

# ALOG



# ABOUT US

## BRIEF OVERVIEW

Distributor with a great added value since 2003, GigaConcept is a key actor in the materials and components distribution for the radio frequencies transmissions systems and wireless telecommunication.

Moreover than 20 years of expertise in electronic developments, radiofrequencies, RFID and customised coaxial connections confer them a know-how acknowledged by major industrial groups, either in the components choice (antennas, gateways, modules,...) or by providing customised solutions.

With an experimented R&D division, GigaConcept advises and supports customers in system prototyping and provides performing solutions, particularly used in aeronautics and Defense, automotive, medical supplies, logistics, automation and also for telephone operators and their subcontractors.

From embedded mobile systems to connected devices solutions (IoT), the emerging of new technologies (LTE-M, NB-IoT, 5G, LoRa, Sigfox...) makes GigaConcept a reliable partner, efficient and definitely farsighted for technologies future.



“ The first antennas were built in 1888 by German physicist Heinrich Hertz.

Today, GigaConcept sells the best of them.

# SUMMARY



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## OUR PARTNERS



## DISTRIBUTED BRANDS



## ONCE UPON A TIME...

Wireless communication has been around since the 18th century when James Clerk Maxwell first proposed that electromagnetic waves can be generated and can travel through free space. Heinrich Rudolf Hertz conducted the experiments in which he demonstrated the generation, transmission, and reception of electromagnetic waves, which became the basis of Radio Frequency communication.

From the 1990s onwards, wireless communication found a different dimension apart from its use in telecommunication, military, and space applications. This was the use of low-band radio frequency communication for data transfer to smaller distances. The telecommunication sector utilized this by introducing the technologies like Bluetooth for transferring data from one device to another over a few meters and Wi-Fi for routing internet wireless in a home or office environment.

Nowadays, radio communication or radio frequency communication refers to wireless communication through the air with electromagnetic wave frequencies ranging from 3 kHz to 300 GHz. Wireless communication is now classified by the medium electromagnetic waves propagate through.

Based on the medium, radio communication or radio frequency communication is called radio frequency communication if the medium of EM waves in the air includes high-frequency, line of sight communication, and low-frequency radio communication.

The range of frequencies used in radio frequency communication is called radio spectrum and includes frequencies between 3 KHz to 300 GHz.

High frequencies like microwaves ranging from 300 MHz to 300 GHz have line of sight limitations in the radio spectrum. Radio frequencies in lower ranges with higher wavelengths do not have a line of sight limitation. They can easily cover obstacles in their path and reach their destination due to the large wavelength of the signals.

Nowadays, radio communication is used in multiple applications and several fields, including military and commercial use of the radio spectrum. That is why the radio spectrum is regulated by every country.



It all started when Guglielmo Marconi developed the first wireless telegraph system in 1896.

# ANTENNA Solutions

## GIGA-CONCEPT, EUROPEAN MANUFACTURER

DISCOVER A SELECTION OF THE MOST POPULAR ANTENNAS AND **HUNDREDS MORE** ON GIGA-CONCEPT.FR

### ULTRA-HIGH-EFFICIENCY, PREMIUM QUALITY ANTENNAS

In the modern communication world, everybody use a smartphone. But some places don't have a good coverage and a weak GSM/3G, 4G-LTE or 5G NR signal doesn't enable a good use of your phone. Most of the time, those places are warehouse.

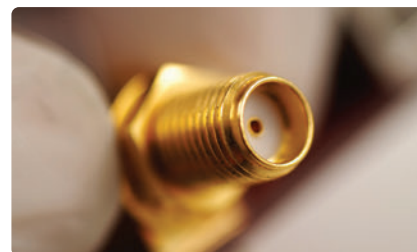
## MAKE YOUR OWN ANTENNA IN ONLY 3 STEPS

### 1. Desgin & IP/IK protection



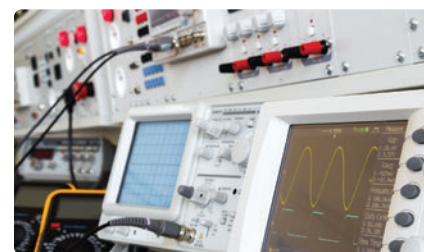
- PCB / Telematics / L bracket
- IP & IK Protection
- ISO/TS 16949:2009 (automotive std)
- EN ISO 14001:2004 (environmental)

### 2. Connector & Cable length



All connector and cable length available on request to meet your connectivity needs, ask our sales team :  
SMA / UFL / N / FAKRA / SMB, and more

### 3. All Frequencies You Need



With our 3D modeling modern techniques we can design our antennas to fit with your need.

GSM, GPRS, UMTS, 4G/LTE, GPS, Glonass, Galileo, Tetra, ISM, UMTS, WiFi, Bluetooth...

### Custom Antenna solutions for your specific developments

GigaConcept offers a wide range of Antennas with high quality and a wide range of frequencies.

All these antennas are thoroughly tested and adjusted to provide the best performance. GigaConcept can propose custom solutions for your specific developments.

They can be tuned to your needs and constraints, and the following features can be fully configured.



Customisation



RF measurement



3D anechoic chambers



EM Simulations



Prototyping service



3D printing



Plastic injection



Coaxial cable assembly

## ALL-IN-ONE ANTENNAS

Up to 9 cables, these are compatible with any communication standards and a wide variety of technologies such as :  
5G / 4G / 3G / 2G / IoT / LPWAN / WIFI / BLUETOOTH / GPS / GNSS / TETRA / UHF / VHF / IRIDIUM....etc.



