WiTTRA™
UNLOCKING IoT

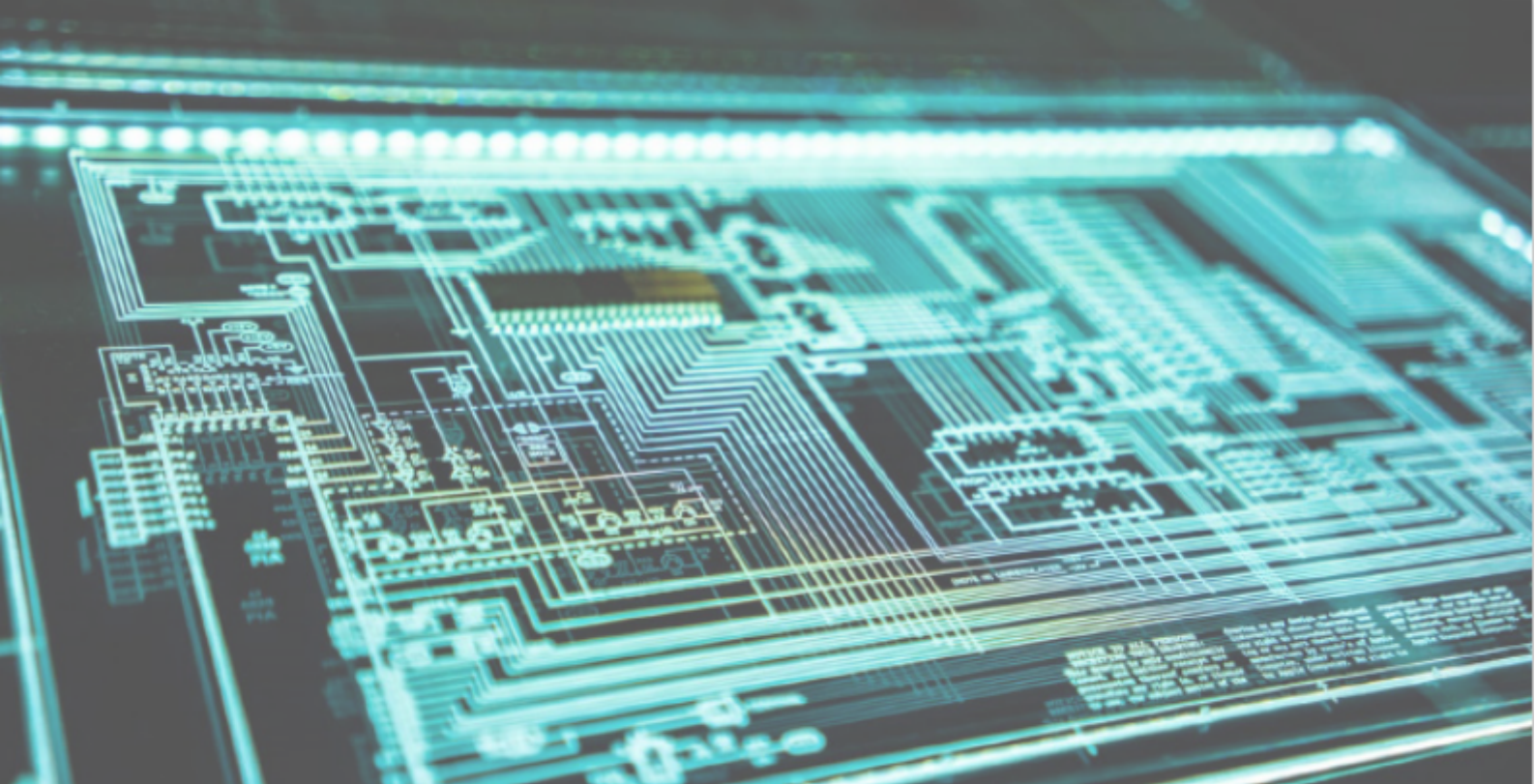# Unified IoT Out Of The Box

Features:
- Complete IoT development platform
- Fully certified hardware, ready for field deployment
- Secure, easy to set up, easy to use
- 1 Gateway, 8 C(x)ameleon Tags
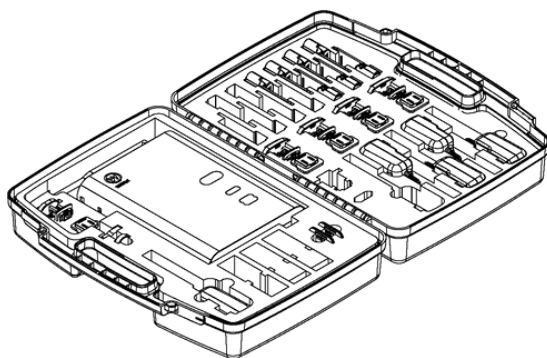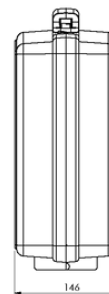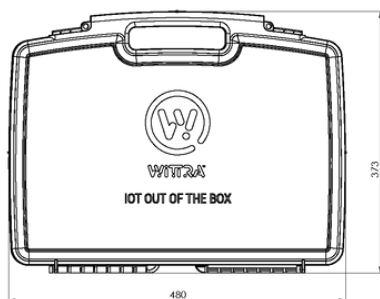- Rechargeable tag battery provides months of life

Description:
A wireless sensor network development kit which can be deployed on a heavy industrial site or areas of weak connectivity to monitor objects and assets, with a cloud based API.
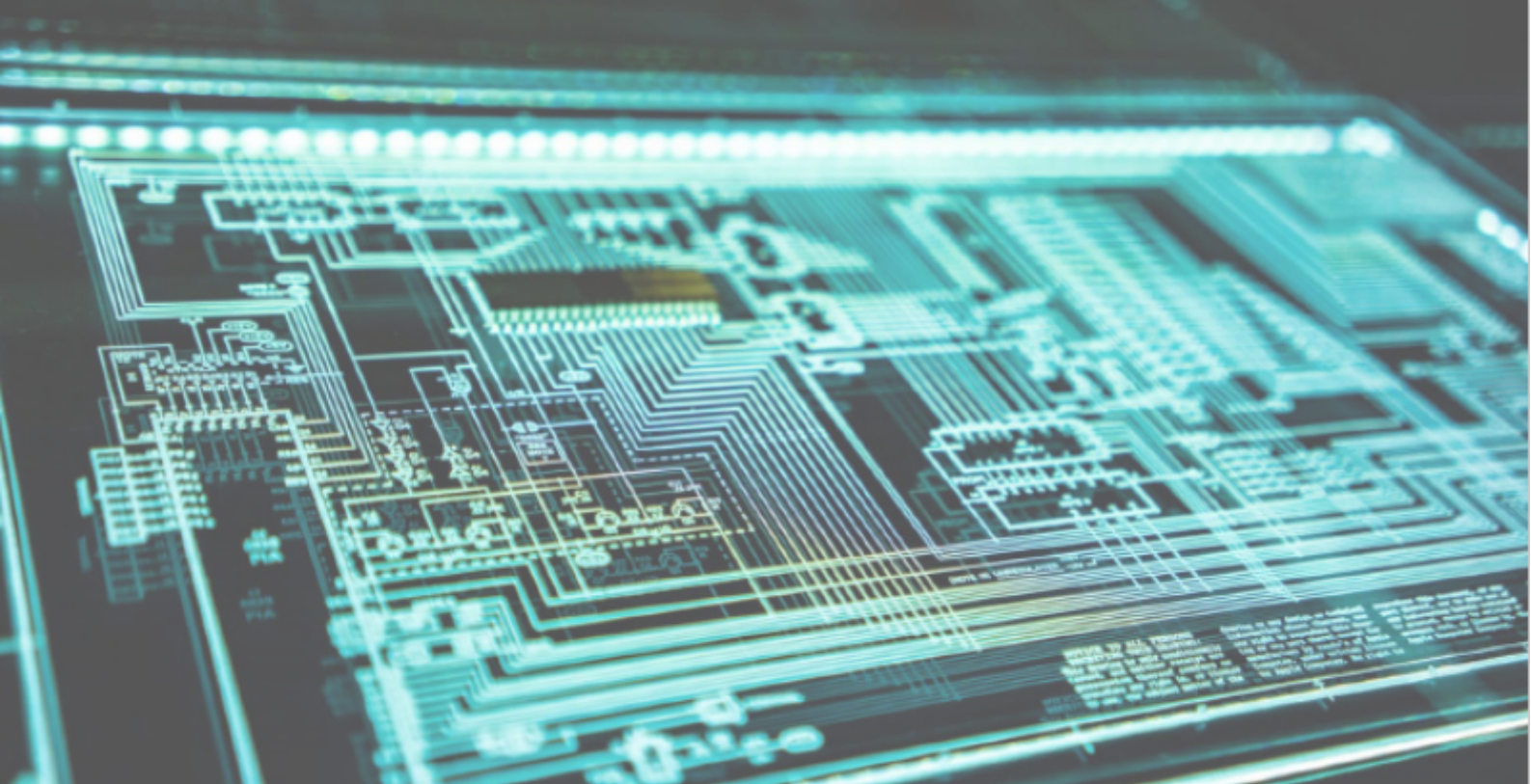
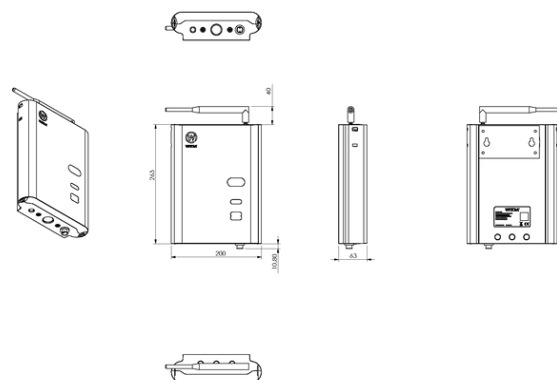| SPECIFICATION	
Size (whole kit)	480 x 373 x 146mm
Weight	4kg
Kit contents	1 x SGW-10 Gateway & 12V Supply 8 x C(x)ameleon Tags 8 x Mounting Cradles 8 x Velcro Straps 1 x Reset Plug 4x 5V Power supplies 1x External Antenna 1x OTG Adapter 2x Release Key
Ambient Operating Temperature • Tags & Mesh Routers • Gateway	-30°C to +60°C** 0°C to +50°C
Environmental Rating • C(x)ameleon Tags • Gateway	IP67 IP51
C(x)ameleon Tag Battery	360mAH LiPo Rechargeable
