

Radiation Portal Monitoring (RPM)

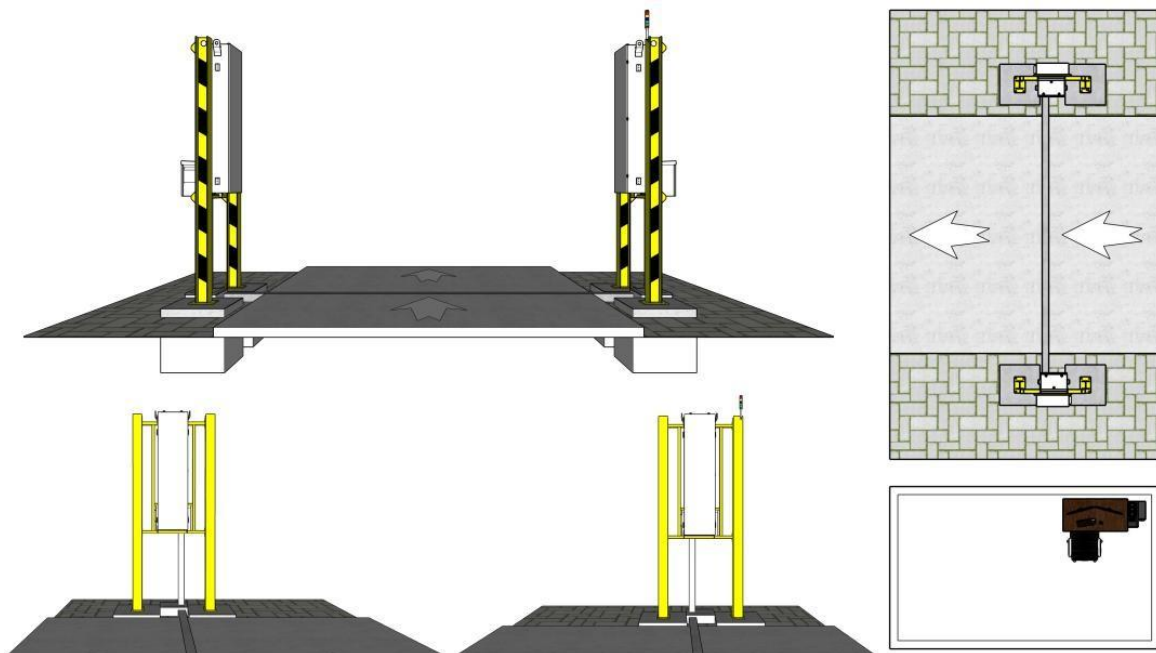
Company Profile – PT Radpro Energi Mandiri

PT Radpro Energi Mandiri merupakan perusahaan yang bergerak di bidang jasa dan teknologi ketenaganukliran, dengan fokus utama pada keselamatan radiasi dan pengelolaan limbah radioaktif. Kami berkomitmen menghadirkan solusi inovatif yang mendukung keamanan, efisiensi, dan kepatuhan terhadap regulasi dalam setiap kegiatan yang melibatkan sumber radiasi.

Sebagai bentuk penguatan kompetensi dan inovasi nasional, **PT Radpro Energi Mandiri** berkolaborasi dengan **PT Visi Global Teknologi** dalam *Radiation Portal Monitoring (RPM)* — sistem pemantauan otomatis berfungsi mendeteksi keberadaan radioaktivitas pada kendaraan angkut, produk industri, maupun paket kemasan di area fasilitas.

