Smart Power Meter - PA Series
Smart Gateway - CE Series

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Manufacturing Quality Standard:
- ISO 9001:2015

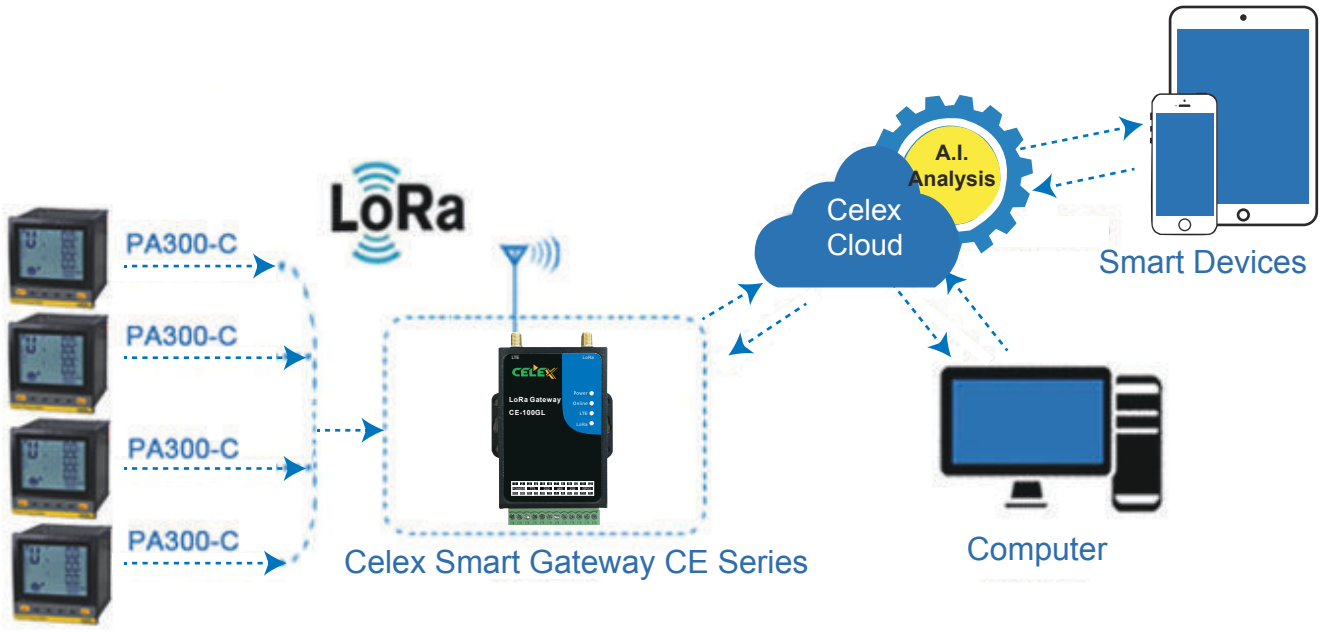
EMC Standard:
- EN 301 489-1 V2.1.1
- IEC 61000-4-2:2008
- IEC 61000-4-3:2010
- IEC 61000-4-4:2012
- IEC 61000-4-5:2014
- IEC 61000-3-2:2014/CORR:2009

Safety:
- IEC 61557-12:2007

Smart Gateway CE Series

Celex Smart Gateway CE100GL is designed based on a LoRa to 4G wireless data transmission gateway, which is capable of transmitting the data to the Cloud for AI analysis and storage. Acting as a bridge between the cloud platform and the terminal module or target devices, Celex Smart Gateway CE100GL is indeed the most suitable choice for users who see to IoT application scenarios with low power consumption, medium data amount as well as long distance communication.

