

C04-6H

Reference Design

GPS smart antenna LEA-6H

Highlights

- Reference design with LEA-6 GPS receiver
- Simplifies developing customer end-products
- Enables faster time-to-market

Features

- LEA-6 GPS receiver
- GPS patch antenna
- LNA and SAW filter for best RF performance

GPS receiver performance

Please refer to the documentation for LEA-6.

Characteristics

Power supply	3.5V to 6V
Backup power	On-board lithium battery, 5.0 mAh
Antenna	25 x 25 mm patch antenna
Operating temp.	-20°C to 60°C
Dimensions	37 x 37 x 9.0 mm
Connector	SMD-pads for 10 pin header Pitch: 2.54 mm
Serial ports	1 UARTs @ 3V levels 1 USB

Pin assignment

1 TxD1	6 V_BAT
2 RxD1	7 V_IN (3.5 – 5.5 V) ¹
3 V_IN (3.5 – 5.5 V) ¹	8 USB_DM (Data -)
4 GND	9 USB_DP (Data +)
5 GND	10 GND

¹ Pin 3 is internally connected with pin 7

Ordering information

C04-6X-0	C04-6X GPS smart antenna LEA-6H Reference Design
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Sold in sample quantities only.

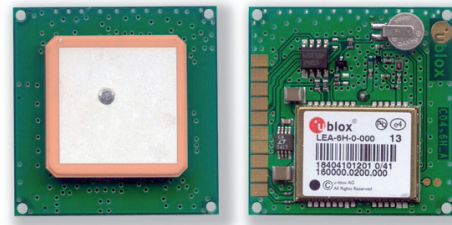
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GPS.G6-CS-10000

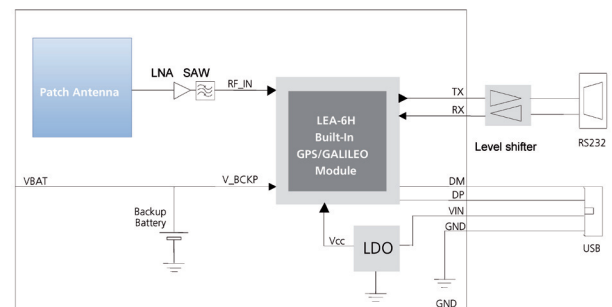


Product description

The C04-6H GPS Smart Antenna design demonstrates the integration of a LEA-6H GPS module with a ceramic patch antenna, USB and UART interfaces and on-board backup battery. The high performance u-blox6 GPS engine, which provides -160 dBm tracking sensitivity, enables navigation even in weak signal environments. An LNA and a SAW filter are included for best RF performance.

Reference Designs are intended as a means to help system integrators to develop their own GPS-enabled end products. On request, u-blox provides comprehensive technical documentation including schematics, layouts and design recommendations. Reference Designs are sold in sample quantities only. u-blox assumes no design services for this purpose, nor warranties regarding functionality and performance.

Block diagram



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