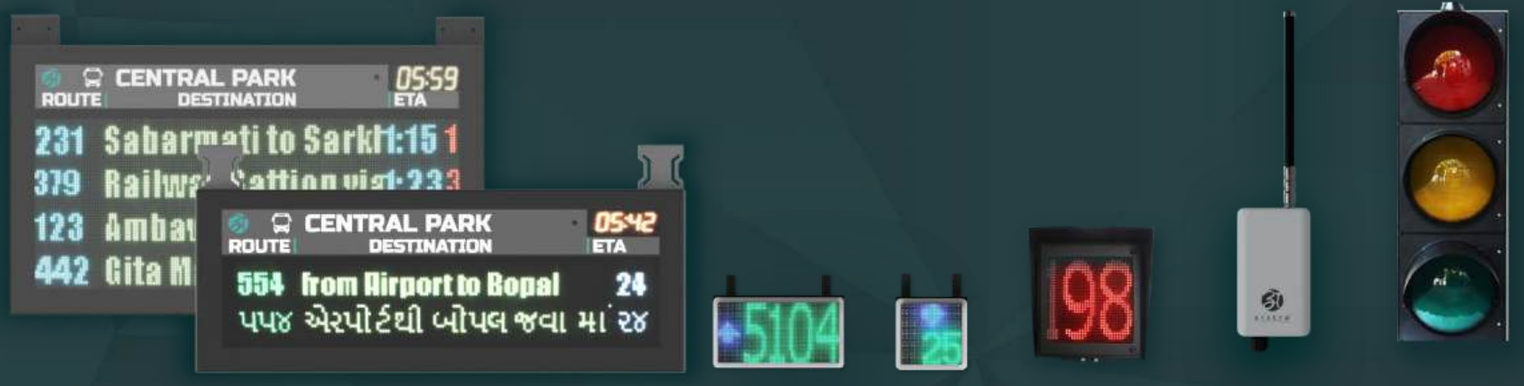
CATALOG JULY 2026

ATREYO®

SOLUTIONS THAT SIMPLIFY



INFRASTRUCTURAL PRODUCTS

Atreyo – Solutions That Simplify

ABOUT ATREYO

Atreyo Research and Development Pvt. Ltd. is a technology company that designs and manufactures electronic products and provides software solutions in the fields of industrial automation, remote monitoring and infrastructure projects. We have our research and development department, where team of well-skilled engineers design our products and software solutions.

INDUSTRIAL PRODUCTS AND SOLUTIONS

We provide range of industrial computers, IoT gateways, interfaces and other industrial devices with software applications. At Atreyo, our industrial products are fortified with cutting-edge technology to withstand the most demanding environments. We prioritize durability by implementing optoisolation for serial interfaces and digital inputs in nearly all our products. Furthermore, our robust aluminum housings not only reinforce structural integrity but also facilitate effective cooling, ensuring superior performance and longevity.

INFRASTRUCTURE PRODUCTS AND SOLUTIONS

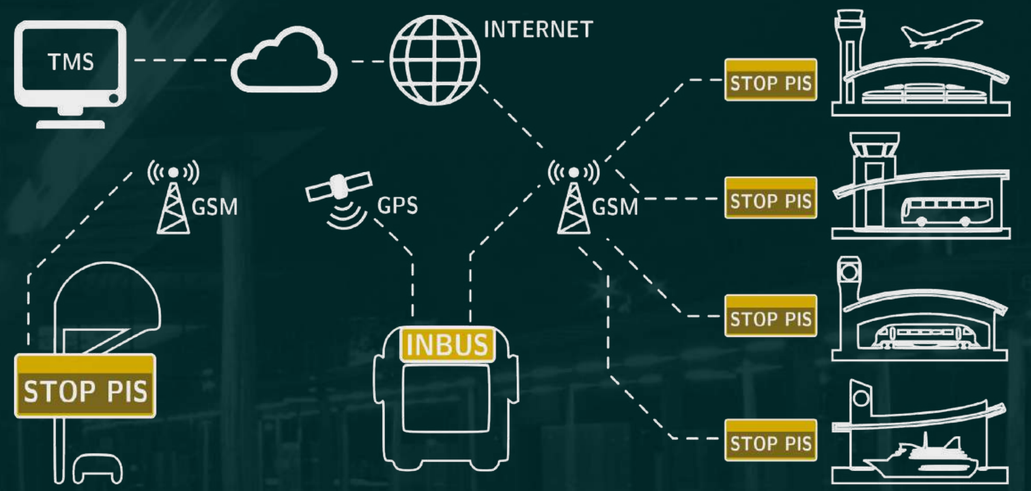
Our commitment to betterment shines through in every aspect of what we do. Our innovative solutions and products benefit a wide range of areas, including roads, trains, energy networks, street lights, farms, parking spots, buses, and more. From optimizing transportation networks and ensuring efficient energy distribution to enhancing street lighting, our innovations permeate urban living. We're making everything run smoother and safer.