Schematic diagram:



Smart Gateway CE Series

Highlights:

Powerful LoRa Capabilities

Up to 11 kilometers range by apply LoRa spread spectrum modulation technology

Wide Range of Connectivity

Cellular:up to 4G network
Ethernet
RS485

Outstanding Performance

Industrial grade processor
Ultra-high receiving sensitivity

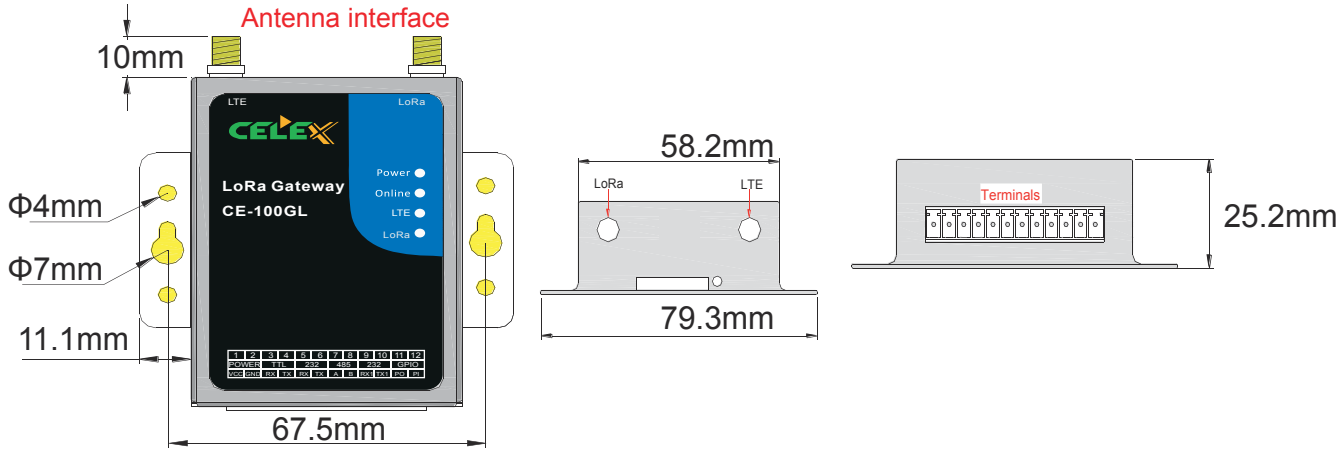
Industrial Design

-40 - 85℃ operating temperature
Metal packing aside with IP30 protected

Specifications:

Power input	DC 5V-24V, above 2A
Network	Cellular: 4G, supporting full Netcom 4G network
Interfaces	1 x Ethernet port: RJ45 Standard TCP/IP 2 x Serial ports: RS232 & RS485 1 x SIM slot
Antenna Connectors	1 x Cellular Connector 1 x LoRa Connector 1 x GPRS Connector
LoRa bandwidth	420 ~450MHz
Operating Temperature	-40°C ~ 85°C
Operating Humidity	0% ~ 99% RH
Body color	Black
Finishing Material	Metal
Weight	150g
Ingress Protection	IP30

Dimensions:



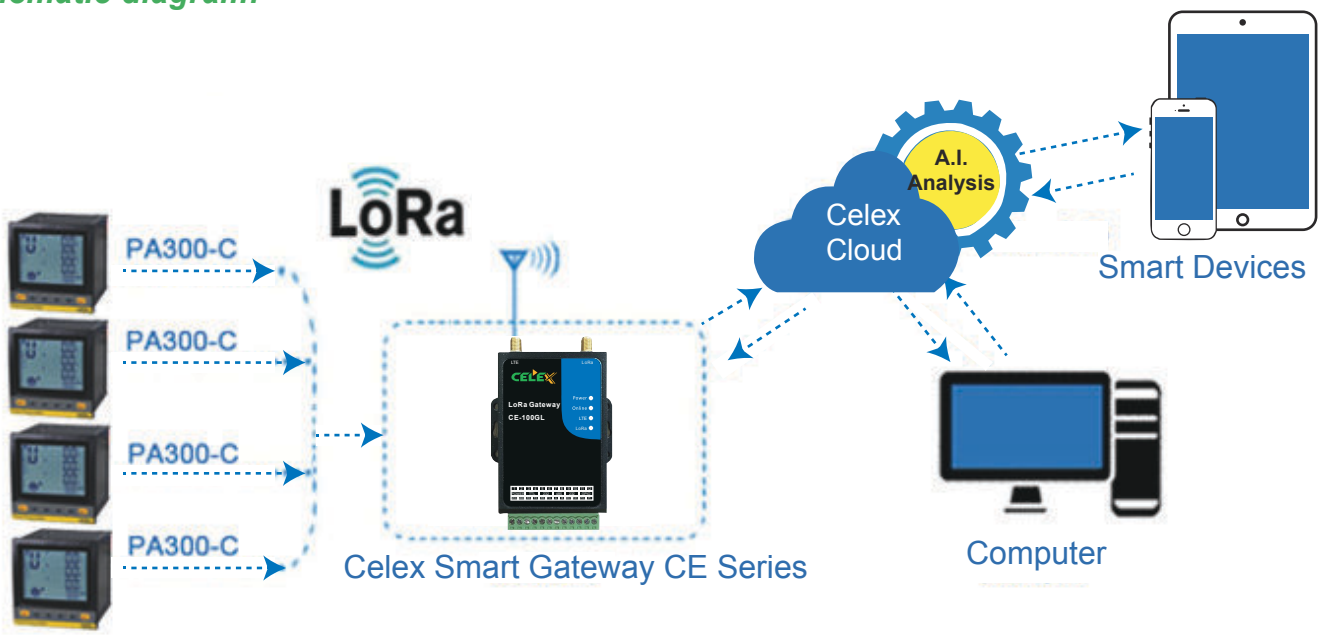
Smart Power Meter PA Series

Celex Smart Power Meter PA Series is a multimeter that carry out extended ranges of measuring, monitoring and analysis of various types of electric parameters.Designed with the advanced built-in LoRa wireless transceiver module, the measured power data is collected and uploaded to Celex cloud server for both real-time and historical analysis.

Measurements:

- Voltage: phase, line and system values
- Current: phase values
- Power: active and reactive phase
- Frequency: of measured voltage value
- Power factor per phase and total
- Total harmonic distortion(THD): analysis voltage and current up to the 32°
- Energy consumption for active and reactive
- Hour counter

Schematic diagram:



Smart Power Meter PA Series

Key Features:

Real-time Monitoring and Management

-Manage and control what you measure in anytime from anywhere.
-Alarm notification via online software

Professional and Excellent Accuracy

-Measures up to the 32nd harmonic content
-Measure full range of power parameters

Rich Connectivities

-LoRa wireless communication
-RS485 commnication interface
-Industry standard Modbus communication protocol

Usability

-Large size LCD front panel,easily and conveniently operated
-Complete programming of system configuration and set up

Technical Specifications:

Description			Functional Parameters
Input Measurement Display	Electrical Network		3-phase 4-wire/3-phase 3-wire/single phase network
	Voltage	Measurement Range	AC 10-480V(L-L)
		Overloading	Continuous:1.2 times Instantaneous:2 times
		Power Consumption	<0.6VA(per phase)
		Impedance	>500k Ohm
		Precision	RMS,Accuracy Level:0.2%
	Current	Measurement Range	AC 0.02-6A
		Overloading	Continuous:1.2 times Instantaneous:2 times
		Power Consumption	<0.4VA(per phase)
		Impedance	<20m Ohm
		Precicsion	RMS,Accuracy level:0.2%
	Frequency		50-60Hz,accuracy:0.0Hz
	Power		Active,Reactive,Apparent Power,Accuracy:0.5%
	Harmonic		Voltage harmonic,current harmonic Accuracy:A grade
	Electric Energy		Active Energy:Accuracy:0.5S,Reactive Energy:Accuracy:2
	Clock		Clock Error:0.5s/d(Referenced temperature:23℃
	Display		Large Segment LCD Display

Smart Power Meter PA Series

Technical Specifications:

Power Supply	Working Range	AC/DC 100V~240V
	Power Consumption	<8VA
Output	Communication Interface	1.LoRa Wireless Communication 2.RS485 Interface (when LoRa is not in use) 3.MODBUS-RTU Protocol Compliance (Intrrnational Standard) 4.Baud Rate:4800,9600,19200 5.Calibration Method:No Parity,Even Parity or Odd Parity
	Pulse Interface	Passive Optocouplre Collector Output
	Switch Input	Passive Dry Junction Input
Environment	Workong Range	-10~55℃
	Storage Condition	-20~75℃
	Operating Humidity	0% ~ 99% RH
Safety	Withstand Voltage	Input>2kV Output>2kV
	Isolation	Input,Output&Power Supply to Casing>50MOhm

Dimension and Installation: