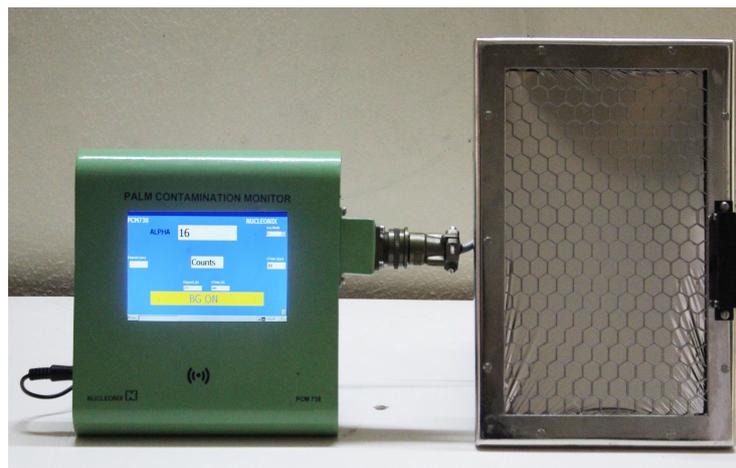


PALM CONTAMINATION MONITOR**Type No : NXG_PCM738**

- Uses SoC, based on ARM Cortex A5 400MHz ,1.5MB SRAM,128MB Flash, extensive use of peripheral devices & Ethernet interface has been employed.
- Uses Microcontroller for counting radiation pulses, fault diagnostics etc.
- Efficiency > 25% for Am-241. Provided with a rugged protective grill.
- Uses ZnS scintillator coupled to PMT of suitable dia.
- 5" TFT display indication for count rate, alarm status & configuration settings.
- Large size WINDOW indication on TFT display for CLEAN & CONTAMINATION condition.
- Alarm setpoint & ACK / RST through touch screen.
- Monitor design ensures continuous maintenance free operation in harsh atmospheric conditions in Radiochemical plants.



Palm Contamination Monitor NXG_PCM738 manufactured by NUCLEONIX SYSTEMS primarily serves as a personnel monitoring system for checking the Alpha contamination of Palm of radiation workers / technicians working in Nuclear Power Plants, reactors, Radiochemical plants and other similar installations. This is wall mounted design.

It uses latest state-of- art electronic devices including SOC based on ARM cortex A5 400MHz CPU with associated peripheral devices and other discrete ICs & components. Use of these devices makes it compact & highly reliable. Powerful embedded code adds-up and enhances its performance and gives extra advantage from the angle of fault diagnostics, programmable features & measurement of count rate & data communication under, networked environment.

With power ON, initialization of SOC, peripheral devices, 5" TFT display/timers, counter etc., takes place. Start of counting is initiated by an IR source detector arrangement on detection of palm. Whenever the person place Palm on the Detector assembly Acquisition Automatically take place and shows Palm contamination levels in terms of counts or cps/cpm and Based on the Alarm set point it will Declares the CLEAN or CONTAMINATION Message. Guidance to the user during monitoring is in the form of textual messages at the end of monitoring. Additionally, hardware & fault diagnostic check will be carried out.

Palm contamination Monitor NXG_738 indicates Count rate digitally on TFT display. There are visual annunciator windows, GREEN & RED for CLEAN & CONTAMINATION conditions respectively, shown on TFT display. The RED window screen flashes, when the count rate alarm occurs and in CLEAN condition the GREEN window glows.

TECHNICAL SPECIFICATIONS

Detector	: ZnS Scintillator of dimensions 140x220mm covered with Aluminized mylar film and coupled to suitable PMT serves as the Alpha detector. It is also provided with a rugged SS grill for protection to the detection assembly.
Palm Detection	: By an IR sensor
Efficiency	: Overall efficiency is better than 25% for Am - 241
Display	: 5" TFT Display
Preset time	: 1 - 99 secs.
Measuring Range	: 0 - 9999 counts / 0-9999 CPS / 0-99999 CPM
Preset counts range	: 1 - 9999 counts
User Interface	: Touch Screen Based, Stylus has been provided for configuring the instrument.
Graphical Indication	: Clean and Contamination.
Audio	: Warning audio signals for contaminated and incomplete operation.
Power Supply	: +5v Switching Adapter

Head of the Dept.

M. PullaRao

Approved By

