



GLYN
High-Tech Distribution

HARDWARE REFERENCE MANUAL

XBeeSigfox

A WISOL SIGFOX MODULE ON AN XBEE INTERFACE BOARD



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Revision 1.0

Revision	Date	Notes
1.0	22/06/2018	Initial hardware reference manual

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1 Introduction

The XBeeSigfox module has been designed to allow the user ease of use with plug & play Sigfox module with the Digi® XBee™ interface. Options are available for all Sigfox regional zones, R1, 2, 3, & 4.

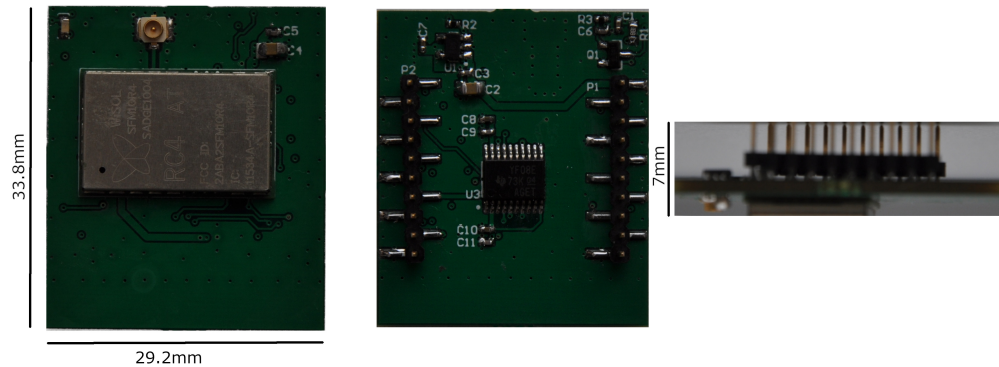
By utilising the XBee™ interface the XbeeSigfox allows the user the option to mount the module that best suits each particular application use case, no matter where in the world it is going to be deployed.

In most cases your design needs to provide flexibility depending which region the product is to be deployed. The XBee™ form factor with 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 (AT commands) compatibility is maintained between each module type.

The Glyn XBee range also includes support for Cellular and LoRa modules.

2 Mechanical Specifications



2.1 Dimensions

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: 321-33125

3 Hardware Specifications

3.1 Pinout

Pin	Function	Description
1	VCC	Supply, supported range 3.3-4.2V
2	DOUT	UART transmit
3	DIN	UART receive
4	GND	Ground
5	RESET nIN	Reset Low
6	NC	Not Connected
7	NC	Not Connected
8	NC	Not Connected
9	DTR	UART data terminal ready
10	GND	Ground
11	GND	Ground
12	CTS	UART clear to send
13	ON/nSLEEP	3.3V output, drives on-board LED via MOSFET and connected to STAT_LED
14	VREF	Vref(Must be connected and $\geq 3.3V$)
15	GND	Ground
16	RTS	UART request to send
17	DIO3	3.3V GPIO3
18	DIO2	3.3V GPIO2
19	ADC1	3.3V ADC1
20	ON/OFF	VCC must be driven to open drain/collector

3.2 Antenna Connectors

The XBeeSigfox module is equipped with a 50 Ohm RF connector from Atend, P/N: 321A-33125, for the wireless antenna connections. The connector is located on the top side of the module.

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

3.3 Hardware Commands

Please see the relevant Wisol Sigfox Hardware user guide for more details. The document can be found at Wisol website.

3.4 Power Supply

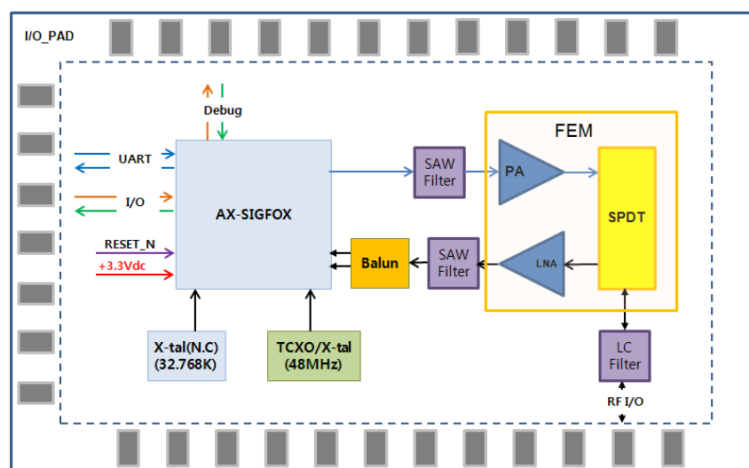
Xbee™ interface supports 3.3-4.2V. Please see the relevant Wisol Sigfox Hardware user guide for recommended power supply requirements for new designs. The document can be found at Wisol website.

3.5 Power Consumption

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

3.6 Block Diagram

Block Diagram of WSSF10R4AT



3.7 Recommended Module Summary

Part Number	Region	Band Support
WSSFM10R4AT	Europe & Middle East	868-869MHz
WSSFM10R2AT	North America	902-905MHz
WSSFM10R3AT	Japan	922-923MHz
WSSFM10R4AT	South America, Australia, NZ, & parts of Asia	920-922MHz
WSSFM11R2DAT	Region 2 + Region 4	RCZ2 & RCZ4