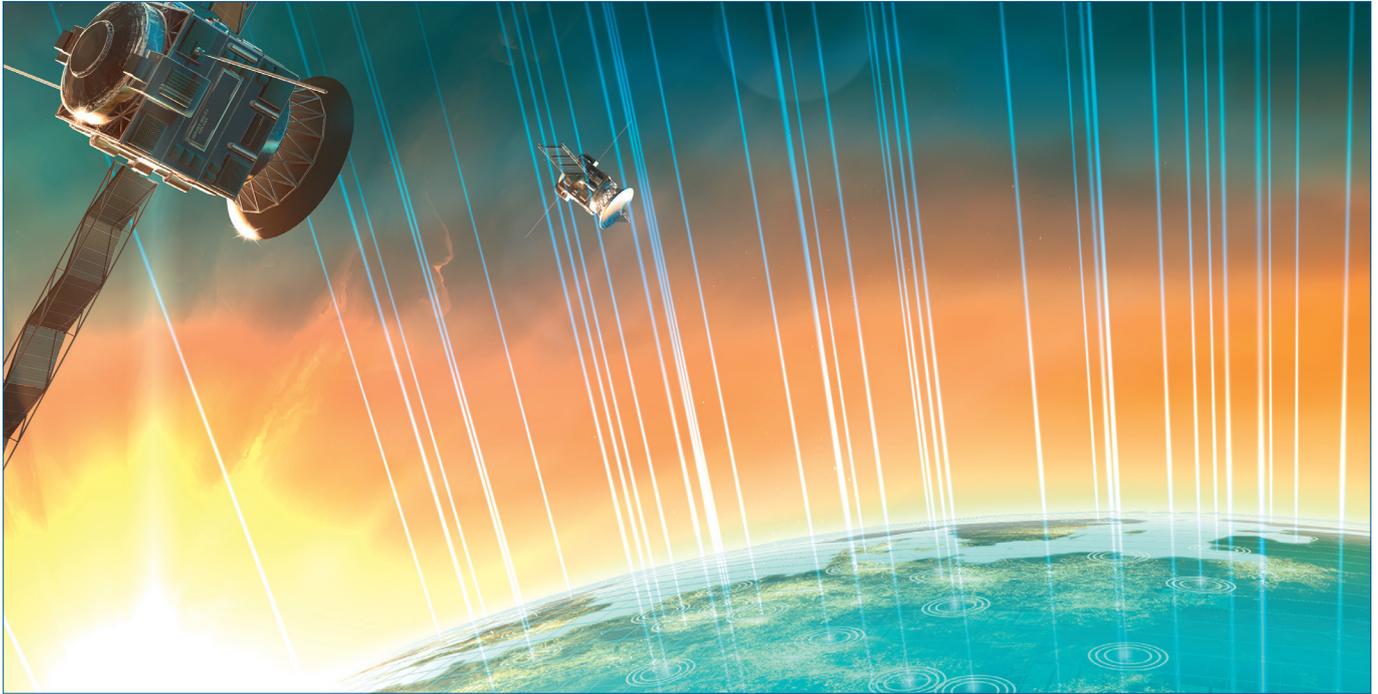


EBVchips - Heracles 224G



HERACLES 224G is a all in one solution, real direct IoT and plug and play. It combines a low power, low throughput LTE modem, a GPRS/EDGE modem, a global satellite localisation system and a pre-paid data package with an European footprint.

HARDWARE

HERACLES 224G is a global-Band FDD-LTE, TDD-LTE, a Quad-Band GPRS/EDGE and a GPS, GLONASS, BeiDou module in a LGA type package. It supports LTE CAT-M1(eMTC) and NB-IoT up to 375kbps data transfer.

It has strong extension capabilities thanks to various interfaces including UART, USB2.0, GPIO, etc. The package of HERACLES 224G is compatible with HERACLES 2G and SIM800H. AT commands of HERACLES 224G are mostly compatible with SIM800H.

This also minimize the investments of new designs, and enables a short time-to market.

APPLICATIONS

HERACLES 224G is the second generation of our all in one solution concept and will allow customers to smoothly migrate from the 2G M2M world to the LPWA LTE world. It

is designed for applications that need low latency, medium throughput data communication in a variety of radio propagation conditions. Due to the unique combination of performance, security and flexibility, this module is ideally suited for M2M applications, such as metering, wearable, tracking, remote monitoring, healthcare, telematics, mobile POS terminals, bike sharing, smart farming, etc ...



CONNECTIVITY

HERACLES 224G embeds a prepaid data package from Orange thanks to an embedded sim. The package can be used over 8 years starting from the delivery date and includes the

- Austria
- Czech Republic
- Greece
- Andorra
- Denmark
- Hungary
- Belgium
- Estonia
- Iceland
- Bulgaria
- Finland
- Ireland
- Croatia
- Metropolitan France
- Italy
- Cyprus
- Germany
- Latvia

HARDWARE

General Features

Global-Band LTE

B1/B2/B3/B4/B5/B8/B12/B13/B17/B18/B19/B

20/B25/B26/B28/B39 (B39 CAT-M1 only);

GPRS/EDGE 850/900/1800/1900Mhz

Control Via AT Commands

Supply voltage range: 3.0V~ 4.3V, Typ: 3.8V

Operation temperature: -40°C to +85°C

Dimensions: 24 X 27 X 2.6mm

Weight: 3.0g

Data

LTE CAT-M1(eMTC)

- Uplink up to 375kbps, Downlink up to 300kbps

NB-IoT

- Uplink up to 66kbps, Downlink up to 34kbps

EDGE Class

- Uplink up to 236.8Kbps, Downlink up to 236.8Kbps

GPRS

- Uplink up to 85.6Kbps, Downlink up to 85.6Kbps

COMPATIBILITY

HERACLES 224G is pin to pin compatible with HERACLES 2G, but some modification have to be handled in order to support both modules:

- GPIOs are based on 1,8V. A level shifter shall be used in most of the cases.
- VDD is regulated at 1,8V
- The body of the device is bigger
- The GPS antenna pad is available thru an additional pin at the edge of the module.
- VRTC, Analog, KPLED and ISINK pins are no longer available.

connectivity in 33 European countries. The data package is available with 50MB or 500MB. Connectivity includes following countries:

- Liechtenstein
- Poland
- Sweden
- Lithuania
- Portugal
- Switzerland
- Luxembourg
- Romania
- United Kingdom
- Malta
- Slovakia
- Netherlands
- Slovenia
- Norway
- Spain

Other Features

- TCP/IP (IPV4/IPV6)
- UDP
- PPP
- MQTT
- EMAIL
- FTP/HTTP/SSL/TLS
- VoLTE (CAT-M1)
- GNSS (GPS, GLONASS, BeiDou)

Consumption

- Power off: 7uA
- PSM: 9uA
- Sleep: 1mA
- Idle: 11mA
- Support of Power Save Mode (PSM) and Extended discontinuous Reception (eDRX)
- Specifications for SMS:
 - Point to point MO and MT
 - Text and PDU mode

Certifications

- RoHS / REACH / CE / FCC / Orange

Footprint

