

Installation Manual

STAR-Module 910MHz

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Document History

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Introduction

The STAR-Module 910 is an FSK RF half-duplex transceiver working at 910MHz, made to be installed on fixed or mobile devices.



Number	Direction	Description
1	-	GND
2	Input	Data In
3	Output	CD# (Active Low)
4	Output	Data Out
5	Output	3V
6	-	GND
7	-	Vcc (5.5 – 3.13V)
8	Input	TX Command (Active High)
9	Input	RX Command (Active High)
10	-	GND
11	-	GND
12	-	GND
13	Input/Output	RF Antenna



Digital interface

Digital Interface with host system

Data communication with host is implemented using a UART @38400, N, 8, 1 with TDX and RXD negated values: this means that data lines are low (0 V) in idle state and go high upon a start bit. Host system must provide to inverter gates between its UART and the STAR-Module 910MHz.

Control is implemented using TX CMD and RX CMD lines and receiving Carrier Detect indication (refer to operating description for details) .

RF interface

STAR-module has 50Ohm impedance on RF out in TX and RX mode, therefore impedance matching is required for antenna system of host.

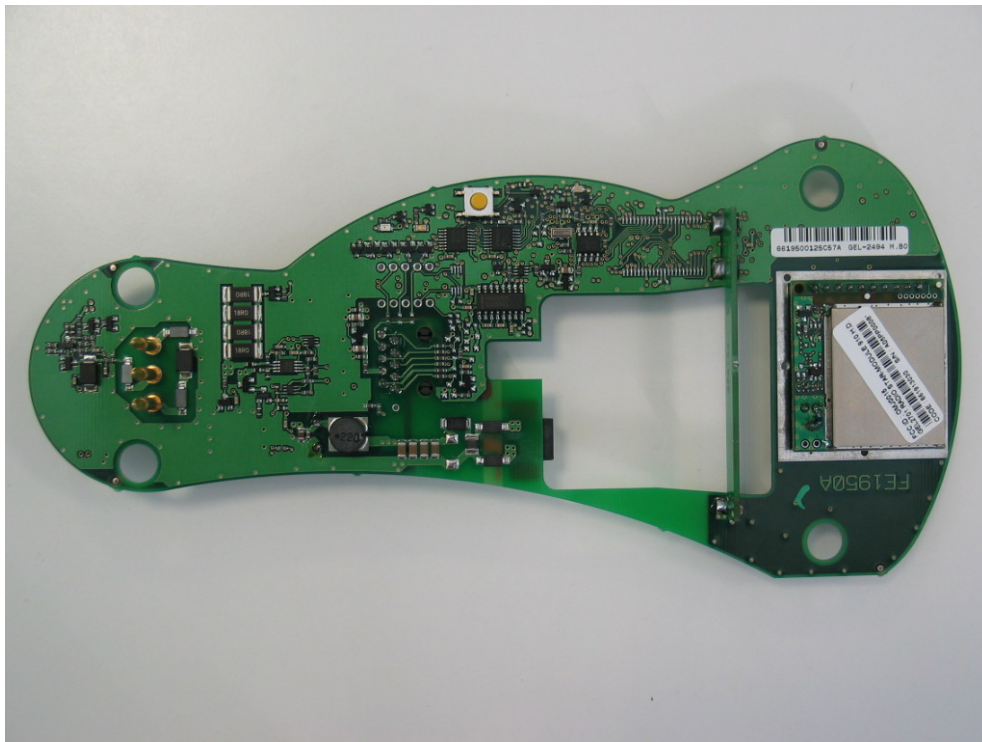
Care must be taken for the proximity of conductive materials or the user's hand that will cause a mismatch of the antenna, decreasing the transceiver RF characteristics.

Moreover, care must be taken to ensure that the host system doesn't have spurious emissions in the range 910MHz+/-100kHz, that could cripple receiver sensitivity: it is advised to put a ground plane under the RF module and to filter the power supply.

Noisy parts, like system buses, must be shielded in order not to irradiate spurious fields.

Examples

OM-Gryphon



Dragon Mobile