

# Data Loggers & IoT Gateways for Environment Monitoring



Water Quality



Ground Water



Water Treatment



Water Consumption



Water Tank Level



Air Emission



Air Quality



Weather Stations



Solar Plant



## Network Connectivity



4G Cellular



Ethernet



WiFi



Lorawan



Product Variants



EU, MENA



ANZ, LATAM



USA, Global



India, ASEAN

## Cloud Protocols



MQTT



REST



HTTP



FTP



TLS/SSL

## Payload Formats



JSON



TXT



CSV

## Industrial Protocols



Modbus/RS485

Analog Inputs  
4-20mA 0-100mV

0-5V

HTML  
TCP/IP

Modbus/TCP

UART/  
RS232

SDI12

Digital  
Sensors

## Qualified on all Environmental Instruments



Water Analyzers



Emission Analyzers



Pyranometer



Stack Monitors



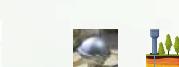
Dust | PM 2.5 Monitors



Wind Speed /Direction



Water Flow Meters



Level Sensors



Air Quality

## Product Features



On-device display for status &amp; diagnostics



Inbuilt JSON payload formats library



Simultaneous data push to multiple servers



Data scaling &amp; Post processing



Generic TXT/CSV payload generator &amp; SD storage



WiFi/LAN based easy configuration



Tick, Select &amp; Configure JSON backup and restore



YuReCon: MQTT based Remote Configuration



On-device web server for local monitoring

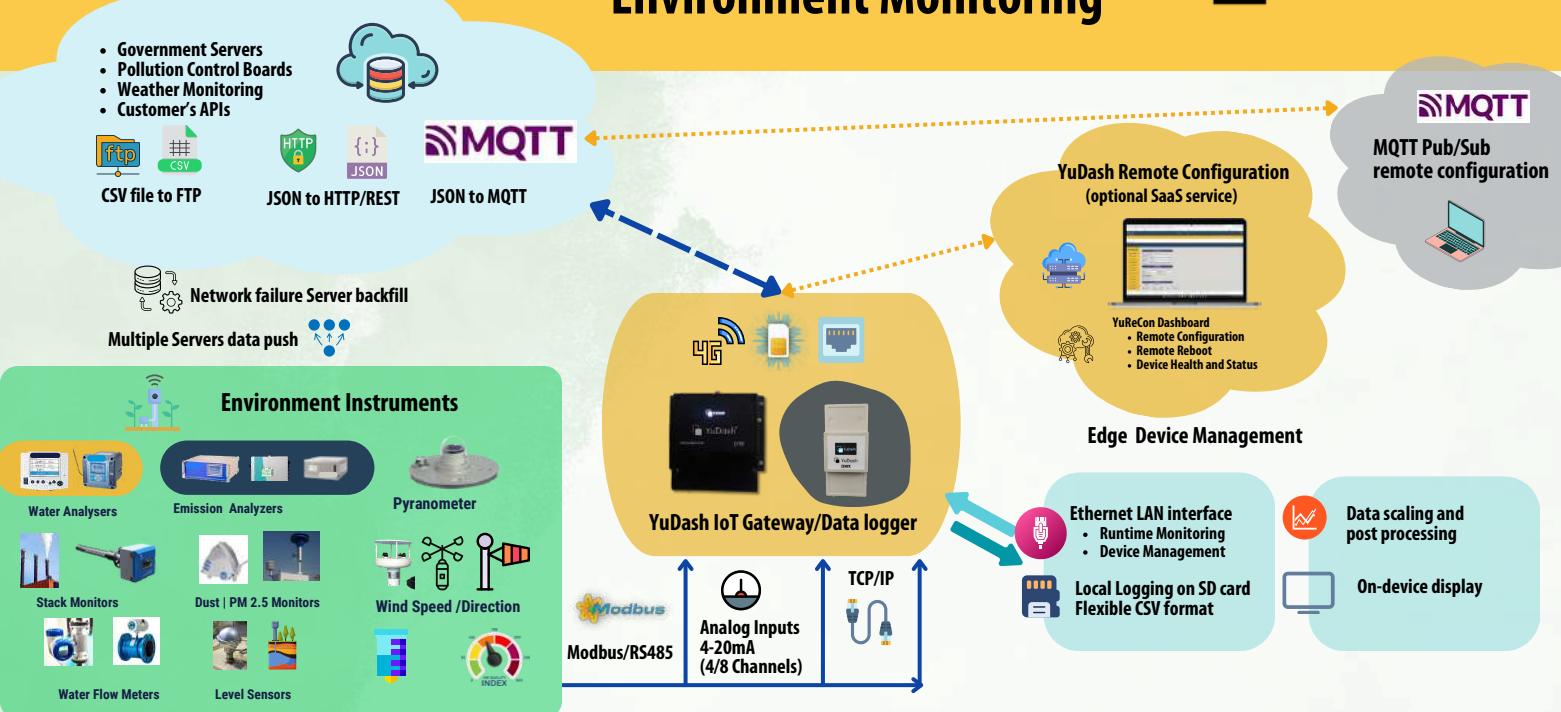


Network failure support Local Storage &amp; Back-fill

Product documentation  
<https://docs.yudash.com>

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IoT | Industry 4.0

# YuDash IoT Architecture for Environment Monitoring



**Water Analyzer Controllers (TCP/IP HTML parser)**



**Flow meters (Modbus RS485)**



**Ultrasonic Level sensors (4-20mA/Modbus with data scaling)**



**Air/Water/Gas Analyzers Agriculture Instruments**



## Worldwide YuDash deployments..



**PLC based STP/WTP control panels (Modbus TCP/IP / RS485 / RS232)**



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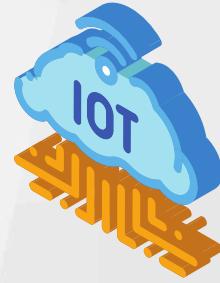
