CFP

Innovator In Spectroscopy Equipment

PRM2415A

LAB
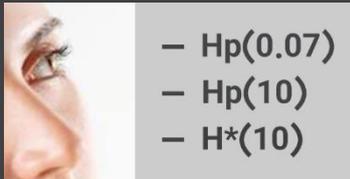
ANDROID | Windows

— Hp(0.07)
— Hp(10)
— H*(10)

PORTABLE RADIATION MONITORING LAB
NO DISPLAY
MODEL PRM2415A-LAB
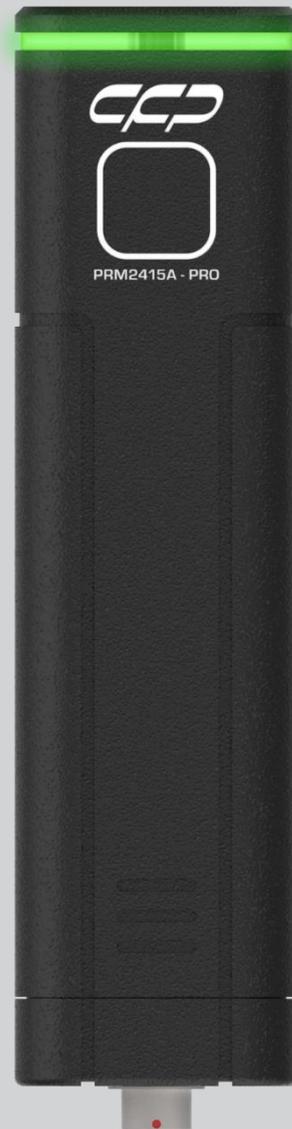
PRM2415A - PRO

CATALOG   H*(10) DOSIMETERS   FREE DOWNLOAD

PORTABLE RADIATION MONITORING LAB NO DISPLAY
MODEL PRM2415A-LAB

Features

- Light and sound alarm
- Monitor counts/interval (rate)
- Cost effective semiconductor sensor
- High sensitivity and uniform response
- Dose range from 0.1uSv/h to 10mSv/h @^{137}Cs
- Measurement count from 0.01cpm to 300Kcpm
- Detecting beta, gamma & x-ray radiation source
- Monitor variation in background radiation at different elevations
- Monitor radioactivity in the environment over long periods of time.

- condition
- Durable, versatile
- Highly integratable
- Splash resistant design
- Wide temperature range
- Ready for field operation
- Compact design with low weight
- Easy to use and low maintenance
- Continuous operation under severe environmental
- Being robust and suitable for use in challenging conditions

