



KELLTON TECH

# ENVISION

Modular IoT Gateway enables real-time data acquisition, transmission, and control

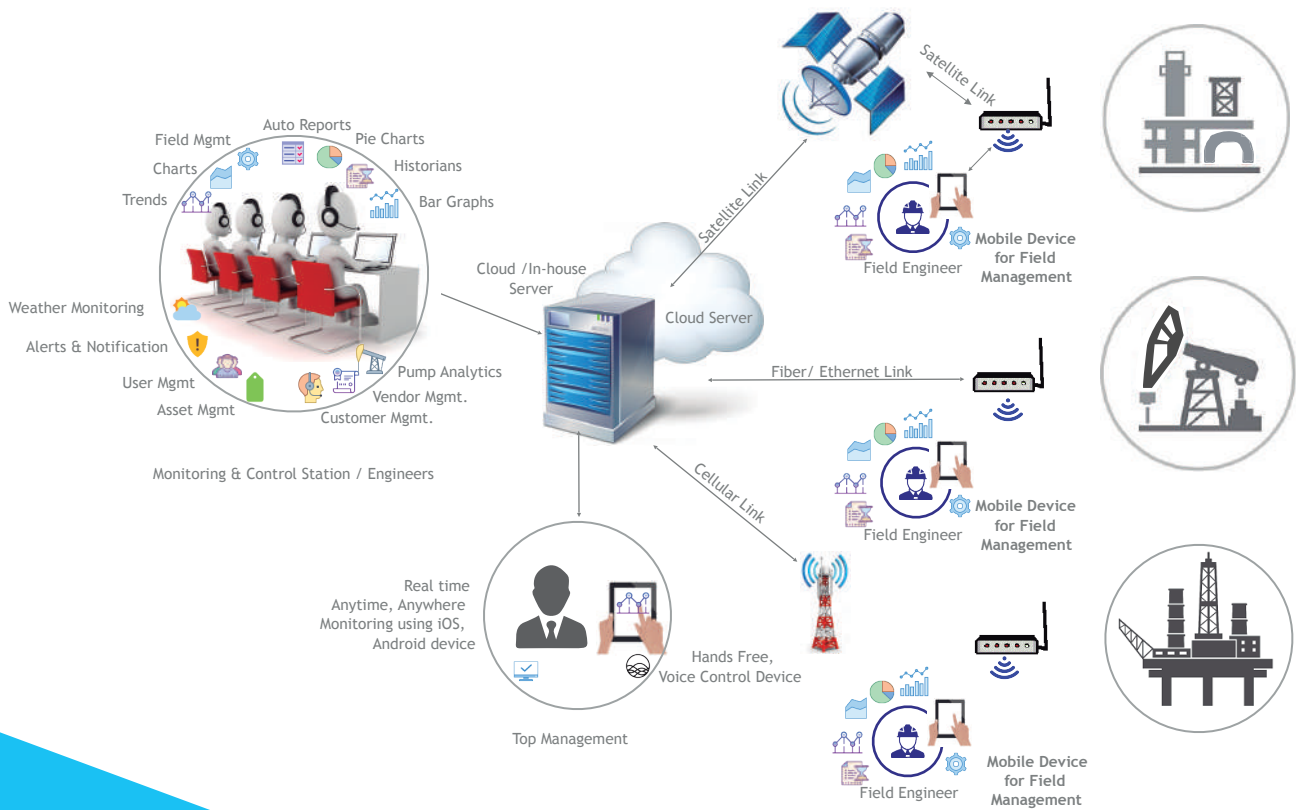
Envision is the remote communication modular IoT device that provides fully configurable and secure access to real-time data from remote oilfield wellsite(s) and gathering stations located on land or offshore across the globe. It provides 24x7 access to the remote assets via satellite, cellular or Ethernet connections to the proprietary Digital Oilfield platform for field operations deployed on cloud or private network. This device can also be configured and connected to any third-party platform.

## APPLICATIONS

- ✔ Real-time data acquisition, processing, computation and transmission
- ✔ Remote management of devices and assets

## BENEFITS

- ✔ Ensures safe operations and delivers operational excellence
- ✔ Enhances field operations performance and maximizes production
- ✔ Minimizes deferred production
- ✔ Monitors and optimizes assets performance proactively
- ✔ Minimizes downtime, operating costs, risks, physical inspections, or operator errors at the asset site
- ✔ Optimizes power consumption
- ✔ Delivers transparent asset governance
- ✔ Eases asset handling operations as real-time data is available
- ✔ Reduced time and costs with minimal maintenance requirements
- ✔ Reduces operating costs with remote monitoring, equipment protection, and onsite automation



## FEATURES



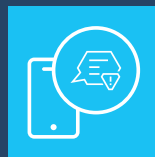
Remote asset-monitoring and management



Inventory management



Well production management



Alert messaging and event detection



Onsite and remote configuration, provisioning, and commissioning of the IoT devices

