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PowerOne™ presentation

Board

Modem

Presentation

- PowerOne™ 868 MHz radio modules and modem are a complete RF solution for long range reliable wireless data transmission.
- With a line-of-sight range of 16.000 m and featuring a powerful S-ONE embedded firmware, a half duplex RF module and power supply management, these 500mW radio modules and modems bring high efficiency to wireless applications.
- Available in metallic IP65 or IP67 casing, this fully certified radio modem offers the perfect high performance radio solution for outdoors and tough environments.



Key Characteristics

- High performance device for long range application
- Complete Certified RF Solution in License Free 868 MHz ISM Band
- RS232/RS485/RS422 serial interfaces
- Provides easy compatibility with industrial protocols (Profibus, Modbus, Unitelway)
- Embedded firmware including multiple protocol modes

Applications

- Rural and Urban telemetry (Traffic Lights Control, Irrigation, ...)
- Weather stations
- Signalisation panels / Urban Displays Monitoring
- Industrial Automations
- GPS data transmission for localization & fleet management

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PowerOne 868 MHz.

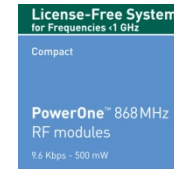
Modem

PowerOne™ Family

PowerOne 868 MHz – RF modules.



Technical specifications



Performance	Range	16000 m
	Output Power (adjustable)	25 to 500 mW 14 to 27 dBm
	Serial Data Rate	Up to 115.2 Kbps
	Radio Data Rate	9.6 Kbps
	Sensitivity (BER < 10-3)	-113 dBm
Power Requirements	Power Supply	3.6 V ± 5%
	Board Consumption @ 3.6 V	Rx : 55 mA Tx : 600 mA Std-by : < 15 µA
	Physical properties	Board Format (with connector) rectangular 94 x 52 mm height 13.5 mm
Networking	Temperature	-20°C to +55°C
	Frequency	869.4 - 869.65 MHz
	Channels	10 (25 kHz)
	Modulation	GMSK
	Serial Interface	RS232, RS422, RS485 standard or TTL

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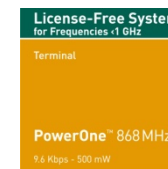
active links

PowerOne™ presentation

PowerOne 868 MHz.

