



Cognyte S1 FalcoNet Series 1 Module User Guide

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Cognyte

Cognyte S1 FalcoNet Series 1 Module



Product Information

The FalcoNet Series 1 Module is an LTE base station solution that provides high-speed data connectivity. It

supports Band 41 (TDD 2500) with a frequency range of 2496-2690 MHz. The module consumes a maximum of 380W of power and has a typical power consumption of 152W.

The hardware configuration of the module includes various interfaces such as Power IN, TX/RX, LAN, GPS, CLOCK, 1PPS, and ON/OFF Switch. The LAN interfaces are standard RJ45 sockets, and the Power IN interface is a 4-way Amphenol connector. The module also has a QN-type connector for external omni/directional antenna connections and standard SMA female connectors for GPS and clock modules.

The module can be used as a standalone solution or can be rack-mounted with the Series 2 Module and the APM FalcoNet. The antenna solution for the module includes a directional antenna on a tripod with a frequency range of 698-960MHz and 1710-2700MHz, gain of 6-9 dBi, and impedance of 50Ohm. The module requires cables with 3 meters LMR240 and 6 meters SPUMA 400 only.

The RF Exposure Information of the module indicates that the manufacturer configures output power so that the maximum power after accounting for manufacturing tolerances will never exceed the maximum power level measured. The maximum power per chain among various channels and modes within the specific band is given in the table. The antenna gain in the table indicates the maximum antenna gain among various channels within the specified band.

Product Usage Instructions

1. Connect the power input of the module to a 4-way Amphenol connector using the appropriate power source.
2. Connect the TX/RX interfaces of the module to a laptop or another FalcoNet module using standard RJ45 sockets.
3. Connect the LAN interfaces of the module to a laptop or another FalcoNet module using standard RJ45 sockets.
4. Connect the GPS and CLOCK modules of the module to an external GPS antenna using standard SMA female connectors.
5. Connect an external omni/directional antenna to the QN-type connector of the module.
6. Turn on the module using the ON/OFF switch with LED.
7. To use the module as a standalone solution, follow steps 1-6. To rack-mount the module, connect it with the Series 2 Module and APM FalcoNet using appropriate cables and mounting hardware.

Introduction

This document is designed to provide the user with hardware information on the FalcoNet Series 1 box solution.

Series 1 Module Overview

The Series 1 Module solution is an LTE base station.

Basic Specifications

- **Length** – 563mm
- **Width** – 200mm
- **Height** – 86mm
- **Weight:** Approx. 5Kg
- **Target output power on unit connector** – 33 dBm (+/-1)

Electrical Specifications

- **Power Input**

- 36V for Vehicle solution – provided from DC APM
- 24V for Desktop solution – provided from AC-DC power supply