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India

# YuDash<sup>®</sup>

## LYNX IoT Gateway



Compatible with all IoT and compliance platforms



### Cloud Protocols



### Network Connectivity



### Payload Formats



### Product variants



### Industrial Protocols



On-device display for status & diagnostics

Tick, Select & Configure  
No programming / scripting

WiFi/LAN based easy configuration

YuReCon: MQTT based Remote Configuration

### IoT Gateway and Datalogger Features

- Data scaling & Post processing
- Network failure support Local Storage & Back-fill
- Generic TXT/CSV payload generator & storage
- Peer to peer Modbus client/server using MQTT

- Inbuilt JSON payload formats library
- Simultaneous data push to multiple servers
- Easy configuration file backup and restore
- On-device web server for local monitoring

### Pre-integrated with Global IoT Platforms..



### Multiple deployments across verticals



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## Technical Specifications

Rated Input Supply	12V / 24V DC input.
Mounting	DIN Rail mounting and Wall mounting.
Dimensions	94 x 90 x 35mm
Enclosure	ABS Plastic Enclosure. IP 30 rating.
Display	OLED screen for status monitor and configuration
Environmental Conditions	Within IP67 enclosure for outdoor or indoor use.
Temperature	Operating : 0 °C to 60°C Storage: -10 °C to 70°C
Humidity	Upto 85% (non-condensing)
Weight	210 gram (approx)

## LYNX Part Numbers

Part No	WiFi	4G/LTE	Ethernet	RS-485	RTC & SD card	Analog (0-20mA)
IoT Gateways						
LYNX41	✓		✓	✓	✓	
LYNX42	✓	✓	✓	✓	✓	
Data Loggers						
LYNX48	✓	✓	✓	✓	✓	✓
LYNX49	✓		✓	✓	✓	✓

