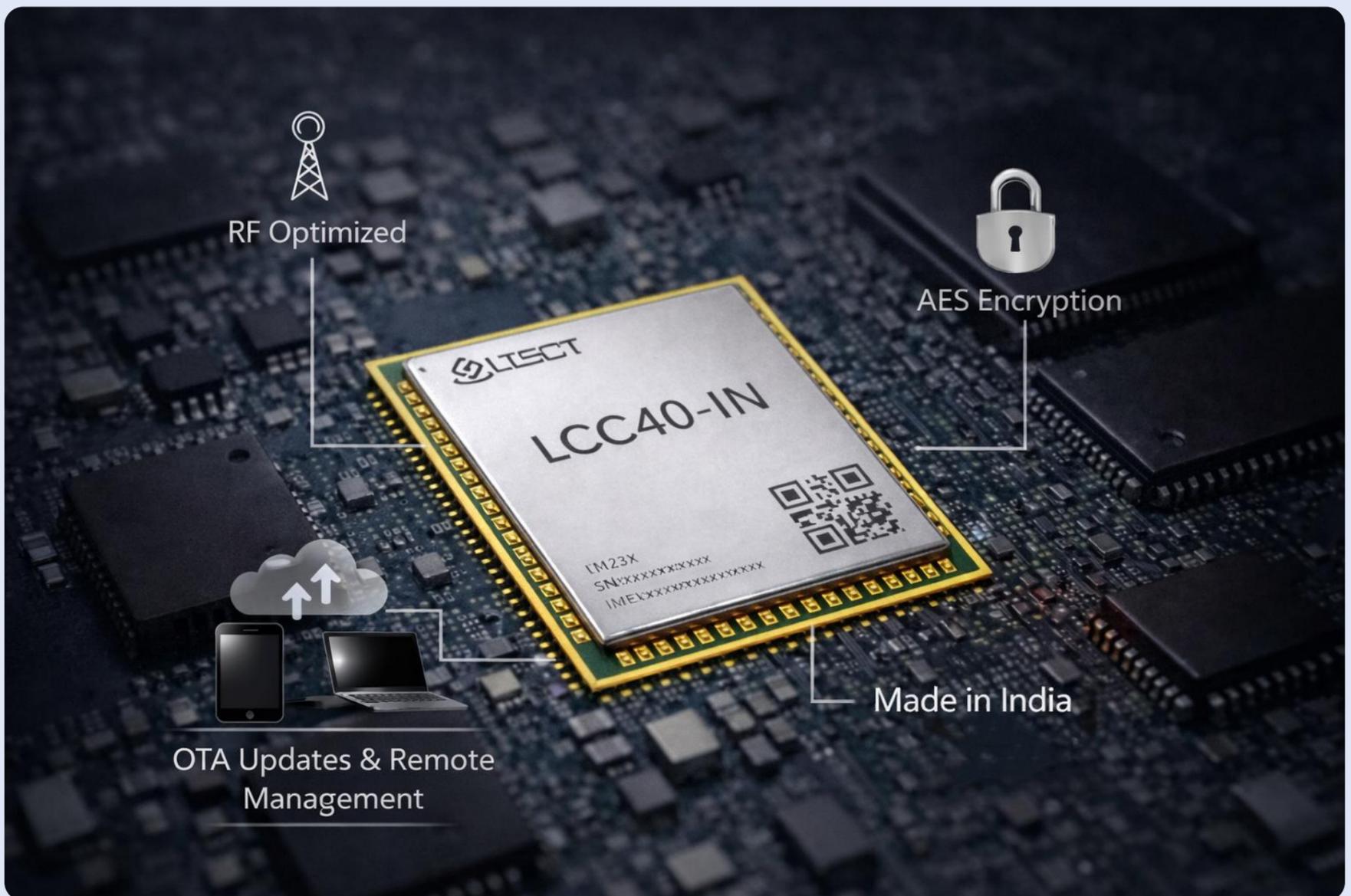- High performance RF front end for efficient LTE transmission and reception.

LCC40 - Seamless Integration and Diagnostics

✅ **Designed for plug-and-play deployment**
Engineered for seamless integration of hardware with optimal firmware.

✅ **Seamless compatibility with utility ecosystems**
Native support for industry-standard protocols such as MQTT and HTTP/HTTPS with existing head-end systems and cloud platforms.

✅ **Remote control across the device lifecycle**
Built-in OTA updates, remote diagnostics, and configuration support enable easy field management without site visits.

The LTSCT Differentiators

What sets LTSCT apart is our commitment to reliable designs with high performance RF capability and our **"Security-by-Design"** philosophy with focus on long-term supply assurance.

Feature	Description
Performance	RF optimized design for reliable connectivity
Security	Advanced Encryption Standard (AES)
Management	Full lifecycle control via remote diagnostics and OTA updates.
Manufacturing	**"Made-in-India"** assurance for global supply chain stability.

Value for Customers

- Reduced integration and certification effort

- Faster SOP and global deployment

- Lower BOM Cost

- Long-term supply assurance with Made-in-India manufacturing

- Lower total cost of ownership through lifecycle support

Conclusion

LTSCT's LCC40 LTE Cat 1 bis module enables OEMs to deploy scalable, secure, and reliable future-ready connectivity solutions that could be integrated into various ecosystems across multiple application segments seamlessly.

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Future. Made Together.

Ready to accelerate your connectivity roadmap?

Partner with LTSCT Modules to accelerate certification, reduce cost and launch globally.

Book a technical discussion / sample evaluation request:

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