FalcoNet Series 2 Module

User Guide

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1 Introduction

This document is designed to provide the user with hardware information on the FalcoNet Series 2 box solution.

2 Series 2 Module Overview

Feature	Specifications				
Power Output @5G TDD	17dBm (3450MHz – 3550MHz)				
	28dBm (3700MHz - 3980MHz)				
Receiver Sensitivity	@5G TDD >-95dBm				
DC power In	24v to 36v				
Average Power Consumption:					
Full power transmission (Idle mode)	260w (35w)				
Environmental					
Operational Temperature range	0° to 45°C				
Storage Temperatures	-20° to 65°C				
Dimensions	563mm x 200mm x 86mm (2U half 19" drawer)				
Weight	8kg (Box Only)				

Supported 5G bands

Band	Frequency			
Band n78 (5G TDD 3500)	3450-3550 MHz			
Band n77 (5G TDD 3700)	3700-3980 MHz			

3 Hardware Configuration

Interfaces

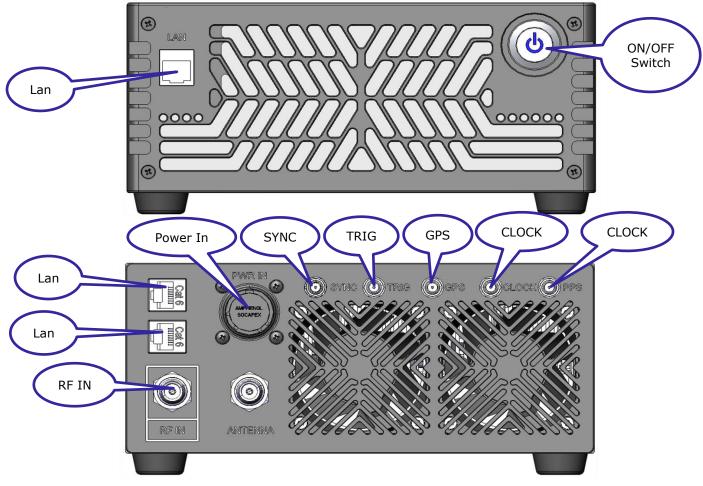


Figure 1 5G Box Front and rear panel



Front Panel:

- 1. LAN- RJ45 panel mount adaptor
- 2. On/Off Switch

Rear Panel:

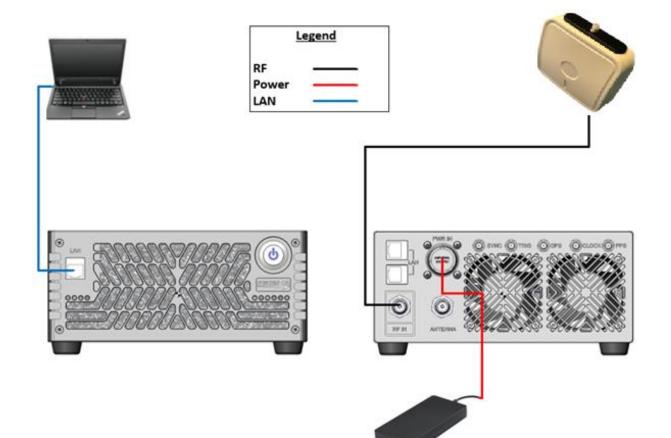
- 3. LAN- 2x RJ45 panel mount adaptors
- 4. Power IN 4 way Amphenol Power In connector
- 5. RF IN QN-type connector RF in from external Gi2s or Series01 systems
- 6. Antenna QN-Type connector RF out to 5G support Antenna
- 7. Sync SMA Panel Connector for dual box Sync (connect two or three Series02/03 boxes)
- 8. TRIG MA Panel Connector for TRIG (for future use)
- 9. GPS SMA Panel Connector for GPS (for future use)
- 10. CLOCK SMA Panel Connector for CLOCK (for future use)
- 11. 1PPS SMA Panel Connector for 1PPS (for future use)

4 Solutions

There are two design solutions:

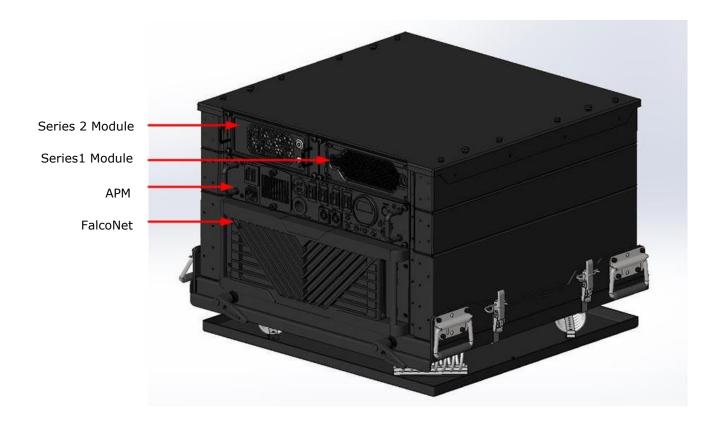
- 12. Standalone for desktop solution
- 13. Rack mounted for vehicle solution

Standalone





Rack mounted



4.1 Antenna Options

- + Antenna Cable LMR240-3m or Spuma400-6m depending on customer needs
- + Directional antenna
 - Frequency range 617Mhz-4200Mhz
 - o Gain > 8dBi (617-960Mhz), 10dBi (1700-2700Mhz), 13dBi (3300-4000Mhz)
 - Impedance 50 Ohms
 - Max. input power 90 Watts
 - Polarization Vertical

Cables

- + 3 meters LMR240
- + 6 meters SPUMA 400 only



5 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	Output	Antenna	EIRP	Duty	EIRP	Separ.	
		Limit	AVG	Gain		Cycle		Distance	
		(mW/cm^2)	Power (dBm)	(dBi)	(dBm)	(%)	(mW)	FCC (cm)	
		((abiii)		(ubiii)	(70)	(,	(om)	
LTE Band 77	QPSK	1.00	29.00	13.00	42.00	100.0	15848.93	35.52	
LTE Band 78	QPSK	1.00	19.00	13.00	32.00	100.0	1584.89	11.23	

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

6 FCC Information

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

FCC ID: 2A7A2-S2

Unique identifier: Series02 Box

Responsible party – US contact information

Cognyte Software LP 35 Pinelawn Road, Suite 204, Melville, NY, 11747 www.cognyte.com

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.