

RadLink Embedded Controller Specifications



General Description

The embedded controller supplied by Radcomm provides power and control capabilities to the Radcomm radiation detection system. The controller allows a display to be connected to an HDMI or VGA port on the back of the box. There are dual Gigabit Ethernet ports or internal Wi-Fi for Internet/network connectivity. The unit can be mounted to a wall if desired.

FEATURES

- Keyed on/off switch
- RS232/422 converter
- AC/DC power supply
- Audio
- Mounting holes for wall mount

Embedded Controller Specifications

- OS: Windows 10 IOT Long Term Service Branch 2019
- Intel Celeron J1900 2.0 GHz Processor
- Touch Enabled LCD Display
- 8 GB DDR3 RAM
- Dual Ethernet ports
- Wi-Fi
- 1x VGA analog video output, 1x HDMI digital video output
- 5x USB 2.0 1x USB 3.0
- Audio Speaker
- 480 GB SSD storage capacity (optional sizes available) *A B C D
- Data management for a standard system can store up to 180500 scans a year (500 daily scan average) *A B C D

- Standard System is a 2 detector panel with 2 PMTs with 128 resolution at 0.4ms. 500 daily scans can use approx.. 87GB in a year.
- 128 GB SSD can handle up to 180500 scans before it begins recycling the old data.
- Number of scans to store can be increased by increasing the SSD storage capacity.
- A PMT with 128ch at 0.4 seconds can use approximately 22GB in a year

Note: Design is modular, no customer serviceable parts. One (1) year warranty includes replacement of controller.



Front View with Touchscreen Monitor



Front View



Rear View

Electrical Characteristics of Internal Power Supply

INPUT

Parameter	Condition	Min	Typ	Max	Units
Voltage		85 120		264 375	Vac Vdc
Frequency		47		63	Hz
Input current	110 Vac		1.5		A
	220 Vac		0.8		A
Inrush current	115 Vac, full load, cold start			25	A
	220 Vac, full load, cold start			50	A
Input fuse	Built-in, non-user serviceable				

OUTPUT

Parameter	Condition	Min	Typ	Max	Units
Line regulation	High line to low line at full load		± 0.5		%
Load regulation	Full load to 10% load		± 1		%
Temperature coefficient			± 0.5		%/°C
Hold-up time	115 Vac at full load		8		ms
Adjustability	Adjustable with built in trim pot			+5	%
Switching frequency			65		kHz

PROTECTIONS

Parameter	Condition	Min	Typ	Max	Units
Over voltage protection	Clamped by TVS 3.3 and 5 V models All other models			6.8 135	V %
Over current protection	Automatically recovers		105		% Io
Short circuit protection	Continuous, long term short circuit may reduce reliability		± 0.5		%/°C

SAFETY & COMPLIANCE

Parameter	Condition	Min	Typ	Max	Units
Isolation voltage	Primary to secondary for 1 minute Primary to transformer core for 1 minute Primary to ground for 1 minute	3,000 1,500 1,500			Vac Vac Vac
Isolation resistance	Input to output at 500 Vdc @25° C	50			M
Safety approvals	TUV EN60950, CE, UL/cUL 60950-1				
EMI/EMC	FCC class B, EN55022 class B				
Leakage current		-10		1.5	mA
RoHS compliant	Yes		65		kHz
MTBF	According to MIL-HDBK-217F	250,000			hours

TOP VIEW - WALL MOUNT HOLE DIMENSIONS