TABLE OF CONTENT

Information Displays	4
APIS-160-2M	6
APIS-160-4M	8
APIS-160-6M	10
Traffic Signaling	12
ATL-30 series	14
ACDT-3232	16
Parking Management	18
APSENSE-110U	20
APDIS-1S	22
APDIS-2S	24
LoRaWAN® Gateways	26
ALWG-1638	28

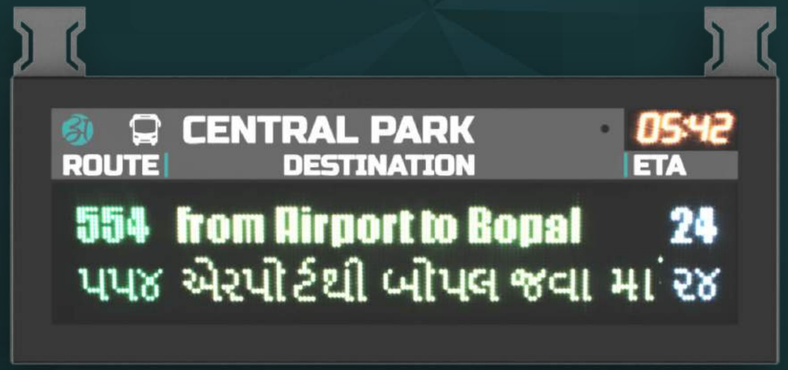
Information Displays

Passenger information displays
Public information displays



BUS STOP AND TERMINAL INFORMATION DISPLAYS

We offer a wide range of information display mostly to use as passenger information displays both for stops and stations as well as for use in/out side of vehicles. Our display supports all Indian alphabets and many others from around the world. We produce both multi-colour and single-colour displays. Our displays are adapted for long term use in real outdoor environmental conditions. We also offer customised displays according to customer specification.



APIS-160-2M

LED display dedicated for use in public transport stations. Specifically designed for bus stops, tram stops, metro stations, and railway stations. It has unique facility of displaying seven colours and two line of clear visible text. It supports all Indian languages. The separate clock makes APIS-160-2M more passenger-friendly by displaying accurate time.

CONNECTIVITY
LTE, GSM, Ethernet, real time data from server

CONFIGURATION
Configuration by inbuilt www and SMS commands

2-3 LINES OF TEXT
Clear colours and antiglare front, 120° view angle

SLIM DESIGN
Aluminium enclosure Only 50mm thickness

HARDWARE

Size of displaying area	970 × 202mm (W × H)
Size of body of display	1080 × 405 × 50mm (W × H × D)
Pitch of pixels	6mm
Display resolution	160 (H) × 32 (V)
Displays colours	RGB 7 colours, day light readable (optional amber)
LED type	SMD PLCC-2
Angle of viewing	120°V, 120°H
Intensity of light	6000 cdm or more
Line of text	2-3 lines of English/Hindi or any other Indian language
Line height	16 pixels
Graphics	Pictorial and single colour graphics support (any one from 7 colours)
Communication to server	GPRS or Ethernet (Ethernet limited functionality)
Controller and antenna	Inbuilt in display
Maintenance	Front maintenance
Extra features	Inbuilt separate clock
Power supply	90 to 240V AC (inbuilt supply), maximum 150W, average 50W
Screen protection	Antiglare UV resistant sheet
Body material	Powder coated aluminium
Environmental specifications	Operating temperature: -10 to +70°C, humidity: 5% to 95% RH, sealing IP65