4G-LTE 3G/2G WiFi TETRA/UHF GPS/GNSS IP68/IK09	
Gain	5.6dBi / 28@2.7V
Connectors	SMA (M) / SMA-RP(M)
Dimensions	Ø 96 x H 130 (mm)
Mounting	Screw Mount



4x[5G 4G-LTE 3G/2G LPWA] 4x[2.4/5GHz WiFi6E BT] IP67/IP69	
Gain	0.9dBi à 6dBi
Connectors	SMA (M) / RP-SMA (M)
Dimensions	198 x 127 x 15,7
Mounting	Adhesive



3G/2G LPWA GPS/GNSS WiFi/BT IP67/IP69	
Gain	0.1dBi / 5.1dBi
Connectors	SMA (M) / SMA-RP(M)
Dimensions	98 x 60 x 46
Mounting	Screw Mount



4G-LTE 3G/2G LPWA IoT GPS/GNSS WiFi BT IP67	
Gain	1.4dBi à 5.2dBi
Connectors	SMA (M) / RP-SMA (M)
Dimensions	80 x 74 x 14,7
Mounting	Screw Mount



IoT/LPWA 4G-LTE GNSS IP67	
Gain	5.6dBi / 28@2.7V
Connectors	SMA (M) / SMA-RP(M)
Dimensions	Ø 96 x H 130
Mounting	Screw Mount



4G-LTE 3G/2G LPWA/IoT GPS/GNSS WiFi/BT 2.4/5GHz IP69	
Gain	5dBi WiFi / 28dB GNSS
Connectors	SMA (M) / RP-SMA (M)
Dimensions	Ø77.3 x 65.5
Mounting	Screw Mount



2x[4G-LTE 3G/2G] 2x[2.4/5GHz WiFi/BT] LPWA GPS/GNSS IK09	
Gain	0.4dBi à 3.2dBi
Connectors	SMA (M)
Dimensions	135.5 x 30
Mounting	Screw Mount



2x[4G-LTE 3G/2G] 2x[2.4/5GHz WiFi/BT] IoT LPWA GPS/GNSS IP67/IP69	
Gain	4dBi / 28dB
Connectors	SMA (M) / RP-SMA (M)
Dimensions	61.8 x 155.6 x 17.0
Mounting	Adhesive

## COMBINED ANTENNAS



### KEY FEATURES

- Active gain up to 10 dBi
- Ultra Wide band Antenna
- SMA / RP-SMA / FME / FAKRA / RG
- Compatible with a lot of technologies
- No compromise on performance

### UNLIMITED CUSTOMIZATION

- Custom manufacturing
- Multiple form factor
- Prototyping service
- EM simulations on demand
- Customizable cable and connector

### SCREW, ADHESIVE, AND MORE :





## 5G NR / 4G-LTE / 3G / 2G ANTENNAS

In addition to delivering faster connections and greater capacity, the advantage of 5G is the fast response time referred to as latency. For modems, routers, amplifiers, modules, cellulaires, véhicules and more. With a frequency range of 900 MHz and up to 2600 MHz, they are best used with modems, routers, gateways, aggregators, signal amplifiers, IoT and more.



GC-W1683

### 5G NR/4G-LTE/3G/2G LPWA

Gain	-6.0dBi à 2.9dBi
Connectors	SMA (M)
Dimensions	Ø10 × 80 (mm)
Mounting	Connector Mount



GC-2183K

### 5G NR/4G-LTE/3G/2G LPWA

Gain	1.9dBi à 4.0dBi
Connectors	SMA (M)
Dimensions	271 × 30 × 115
Mounting	Wall Mount



GC-SDBF05

### 4G-LTE Glass Fibre

Gain	8dBi
Connectors	N-Female
Dimensions	Ø16 × 600
Mounting	Wall Mount



GC-4983P

### 5G NR/4G-LTE 3G/2G LPWA IP67/IP69

Gain	0.5dBi à 3.5dBi
Connectors	SMA (M)
Dimensions	150.5 × 42 × 15.3
Mounting	Adhesive



GC-W0124z-011

### 4G-LTE/3G/2G LPWA

Gain	0.4dBi à 2.6dBi
Connectors	SMA (M) / SMA-RP(M)
Dimensions	171 × 38 × 13,8
Mounting	Connector Mount



GC-3024M

### 4G-LTE 3G/2G LPWA

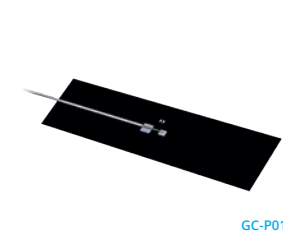
Gain	1.0dBi à 2.4dBi
Connectors	SMA (M)
Dimensions	Ø 31 × 72
Mounting	Magnetic



GC-6024MP

### 4G-LTE/3G/2G LPWA

Gain	0.7dBi à 4.4dBi
Connectors	SMA (M)
Dimensions	80 × 76 × 13
Mounting	Adhesive, Magnetic



GC-P0124

### 4G-LTE/3G/2G broadband LPWA

Gain	1.5dBi à 3.5dBi
Connectors	SMA (M) / RP-SMA (M)
Dimensions	136.8 × 32.6 × 0.4
Mounting	Adhesive and flexible



GC-C86MCFa

### 2×[5G 4G-LTE 3G/2G LPWA] 2×[2.4/5GHz WiFi6E] GPS/GNSS IP69

Gain	6.6dBi / 28dB@2.7V
Connectors	SMA (M) / SMA-RP (M)
Dimensions	193 × 76.5 × 57 (mm)
Mounting	Magnetic



GC-9607JBWGF

### UHF/TETRA 380-470 MHz LPWA GPS/GNSS IP67

Gain	-2.0dBi / 24dB@5V
Connectors	SMA (M)
Dimensions	266 × 110 × 74
Mounting	Screw, Adhesive, Pole



GC-M1901GF

### GNSS active ceramic with pre-filter GPS/QZSS/GLONASS/Galileo

Gain	28dB@2.7V
Connectors	U.FL
Dimensions	13 × 13 × 6,6
Mounting	Snap-in module



GC-6975MPGF

### 5G 4G-LTE 3G/2G LPWA GPS/GNSS Iridium IP67/IP69

Gain	5.1dBi / 28dB@2.7V
Connectors	SMA (M)
Dimensions	89 × 76 × 27/30
Mounting	Adhesive, Magnetic



GC-6B86BCFF

### 4×[5G 4G-LTE 3G/2G LPWA] 4×[2.4/5GHz WiFi6E BT] GPS/GNSS

Gain	8dBi / 28 @ 2,7 V
Connectors	SMA (M) / SMA-RP (M)
Dimensions	199 × 167 × 53
Mounting	Screw mount



GC-4701B-TH19

### 4G-LTE 3G/2G LPWA/IoT GPS/GNSS WiFi/BT 2.4/5GHz IP69

Gain	3.9dBi / 32dB@5V
Connectors	SMA (M)
Dimensions	Ø 52 × 17.5
Mounting	Screw mount



GC-4301MPFX

### GPS/GNSS QZSS Galileo hemisphere IP67

Gain	3.9dBi / 24dB
Connectors	SMA (M)
Dimensions	38 × 34 × 13.5/14.5
Mounting	Adhesive, Magnetic



GC-F0301P

### GPS/GNSS PCB Glonass Beidou Galileo

Gain	3.7dBi à 4.0dBi
Connectors	U.FL
Dimensions	55,4 × 12,4 × 0,2
Mounting	Adhesive and flexible

## GPS / GLONASS ANTENNAS

Antennas designed to receive and amplify the radio signals transmitted on specific frequencies by GNSS satellites and convert them to an electronic signal for use by a GPS/GNSS receiver. The output of these antennas is fed into a GNSS or GPS receiver that can compute the position. Include : GPS, GNSS, Glonass, Galileo, BeiDou, QZSS & IRNSS.

