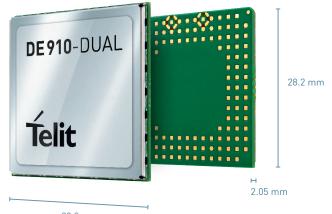# Telit

DE910-DUAL

CDMA | 1xEV-DO Rev.A Embedded

28.2 mm

28.2 mm

2.05 mm

Product Description

The DE910-DUAL is recommended for CDMA | EV-DO applications also requiring or benefiting from accurate positioning information. The DE910-DUAL is designed for applications such as mobile computing and video surveillance. It is also the ideal solution for fleet management and global asset tracking, thanks to its on-board high sensitivity GPS and GLONASS capabilities.

The DE910-DUAL is pin-to-pin compatible with the xE910 family giving it maximum design and integration flexibility across different cellular technologies.

Key Benefits

• Design once and deploy globally

• xE910 LGA Unified Form Factor

• 800/1900 MHz 1xRTT and EV-DO Rev. A support

• 1.8/3.1 Mbps UL/DL data rates

• gpsOne® and standalone GPS, as well as GLONASS

• Up to 10 GPIOs, 1 UART + 1 debug, 1 ADC and 1 DAC, USB 2.0 HS

• EV-DO upgrade path for applications based on its companion CDMA 1xRTT module, the CE910-DUAL

• Ideally suited for mobile data and computing devices, as well as for applications in mobile environments, telematics, personal and asset tracking

Family Concept

The xE910 Unified Form Factor family is comprised of pin-to-pin compatible modules in Telit's broadest range of cellular air interfaces and band combinations making it a pillar of the concept "design once and deploy globally".

A one-time design and integration effort enables worldwide or regional device re-use across different data rates and wireless technologies with air interfaces in GSM | GPRS, UMTS | HSPA+, 1xRTT, EV-DO, and LTE (pre-release).

The xE910 family was conceived to enable applications to be easily upgraded in a number of ways. For example: migrating from 2G to 3G or 4G; or upgrading from 2 bands to 3, 4, or more. The family fully preserves the core design of the application or device from launch to phase-out with modules packaged in a common 28.2x28.2 mm LGA footprint. It is recommended for mid to high-volume, compact sized applications.

Telit m2mLOCATE

This product supports m2mLOCATE, a Telit cloud-based service that provides a device's position based on observed cellular Cell-IDs. Accessing a database of over 40 million cell-IDs globally, m2mLOCATE can provide a position for every use-case including indoors/underground, outdoors, and boundary situations.

ENABLING THE IOT IS WHAT WE DO.

DE910-DUAL

Product Features

- Dual-band EV-DO Rev.A 800 / 1900 MHz
- Dual-mode GPS (standalone and gpsOne®) and GLONASS
- Standard and Telit Unified AT command sets
- USB Interface with dual UARTs
- RX diversity for increased performance
- Built in UDP/TCP/IP stack
- Full voice support includes
- 2-way SMS support
- Minimal power consumption
- Various status indications:
  - Unread short message
  - Low battery alert
  - In / Out of Range status
- Over-the-air provisioning and device management
- Over-the-air firmware update
- OMA-DM, OTASP, OTAPA (carrier dependant)
- Built in FTP client
- Built in SMTP (email) client
- Real Time Clock
- Alarm Management

Data

CDMA 1xRTT / EV-DO Rev. A

- Air interface IS-95A/B and CDMA 2000
- 1x EVDO (Rev. A) data up to 3.1 Mbps Downlink and 1.8 Mbps Uplink

Environmental

- Dimensions: 28.2 x 28.2 x 2.05 mm
- Weight: 3.8 grams
- Extended temperature range:
  -40°C to +85°C (operational)
  -40°C to +85°C (storage temperature)

GNSS Receiver

- Standalone GPS
- gpsOne® (User and Control plane) and gpsOneXTRA, concurrent with GLONASS
- Frequency Bands: GPS (L1), GLONASS (L1, FDMA)
- NMEA Data
- GPS fix on Demand
- Sensitivity
  - Acquisition: -145 dBm
  - Navigation: -160 dBm
  - Tracking: -161 dBm
- TTFF (@ -130 dBm) from Cold Start ~32 s
- Dedicated GPS antenna connection for optimal GPS performance with active online antenna support

Interfaces

- USB 2.0 High Speed
- Full serial UART (UART 1)
- 2 wire UART (UART 2)
- I²C
- PCM interface for digital Audio
- Max 10 ports user definable GPIO
- 1-channel A/D and 1-channel D/A

Approvals

- FCC and IC
- CCF level 2 cabled test
- CDMA Carrier Approvals
- RoHS

Electrical & Sensitivity

- Supply voltage:
  - Nominal: 3.8 VDC
  - Range: 3.3 ~ 4.5 VDC
- Low power consumption (Typical at GPS off):
  - Power off: 15 uA
  - Idle mode: 3 mA
  - Traffic mode: < 750 mA
- Supply voltage range: 3.4 – 4.2 V DC
- Sensitivity:
  - CDMA 1x: < -108 dBm
  - 1x EV-DO: < -109 dBm
- Maximum RF output power:
  - 24 dBm (typical) for EVDO
  - 24.4 dBm (typical) for CDMA 1x

Join the Telit Technical Forum

For a quicker and more rewarding integration experience join the Telit Technical Forum. There you can browse the first open forum covering all IoT topics, get direct support by region (EMEA, North America, Latin America, APAC), take part in this quickly growing IoT community and exchange experiences.