C(x)ameleon Tag Maximum Input Power	100mA @5V (Micro-B USB)
C(x)ameleon Tag Average Current Consumption	55uA (posting data every 5 minutes)
C(x)ameleon Tag Sleep Current	11uA
Gateway Input Power	2.5A max @12V (2-pin barrel connector)
LoRa Data Transmission Rate	Variable between 300bps and 27kbps
Mioty Data Transmission Rate	500bps
6LowPan Data Transmission Rate	50kbps (as per IEE802.15.4g)
Regulatory Compliance	CE (EU) or FCC (USA)
Security	Exact protocol: IEEE 802.15.4 link-layer security Cryptography: AES-128 (with AES-CCM)

DIAGRAM

373

480

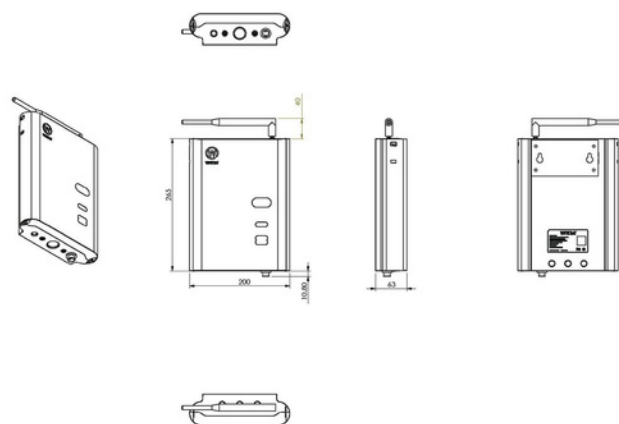146

WITTRA

IOT OUT OF THE BOX

General Note: All datasheets are subject to change without notice.