## AND HUNDREDS MORE...

### UNLIMITED CUSTOMIZATION

- Custom manufacturing
- Multiple form factor
- Prototyping service
- Customizable cable and connector

## ...ON GIGA-CONCEPT.FR

### SCREW, ADHESIVE, AND MORE :



### KEY FEATURES

- Active gain up to 10 dBi / 28 dB
- Voltage range up to 6.0 V
- Connectors : SMA / RP-SMA / FME / FAKRA / U.FL
- Receive, amplify & convert signal into GNSS/GPS


### KEY FEATURES

- Active gain up to 10 dBi
- Ultra Wide band Antenna
- Full 4GLTE backward compatibility
- Connectors : SMA / RP-SMA / N / FME / FAKRA / U.FL



LPWAN ANTENNAS


Antennas using LPWA technology, including NB-IoT, Cat-M, LoRa and Sigfox. The frequency used is 868 MHz. With LPWA technology, excellent performance in terms of power consumption and reduced maintenance costs are achieved.



EP868M07

Robust LoRaWAN ground anchor  
Vehicle resistant IP67/IK09


Gain	2.38dBi
Connectors	SMA (M)
Dimensions	150 x 2
Mounting	Screw Mount



GC-W0315

868 MHz LPWA IoT dipole  
(available in 915 MHz)


Gain	1.4dBi
Connectors	SMA (M)
Dimensions	113 x Ø10
Mounting	Screw Mount



GC-F1115P

PCB 868 MHz IoT/LPWA LoRaWAN


Gain	1.8dBi
Connectors	U.FL
Dimensions	40.0 x 7.0 x 0.2
Mounting	Adhesive



GC-120BF

IoT/LPWA GSM WiFi Bluetooth


Gain	0dBi
Connectors	On request
Dimensions	29 x 76 (mm)
Mounting	Screw Mount



GC-6015B-868

868 MHz IoT/LPWA LoRaWAN IP67


Gain	2.5dBi
Connectors	SMA (M)
Dimensions	80 x 74 x 14.7
Mounting	Screw Mount



GC-OA868M03NF

868 MHz IoT/LPWA  
LoRaWAN/Sigfox IP67


Gain	3dBi
Connectors	N-Female
Dimensions	Ø 24 x 320
Mounting	Wall, Mast Mount



OA-8696-02

IoT 868 Glass Fibre  
Outdoor wall/mast

Gain	8dBi
Connectors	N-Female
Dimensions	1145 x Ø34
Mounting	Wall, Mast Mount




GC-E41

868 MHz IoT/LPWA Glass Fibre PCB

Gain	2.2dBi
Connectors	-
Dimensions	12 x 4 x 1.6
Mounting	Embedded

OTHER RANGES OF ANTENNAS


We also propose various other ranges of antennas. These include Wi-Fi, Bluetooth and Zigbee (2.4GHz / 5GHz / 6GHz range), Iridium , Tetra and UHF/VHF antennas.



GC-7303MG-2.4

ISM 2.4GHz - GPS/GNSS IP67/69K


Gain	2dBi / 27dB@5V
Connectors	SMA (M) / SMA-RP(M)
Dimensions	Ø 54 x 141 (mm)
Mounting	Magnetic



GC-5502P

2.4/5GHz WiFi6E BlueTooth Zigbee


Gain	0.3dBi à 3.3dBi
Connectors	RP-SMA (M)
Dimensions	71 x 25 x 7
Mounting	Adhesive



GC-9C34JW

Iridium + GPS/GNSS IP67


Gain	5.1dBi à 5.7dBi
Connectors	TNC (F)
Dimensions	Ø 74 x 116
Mounting	Pole



GC-9126JBW

Iridium hemispherical outdoor IP67


Gain	4.5dBi
Connectors	TNC (F)
Dimensions	130 x 110 x 74
Mounting	Wall Mount, Adhesive



GC-8410B

UHF/TETRA 380-470 MHz  
LPWA IP67/69


Gain	2.2dBi
Connectors	SMA (M)
Dimensions	99 x 60 x 154
Mounting	Screw Mount



GC-D0710-011

UHF/TETRA 380-470 MHz  
dipole antenna


Gain	-1.2dBi
Connectors	SMA (M)
Dimensions	Ø 13.6 x 138
Mounting	Screw Mount



GC-46D-UHF-052

ISM Glass Fiber 450-470MHz IP66

Gain	6 dB, 3 dBd, 5,1 dBi
Connectors	N-Female
Dimensions	1340 x Ø29 mm
Mounting	Mast Mount



GC-5410P

High Gain TETRA 380-470 MHz  
UHF/LPWAN

Gain	2.8 dBi
Connectors	SMA (M)
Dimensions	60 x 112.5 x 11.3
Mounting	Adhesive

AND HUNDREDS MORE...

UNLIMITED CUSTOMIZATION

- KEY FEATURES**

  - Low Power Wide Area network antennas
  - Up to 1 Mbits/s
  - Up to 15 km
  - Suitable for IoT, LoRa & Sigfox applications
- Custom manufacturing**

  - Multiple form factor
  - Prototyping service
- Customizable cable and connector**

...ON GIGA-CONCEPT.FR

SCREW, ADHESIVE, AND MORE :



KEY FEATURES

- Active gain up to 10 dBi / 28 dB
- WiFi/BT/Zigbee : 2,4 GHz ISM, 5,0 GHz ISM, 6,0 GHz ISM,
- Tetra : Single-band high-gain
- UHF/VHF : from 169 to 870 MHz



# HIBOOST Amplifiers / GSM



MOBILE SIGNAL REPEATERS  
WHEREVER YOU ARE



## .....HOW DOES IT WORK?

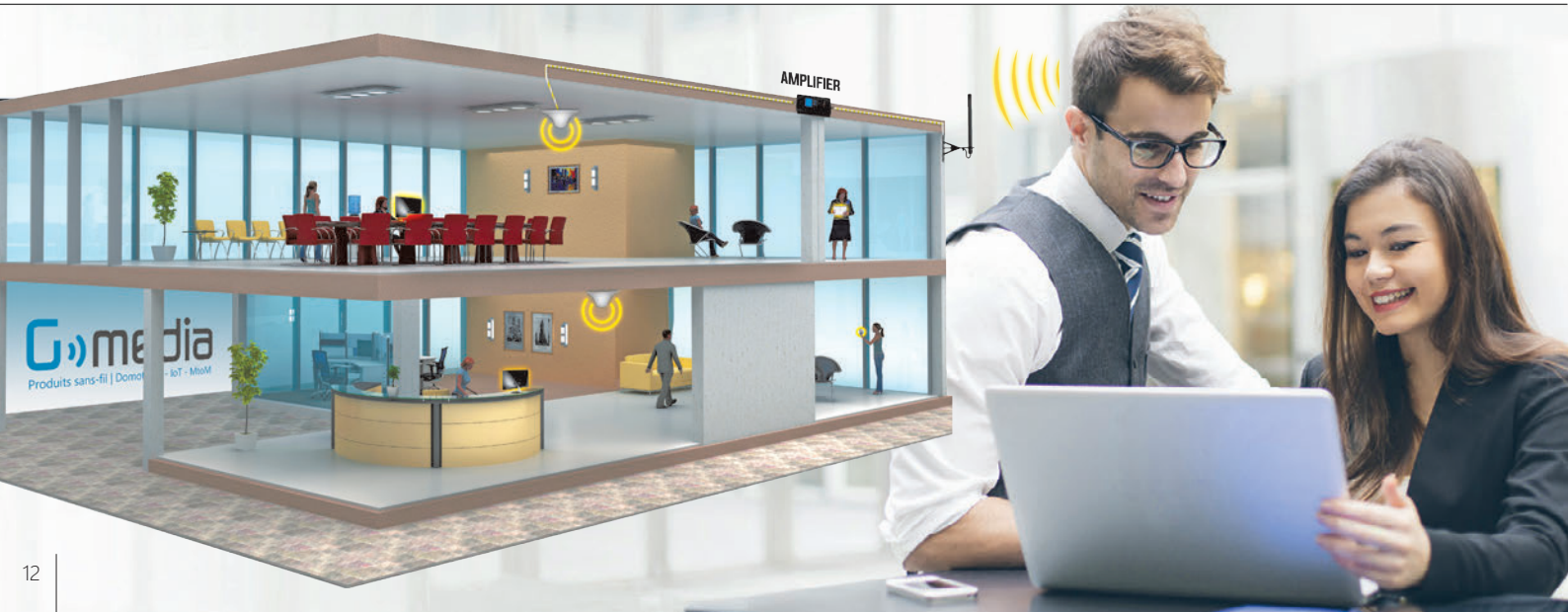
The amplifier recieves a weak GSM/3G or LTE signal from the outdoor antenna. The weak signal goes to the repeater where it is amplified. The amplifier broadcasts a perfect signal in your place thanks to indoor antenna(s).

RECIEVE A BETTER GSM/3G/4G SIGNAL  
AND BOOST IT INSIDE YOUR BUILDING...

In the modern communication world, almost everybody use a smartphone. But some places don't have a good coverage and a weak GSM/3G or 4G-LTE signal doesn't enable a good use of your phone. Most of the time, those places are warehouse.

## OPEN UP NEW BUSINESS PERSPECTIVES

Boost 3G/4G mobile data speeds in your office  
and watch working efficiency growing alongside  
with revenue!



# HIBOOST Amplifiers / GSM



Model	HI23-6S-Plus	HI20-6S-Plus	HI23-5S	HI20-5S	HI17-5S	HI13-5S
Networks	NR700 LTE800 EGSM900 DCS1800 WCDMA2100 LTE2600 MHz	NR700 LTE800 EGSM900 DCS1800, WCDMA2100 LTE2600 MHz	EGSM 900 DCS 1800 3G 2100 4G LTE 800&2600	EGSM 900 DCS 1800 3G 2100 4G LTE 800&2600	EGSM 900 DCS 1800 3G 2100 4G LTE 800&2600	EGSM 900 DCS 1800 3G 2100 4G LTE 800&2600
Coverage	Up to 5500m <sup>2</sup>	Up to 4500m <sup>2</sup>	Up to 5500m <sup>2</sup>	Up to 4000m <sup>2</sup>	Up to 1800m <sup>2</sup>	Up to 1000m <sup>2</sup>
Max.Gain	75dB	65dB	75dB	70dB	65dB	65dB

# GIGACONCEPT AMPLIFIERS LoRaWAN™ / SIGFOX - GNSS

AMPLIFIER | 868 MHZ



Frequency	869 ± 1 MHz
Gain	29 (up-link) / 32 (down-link)
VSWR	1.4 :1
Noise Figure	5 dB
Antennas	2 x SMA Female
Voltage	12 v / 130 mA

Frequently used to bring signal to connected objects placed in constrained locations, and especially in white zones, this LoRaWAN™/Sigfox signal amplifier is specially designed for IoT professionals and connected object installers.

GNSS BOOSTER PACK: GPS/GNSS REPEATER + 2 ANTENNAS



Frequency	1559-1606 / 1164-1254 MHz
Gain	30 dB max
VSWR	1.80:1
Noise Figure	5 dB
Antennas	2 x SMA Female
Voltage	12 v / 400 mA

Designed to solve GPS reception problems in enclosed or covered areas. The GPS signal is received via an external antenna and then retransmitted without loss via the internal antenna.

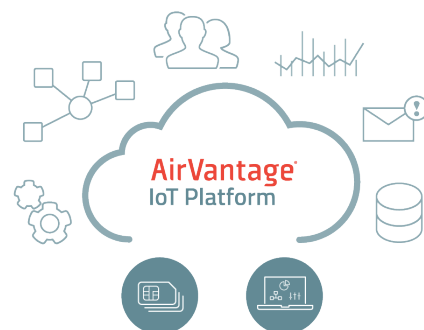
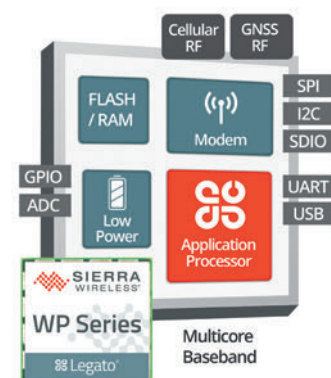


Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world.