SOFTWARE AND FUNCTIONS

Communication protocol	TCP/IP
Communication interval	Real time (configurable interval from 1s to 256s)
Configuration	SMS or LAN (inbuilt web-server), 16x2 LCD for diagnosis
Brightness control	Auto-brightness according ambient light or manual from server
Display region control	Multiple regions, multiple messages, refresh whole display, refers only one region
Language support	All Indian languages, right to left languages, any European languages support
Text effects	Scrolling left, right, up, down; blinking, stable text



APIS-160-4M

LED display dedicated for use in public transport stations. Specifically designed for bus stops, tram stops, metro stations, and railway stations. It has unique facility of displaying seven colours and 4-6 line of clear visible text. It supports all Indian languages. The separate clock makes APIS-160-4M more passenger-friendly by displaying accurate time.

CONNECTIVITY
LTE, GSM, Ethernet, real time data from server

CONFIGURATION
Configuration by inbuilt www and SMS commands

4-6 LINES OF TEXT
Clear colours and antiglare front, 120° view angle

SLIM DESIGN
Aluminium enclosure Only 60mm thickness

HARDWARE

Size of displaying area	970 × 404mm (W × H)
Size of body of display	1080 × 613 × 60mm (W × H × D)
Pitch of pixels	6mm
Display resolution	160 (H) × 64 (V)
Displays colours	RGB 7 colours, day light readable (optional amber)
LED type	SMD PLCC-2
Angle of viewing	120°V, 120°H
Intensity of light	6000 cdm or more
Line of text	4-6 lines of English/Hindi or any other Indian language
Line height	16 pixels
Graphics	Pictorial and single colour graphics support (any one from 7 colours)
Communication to server	GPRS or Ethernet (Ethernet limited functionality)
Controller and antenna	Inbuilt in display
Maintenance	Front maintenance
Extra features	Inbuilt separate clock
Power	90 to 240V AC (inbuilt supply), maximum 250W, average 70W
Screen protection	Antiglare UV resistant sheet
Body material	Powder coated aluminium
Environmental specifications	Operating temperature: -10 to +70°C, humidity: 5% to 95% RH, sealing IP65

SOFTWARE AND FUNCTIONS

Communication protocol	TCP/IP
Communication interval	Real time (configurable interval from 1s to 256s)
Configuration	SMS or LAN (inbuilt web-server), 16x2 LCD for diagnosis
Brightness control	Auto-brightness according ambient light or manual from server
Display region control	Multiple regions, multiple messages, refresh whole display, refers only one region
Language support	All Indian languages, right to left languages, any European languages support
Text effects	Scrolling left, right, up, down; blinking, stable text



APIS-160-6M

LED display dedicated for use in public transport stations. Specifically designed for bus stops, tram stops, metro stations, and railway stations. It has unique facility of displaying seven colours and 6-10 line of clear visible text. It supports all Indian languages. The separate clock makes APIS-160-6M more passenger-friendly by displaying accurate time.

CONNECTIVITY
LTE, GSM, Ethernet, real time data from server

CONFIGURATION
Configuration by inbuilt www and SMS commands

6-10 LINES OF TEXT
Clear colours and antiglare front, 120° view angle

SLIM DESIGN
Aluminium enclosure Only 60mm thickness

HARDWARE

Size of displaying area	970 × 585mm (W × H)
Size of body of display	1080 × 785 × 60mm (W × H × D)
Pitch of pixels	6mm
Display resolution	160 (H) × 96 (V)
Displays colours	RGB 7 colours, day light readable (optional amber)
LED type	SMD PLCC-2
Angle of viewing	120°V, 120°H
Intensity of light	6000 cdm or more
Line of text	6-10 lines of English/Hindi or any other Indian language
Line height	16 pixels
Graphics	Pictorial and single colour graphics support (any one from 7 colours)
Communication to server	GPRS or Ethernet (Ethernet limited functionality)
Controller and antenna	Inbuilt in display
Maintenance	Front maintenance
Extra features	Inbuilt separate clock
Power	90 to 240V AC (inbuilt supply), maximum 300W, average 150W
Screen protection	Antiglare UV resistant sheet
Body material	Powder coated aluminium
Environmental specifications	Operating temperature: -10 to +70°C, humidity: 5% to 95% RH, sealing IP65