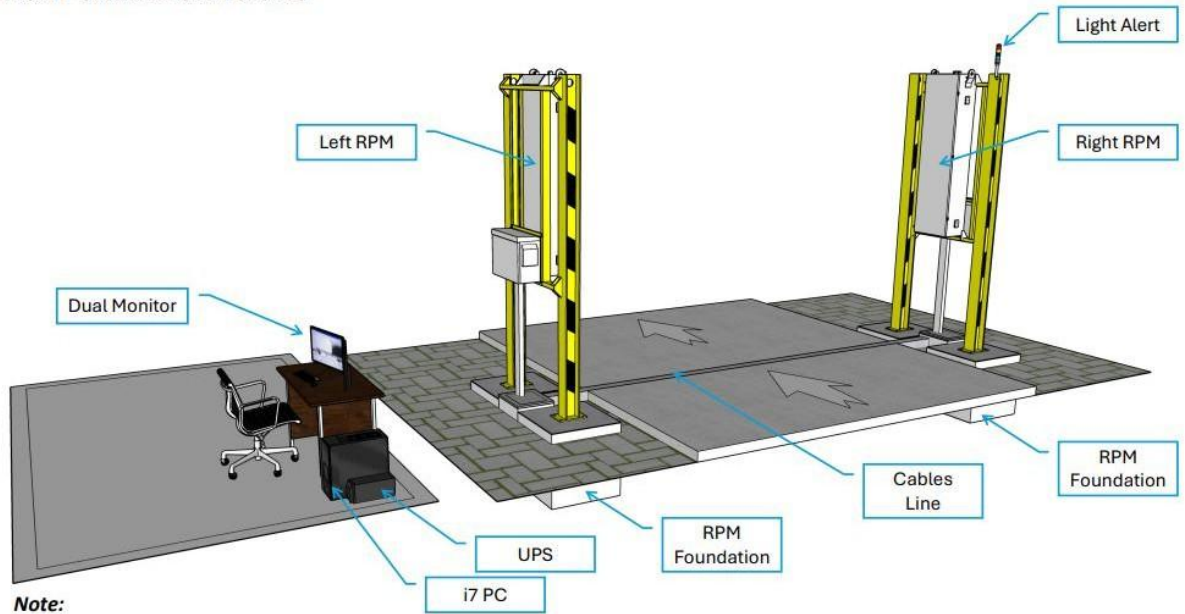
Teknologi **RPM** ini menjadi langkah strategis dalam upaya deteksi dini dan pengawasan pergerakan zat radioaktif secara real-time, mendukung keamanan publik dan lingkungan kerja dari potensi paparan radiasi tak terkontrol.

Dengan mengusung semangat “**Reliable Radiation Partner**”, PT Radpro Energi Mandiri siap menjadi mitra terpercaya dalam penerapan teknologi nuklir yang aman, modern, dan berdaya saing tinggi.



Gambar 1. Desain *Radiation Portal Monitoring*

RADIATION PORTAL MONITORING



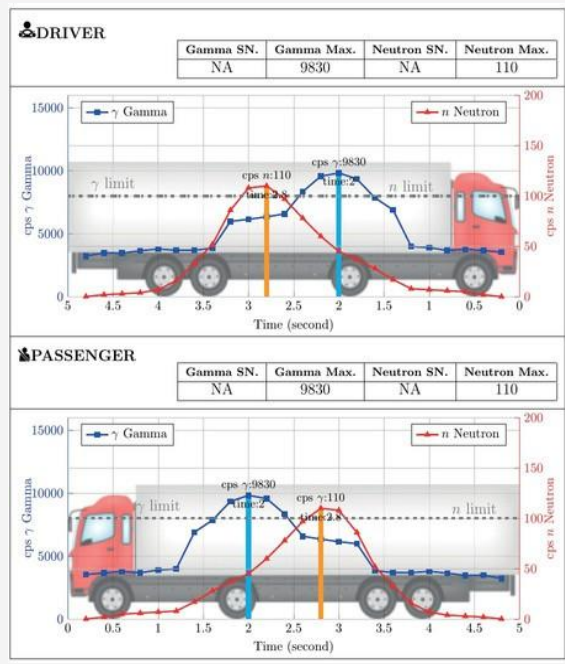
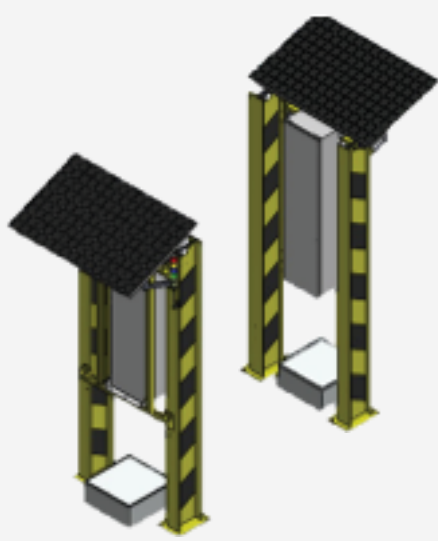


ID-RPM

Passive radiation detection devices used for the screening of individuals, vehicles, cargo or other vectors for detection of illicit sources such as at borders or secure facilities

GENERAL SPECIFICATIONS

Detection	Compliance to ANSI N42.35-2016
Data Output	Provide alarm classification, alarm status, gamma count rates, neutron count rates and background count rates directly to third party user interfaces
Gamma Detector	22.8 litre (38 x 120 x 5) cm plastic scintillators (PVTs) with integrated multichannel analyzer (MCA). The sensitivity of the gamma radiation is from 30 keV to about 3 MeV, ensuring static efficiency and dynamic sensitivity in the whole detection range
Gamma Sensitivity	Approx. 150,000 cps/Svh ⁻¹ for Cs-137
Neutron Detector	The neutron detectors are based on a design concept by Los Alamos National Laboratory using the Zinc Sulfide material and successfully applied to multiply counters. The entire module contained a high density polyethylene moderator box and complies to ANSI N42.35 standard
Neutron Sensitivity	Min. 2.5 cps/ng of moderated Cf-252 at 2 meters
Alarm Categorization	Alarm categorization allows optimal threat detection and minimal false alarm rate
Peripheral	rate
Temperature	Occurance sensors; optional: CCTV, OCR, LPR, audible/visual alarm annunciation
Humidity	-30 °C to 55 °C (down to -40 °C optional)
Ingress Protection	up to 99 %