1) 4G/LTE EU part numbers: LYNX42E, LYNX48E

2) 4G/LTE Global part numbers: LYNX42G, LYNX48G



Product documentation  
<https://docs.yudash.com>

## Technical Features

Network Connectivity	<ul style="list-style-type: none"> <li>1) WiFi, Ethernet, 4G Cellular (LTE).</li> <li>2) India, EU and Global variants for 4G/LTE</li> <li>3) Network fallback options.</li> <li>4) Local storage (SD card) and server backfill for network failure</li> <li>5) Real Time Clock (RTC). Auto-synchronization with NTP</li> </ul>
MODBUS Communication	<ul style="list-style-type: none"> <li>1) RS-485 MODBUS/RTU and MODBUS TCP/IP</li> <li>2) Upto 96 parameters/tags. Support for 16 Modbus slaves</li> <li>3) Modbus Write feature for PLC/Instrument settings update</li> <li>4) MQTT/Analog to Modbus Server (RTU and TCP/IP)</li> </ul>
Cloud Protocols and Payloads	<ul style="list-style-type: none"> <li>1) Supports MQTT, REST, HTTP, FTP. Secure layer (SSL/TLS) support.</li> <li>2) Inbuilt JSON payload formats to support all IoT servers.</li> <li>3) Generic payload generator for text/csv formats.</li> <li>4) Data push to multiple servers across protocols.</li> </ul>
Ethernet Features	<ul style="list-style-type: none"> <li>1) Connect to Internet / local LAN server</li> <li>2) Modbus TCP/IP, HTML parsing, SNMP</li> <li>3) Configurable for Static or Dynamic IP.</li> <li>4) On-device Web server for real-time monitoring and diagnostics.</li> </ul>
Analog Inputs	<ul style="list-style-type: none"> <li>1) 8 channel Analog Inputs (0-20mA / 4-20mA)</li> <li>2) Data scaling, clipping for parameter mapping.</li> </ul>
Flexible Configuration	<ul style="list-style-type: none"> <li>1) Easy configuration UI through WiFi/LAN from laptop/mobile.</li> <li>2) JSON based configuration for backup/restore and mass deployment.</li> <li>3) Configure deployed LYNX in field through YuDash cloud or MQTT.</li> </ul>
Additionals Interfaces	<ul style="list-style-type: none"> <li>1) Inbuilt support for various I2C and One wire sensors</li> <li>Temperature, Humidity, Pressure, Distance, Lux</li> <li>2) Optional interfaces: Dual Channel RS-485, RS232</li> </ul>



Product documentation  
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DPIIT recognized startup (DIPP87505)

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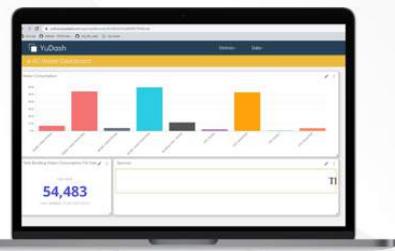
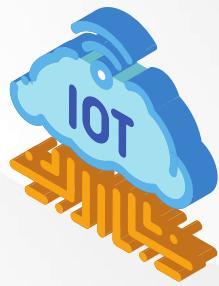
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# YuDash

## Industrial IoT Solutions



**Smart Building  
ESG Compliance**



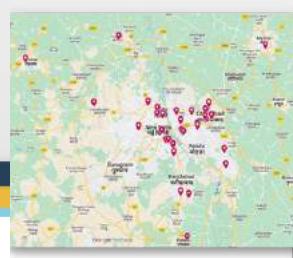
**Energy Management  
Billing | Audit | Optimization**



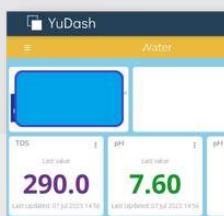
**Remote Asset Management**



**Branch  
Management**



**Plant Process Monitoring**



**Smart Factory**



**Ongoing IIoT partnerships with**



**System  
Integrators**



**Automation  
Companies**



**Industry 4.0  
Companies**



**Energy  
Professionals**

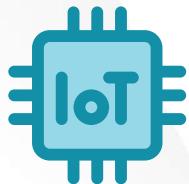


**CEMS  
Companies**

**YuDash**

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# Industrial IoT Stack

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**YuDash**<sup>®</sup>  
**IoT Platform**



Dynamic  
Dashboards



Cloud  
Analytics



Drag & Drop



Mobile & Web



Email/Phone  
Alerts



2-Year  
Storage

Cloud  
Protocols



MQTT



REST



HTTP



FTP



SSL



JSON



TXT



CSV

Payload  
Formats

Network  
Connectivity



4G Cellular



Ethernet



WiFi



LoRaWAN

IoT Gateways

**YuDash**  
IoT | Industry 4.0



LYNX IoT Gateway



ZENYX IoT Gateway

Industrial  
Protocols



MODBUS/RS485



MODBUS/TCP



Analog  
Inputs



HTML  
TCP/IP



Digital  
Sensors



SNMP

Industrial  
Instruments &  
Equipment



Energy  
Meter



PLC



HMI



Water Analyzers



Emission  
Analyzers



Stack Monitors



Process  
Meters



Temperature  
Sensors



UPS



Dust | PM 2.5 Monitors



Level Sensors



Water Flow Meters



YuDash IIoT solution includes..



Requirement  
Understanding



IoT Architecture &  
System Design



Instrument Selection  
Guidance



PLC/HMI Integration  
Support



Pre-activated  
IoT SIM cards



YuDash  
IoT Gateways



YuDash Cloud with  
Annual Charges



Basic Dashboard  
Design



IIoT Dashboard  
Training



Cost Effective  
IoT Solution



It excludes..



PLC  
programming



Instrument  
Configuration



Panel  
Wiring



Site  
Installation



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