SOFTWARE AND FUNCTIONS

Communication protocol	TCP/IP
Communication interval	Real time (configurable interval from 1s to 256s)
Configuration	SMS or LAN (inbuilt web-server), 16x2 LCD for diagnosis
Brightness control	Auto-brightness according ambient light or manual from server
Display region control	Multiple regions, multiple messages, refresh whole display, refers only one region
Language support	All Indian languages, right to left languages, any European languages support
Text effects	Scrolling left, right, up, down; blinking, stable text

Traffic Signaling

Traffic signals
Count down timers



We offer components for traffic signaling systems. Our products are characterized by easy service, access to spare parts and high durability. We produce: traffic signals, Traffic Count--down timer and signaling control panels. We also provide accessories.



ATL-30 SERIES

The ATL-30-xx is traffic signal light. There is high brightness with High Flux LED source, with 300mm diameter of Fresnel lens. We provide all variant of arrow signs and can also supply customised design. The lamps have a detection system if the light source is working properly.

SINGLE SOURCE LED

High Flux long life LED with cooling plate

CONTROL

Brightness control by PWM or RS485

INTERFACES

RS485, PWM, ON-OFF

FAILURE DETECTION

Feedback on the operation of the lamp

HARDWARE

Light source	High Flux LED
Colour acc. to (EN12368)	Green – Wavelength 498-507 nm, red – wavelength 618-630 nm, Yellow – Wavelength 587-595 nm
Uniformity of Luminance	Better than 1: 2.5
Central light insensitivity	> 400cd (EN12368)
Brightness setting	Deeming possible by PWM signal from ATCS, or RS485*
Controller	Inbuilt
Power	12, 24 or 230V*
Enclosure	UV-stabilized polycarbonate, ABS*
Rated power	6-10W*
Environmental specifications	Operating temperature: -10 to +70°C, humidity: 5% to 95% RH, sealing IP65

* Depending on the model

SOFTWARE AND FUNCTIONS

Failure detection	Feedback on the operation of the lamp by open collector out or RS485
Brightness control	PWM or RS485 control system



ACDT-3232

The ACDT-3232 is count down timer designed for traffic management system as indicator of time to change signal. ACDT-3232 is working on RGB LED technology with pixel panel organisation. By this it is possible to display not only digit but also STP and GO information.

CLEAR FONTS
Visible style fonts

HIGH BRIGHTNESS
Red, green and yellow

EASY TO CONNECT API
RS485 with simple protocol

IP RATING BODY
Metal coated enclosure

HARDWARE

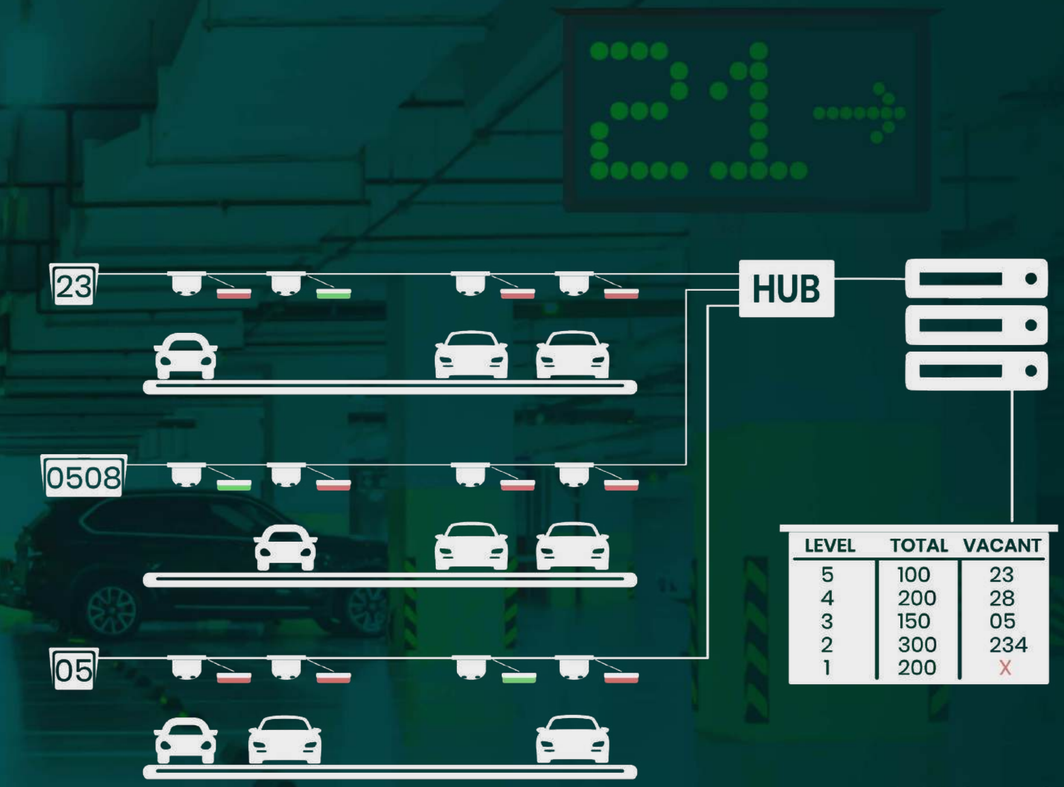
Size of displaying area	320 × 320mm (H × V)
Brightness	> 5000mcd/m
Communication	Peer to peer custom string
Interface	RS485
Maximum seconds	199 seconds (optional 999 seconds)
Digit colour	Red, green, yellow, white
Brightness setting	By command. Store in non-volatile memory
Power	8-36V DC or 230V AC
Power consumption	30 W max (maximum brightness)
Operating temperature	0 °C to 75 °C
Housing	Powder coated MS/aluminium
Size of body of timer	440 × 400 × 230mm (H × W × T)
Weight	8kg
Environmental specifications	IP65 Operating temp.: -20 to +70°C Humidity: 5% to 95% RH

SOFTWARE AND FUNCTIONS

Counter functions	• Count down start, count down stop • Blink last 5 seconds in same colour • Blink last 5 seconds in yellow colour • Display on last second red ‚STP' or green ‚GO' • Blink last 5 seconds in same colour and on last second red ‚STP' or green ‚GO'
Extra display options	• Display , - - ' sign in any colour • Display STP or GO in any time

Parking Management

Parking sensors
Vacancy displays



PARKING MANAGEMENT

Nowadays, it is very important to park the car efficiently, quickly and not to waste time on it. We offer elements of parking management systems that ensure convenient and quick finding of a free parking space in a parking lot of a shopping center, cinema, railway station, airport or in a residential complex.



APSENSE-110U

The APSENSE-110U is sensor for presence of car in the parking place of multi-user parking. Sensor is working as part of Parking Management System and it is sending data about car presence. It has capability to drive external indicator light to clearly indicate vacant place for car parking.

LONG RANGE
Up to 4m detection capability

REMOVABLE CAP
Easy installation by turn-lock type assembly

EXTERNAL INDICATOR
External vacancy indicator with brightness control

MULTIPLE OPTIONS
Local configuration and remote configuration

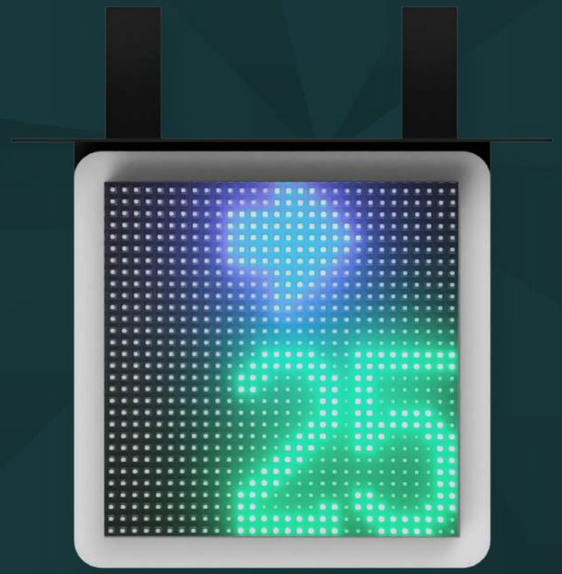
HARDWARE

Sensor type	Ultrasonic, 40kHz
Sensing method	Distance detection
Sensing range	0.4m to 4m
Interface	RS485 - Modbus RTU
Connector	RJ45 common with power or pluggable screw connector*
User interface	7 segment display, 3 keys
Indicators	5mm LED, red, green, blue, magenta, yellow, white
External lamp	Support APL-10 model lamp with lamp brightness setting
Power	8-36V DC
Power consumption	• Display on: 0.60W (50mA, 12 V) or (25mA, 24 V) • Display off: 0.18W (15mA, 12 V) or (7.5mA, 24 V)
Installation	Ceiling or overhead rail, by turn-lock assembly
Operating temperature	-10 °C to 55 °C
Housing	ABS grey colour
Dimensions	110 mm diameter
Weight	140g