## Delivering a flexible IoT platform solution

### HARDWARE

- Dedicated core for your application
- **Comprehensive set of interfaces** for connection to sensors and companion chips (i.e. Wi-Fi, Zigbee, Z wave)
- **Integrated low-power** solution
- **Integrated GNSS** with A-GPS
- Future proof roadmap with 3G, 4G, Cat-3 & Cat-1, and LPWA (Cat-M1/NB IoT) maintaining common flexible form factor (CF3®)



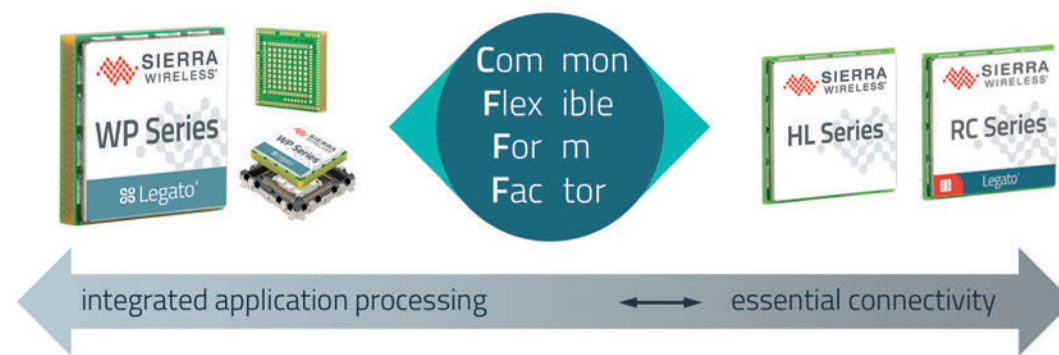
### SOFTWARE

- Customizable **Linux distribution** enables access to the **Linux ecosystem**
- Integrated BSP for native peripheral and extension: **Ethernet, Wi-Fi, SD card**
- **Application framework** with growing middleware services for Telecom, Location, IP, Wi-Fi
- **Application sandbox** for securely managing applications

## Simplifying a complex eSIM ecosystem

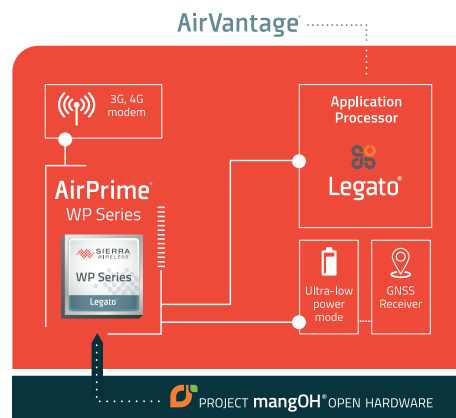
Version 3.1 of the Remote Provisioning Architecture for Embedded UICC specification dictates compatibility between wireless modules, SIM cards and the remote provisioning of subscriptions. This latest GSMA embedded SIM specification promises to unlock the flexibility many IoT use cases demand.

Sierra Wireless simplifies this ecosystem with eSIM/eUICC compliant modules, SIM cards and remote provisioning through the AirVantage IoT Platform.



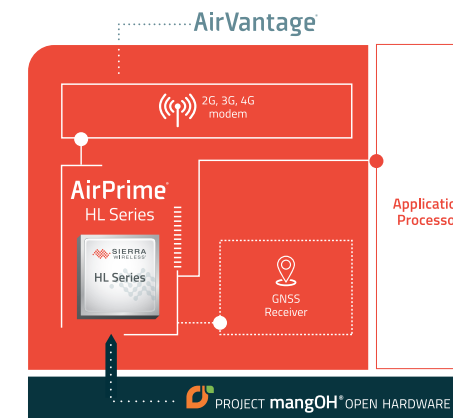
### Feature and Benefits

- ARM core application processor with dedicated Flash and RAM running Legato® enhances security, reduces system complexity, and lowers overall BOM (bill of materials)
- GNSS receiver enables tracking & location based services
- Ultra-low power mode reduces power consumption by 200x for battery or solar powered applications
- Open hardware reference design from Project mangOH®, enables rapid prototyping with industrial-grade components to get you to market faster
- Secure device-to-cloud architecture with AirVantage® pre-integrated into Legato platform



### Feature and Benefits

- Enhanced coverage with dual SIM single standby (DSSS) to switch between networks quickly
- Embedded SIMs with optional Ready-to-Connect solutions streamline operations and add flexibility
- Secure boot to prevent unauthorized code on the target and value-add firmware with FREE unlimited firmware over-the-air (FOTA) upgrades for the lifetime of the module to keep the connectivity optimized and secure
- Integrated AirVantage® cloud services to build, connect, and manage deployments
- Integrated GNSS receiver (LPWA/2G/3G variants) enables tracking and location-based services



## WP Series



More than a cellular modem, the next-gen WP Series provides a secure device-to-cloud architecture enabling IoT developers to build a Linux-based product on a single module – reducing overall system complexity and time-to-market.



### LTE-M (Cat-M1) / NB-IoT (Cat-NB1)

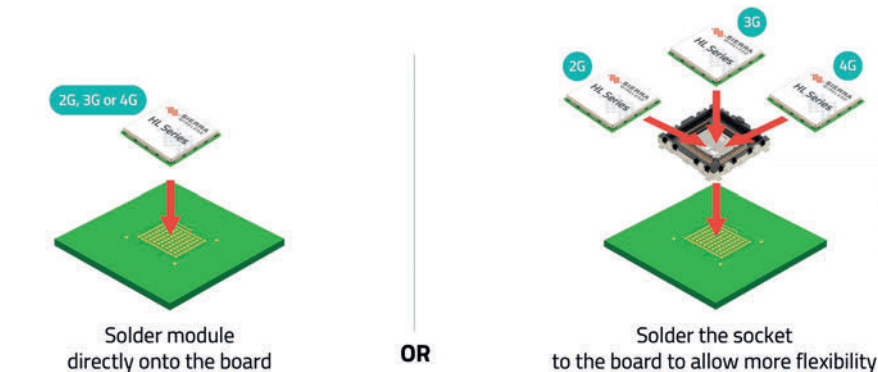
AirPrime module	Region (carrier)	Bands	Fallback
WP 7702 (Octave)	Global (AT&T, T-Mobile, Verizon, Sierra Wireless)	4G-LTE	2G