COST EFFECTIVE SEMICONDUCTOR SENSOR
& HIGH SENSITIVITY

X- and Gamma-Rays

α Alpha
β Beta
χ X-Ray
γ Gamma
n Neutron

PRM2415A - PRO

① Paper
② Thin plates made of wood, aluminum, etc
③ Lead, iron, and other thick metal plates
④ Water, concrete, ctc
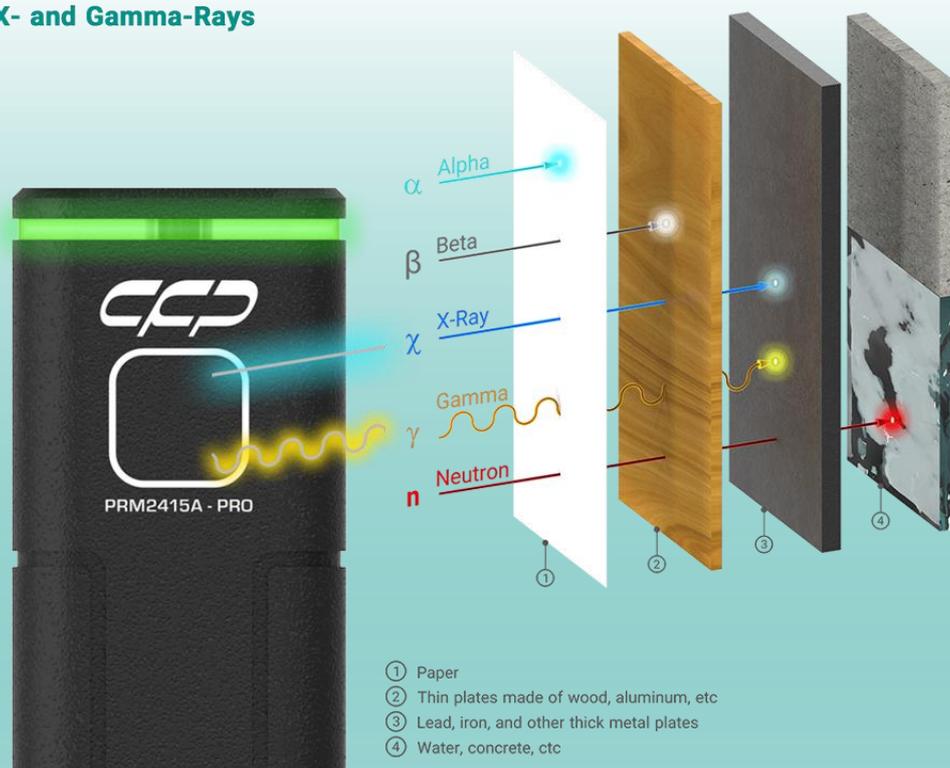
Description

The PRM2415A-LAB from Control Farayand Pasargad (CFP) is a highly sensitive radiation sensor designed for the embedded systems market by means of semiconductor detector. Capable of detecting gamma, x and beta radiation, it has a simple pulsed output that can be used with any interface. The PRM2415A-LAB has six types; they're information is visible below. This radiation monitoring has an onboard DC boost circuit, so the board can be supplied with a friendly 5V. Using only 31mW (6mA @ 5V), it is very low power. CFP has a handful of documents and example sample to get you up and running. They have also written a Windows and Android example program written in C# to output graphs to a computer using a USB as the reader.

Further tips for monitoring radiation:

To measure gamma and x-rays, hold the tip of the radiation
monitor toward the source of radiation. Low energy gamma radiation (10–40keV) cannot penetrate the side of the PRM, but maybe detected through the window. To detect hard beta radiation, point the window toward the source of radiation. Beta radiation has a longer range through air, but can usually be shielded (e.g., by a few millimeters of aluminum). High energy beta particles may be monitored through the back of the case. Some isotopes detected relatively well are ^{137}Cs, ^{60}Co, ^{99m}Tc, ^{32}P, and ^{90}Sr. Some types of radiation are very difficult or impossible for this PRM to detect. Beta emissions from tritium and gamma emissions from ^{241}Am are too weak to detect using the radiation
monitor.

PRO Version

STD Version

Specifications

Unit: PRM2415A-LAB						
Type	LAB					
Version type	STD	STD SSDL	PRO	PRO SSDL	BETA	BETA SSDL
Energy detection	Gamma and X-ray		Gamma and X-ray		Beta, Gamma and X-ray	
Input(s)						
Port	DC +5V LEMO 5 pin (200mA)					
Output(s)						
Output	No output signal					
Control(s)						
Port	Setting configure via LEMO 5 pin (A), USB (B) cable (set and read all data)					
Indicator(s)						
Ring	Green color (safe) & red color (alarm)					
Buzzer	Not included		Available		Available	
Performance						
Energy range (gamma)	120 – 3000keV		60 – 3000keV		60 – 3000keV	
Energy range (beta)	Not detect		Not detect		> 170keV	
Dose range	0.1 - 10000µSv/h					
Accuracy	Typically ±20% @ ^{137}Cs		Typically ±10% @^{137}Cs		Typically ±10% @^{137}Cs	
Operating range	0 – 3500cps					
Continuous run time						
In normal conditions	≥1000 h					
In economy mode	≥5000 h					
Detector						
Beta, Gamma, and X-ray detector	Semiconductor (Si)					
Data Acquisition and Analysis						
OS	Built in Windows 7 or higher versions					
Software	PRM2415A-LAB (SOFTWARE)					
Battery						
Type	Not included					
Certificate						
SSDL⁺	✗	✓	✗	✓	✗	✓