* Depending on the model

SOFTWARE AND FUNCTIONS

Configuration locally	Modbus address, range of detection, time of reaction (delay)
Configuration from system by commands	• Range of detection • Time of reaction • LED colour for empty (in some application use blue for handicap people)
Other functions	• Restarting devices over MODBUS • Displaying MODBUS address on all devices • Displaying detection range on all devices • Displaying time of reaction on all devices
Special functions	Synchronized blinking yellow colour of all external indicator for emergency use



APDIS-1S

The APDIS-1S is dedicated to multiuser parking for indicating number of free places to park car and direct towards them. APDIS-1S is the part of parking management system and can be controlled by central command computer through wired Ethernet/Modbus RTU data interface.

CONNECTIVITY
RS485, Ethernet

ANIMATED ARROWS
Left, right, up and down, various sizes

MULTICOLOUR
Red, green, yellow and white colours

7 FONT SIZES
Up to 4 digits and various size of number styles

HARDWARE

Display area	192 × 192mm (W × H)
Resolution	32 × 32 (W × H)
Colours	7 colours: cyan, blue, magenta, red, yellow, green, white
Brightness setting	From central command system
Display content	Numbers and predefined arrow and cross symbols
Font types	7 types of font, 7 sizes of font
Communication	Modbus RTU or Ethernet UDP/IP*
Configuration	3 push buttons on the back side of display
Power	12-36V DC
Mounting system	Clamp on the back of body
Operating temperature	-0 °C to 55 °C
Housing	Powder coated aluminium and PVC
Dimensions	230mm x 230mm (W × H)

* Depending on the model

SOFTWARE AND FUNCTIONS

Real time communication	By modbus RTU or Ethernet
Display effect	Animated arrow 4 sizes, arrow colour selection, animation speed selection, animation direction selection
Easy config feature	Config menu on display screen: IP address, mask, gateway, modbus address
Firmware update	Update firmware by USB pendrive



APDIS-2S

The APDIS-2S is bigger in size than that of APDIS-1S display. It is dedicated to multiuser parking for indicating number of free places to park car and direct towards them. APDIS-2S is the part of parking management system and can be controlled by central command computer throught wired Ethernet/Modbus RTU data interface.

CONNECTIVITY
RS485, Ethernet

ANIMATED ARROWS
Left, right, up and down, various sizes

MULTICOLOUR
Red, green, yellow and white colours

7 FONT SIZES
Up to 4 digits and various size of number styles

HARDWARE

Display area	384 × 192mm (W × H)
Resolution	64 × 32 (W × H)
Colours	7 colours: cyan, blue, magenta, red, yellow, green, white
Brightness setting	From central command system
Display content	Numbers and predefined arrow and cross symbols
Font types	7 types/sizes of font
Communication	Modbus RTU or Ethernet UDP/IP*
Configuration	3 push buttons on the back side of display
Power	12-36V DC
Mounting system	Clamp on the back of body
Operating temperature	-0 °C to 55 °C
Housing	Powder coated aluminium and PVC
Dimensions	420mm x 230mm (W × H)

