

SMART SiPM

The Smart SiPM is a Smart Single Channel Analyzer. It transmits data through both mediums i.e. Wireless and Wired. In wireless mode, the data is transferred to the laptop through Wi-Fi and is observed on dedicated application software. The other way to collect or store or observe or monitor the data is through wired mode. The data can be transferred to any external device using an RJ45 connector and cable.



Features

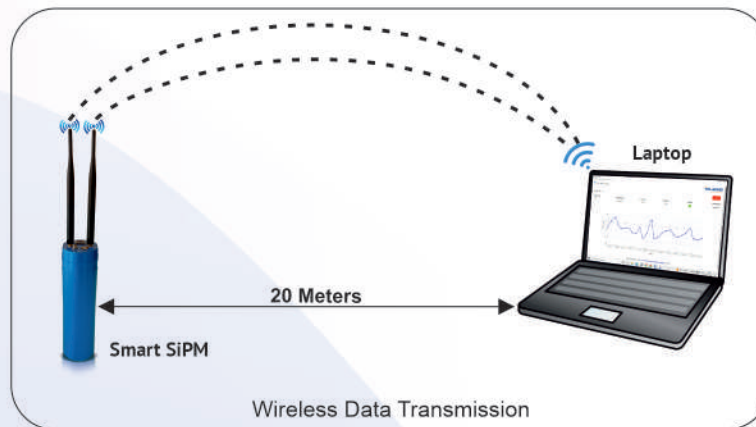
- Highly Anodized Aluminium Enclosure
- RoHS Compliant
- The device data can be observed remotely through Wi-Fi.
- The data can be monitored and stored through dedicated application software.
- The data is transferred to any external device using an RJ-45 connector and cable.
- Current Surge protection.
- Available with PMT detector (The detector specification will vary according to the detector used).

Explanation

- Before making any connections make sure the switch is off and the battery is disconnected.
- The Smart SiPM operates on 12VDC.
- Make sure that the battery to be connected is fully charged.

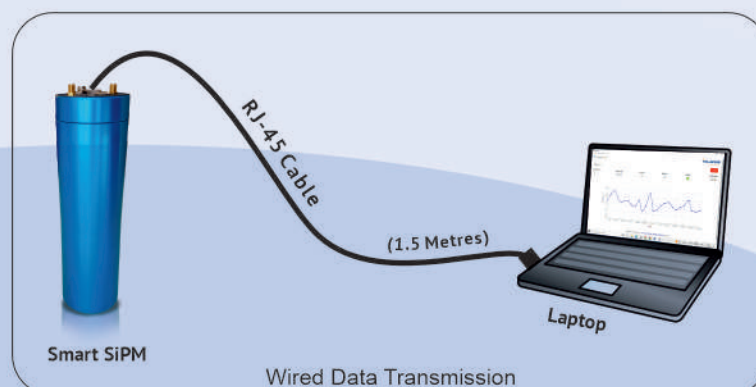
To observe the data through Wi-Fi on laptop

- Connect Antenna, Battery and turn ON the device by pressing the power switch on the SSiPM device.
- The device will generate its own hotspot. This device name will appear in the access point list of the laptop. Select the name of the device and connect.
- Now open the software, select step time and press 'Start' tab in the software.
- You will see the graph, plotting on the screen.
- Simultaneously, this data is stored in the .xlsx file in the folder named Wi-Fi-Based_Logger in C-drive



To store the data through RJ-45 to an external storage device (Interface Circuit)

- Connect battery, RJ-45 Cable from device to any external storage device.
- Turn ON the device by pressing the power switch on the SSiPM device.
- Later, this data can be observed on the dedicated application software by connecting the external storage device to the laptop.



Specification

Smart SiPM Specification:

Parameters	Value
Power Supply Voltage	12VDC
Power Supply Current	300mA
Operating temperature	-20°C to +50°C
Pulse width	1.6us
Pulse count	10ms, 100ms (software selectable)
Communication	Wi-Fi, TCP/IP
Detector type	SiPM

SiPM Detector Specification:

Performance specification	
Scintillator (SiPM)	Nal (TI)
Typical resolution (FWHM for ¹³⁷ Cs)	7.5%
Higher Photon detection efficiency	Yes (50% to 60%)
Magnetic field sensitivity	No (Insensitive to the magnetic field)
Ability to withstand Mechanical shocks	Yes (up to 3G)
Temperature gain compensation	Yes
Measurement Data	
Output type	Analog Output 1) Current to voltage Preamplifier
Topology	Current to voltage converter topology
Environmental Conditions	
Suitable for continuous outdoor use	Yes
Operating Temperature	-20°C to +50°C
Protection Class	IP-65
Operating Parameters	
Power Supply	5V DC
Power Required	60mW @5V DC
Current	12mA

Wi-Fi Specification:

11 b/g/n
11 n (2.4GHz), up to 150Mbps
Wi-Fi: 802.11 b/g/n
Adjustable transmitting power
802.11 n 0.4 μs guard-interval
up to 150 Mbps of data rate
Automatic beacon monitoring (Hardware TSF)
Defragmentation
8 Antenna Diversity

Mechanical Specification:

- Size: OD: 66mm
- Length: 223mm
- Weight: ~2KG
- Finish: Anodized
- Material Used: Aluminium

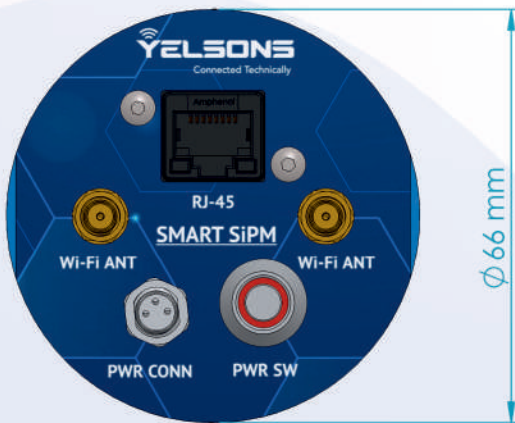


Image: Top View of SSiPM

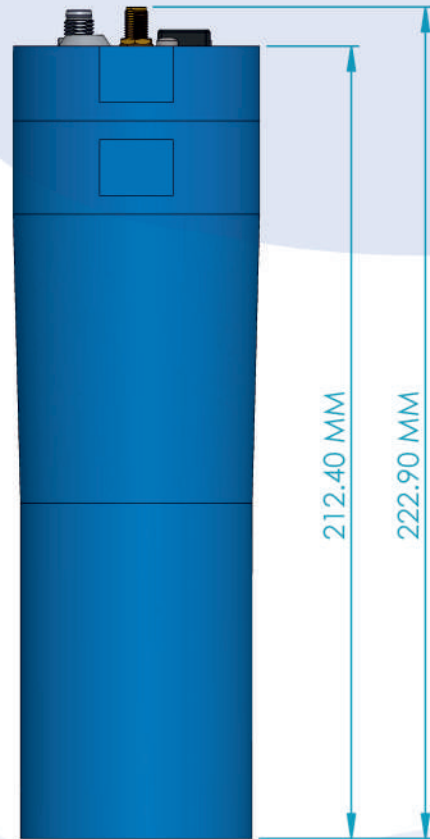


Image: Front View of SSiPM

Product improvement is a continuous process. Please contact Yelsons marketing team for the latest updates.