### 4G Cat-1

AirPrime module	Region (carrier)	Bands	Fallback
WP 7607-1	EMEA (Sierra Wireless)	4G-LTE	2G, 3G

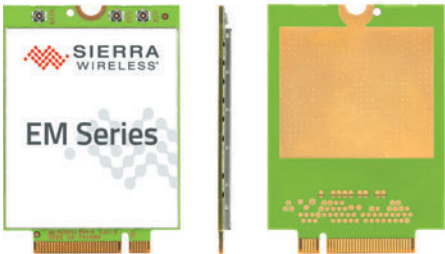
### 4G Cat-3 & 4

AirPrime module	Region (carrier)	Bands	Fallback
WP 7607	EMEA (Deutsche Telekom, Sierra Wireless)	4G-LTE	2G, 3G





# EM/MC Series



Ideal for mobile computing solution, AirPrime® EM embedded modules deliver **high speed connectivity** for **integration into smaller, thinner devices** in PCI Express M.2 form factors.

## EM Series 4G-LTE-A Pro (Cat-13)

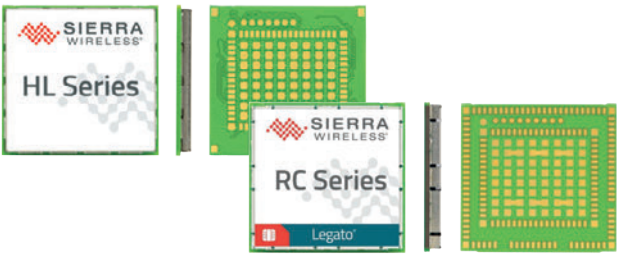
AirPrime module	Region (carrier)	Bands	Fallback
EM 7590	Global (Planned: AT&T (FirstNet), Verizon, T-Mobile, Tesltra, NTT Docomo, KDDI, Softbank)	4G-LTE	3G

## EM Series 5G-NR-Sub-6 GHz (Cat-20)

AirPrime module	Region (carrier)	Bands	Fallback
EM 9190	Global (AT&T FirstNet, NTT Docomo, Verizon, T-Mobile, Tesltra)	5G NR	4G, 3G
EM 9191	Global (AT&T FirstNet, NTT Docomo, Verizon, T-Mobile, Tesltra)	5G NR	4G, 3G
EM 9291	AT&T (FirstNet), Verizon, NTT Docomo, T-Mobile, Telstra, Softbank, KDDI, LGU+, Dish	5G NR	4G, 3G



# HL Series / RC Series



**HL and RC Series modules** are the **smallest, scalable, flexible** solution in a compact and easy-to-integrate form factor that is completely interchangeable among 2G, 3G, and 4G technologies.

Compact form factor, network scalability, and ready-to-use firmware upgrades make these modules **ideal for industrial M2M solution designs** where size and deployment longevity are important considerations.



## LTE-M (Cat-M1) / NB-IoT (Cat-NB1/NB2)

AirPrime module	Region (carrier)	Bands	Fallback
HL 7800	Global (Planned: AT&T, Verizon, Telstra, Vodafone, KDDI, T-Mobile)	4G-LTE	-
HL 7802	Global (AT&T, Orange, Verizon, Vodafone, Sierra Wireless)	4G-LTE	2G
HL 7812	Global	4G-LTE	2G
HL 7845	Europe	4G-LTE	-

## 4G Cat-4

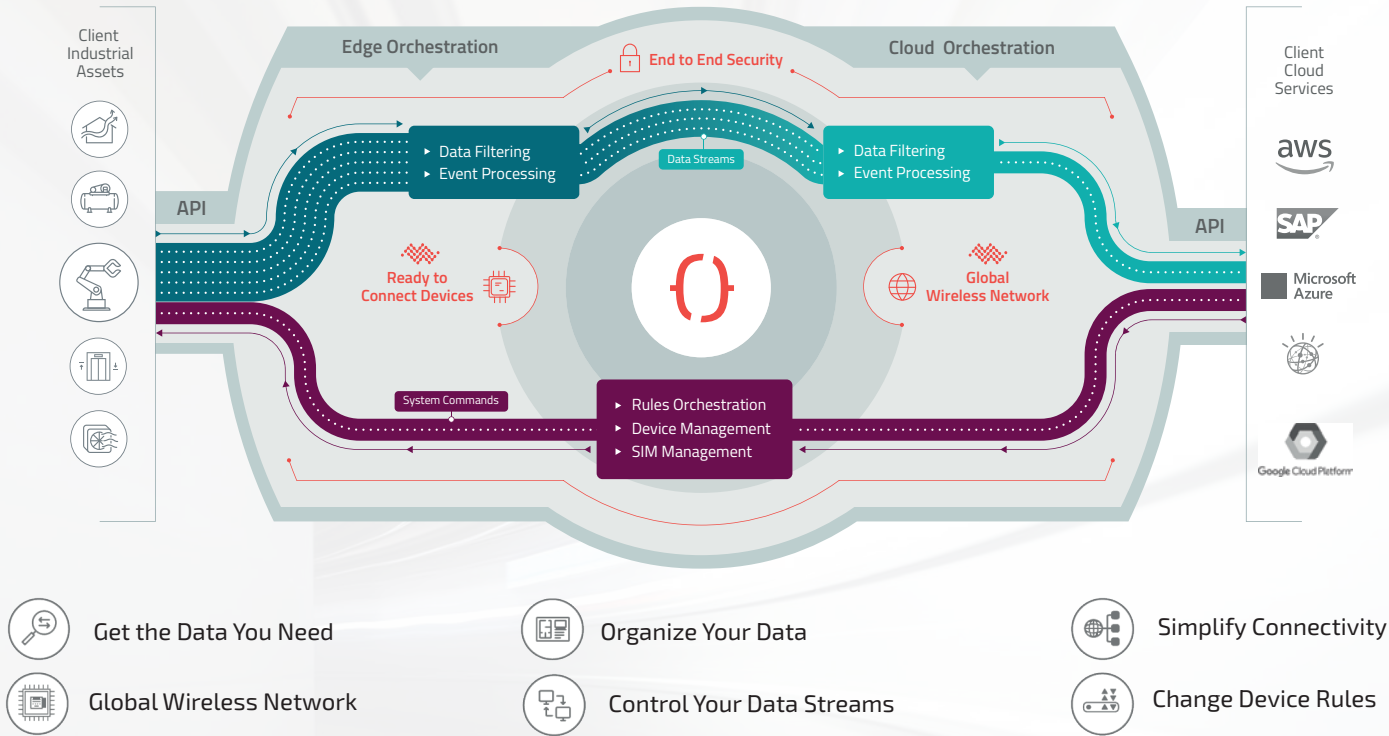
AirPrime module	Region (carrier)	Bands	Fallback
RC 7620	EMEA / Australia (Sierra Wireless)	4G-LTE	2G, 3G
HL 7692	EMEA	4G-LTE	2G