Modem

Technical specifications

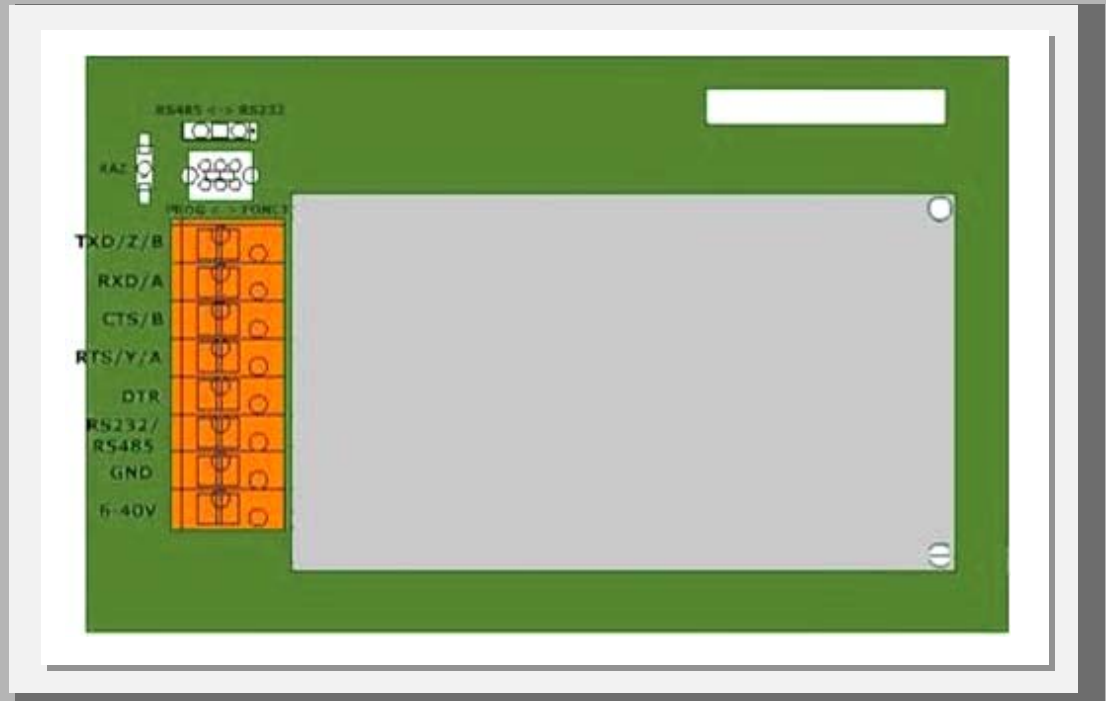


Performance	Range	16000 m
	Output Power (adjustable)	25 to 500 mW 14 to 27 dBm
	Serial Data Rate	Up to 115.2 Kbps
	Radio Data Rate	9.6 Kbps
	Sensitivity (BER < 10 ⁻³)	-113 dBm (@ 9.6 Kbps)
Power Requirements	Power Supply	6 - 40 V
	Modem Consumption @ 12 V	Rx : 40 mA Tx : 210 mA
Physical Properties	IP65 casing	159 x 85 x 35 mm (without antenna) weight 450g
	IP67 casing	187 x 80 x 60 mm (without antenna) weight 750g
	Temperature	-20°C to +55°C
Networking	Frequency	869.4 - 869.65 MHz
	Channels	10
	Modulation	GMSK
	Serial Interface	RS232, RS485, RS422

PowerOne™ Family IP 65 version.



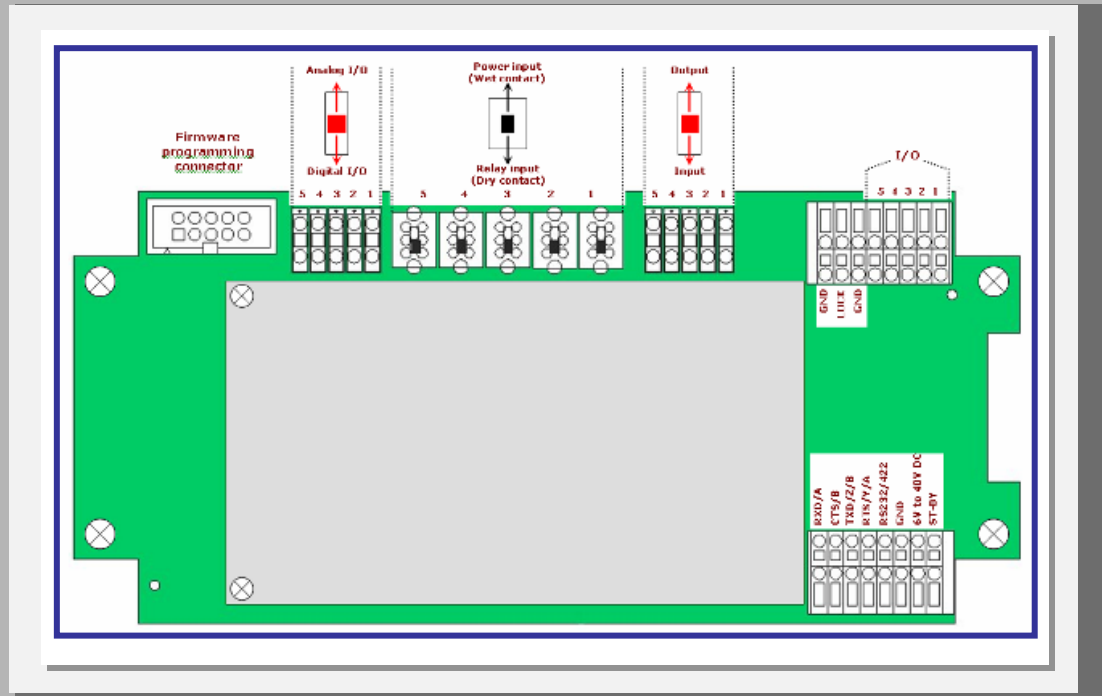
- Cable gland
- No I/O
- Fixed antenna or TNC connector