- **Consumption**

- 152W Typical
- 380W Max

Supported LTE bands

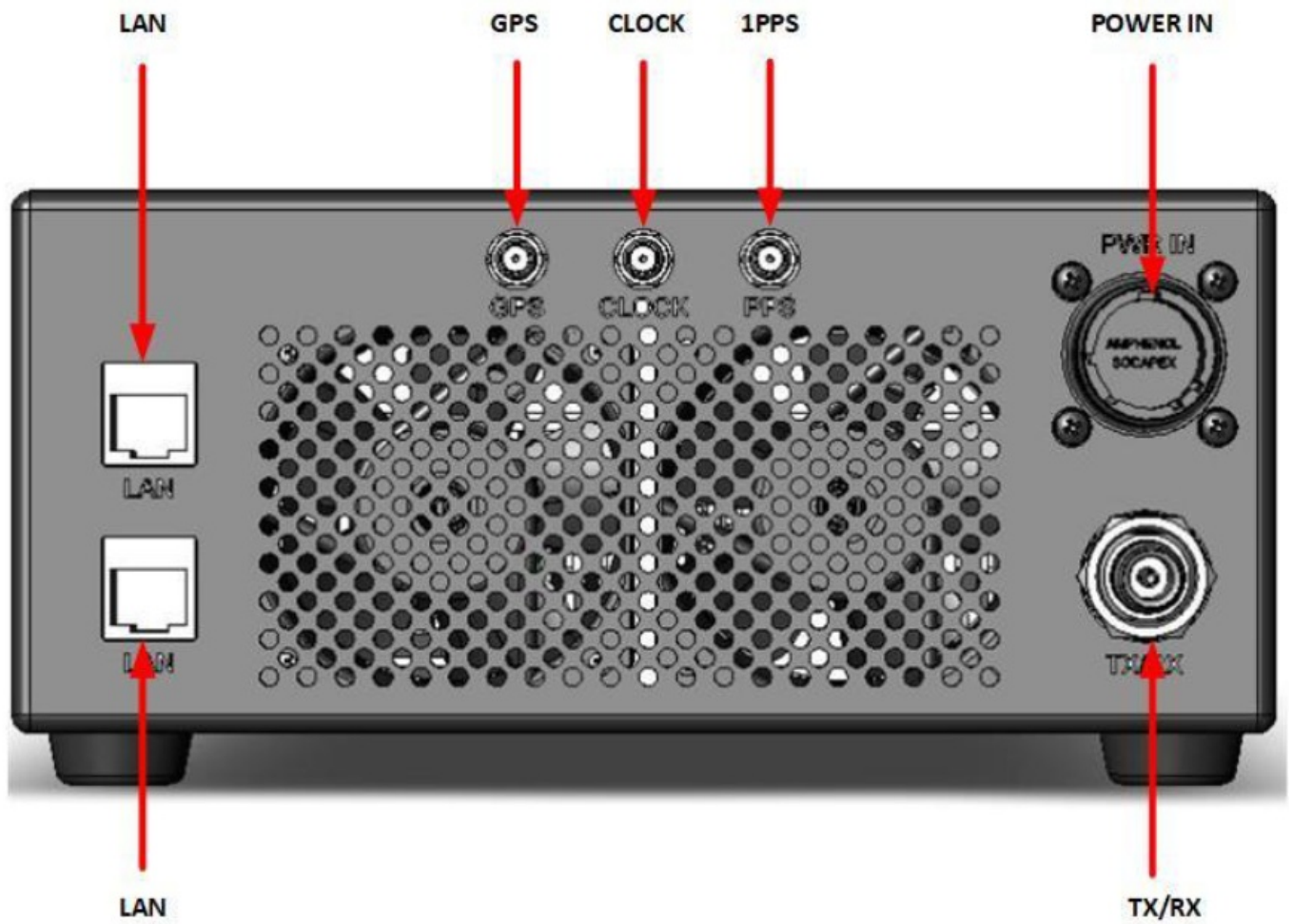
Band	Frequency
Band 41 (TDD 2500)	2496-2690 MHz

Hardware Configuration

Interfaces

No.	Interface	Designation	Description
1	Power IN	From PSU/APM	4 way Amphenol Connector
2	TX/RX	To Ext Omni/Directional Antenna	QN-type Connector
3	LAN	To Laptop or FalcoNet	Standard RJ45 socket
4	LAN	To Laptop or FalcoNet	Standard RJ45 socket
5	GPS	To External GPS Antenna	Standard SMA Female
6	CLOCK	Not connected	Standard SMA Female
7	1PPS	Not connected	Standard SMA Female
8	ON/OFF Switch	System ON/OFF	Push Button with LED