## 4G Cat-1

AirPrime module	Region (carrier)	Bands	Fallback
RC 7620-1	EMEA / Australia (Sierra Wireless)	4G-LTE	3G



The All-in-One Edge-to-Cloud Solution for Connecting Industrial Assets



Octave lets you **securely extract, orchestrate, and act on data** from your equipment to your cloud



## FX Series



- Highly Programmable
- Small & Rugged
- Global & Scalable

Smallest, most rugged **programmable 3G/4G LTE cellular gateway**. Enables swift, scalable and global deployments of IoT applications for any connected machine or infrastructure.

FX30 LTE-M Global	LTE Cat-M1/NB1, 2G	Ethernet, USB, 3 I/Os, GNSS, IOT Connector	Legato® Open Source Linux
FX30S Serial LTE-M Global	LTE Cat-M1/NB1, 2G	Serial (RS232, RS485), USB, 3 I/Os, GNSS, IOT Connector	
FX30 LTE EMEA	LTE Cat-1, 3G HSPA+, 2G	Ethernet, USB, 3 I/Os, GNSS, IOT Connector	
FX30 3G Global	3G HSPA+, 2G	Ethernet, USB, 3 I/Os, GNSS, IOT Connector	
FX30 Serial 3G Global	3G HSPA+, 2G	Serial (RS232, RS485), USB, 3 I/Os, GNSS, IOT Connector	

## SIM CARD Sierra Wireless



### SMART SIM CARD eSIM/eUICC SUPPORT

The Sierra Wireless Smart SIM & Connectivity Service deliver multi-operator coverage, superior data service quality, and resilience to outages, whether your application is global, regional or local. It is specifically designed for mission critical mobile and fixed IoT use cases. When combined with our world class AirVantage IoT Platform, you can quickly and easily deploy and support global IoT implementations.



### IoT Connectivity

#### Feature and Benefits

- Multiple-Operator Connectivity means best in class coverage
- Smart, resilient SIM means superior data service quality
- Unlock new IoT use cases with eSIM/eUICC operator independence

### eSIM solution for long-lifespan remote machines

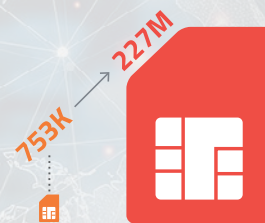
- Take ownership of the SIM card with eUICC compatible cards in all form factors.
- Update subscriptions remotely as more competitive rates or better coverage options become available.
- Change rate plans or operators as your IoT use case and data demands evolve.

Our eUICC compatible SIM cards are available in all form factors and grades.

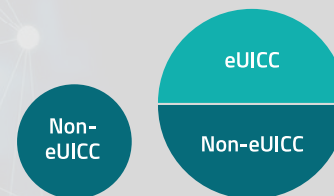
Standard 2FF, 3FF and 4FF cards are available in consumer and industrial grades for devices requiring traditional plug-in SIM cards yet desire the flexibility of eSIM remote provisioning.

For added security and ruggedness, solder down eUICC compatible SIMs are available in MFF2 and WLCSF form factors in both industrial and automotive grade.

77% CAGR for eUICC annual IoT SIM additions



50% of all IoT SIMs will support eUICC



The GSMA 3.1 specification will serve as the basis for the eUICC industry standard in IoT connectivity. As the ecosystem continues to grow and evolve, eSIM based devices will become easier to develop, commission, and use we will see strong global demand for eUICC connectivity.

## ACSIP IoT Module

### LoRaWAN™ / Sigfox radio module | ST50H



The ST50H is an ultra-compact LoRaWAN™ / Sigfox module with very low power consumption.

This professional radio module allows the development of sophisticated applications for IoT or industry, and have the current certifications and approvals (CE/FCC).



### Key features

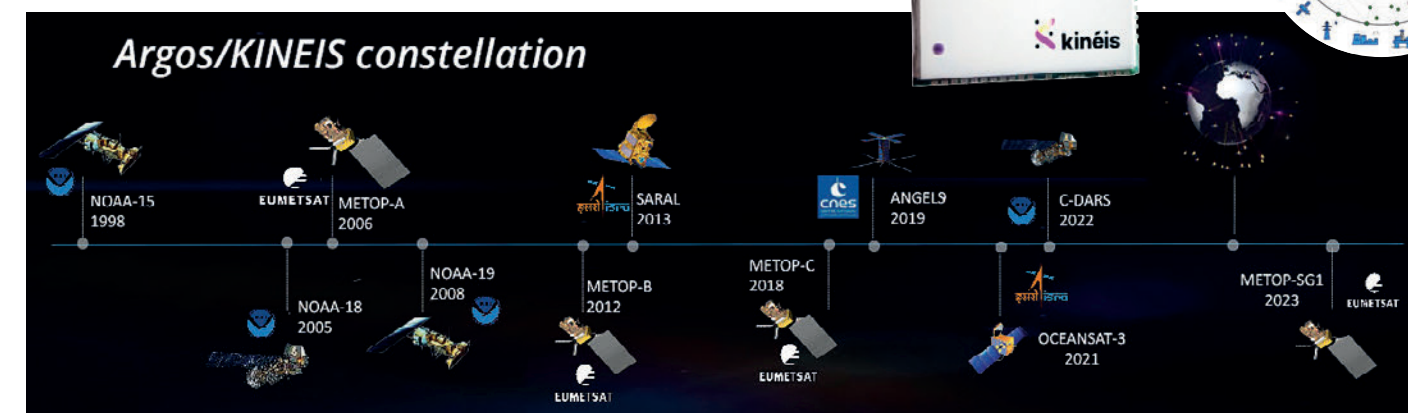
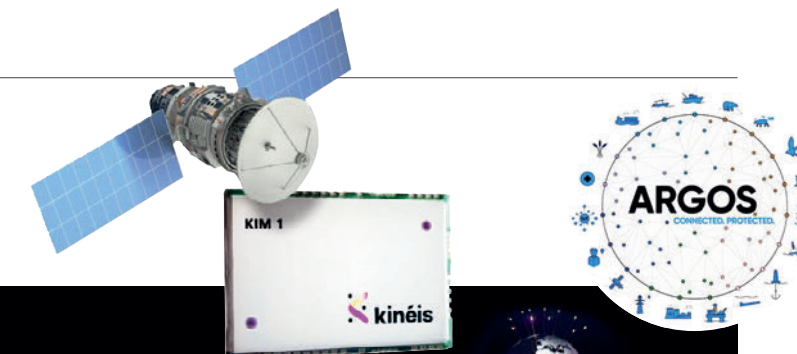
- High performance 32-bit microcontroller operating at up to 48 MHz;
- High sensitivity: up to -136 dBm for LoRa® @125kHz, SF12 ;
- Ultra-low power consumption with different power consumption levels (Min 1uA @ STOP 2 mode)
- Integrated sub-GHz transceiver based on Semtech SX126x;
- STM32 security: 256 AES hardware encryption, PKA, RNG, 64-bit UID, 96-bit.