ID-RPM Desktop & Mobile App



RADIATION DETECTION FEATURES

* Comply to ANSI N42.35 & ANSI N42.42

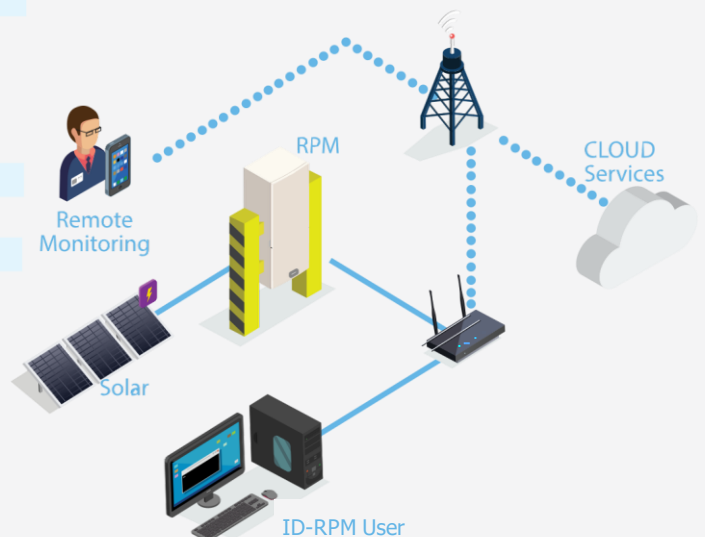
- Real-time alarm categorization to ensure optimal threat detection and minimal false alarm
- Data transfer to network and central alarm station, secure remote access can be set up
- High detection performance
- He-3 free neutron technology
- Reliable high speed screening
- Classification of type of radiation sources
- Automatic record the presence of radiation for vehicles
- Integrated with motion sensor for tracking purposes
- Fast and easy installation
- Mobile apps help to monitor radiation level of each vehicle passing through the radiation detector
- Data visualization in statistical chart inside the mobile apps
- Cloud platform for data centralization and synchronization
- Solar powered (Optional)
- Mobile Connection (Optional)

ELECTRICAL

Operating Voltage	24 V
Max Power Consumption	110 W/h

ADDITIONAL ACCESSORIES

Mobile Connection & Wireless System	Yes
Solar Energy & Battery Backup System	Yes
Server & Cloud Data Storage	Yes



Models

Specifications	ID-RPM G2	ID-RPM G4	ID-RPM G2N2	ID-RPM G4N2
Gamma Detector	Yes (one each sides)	Yes (two each sides)	Yes (one each sides)	Yes (two each sides)
Neutron Detector	No	No	Yes (one each sides)	Yes (two each sides)
Desktop Software	Yes	Yes	Yes	Yes
Mobile App	Yes (with add-on)	Yes (with add-on)	Yes (with add-on)	Yes (with add-on)

Add-ons

Mobile Connection & Wireless System

Solar Energy & Battery Backup System

Server & Cloud Data Storage

ID-RPM G2

Two (2) gamma detectors: one gamma detector on each side. This model does not have a neutron detector but is suitable for civilian monitoring with a passenger vehicle. Suggested installations for this model include pedestrian scanning, hospitals (nuclear medicine departments), airports, schools, and university labs.

ID-RPM G4

Four (4) gamma detectors: two gamma detectors on each side. This model does not have a neutron detector but is suitable for institutions or agencies that use heavy vehicles. Suggested installations for this model include radionuclide production labs, facilities for the radiation industry, and nuclear research facilities.

ID-RPM G2N2

Two (2) gamma detectors with two (2) neutron detectors: one gamma detector and one neutron detector on each side. This model includes neutron detectors and is suitable for places that transport goods to prevent illegal trafficking of radiation sources. Suggested installations include seaports and scrapyards.

ID-RPM G4N2

Four (4) gamma detectors with two (2) neutron detectors: two gamma detectors and one neutron detector on each side. This model includes neutron detectors and is suitable for places that use heavy vehicles to transport minerals. Suggested installations include rare earth mining sites.