UNIFIED IOT OUT OF THE BOX

GATEWAY EU

GATEWAY US

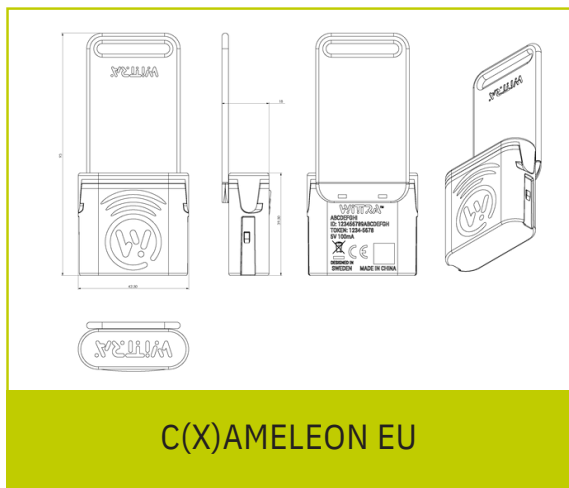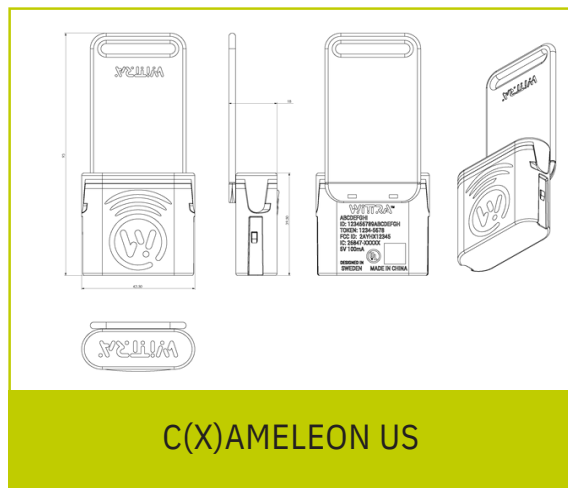General Note: All datasheets are subject to change without notice.

UNIFIED IOT OUT OF THE BOX

C(X)AMELEON EU

C(X)AMELEON US

WiTTRA™ 'Software Defined Hardware' C{x}ameleon Tag extends hardware life and reduces waste. It is compact, rugged and IP67 sealed and certified. It Includes several integrated sensors, positioning functions and a modern radio/communication technology, delivering data to the cloud. You define the product identity and functionality within the WiTTRA™ Portal and the tag automatically connects to the low-power, IP-based network once registered within the user portal. The C{x}ameleon Tag can take the identity of the TrakSense360, MiotySense360, Mesh Router or Positioning Beacon through the use of our embedded software-defined radio.

TrakSense360
The TrakSense360 is a small, wireless multi-function asset tracker with multiple built-in and click-on sensing capabilities. The device allows you to collect both positioning and sensor data.

MiotySense360
The MiotySense360 is a small, wireless multi-function asset tracker with multiple built-in and click-on sensing capabilities. Operational within mesh and star network topologies, the device allows you to collect positioning and sensor data when present within the WiTTRA™ mesh network. When the device leaves the WiTTRA™ mesh network, only sensor data is transmitted utilising a LPWAN star network across distances up to 20km line-of-site.

Mesh Router
The WiTTRA™ Mesh Router is a small, wireless "anchor point" that forms part of the mesh network on a local site. Mesh Routers work together to extend and scale the network coverage to suit any shape or size of site, indoors, outdoors, underground even in 3 dimensions upwards in a multi-level environment.

Positioning Beacon
Positioning Beacons offer the functionality of both ToF and RSSI. ToF (Time of Flight) positioning involves measuring the distance between a TrakSense360 and several Positioning Beacons using accurate timing signals. RSSI (Relative Signal Strength Indicators) measures signal strength to work out positioning. Positioning Beacons cannot transmit sensor data, they are purely positioning devices.