

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.

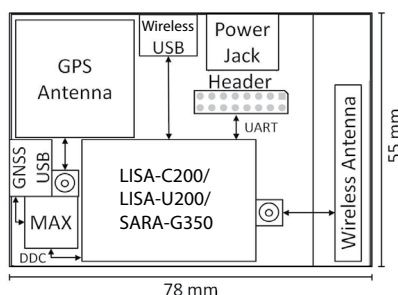
Characteristics

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.

Copyright © 2013, u-blox AG



Pin assignment

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

u-blox:

[C16-U20-00S](#) [C16-G35-00S](#)