UMTS | HSPA+ 5.76 / 14.4

preliminary

HE 920 Family
Embedded

Telit ® wireless solutions

QUALITY
INVESTMENT PROTECTION
BUSINESS SCALABLE
EASE OF INTEGRATION

	Ultra Compact
01 01 01 01	Telit Unified AT Command Set
	LGA Package
	Designed for Automotive Applications
	eCall
	Multi Band
	RX Diversity
3 UHD	Tri Band UMTS	HSPA 14.4
4 EDG	Quad Band EDGE
4 GPR	Quad Band GPRS
	RoHS Compliant
SIM	SIM Access Profile
	Automotive Temperature Range
	USB 2.0 High Speed Compatible
	Extended RF Sensitivity
	Embedded TCP/IP Stack

TELIT INFINITA SERVICES

The new Telit HE920 is a tri-band HSPA module representative of the new Telit Automotive form factor xE920.

The HE920 is a 3.5G wireless data module offering HSPA connectivity with download speeds up to 14.4 Mbps, upload speeds up to 5.76 Mbps and manufactured under ISO TS16949. Designed for use in the most demanding of automotive applications, the HE920 also offers ruggedized LGA packaging with an increased robustness and cost reducing mating solution. Two HE920 regional versions, covering different series of HSPA bands, are available whether your market is Europe, North America, South America, Asia or Australia. HE920 in pairs with its LTE companion LE920 offers an Automotive LGA family in a common package. Developers can take advantage of Telit's xE920 Unified Form Factor that enables a "design once, use anywhere" strategy. Design your application once and choose the technology that bests fits the regional requirements for a truly seamless deployment. The HE920 is also fully backwards compatible to existing EDGE and GSM/GPRS networks through integrated quad-band radios. Additional features such as, integrated TCP/IP and UDP stack, one DAC and a two ADC channel provide extended functionality, adding value to the end application without adding cost. Moreover HE920 is also available with embedded GPS/GLONASS receiver and Antenna Diversity. The extensive interface set, which includes analog and digital audio, UARTs, USB, PCM and user definable GPIOs, provides ease of integration of peripherals and actuators.
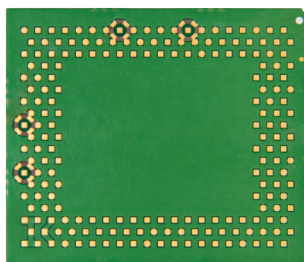
The HE920 is also compliant with eCall EU Directive. The eCall project is sponsored by the European Commission and it's based on the EU directive E112. It is intended to adopt a black box device installed inside vehicles, wirelessly connected to Emergengy Centers. In case of an emergency such as an accident or by user intervention, the black box and its sensors will send information about the event to such centers, with the chance to establish a voice call for safety measures.

As part of Telit's commitment to protecting the customer investment in developing and deploying Telit based solutions, the HE920 boasts a range of functions for over-the-air maintenance and management of firmware and application software on the module. As a part of Telit's corporate policy of environmental protection, all Telit products comply to the RoHS (Restriction of Hazardous Substances) directive of the European Union (EU Directive 2002/95/EG).

HE920 Variants								
Variant name	**Upload**	**Download**	**Frequencies**	**Features**				
	HSUPA (Mbps)	HSDPA (Mbps)	UMTS|HSPA+ bands (MHz)	GSM|GPRS|EDGE Quad-band	Rx Diversity	Data	Voice	GPS
Europe, Australia, Israel, Brazil markets								
HE920-EU	5.76	14.4	850/900/2100	▪		▪	▪	▪
North America market								
HE920-NA	5.76	14.4	850/1700/1900	▪		▪	▪	▪

HE 920 Family
Embedded

Telit is in it.

actual size

Product features

- HSPA 14.4 Mbps
- UMTS / HSPA (WCDMA / FDD):
  - @ 850 / 900 / 2100 (EU)
  - @ 850 / 1700 / 1900 (NA)
- Quad-band EGSM 850 / 900 / 1800 / 1900
- GPRS multi-slot class 12
- EDGE multi-slot class 12
- Manufactured under TS16949 Quality specifications
- Optional GPS/Glonass receiver
- Dimensions: 34 x 40 x 2.8 mm
- Temperature Range
  -40°C to +85°C (operational range)
  -40°C to +85°C (storage)
- RX Diversity

Interfaces

- 198-pin LGA Interface
- 1.8 / 3V UICC SIM card interface
- Digital and Analog Audio, GPIOs, 1 D/A and 2 A/D converters
- USB 2.0 HS OTG interface
- RF pad, RX Diversity pad, GPS / Glonass Antenna pad
- USB, UART

Approvals

- CE, GCF, PTCRB, FCC, IC

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
- Supply voltage
  - Nominal: 3.8 VDC
  - Range: 3.4 - 4.2 VDCs

Data

- HSPA
  - Downlink up to 14.4 Mbps
  - Uplink up to 5.76 Mbps
- WCDMA
  Downlink/uplink up to 384 kbps
- EDGE
  - Downlink up to 236.8 kbps
  - Uplink up to 236.8kbps
- GPRS
  - Downlink up to 85.6 kbps
  - Uplink up to 85.6 kbps
  - PBCCH support
- CSD

Additional features

- Voice and SMS
- Remote SIM Access
- TCP stack with IP and UDP protocols
- Standard and extended AT command set
- Various operating system drivers
- 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

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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