# LISA-C200

# CDMA 1xRTT module

# Sprint, Verizon and Aeris certified

- Small LISA SMT form factor for easy manufacturing
- Easy migration between u-blox 2G, 3G and 4G modules
- Supports CellLocate® and GNSS / A-GNSS integration
- Deliver critical firmware updates via u-blox uFOTA engine
- Extended temperature range of -40 to +85° C



LISA-C200 22.4 x 33.2 x 2.7 mm

# **Product description**

The LISA-C200 module provides CDMA2000 1xRTT data and voice communication in a compact SMT form factor. These are fully qualified and certified modules, featuring low power consumption and a rich set of Internet protocols.

LISA-C200 modules are ideally suited to M2M applications such as fleet management, Automatic Meter Reading (AMR), people and asset tracking, surveillance and security and Point of Sales (PoS) terminals.

The LISA-C200 is form factor compatible with the LISA-U2, TOBY, SARA and LEON module families, enabling straightforward development of products supporting either CDMA,

UMTS/HSPA, LTE, or GSM/GPRS wireless technology with the same application board. This allows customers to take maximum advantage of their hardware and software investments.

The dual-band LISA-C200 modules are certified by Sprint, Verizon and Aeris. It is qualified according to ISO 16750 -Environmental conditions and electrical testing for electrical and electronic equipment for road vehicles.

#### **Product selector**

Model	Technology Bands Interfaces			Au	Audio Functions							Grade													
	CDMA 1xRTT [kb/s] (forward/reverse)	CDMA [MHz]	UART	SPI	USB	GPIO	DDC for u-blox GNSS	Analog Audio	Digital Audio	Network indication	Antenna Supervisor	Jamming Detection	Embedded TCP/IP, UDP/IP	Embedded FTP, HTTP	Embedded SSL	AssistNow software	CellLocate ®	FOTA	FW update via serial interface	eCall / ERA GLONASS	Rx diversity	GNSS via Modem	Standard	Professional	Automotive
LISA-C200	153	800/1900	1		1	5	•	1	1	•	•		•	•		•	•	Α	•			•			

A = available from versions x5S onwards;





#### **Features**

CDMA2000 1xRTT 800/1900 MHz (Sprint/Verizon)

153 kb/s forward/reverse

Voice Analog / digital SMS Text mode

Carrier provisioning Over the Air (Sprint)

OTASP/OTAPA (Verizon)

GNSS Interfaces Direct access to u-blox GNSS via LISA-C200

AssistNow software for faster acquisition

CellLocate

#### **Software features**

Protocols Embedded UDP/IP, TCP/IP, HTTP and FTP

Network OTA provisioning, software maintenance and device management (OTASP, OTAPA),

OMA-DM / FOTA

AT commands Enhanced AT command set IS-707.3

3GPP 27.005, 3GPP 27.007 and ITU-T V.25

u-blox proprietary AT commands 3GPP 27.010 MUX protocol

Firmware upgrade Via UART and USB

FOTA (from version x5S)

#### **Interfaces**

Antenna 50 Ω

Antenna supervisor

Serial 1 UART (5-wire)

1 USB 2.0 (full-speed)

Audio 1 audio digital (PCM) interface

1 audio analog interface

GPIO 5

#### **Electrical data**

Power supply 3.4 V to 4.2 V

Power consumption

 $\begin{array}{lll} \text{Power Off} & < 20 \ \mu\text{A} \\ \text{Sleep mode} & < 5 \ \text{mA} \\ \text{Data traffic} & < 750 \ \text{mA} \end{array}$ 

### **Certifications and approvals**

FCC, CCF, ISED (formerly known as IC), Sprint, Verizon, Aeris.

See the u-blox website for latest approvals.

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#### **Package**

76 pin LCC (Leadless Chip Carrier): 22.4 x 33.2 x 2.7 mm, < 7 g

Pinout

38 37	32 33 33 33 34 35	28
39 MIC_N	Pin 28 - 38 = GND	USB_D+ 27
40 MIC_P		USB_D- 26
41 PCM_SYNC		GND 25
42 PCM_DO		GPIO4 24
43 I2S_CLK		GPIO3 23
44 PCM_DI		RESET_N 22
45 RSVD		GPIO2 21
46 RSVD		GPIO1 20
47 SIM_CLK		PWR_ON 19
48 SIM_IO		VUSB_DET 18
49 SIM_RST	LISA-C2	GND 17
50 VSIM		RXD 16
51 GPIO5	Top View	TXD 15
52 RSVD		CTS 14
53 SPK_P		RTS 13
54 SPK_N		RSVD 12
55 RSVD		RSVD 11
56 RSVD		RI 10
57 RSVD		RSVD 9
58 RSVD		GND 8
59 RSVD		GND 7
60 GND		GND 6
61 VCC		RSVD 5
62 VCC		V_INT 4
63 VCC		GND 3
64 GND		O O RSVD 2
65 GND QN B	GND GND GND GND RSVD	GND 1
66		75

# Environmental data, quality & reliability

Operating temperature -30 to +85°C (extended range)

RoHS compliant (lead-free)

Qualification according to ISO 16750

# **Support products**

EVK-C20-0xS Evaluation Kit for LISA-C200 (Sprint/Aeris)
EVK-C20-2xS Evaluation Kit for LISA-C200 (Verizon)

# **Product variants**

LISA-C200 CDMA 2000 1xRTT 800/1900 MHz,

data and voice

version for Sprint and Aeris

version for Verizon

#### **Further information**

For contact information, see www.u-blox.com/contact-us. For more product details and ordering information, see the product data sheet.

UBX-13003280 - R08 www.u-blox.com