Telit

SE150A4

PRELIMINARY

LTE Cat 4 150/50 | Embedded
Wi-Fi 802.11 a/b/g/n | BLE 4.2

40.5 mm
40.5 mm

lte™
Wi-Fi
Bluetooth®
android
Qualcomm® snapdragon™
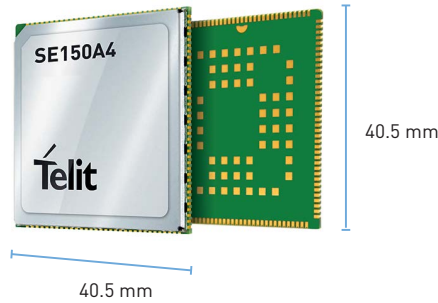
Product Description

The SE150A4 series is Telit's first generation of smart modules based on the Android operating system (OS) that supports LTE Cat 4, Wi-Fi and Bluetooth connectivity, and an embedded GNSS receiver in one package.

Powered by the Qualcomm® quad-core ARM® Cortex®-A53 64-bit processor with built-in Adreno™ 308 GPU, the SE150A4 modules are ideal for industrial and consumer applications requiring high data rates, multimedia functions and edge computing capabilities. They provide interfaces to easily connect to displays, cameras and various sensors and come with high-performance application processing and graphical processing power to boost the next generation of smart IoT devices requiring multimedia capabilities. The Android OS allows easy, flexible and streamlined application development and opens access to the biggest software ecosystem for enhanced innovation.

A rich set of interfaces, including but not limited to LCM, camera, touch screen, microphone, headset, speaker, SDIO 3.0, USB 2.0, UART, SPI and I2C, make these modules perfect for a wide range of IoT applications. These use cases include:
- Mobile point-of-sale (mPOS), smart cash registers and vending machines
- Smart alarm panels
- Security surveillance cameras and home automation security systems
- Smart home gateways
- Smart robots
- Industrial personal digital assistants (PDA)
- Handled PCs and tablets
- Police and law enforcement equipment
- Telematics cameras
- Digital video recorders (DVR)
- In-car video streaming and entertainment systems positioning receiver

SE150A4 series modules deliver maximum data rates of up to 150 Mbps downlink and 50 Mbps uplink over the LTE network and support Wi-Fi communication in compliance with IEEE 802.11a/b/g/n standards and Bluetooth Low Energy (BLE) 4.2. They also embed a multi-constellation and high-sensitivity GNSS (GPS, BeiDou, GLONASS and Galileo) receiver for precise positioning. The compact LCC +LGA 40.5 x 40.5 mm form factor allows easy integration in portable devices.

With the functionality and integrated resources in these compact modules, developers can easily and quickly develop user-friendly, touch-screen-equipped, IoT-enabled devices.

Key Benefits

- Pre-certified processing power, rich multimedia experience and reliable wireless connectivity in one package for fast time to market
- Android OS for easy application development
- Exceptional application and system performance based on the quad-core A53 @1.53 GHz 64-bit processor
- Enhanced mobile rendering APIs for image and video applications via Adreno 308 GPU
- Powered by two Qualcomm Hexagon™ QDSP6 v56 @691 MHz
- Supports up to 13 MP camera
- Supports recording and playback of 1080p video at 30 FPS
- Multi-mode 4G/3G/2G cellular radio for wide-area network coverage
- Wi-Fi and Bluetooth connectivity for short-range communications
- Onboard multi-constellation GNSS positioning receiver

Variants

The SE150A4 series includes two variants:

- The SE150A4-NA for North America offers wide band support, including AT&T FirstNet Band 14 and T-Mobile U.S. specifical Bands 66 and 71.

- The SE150A4-EU for Europe and the rest of the world includes support for Band 28 and fallback to legacy 3G and 2G technologies.

AVAILABLE FOR

North America

Europe

**Complete,
Ready-to-Use Access**
to the Internet of Things

IoT Modules | Connectivity Plans | Software & Platforms

	SE150A4-NA	SE150A4-EU
Market	North America (AT&T, Verizon, T-Mobile U.S.)	Europe and rest of world
LTE-FDD	Bands 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 66, 71	Bands 1, 3, 5, 7, 8, 20, 28
LTE-TDD	Band 41	Bands 38, 40, 41
WCDMA	Bands 2, 4, 5	Bands 1, 5, 8
GSM/GPRS/Edge	-	Bands 3, 8

SE150A4

Product Features

- LTE-FDD Cat 4
- Rx diversity and MIMO DL 2 x 2
- Single Rx option
- VoLTE support
- Wi-Fi IEEE 802.11a/b/g/n
- BLE 4.2
- Simultaneous support of GPS, GLONASS, Beidou and Galileo
- Android 10 (Q) OS

Data

LTE Cat 4

- Uplink up to 50 Mbps (FDD) and 30 Mbps (TDD)
- Downlink up to 150 Mbps (FDD) and 130 Mbps (TDD)

Environmental

- Dimensions: 40.5 x 40.5 mm
- Temperature range:
  -30° C to +75° C
- REACH and RoHS compliant

Interfaces

- LCC 146 pin + LGA 64 pin
- USB 2.0
- UART
- SPI
- I2C
- LCM
- Camera (4-lane + 2-lane CSI)
- Touch screen
- Microphone
- Headset
- Speaker
- SDIO 3.0
- Battery charge management
- GPIOs
- RTC
- 2x 1.8 V/3 V SIM (UIM) interfaces with dual-SIM dual-standby (DSDS) support
- Cellular main antenna and Rx diversity antenna pads, GNSS antenna pad

Approvals

- FCC/ISED, PTCRB/GCF (SE150A4-NA)
- RED/GCF (SE150A4-EU)

Electrical & Sensitivity

- Output power
  - Class 3 (0.2 W, 23 dBm) @ LTE
- Supply voltage range:
  - Nominal: 3.8 V dc
  - Range: 3.5-4.4 V dc

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