# SPECIFICATIONS

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## Gateway Interface

Protocol: Modbus-RTU Master, Modbus-TCP Master  
Data Rate: 9600 bps to 12 Mbps  
Connector: Terminal Block Screw Type  
Isolation: 2kV (Built-in)

## Software

Configuration: Cloud Configuration via Web browser, Android App, iOS App  
Web Browser Support: Firefox, Chrome, Safari, Opera  
OS Support: Windows, Linux, OSx, Android, iOS  
Mobile Support: Android, iOS via App

## Physical Characteristics

Housing: Fiber Reinforced Plastic, IP 65 / Metal, IP30  
Weight: 500g (1.10 lbs)  
Dimensions: 36 x 105 x 140 mm (1.42 x 4.14 x 5.51 in)

## Environmental Limits

Operating Temperature: -40 to 75oC (-40 to 157oF)  
Storage Temperature: -40 to 85oC (-40 to 185oF)  
Relative Humidity: 5 to 95% (non-condensing)  
Vibration: IEC 60068-2-16, IEC 60068-2-64  
Shock: IEC 60068-2-27  
Drop: IEC 60068-2-32

## Power Requirements

Input Voltage: 9 - 48 VDC  
Input Current: 365mA @9VDC  
Connector: Terminal Block Screw Type

## Wi-Fi Support

Frequency Range: 2.4 – 5 GHz  
Network Standard: IEEE 802.11 b/g/n  
Range: 70-250m (230-820ft)  
Antenna: MIMO Built-in, Ext. SMA Female

## Internal Power Back Up

Backup Type: SuperCap  
Duration: 5 mins  
No. of cycles: 500,000  
Safety: Environment-friendly

## Standards and Certifications

Safety: UL 60950-1, EN 60950-1  
Hazardous Location: Class 1 Division 2, ATEX, IECEx  
EMC: EN 55032/24  
EMI: CISPR 32, FCC Part 15B Class A  
EMS:  
IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV  
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m  
IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV  
IEC 61000-4-5 Surge: Power: 2 kV  
IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m  
IEC 61000-4-8 PFMF (non-condensing)  
Vibration: IEC 60068-2-16, IEC 60068-2-64  
Shock: IEC 60068-2-27  
Drop: IEC 60068-2-32

## Cellular Support

Frequency Range: Quad-band 850/900/1800/1900 Mhz  
Bandwidth: 1.4/3/5/10/15/20 Mhz  
GPRS: Class 12  
Firmware: FOTA  
Antenna: DL MIMO, Supports Rx-diversity

## Satellite Support

Frequency Range: 1616 to 1626.5 Mhz  
Duplexing Method: Time Domain Duplex  
Multiplexing Method: TDMA/FDMA  
Antenna: Ext. Magnet Mount TNC Connector, dBic

## Ethernet Support

Port Speed: 100-1000Mbps  
Distance: 100 Meters (UTP), Fiber (SFP Module)  
Forwarding Rate: 0.75 Mbps  
Indicator: Port Light  
Connector: RJ45

## Warranty

Warranty Period: 2 years  
Details: [www.kelltontech.com/warranty](http://www.kelltontech.com/warranty)

# ENVISION MODEL

Description	Envision-Standard	Envision-Premium
Model No	KTE - STD - 01	KTE - PRM - 01
Ethernet	Yes	Yes
Wi-Fi	-	Yes
Cellular	-	Yes
Satellite	-	Yes
GPS	Yes	Yes
Antenna Connector	-	SMA Antenna
Serial Port	RS-485	RS-485
Protocols	Modbus	Modbus
Modbus to TCP	Yes	Yes
Conversion	Yes	Yes
Proxy Support	Yes	Yes
Wall Mounting	Yes	Yes
Mechanical Dimensions ( LxWxH )	92 x 135 x 27 mm	92 x 135 x 27 mm
Operating Temperature	-40 to +65 °C	-40 to +65 °C
Power Supply	9-48V DC	9-48V DC
RS 485	Baud Rate 9600 bps Hardware Interface 3 Wire (GND, D+, D- ) Protocol Modbus RTU	Baud Rate 9600 bps Hardware Interface 3 Wire (GND, D+, D-) Protocol Modbus RTU
Operating Humidity	5 -95% (No Condensation)	5 -95% (No Condensation)
LED Indicators	Status of Ethernet	Status GSM, Satellite, Ethernet
Vibration	IEC 600682-6, IEC 60068-2- 64	IEC 600682-6, IEC 60068-2- 64
Shock	IEC 60068-2- 27	IEC 60068-2- 27
Drop	IEC 60068-2- 32	IEC 60068-2- 32
Warranty	2 Years	2 Years
Ordering Information	North America: +1 844-469-8900 India: +91 124-469-8900 UK: +44 (0) 203-875- 3300 Ireland: +353 (0) 76-604- 2717	North America: +1 844-469-8900 India: +91 124-469-8900 UK: +44 (0) 203-875- 3300 Ireland: +353 (0) 76-604- 2717