C16-C20/U20/G35

Application Board

Wireless and GNSS solutions with integrated antennas

Product description

The C16-C20/U20/G35 Wireless and GNSS application board is a complete and integrated solution for telematics applications such as fleet management, asset tracking, road pricing, and security/surveillance. It demonstrates the integration of u-blox' MAX-7 GNSS receiver with a u-blox wireless module. Utilizing the u-blox nested design concept, it can embed either a LISA-C200 CDMA, LISA-U200 W-CDMA or SARA-G350 GSM/GPRS module as mounting option. This solution uses passive wireless and GPS/GNSS antennas.

This application board supports full access to the MAX-7Q GNSS module via the wireless module. Thus CDMA and GNSS can be controlled through a single serial port from any host processor. Direct access to the GNSS and wireless modules is also available via two mini USB connectors. The high performance u-blox 7 GNSS engine enable navigation even in weak signal environments.

Application boards are intended to assist system integrators to develop their own end products quickly with fast time-to-market. On request, u-blox provides comprehensive technical documentation including schematics, layouts, BOM and design recommendations.

Characteristics

Wireless module LISA-C200 CDMA 1xRTT, or LISA-U200

W-CDMA, or SARA-G350 GSM/GPRS

GPS/GNSS antenna 25 x 25 mm ceramic patch

GNSS module MAX-7Q

Wireless antenna Hexaband Cellular SMT

Dimensions 78 x 55 x 6 mm (12 mm with connectors)
Connectors 1 coaxial power jack. Pin diameter: 2.0 mm

1 DIL header 2-Rows 16pin. Pitch: 2.54 mm

2 Mini USB ports

Environmental data

Power supply 4.6 V - 5.0 V power jack input

 $3.5\ V-4.4\ V$ header VCC input

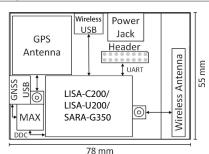
Supply Current < 790 mA Connected mode & GNSS

Operating temp. -30°C to 85°C

Serial ports 1 UART, 1 Mini USB to wireless module,

and 1 Mini USB to GNSS module

Block diagram



Legal Notice

u-blox reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. Reproduction, use, modification or disclosure to third parties of this document or any part thereof without the express permission of u-blox is strictly prohibited.

The information contained herein is provided "as is". No warranty of any kind, either express or implied, is made in relation to the accuracy, reliability, fitness for a particular purpose or content of this document. This document may be revised by u-blox at any time. For most recent documents, please visit www.u-blox.com.



Pin assignment

1 2 3,4 5,6 8 7,9,10	GNSS_RxD GNSS_TxD VCC GND RI Reserved	 0 0 N/A	GNSS received data GNSS transmitted data Power Supply Ground UART ring indicator Reserved pin
11 12	RTS CTS	0	UART ready to send UART clear to send
13 14 15	TxD RxD Power On	0 I	UART transmitted data UART received data Power-on input
16	Reset_N		External reset input

GNSS receiver performance

The GNSS solution integrates a 25 x 25 mm GPS antenna on a 65 x 55 mm effective ground plane. Refer to the GPS antenna application note and MAX-7 GNSS documentation.

Ordering Information

(Sold in sample quantities only)

 C16-C20-00S
 App. board: LISA-C200 (CDMA/Sprint) and MAX-7Q

 C16-C20-20S
 App. board: LISA-C200 (CDMA/Verizon) and MAX-7Q

 C16-U20-00S
 App. board: LISA-U200 (W-CDMA) and MAX-7Q

 C16-G35-00S
 App. board: SARA-G350 (GSM/GPRS) and MAX-7Q

Contact us

For contact information, see www.u-blox.com/contact-us.