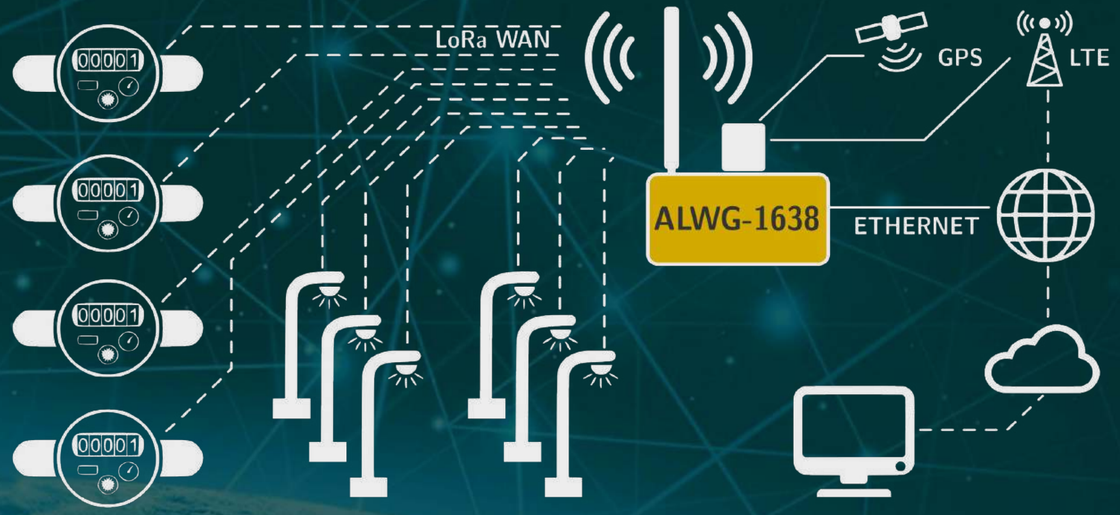
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SOFTWARE AND FUNCTIONS

Real time communication	By modbus RTU or Ethernet
Display effect	Animated arrow 4 sizes, arrow colour selection, animation speed selection, animation direction selection
Easy config feature	Config menu on display screen: IP address, mask, gateway, modbus address
Firmware update	Update firmware by USB pendrive

LoRaWAN® Gateways

LoRaWAN® gateways for industry and infrastructure



LORA GATEWAY WORKING EXAMPLE

LoRaWAN® is a long range, low power wireless communication system that can transmit small amount of data over long distances. These two features make it an attractive solution for use in the IoT and IIoT industries, smart lights, water management etc.
LoRaWAN® gateways are the bridge between the nodes and the network. They receive information from endpoints using a LoRa hub and then send the data to a web server over the internet or private network infrastructure.



ALWG-1638

Multichannel LoRaWAN® gateway, powered by ARM Cortex-A7 processor with an IP67 enclosure to handle tough environments. Standout features includes an isolated power supply for protection and power backup. The gateway's dual SIMs ensures network connectivity redundancy. Moreover, its multiple VPN support adds an extra layer of security, serving to diverse communication needs.

LORAWAN®
Multichannel LoRaWAN® class A/B/C

CONNECTIVITY
4G LTE, GSM, WiFi, Ethernet, GNSS

POWER BACKUP
SuperCAP backup for power failure message

OUTDOOR DESIGN
Aluminium die casting IP67 enclosure

HARDWARE

CPU	Quad core ARM Cortex-A7 processor
Storage	8GB eMMC
LoRaWAN®	LoRaWAN® Class A/B/C, 8 x 8 channels LoRa packet detectors
LoRaWAN® RF	TX power up to 27 dBm, RX sensitivity down to -139 dBm
Cellular	4G LTE, GSM (3G depends on product variant)
SIM	2 x nanoSIM
Antenna connector	1 x N-type for LoRa
Antenna	High gain fiber antenna for LoRa Cellular, GNSS, WiFi antennas within enclosure
Ethernet	1 x 10/100 Ethernet port
GNSS	BeiDou, Galileo, GLONASS, GPS, QZSS
WiFi	IEEE 802.11b/g/n
Status indicators	1 x RGB LED for indicate all functions
Other interfaces	1 x USB for debug (type-C)
Power	38-58V DC by isolated EEE802.3af compliant PoE
Power backup	SuperCAP backup for last message and clean shutdown
Operating temperature	-25°C to 75°C
Housing	IP67 aluminium housing resistant to all weather conditions
Dimensions	220mm x 122mm x 70mm (without antenna and clamp)
Weight	920g (without antenna and clamp)

SOFTWARE AND FUNCTIONS

Operating system	OpenWRT Linux with LoRaWAN® gateway system
VPN and tunneling	OpenVPN and other VPN providers
Cloud solution	LoRaWAN® compatible servers

REV-0.1

WWW.ATREYO.IN

ONLINE CATALOG

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