Back view



Front view

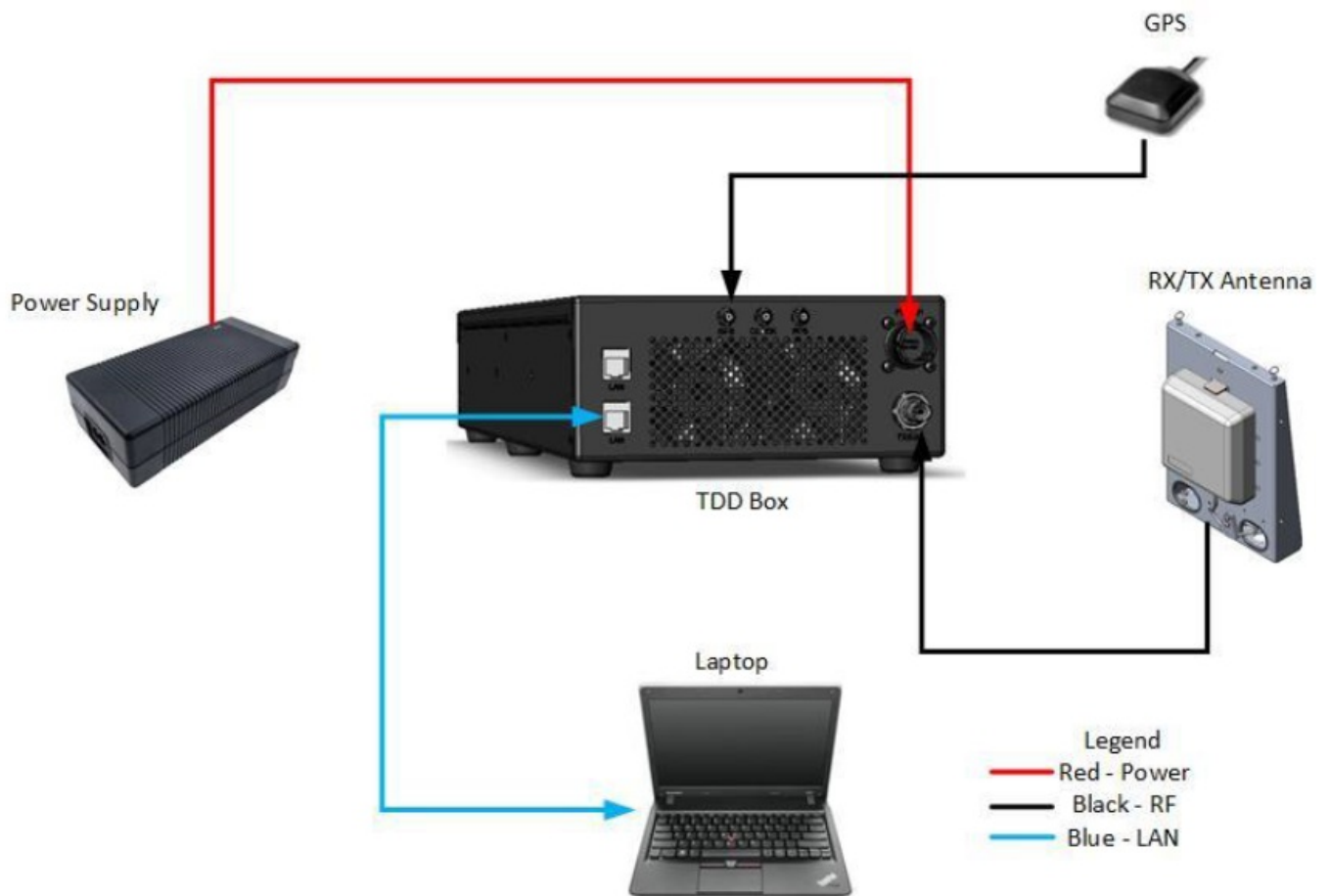


Solutions

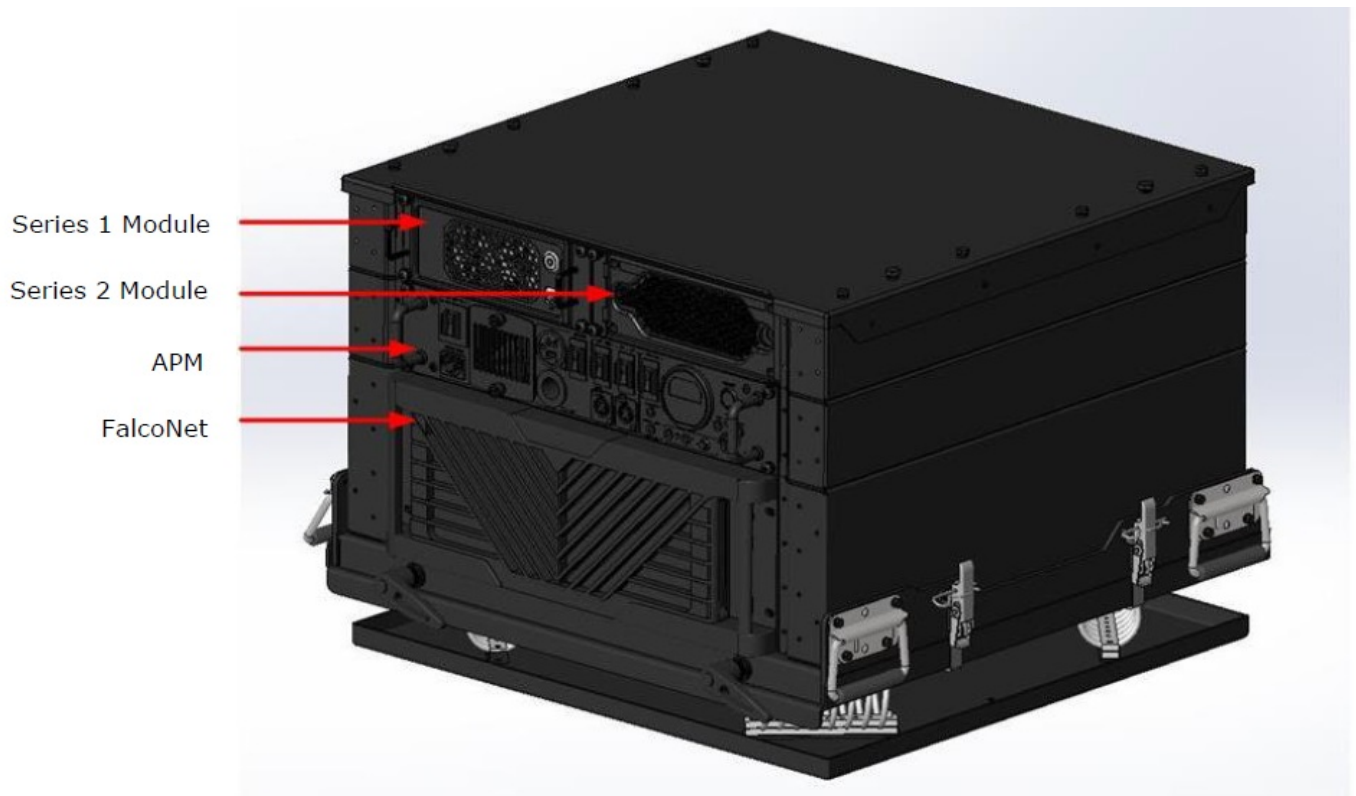
There are two design solutions:

1. **Standalone** – for desktop solution
2. **Rack mounted** – for vehicle solution

Standalone

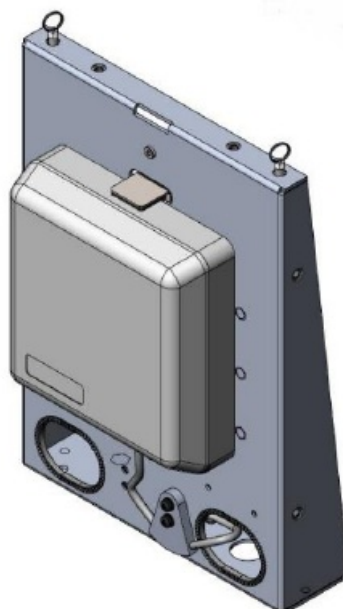


Rack mounted



Antenna solution

- **Series 1 module can be configured for two solutions**
 1. Directional Antenna on tripod
 2. **Omnidirectional Antenna** – for vehicle installation
- **Directional Antenna on tripod**



- **Freq. Range** – 698-960MHz, 1710-2700MHz
- **Gain** – 6-9 dBi
- **Impedance** – 50Ohm
- **Max. Input Power** – 100 Watts
- **Polarisation** – Vertical
- **Omnidirectional Antenna** – for vehicle installation



- **Freq. Range** – 698-960MHz, 1710-2700MHz
- **Gain** – 3.5-5.5 dBi
- **Impedance** – 50Ohm
- **Max. Input Power** – 100 Watts
- **Polarisation** – Vertical

- **Cables**

- 3 meters LMR240
- 6 meters SPUMA 400 only



RF Exposure Information

In the table below, Power and Gain are entered in units of dBm and dBi respectively and conversions to linear forms are used for the calculations.

Single Chain and non-colocated transmitters								
Band	Mode	FCC Limit (mW/cm ²)	Output AVG Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Duty Cycle (%)	EIRP (mW)	Separ. Distance FCC (cm)
LTE Band 41	QPSK	1.00	33.00	10.00	43.00	100.0	19952.62	39.86

Notes:

1. The manufacturer configures output power so that the maximum power after accounting for manufacturing tolerances, will never exceed the maximum power level measured
2. The output power in the table above is the maximum power per chain among various channels and various modes within the specific band
3. The antenna gain in the table above is the maximum antenna gain among various channels within the specified band

FCC Information

Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information

- **FCC ID:** 2A7A2-S1
- **Unique identifier:** Series01 Box
- **Responsible party** – US contact information

Cognyte Software LP

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NY, 11747

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FCC Compliance statement subject to Part 15.105

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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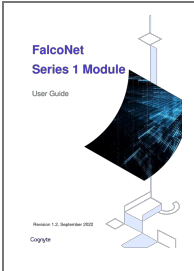
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Documents / Resources

	<p>Cognyte S1 FalcoNet Series 1 Module [pdf] User Guide</p> <p>2A7A2-S1, 2A7A2S1, S1 FalcoNet Series 1 Module, S1, FalcoNet Series 1 Module, Module</p>
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References

- [C Cognyte | Actionable Intelligence for a Safer World™](#)
- [C Cognyte | Actionable Intelligence for a Safer World™](#)