HARDWARE REFERENCE MANUAL

XBee910

A Telit Cinterion cellular module on an Xbee interface board

September 2, 2025

Revision 1.4

Revision	Date	Notes
1.0	22/06/2018	Initial hardware reference manual
1.1	19/09/2018	Updated images and dimensions added
1.2	07/02/2019	Updated images, sections, grammar corrected
1.3	23/01/2020	Updated footer/header
1.4	11/08/2025	Updated 1. Introduction section Updated 2.2.2. u.FL connector part number Updated 3. Pinout table with new options on PCB 'A' revision. Updated VCC range. Added 3.2. Part number breakdown Updated 3.4. Corrected voltage range Updated 5. Recommended module summary table

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1   Introduction

The XBEE910 module has been designed to allow the user to have ease of use with plug & play cellular modules with the Digi® XBee™ interface.
Options are available for Cat-M1, NB-IoT, Cat-1/4 LTE, Cat-1bis, and 5G Redcap.

Using the XBee™ interface, the XBEE910 allows the user to easily mount the module that best suits each particular application use case, no matter where it will be deployed around the world.

In many cases, your design needs to provide flexibility depending on which region the product is to be deployed. The XBee™ form factor with the xE910 module allows you to take the guesswork out of the design by providing a single connector solution for interfacing the entire range of radio types available depending on your needs.

Full electrical and software compatibility (AT command) is maintained between each type of module, be it Cat-M1 (ME910G1-WW), Cat-1 LTE (LE910C1-WWXD), Cat-1bis (LE910Q1-WW/G), or 5G Redcap (FE910C04-WWD).

The Glyn XBee range also includes support for a LoRa module option.

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2   Mechanical Specifications

2.1   Dimensions

34mm x 29.5mm x 11mm(including header)

2.2   Socket Types

2.2.1   10-Pin Right Angle Surface Mount Header

Manufacturer: Samtec Inc.
Part Number: TMM-110-01-T-S-SM

Pitch - Mating: 0.079"(2.00mm)
No. of Positions: 10
No. of Rows: 1
Mounting Type: Surface Mount

2.2.2   U.FL Connector

Manufacturer: Attend
Part Number: 321-331251

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3 Hardware Specifications

3.1 Pinout

Pin	Function	Description
1	VCC	Supply, supported range 3.4-4.2V
2	DOUT	UART transmit
3	DIN	UART receive
4	GND	Ground
5	RESET nIN	Reset Low
6	VUSB	USB supply, supported range 4.4-5V
7	USB+	Data +
8	USB-	Data -
9	DTR	UART data terminal ready
10	GND	Ground
11	GND	Ground
12	CTS	UART clear to send
13	ON/nSLEEP	1.8V output, drives on-board LED via MOSFET and connected to GPIO1/STAT_LED
14	VREF	Must be connected. Options listed below.*
15	GND	Ground
16	RTS	UART request to send
17	DIO3	1.8V GPIO3
18	DIO2	1.8V GPIO2
19	ADC1	1.8V ADC1
20	ON/OFF	1.8V must be driven to open drain/collector

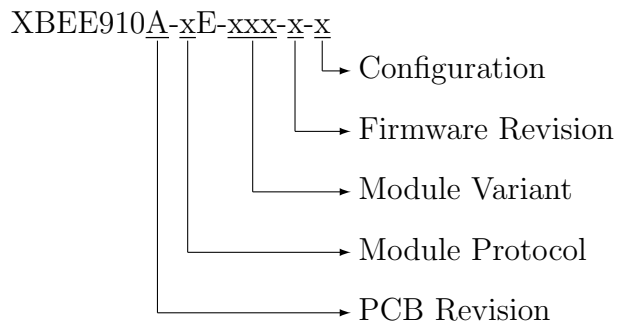*Notes: VREF has multiple options available, add suffix to part number to indicate VREF option:
-Default: Must be >=1.8V (no suffix)
-A: VREF=VCC
-B: Fixed 3.3V via on-board LDO

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3.2   Part Number Breakdown

XBEE910<u>A</u>-<u>x</u>E-<u>xxx</u>-<u>x</u>-<u>x</u>

                    ↳→ Configuration

                 → Firmware Revision

            → Module Variant

         → Module Protocol

      → PCB Revision

Board	Signifier	Option	Notes	
XBEE910	A	PCB Revision		
	xE	Module Protocol	Refer to module	
	xxx	Module Variant	Refer to module	
	x	Module Firmware	Refer to module	
	x	VREF Configuration		>=1.8V (Default)
			-A	VREF=VCC
			-B	Fixed 3.3V via on-board LDO

E.g. XBEE910A-ME-G1WW-3-A would indicate the board comes with the ME910G1-WW module, revision 3 firmware, and VREF=VCC.

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3.3   Antenna Connectors

The XBee910 module is equipped with a 50 Ohm RF connector from Attend, P/N: 321A-331251, for Cellular, Diversity (where applicable), and GNSS (where applicable) antenna connections. These connectors are located on top side (Cellular and Diversity) and bottom side (GNSS).

Interface cables with various configurations are available from Glyn, to suit your needs: Glynstore Interface Cable Range

3.4   Power Supply

Xbee^{TM} interface supports 3.4-4.2V.
Please see the relevant Telit Cinterion xE910 Hardware user guide for recommended power supply requirements for new designs. The document can be found at the Telit Cinterion website.

3.5   Power Consumption

Please see the relevant Telit Cinterion xE910 Hardware user guide for recommended power supply requirements for new designs. The document can be found at the Telit Cinterion website.

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4   Software Commands

Please see the relevant Telit Cinterion xE910 Software and AT command user guides for more details. The document can be found at the Telit Cinterion website.

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5 Recommended Module Summary

The XBee910 supports all current xE910 modules from Telit Cinterion. Here are our recommended module options currently available:

Part Number	Region	Technologies	Band Support	GPS
ME910G1-WW	Global	Cat-M1 & NB-IoT	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85	Embedded
LE910Q1-WW	Global	Cat-1 Bis	B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B34, B38, B39, B40, B41, B66	
LE910Q1-WWG	Global	Cat-1 Bis	B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B34, B38, B39, B40, B41, B66	Embedded
LE910C1-WWXD	Global	Cat-1 LTE (3G&2G Fallback)	B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85	Embedded
LE910C1-APX	APAC	Cat-1 LTE	B1, B3, B5, B8, B9, B18, B19, B26, B28	Embedded
FE910C04-WWD	Global	5G FR1 (Cat-4 LTE Fallback)	n1, n2, n3, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n30, n38, n40, n41, n48, n66, n70, n71, n77, n78, n79	Embedded

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