+ = This certificate of compliance can be checked for validity, please refer to www.cfp.co.ir

Application

- Security control
- Nuclear industry
- Accelerator sites
- Nuclear medicine
- Scientific research
- Customs and border control
- Dose monitoring of population
- Measure background radiation
- Environmental and area monitoring

- Counts/interval vs. distance studies
- Counts/interval vs. shielding studies
- Half-life determination (counts/interval vs. time)
- Monitoring of radiation dangerous rooms and facilities
- Radiation protective measures in case of nuclear disasters
- Health physics (for contamination monitoring on surfaces, clothing and objects etc.)

Electrical, Mechanical and Environmental

Unit: PRM2415A-LAB						
Type	LAB					
Version type	STD	STD SSDL	PRO	PRO SSDL	BETA	BETA SSDL
Electrical						
Power required	0.1W					
Physical						
Dimensions (L × W × H)	32mm x 128.5mm x 15mm					
Weight	71gr					
Protection class	IP40					
Mechanical						
Environmental						
Storage temperature	10°C to 50°C					
Operating temperature	0°C to 50°C					
Relative humidity	10 to 80%					

Software and user interface

PC software

This sensor can be used with one of the below interfaces and the following PRM2415A-LAB software.

- Windows based Tablet and PC Computer via host USB port
- Android based Tablet or smartphone via OTG USB port

Input /Output (Using PRM2415-LAB software)

LEMO 5 pin (A) USB (B)