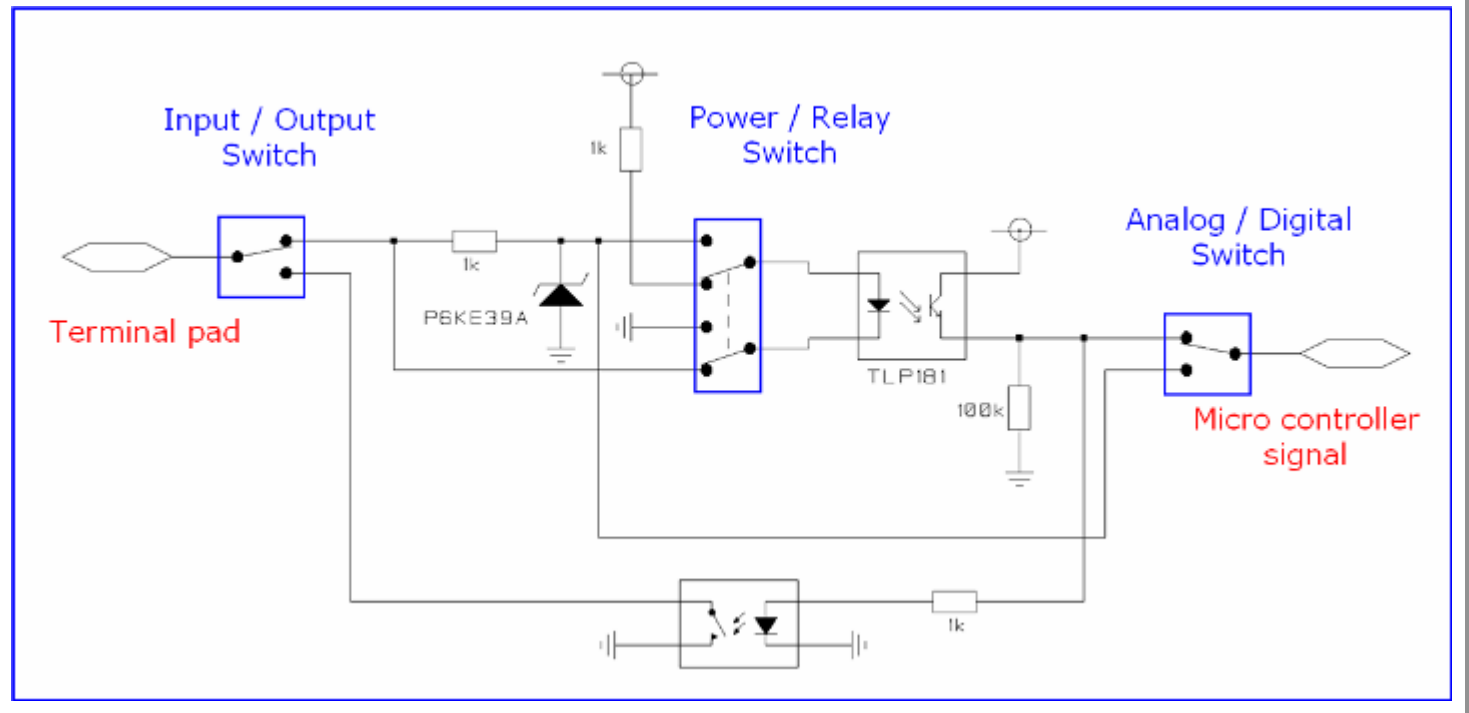
PowerOne™ Family IP 67 version.



- Cable gland,
- Protected I/O,
- Fixed antenna (Not IP67 if antenna unscrewed).



PowerOne™ Family IP 67 version, I/O SCHEMATIC.



Modem Ordering Information

M868 MC – power / 10 – XX – XX – P – XX

Casing type

65 : IP 65

67 : IP 67

Antenna option

IA : Integrated Antenna

RA : Removable Antenna

Options

IO : I/O
(IP67 only)

Blank : no I/O

PowerOne™ Family Board Ordering Information.



Board Ordering Information

B 868 MC – power / 10 – XXX

Connector type
DRC : Delta Ribbon
Connector
WOC : Without Connector

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