UMTS | HSPA+ 5.76 / 21.0

HE 910 Family
Embedded

QUALITY
INVESTMENT PROTECTION
BUSINESS SCALABLE
EASE OF INTEGRATION
Telit

- Ultra Compact
- 28 Channel GPS Receiver
- Telit Unified AT Command Set
- LGA Package
- Multi Band
- RX Diversity
- Penta Band HSPA+
- Quad Band EDGE
- Quad Band GPRS
- RoHS Compliant
- SIM Access Profile
- USB 2.0 High Speed Compatible
- Extended RF Sensitivity
- Embedded TCP/IP Stack

TELIT INFINITA SERVICES

The HE910 modules are small, lightweight, low power consumption and RoHS compliant devices which combines the access to digital communication services in GSM, GPRS, EDGE, UMTS and HSPA networks with Land-Grid Array (LGA) form factor.

The LGA package provides ultra low profile in the integrated solution while at the same time enhancing the performance of mechanical resistance to shock and reducing cost in high-volume applications, saving space and weight in portable devices.

The HE910 includes features like HSDPA 21.0 Mbps (Cat 14), HSUPA 5.7 Mbps (Cat 6), EGPRS Class 33, digital voice interface, circuit switched data transfer, phonebook and SMS support, embedded TCP/IP protocol stack and custom Telit AT commands.

Due to its low profile, low consumption and advanced connectivity features, HE910 is partic-ularly suitable for applications such as mobile computing devices, PDAs, smartphones, table PCs and consumer electronics in general, both for business and personal life.

HE910 family can also be provided with an optional integrated high sensitivity A-GPS func-tionality for indoor fixes and simultaneous GPS with voice and data.

As a part of Telit's corporate policy of environmental protection, all Telit products comply with the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

Several variants are available for each regional coverage

Variants for global market in HSPA+ (5.76/21.0)
- HE910-G: Quad Band GSM/GPRS/EDGE + HSPA+
             in 850/900/1700/1900/2100 MHz + GPS + Rx Diversity
- HE910-DG: Quad Band GSM/GPRS/EDGE + HSPA+
             data only in 850/900/1700/1900/2100 MHz + GPS + Rx Diversity
- HE910-D: Quad Band GSM/GPRS/EDGE + HSPA+
             data only in 850/900/1700/1900/2100 MHz + Rx Diversity

Variants for global market in HSPA (5.76/7.2)
- HE910-GLR: Quad Band GSM/GPRS/EDGE + HSPA in 850/900/1700/1900/2100 MHz
- HE910-GLD: Quad Band GSM/GPRS/EDGE + HSPA data only in 850/900/1700/1900/2100 MHz

Variants for EMEA/APAC/Latin America market (5.76/7.2)
- HE910-EUR: Quad Band GSM/GPRS/EDGE + HSPA in 850/900/2100 MHz
- HE910-EUD: Quad Band GSM/GPRS/EDGE + HSPA data only in 850/900/2100 MHz
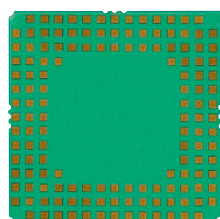
Variants for North American market (5.76/7.2)
- HE910-NAR: Quad Band GSM/GPRS/EDGE + HSPA in 850/1700/1900 MHz
- HE910-NAD: Quad Band GSM/GPRS/EDGE + HSPA data only in 850/1700/1900 MHz

Making machines talk.®

HE910 Family
Embedded

Telit is in it.

actual size

Distributed by:

Product features

- Supported bands
  4 Bands GSM / GPRS / EDGE:
  850 / 900 / 1800 / 1900 MHz
  5 Bands UMTS / HSPA:
  850 / 900 / 1700 / 1900 / 2100 MHz
- HSPA+ data up to 21.0 Mbps downlink / 5.76 Mbps uplink
- Quad Band GPRS and EDGE class 33
- Small dimensions 28.2 x 28.2 x 2.2 mm
- Optional GPS
- Rx Diversity
- Extended temperature range
- SIM Access Profile
- 3GPP release 7 compliant
- Control via AT commands according to 3GPP TS27.005, 27.007 and customized Telit AT commands
- Serial port multiplexer 3GPP TS27.010
- SIM application Tool Kits 3GPP TS 51.014
- Built in UDP/TCP/FTP/SMTP stack

Optional GPS receiver

- GPS power consumption:
  - 15 mA in low power tracking mode
  - 30 μA in sleep mode
- High sensitivity for indoor reception, up to -163 dBm (with active antenna)
- Accuracy < 3 m
- Extremely fast TTFF's at low signal levels
- Hot start autonomous < 3 s
- Warm start autonomous < 40 s
- Cold start autonomous < 45 s
- Supports multi-channel GPS,
- L1 1575.42 MHz
- GPS NMEA 0183 output format
- Datum WGS-84
- Dedicated GPS AT commands
- Low power consumption

Interfaces

- 10 I/O ports maximum including multifunctional I/Os
- I2S for digital audio interface
- USB 2.0 HS
- 2 UART
- SPI
- 1 I2C
- 1.8 V / 3 V SIM interface

Data

- HSPA category 6 in uplink and category 14 in downlink
  -Uplink up to 5.76 Mbps
  -Downlink up to 21.0 Mbps
- UMTS
  -Uplink/Downlink up to 384 kbps
- EDGE
  -Uplink up to 236.8 kbps
  -Downlink up to 296 kbps
- GPRS
- CSD

Electrical

- Output power
  - Class 4 (2 W, 33 dBm) @ GSM 850 / 900
  - Class 1 (1 W, 30 dBm) @ GSM 1800 / 1900
  - Class 3 (0.25 W, 24 dBm) @ UMTS
  - Class E2 (0.5 W, 27 dBm) @ EDGE 850 / 900
  - Class E2 (0.4 W, 26 dBm) @ EDGE 1800 / 1900
- Sensitivity
  – -108 dBm @ UMTS
  – -107 dBm @ GSM 850 / 900 MHz
  – -106 dBm @ DCS1800 / PCS1900 MHz
- Supply voltage
  -Nominal: 3.8 VDC
  -Range: 3.4 - 4.2 VDC

Additional features

- Digital voice and SMS
- IP stack with TCP and UDP protocol
- Standard and extended AT command set

Approvals

- RoHS Compliant
- CE, GCF (Europe)
- FCC, PTCRB, IC (North America)

Order No.

Please contact your Telit representative for order codes and all further information

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