Data Output formats

CSV, TXT, MCA, KML, XLS, LOG

Software main window
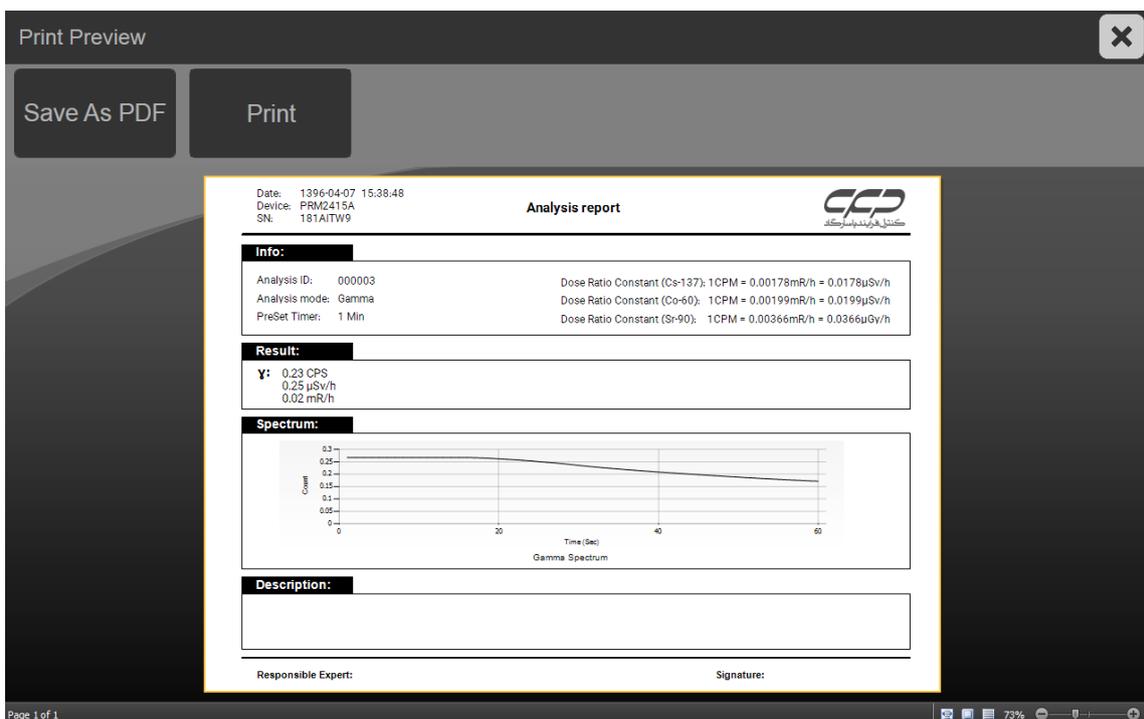
Software report

Ordering info

PRM2415A-LAB-STD standard package includes

Part #	Image	Description
PRM2415A-LAB-STD main		Portable radiation monitoring lab STD type
ACCE2415001-LAB-STD		CD user guide (1 Pack)
ACCE2415002-LAB-STD		Box with foam inserted (1 Pack)
ACCE2415003*-LAB-STD		Guaranty (one year)
ACCE2415011-LAB -STD		LEMO 5 pin (A), USB (B) cable

PRM2415A-LAB-STD-SSDL standard package includes

Part #	Image	Description
PRM2415A-LAB-STD-SSDL main		Portable radiation monitoring lab STD SSDL type
ACCE2415001-LAB-STD-SSDL		CD user guide (1 Pack)
ACCE2415002-LAB-STD-SSDL		Box with foam inserted (1 Pack)
ACCE2415003*-LAB-STD-SSDL		Guaranty (one year)

ACCE2415011-LAB-STD-SSDL		LEMO 5 pin (A), USB (B) cable

PRM2415A-LAB-PRO standard package includes

Part #	Image	Description
PRM2415A-LAB-PRO main		Portable radiation monitoring lab PRO type
ACCE2415003-LAB-PRO		CD user guide (1 Pack)
ACCE2415002-LAB-PRO		Box with foam inserted (1 Pack)
ACCE2415004*-LAB-PRO		Guaranty (one year)
ACCE2415001-LAB-PRO		LEMO 5 pin (A), USB (B) cable

PRM2415A-LAB-PRO-SSDL standard package includes

Part #	Image	Description
PRM2415A-LAB-PRO-SSDL main		Portable radiation monitoring lab PRO SSDL type
ACCE2415003-LAB-PRO-SSDL		CD user guide (1 Pack)
ACCE2415002-LAB-PRO-SSDL		Box with foam inserted (1 Pack)
ACCE2415004*-LAB-PRO-SSDL		Guaranty (one year)

| ACCE2415001-LAB-PRO-SSDL | | LEMO 5 pin (A), USB (B) cable |

PRM2415A-LAB-BETA standard package includes

Part #	Image	Description
PRM2415A-LAB-BETA main		Portable radiation monitoring lab BETA type
ACCE2415001-LAB-BETA		CD user guide (1 Pack)
ACCE2415002-LAB-BETA		Box with foam inserted (1 Pack)
ACCE2415003*-LAB-BETA		Guaranty (one year)
ACCE2415011-LAB-BETA		LEMO 5 pin (A), USB (B) cable

PRM2415A-LAB-BETA-SSDL standard package includes

Part #	Image	Description
PRM2415A-LAB-BETA-SSDL main		Portable radiation monitoring lab BETA SSDL type
ACCE2415001-LAB-BETA-SSDL		CD user guide (1 Pack)
ACCE2415002-LAB-BETA-SSDL		Box with foam inserted (1 Pack)
ACCE2415003*-LAB-BETA-SSDL		Guaranty (one year)

| ACCE2415011-LAB-BETA-SSDL | | LEMO 5 pin (A), USB (B) cable |

* =we stand behind our products. We guarantee your satisfaction in the quality of our instruments by providing a complete one-year warranty covering any defect of workmanship, material, and/or design. If our products do not perform, we will provide complete repair and/or replacement. for guaranty conditions, please refer to manual device (PRM2415A-LAB- Manual).

Optional accessories and services

Part #	Image	Description
ACCE2415004		Installation
ACCE2415005		Training
ACCE2415006**		Re-calibration (interval) services. 1year factory maintenance suggested, not required
ACCE2415007		Hard case with foam insert

** = The proper maintenance & calibration of your instruments is critical to ensure proper performance & accuracy. for Re-calibration (interval) services, please call with CFP company (021- 46045383).