PAQS®

1. Environmental Sensor (ES) Model No -ES 2.7

Slno	Parameter	Details	Sensing range/Remarks
1	Measurement elements	Temperature, Relative humidity, Light, Noise, CO, NO2, O3, SO2, PM 2.5, PM10, CO2, UVa and UVb.	
2	Measurement component &Measurement range	NO2	0 to 10 ppm
		CO	0 to 100 ppm
		SO2	0 to 20 ppm
		O3	0 to 1000 ppb
		PM2.5	0 to 500 micro grams/ cu m
		PM10	0 to 1000 micro grams/ cu m
		CO2	0 to 5000 PPM
		Temperature	-10 to 60 deg. C
		Relative Humidity	up to 100%
		Light	10000 Lux
		Noise	30 to 120 db(A)
		UVa	upto 15 mW/cm2
		UVb	upto 15 mW/cm2
3	Connectivity	● GSM 3G/4G ● Wi-Fi- 2.4/5 GHz ● Wireless backhaul to cloud. ● Third party access for Curated /Computed data	Easily interchangeable between Wi-Fi & GSM in PAQS Factory.
4	Data Quality	* Lab Calibrated * Field Calibration per international accepted protocols	Dynamic calibration through a unique PAQS model
5	Software and Data Backup	Data Buffer Capacity up to 3 years	
6	Data Capture Frequency	Senses continuously every 30 seconds.	Data from Sensors sent to PAQS cloud located in India and available as secure REST APIs for IOT platforms applications
7	Battery	Li-Ion Battery Backup of 6 hours	
8	Enclosure	Compact Aero Dynamic Design (like a disc) and modular for minimal air resistance .	

		Additional sensors can be added without effecting rest of the system	
9	Stabilization Time	Stabilization Time on power outages < 10 minutes	
10	Rating	IP 65 equivalent	Ruggedized enough to be deployed in open air areas on streets (light poles or stand alone poles) and parks
11	Visual Indication	LEDs on the enclosure for easy visual indications	
12	Products origin and certification	• Product is **Made in India** • Communications modules are FCC, PTCRB compliant • All major components of sensors are CE certified • NABL Certificates for Noise, Temperature & Humidity Sensor • ISO-90001-2015 & ISO 14001 - 2015	
13	Operating Range		- 10°C to 60 ^{o}C
14	Housing Design	Universal Housing which can be mounted on buses / Public Transport and designed to ensure minimum air resistance	
15	Dimensions	• 300mm Dia × 200mm (Height)- disc * • Mounting: 500mm × 250mm × 250mm* Indicative- final size based on configurations	
16	Power Requirements	230 V AC, 50Hz/ 12 V DC	

2. Software Solutions - for Environment Sensors (ES)

Sl. No	Parameter	Specification	Sensing Range / Remarks
1	Data Collection		Data from Sensor sent to PAQS cloud location in India and available as secure RESTAPIs for IOT platform / other application
2	Software solution	Solution to enable APIs for mobile apps, Web services, LED	API provides to the CCC platform which, can be used to

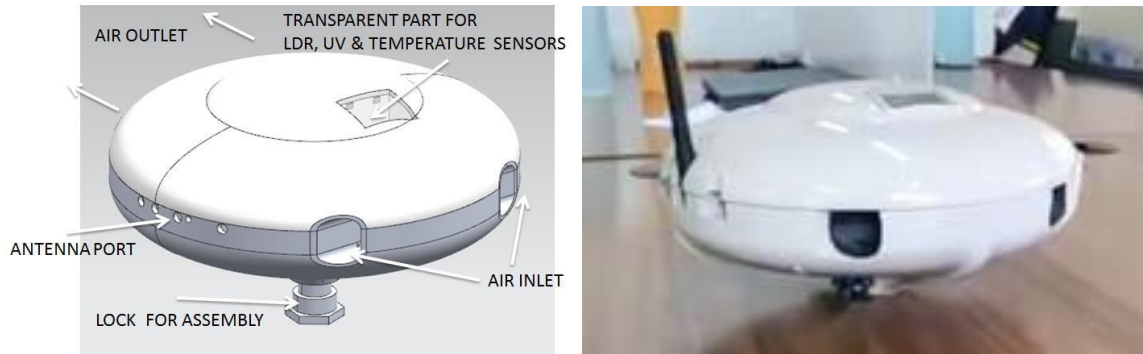|			
		Display board & Variable display Boards. APIs to provide • status for Devices • AQI Colour Schema • Lead pollutants contributing to AQI Architecture to support computation of new parameters such as • Now Cost AQI • Zonal Limit	Display, Data on any Display Media or / and can share to other platform like web or mobile application
3	Element Management system	• Device Listing Details • Device Availability • Device Polling status • Device outage status • API Usage Report • Control on Email alert for Device Downtime • Weekly and Monthly trends • Historical data	
4	Support system	• Alerts for outages • Alerts for Device working on • Battery / Mains • Alerts for any pollutant crossing the breakpoint level for PM 2.5, PM 10, SO2, NO2, O3, and CO • Alerts for Noise level reaching breakpoint level for Hospitals • Alerts for AQI crossing the satisfactory Pollution level • Remote configuration/ calibration of sensors	

Fig1&2 :Environmental Sensor

Figure 3: Installed Environmental Sensor