## KINEIS IoT Modules

### Module KIM1 KINEIS - Geolocation

Capable of transmitting data to Argos and Kineis satellites (31Kb max). Offer connected objects and existing IoT applications the possibility to integrate a global satellite IoT network.



The Kineis constellation of nano-satellites embeds a new generation of Argos instruments. This new system offers a wider bandwidth, a reduced revisit time (5 to 15 minutes between satellite passes), and the use of ARGOS RF protocols that guarantee very low power consumption when sending data.





GEOLOCATION MODULES



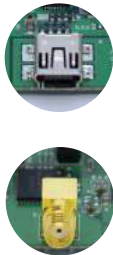
GigaConcept offers **powerful GPS/GNSS modules**. These modules feature a **maximal precision while having minimal consumption**. Our compact GPS module will perfectly integrate your systems while providing navigation or location applications.

PX100 : MULTI GNSS RECEIVER FOR WEARABLE AND IoT APPLICATION

PX100 is SkyTraQ's next generation multi-frequency, multi-constellation single chip GNSS receiver. It is capable of working with **7 satellite constellations** : GPS, Galileo, GLONASS, BeiDou, NavIC, QZSS, and SBAS.

With different options, PX100 is capable of offering position accuracy ranging from **meter-level, sub-meter level, decimeter-level, to centimeter-level**.

The deadreckoning (DR) option allows continuous 3D navigation even in signal blockage environments. The precision timing option enables precise frequency generation for GNSS disciplined oscillator applications.



About SkyTraQ...

SkyTraQ develops GPS/GNSS chipset for consumer navigation and tracking applications.

SkyTraQ's high-sensitivity GPS technology delivers state of the art TTFF performance, and enables operation under indoor and difficult urban canyon environments.

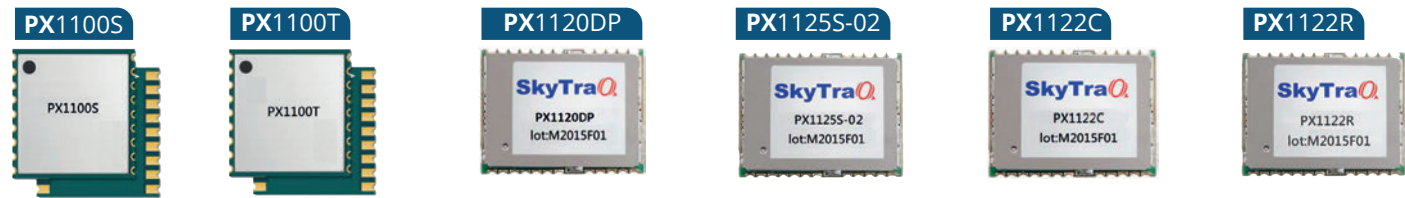
SkyTraQ is a fabless semiconductor company, wich develops GPS chipset for consumer navigation and tracking applications.

In addition to GPS chipset, SkyTraQ provides solutions to enable rapid system integration. We offer evaluation board, reference design and technical document to facilitate customer adopting our products.



PX100 Features

- Supports new GPS L1C & GLONASS L3OC signal
- Supports new Beidou3 B1C / B2a signal
- Supports QZSS LEX signal
- SF GNSS accuracy 2.0m CEP / DF GNSS acc. < 1.0m CEP
- RoHS and REACH compliant
- RTK accuracy 1cm + 1ppm
- Two RF inputs for narrow band SAW filters
- Notch filter for in band jammer removal
- Uses 26MHz 0.5ppm TCXO
- 5mm x 5mm QFN40 package



Module	Supported Satellites	Accuracy	Sensitivity	Update Rate	Dimension (mm)
PX1100S	GPS, Beidou, Galileo, GLONASS, QZSS	Position 2.0m CEP Velocity 0.1m/sec Time 10ns	-148dBm cold start -160dBm re-acquisition -165dBm tracking	1 / 2 / 4 / 5 / 8 / 10 / 20 / 25 Hz (default 1Hz)	10.1 x 9.7 (available in 12 x 16)
PX1100T	GPS, Beidou, Galileo, GLONASS, QZSS	Position 2.0m CEP Velocity 0.1m/sec Time 5ns (1-sigma)	-148dBm cold start -160dBm re-acquisition -165dBm tracking	1 / 2 / 4 / 5 / 8 / 10 / 20 / 25 Hz (default 1Hz)	10.1 x 9.7 (available in 12 x 16)
PX1120DP	GPS, Beidou, Galileo, GLONASS, QZSS	Position 2.5m CEP Velocity 0.1m/sec Time 12ns	-148dBm cold start -165dBm tracking	1 / 2 / 4 / 8 / 10 Hz	16 x 12.2
PX1125S-02	GPS, Galileo, QZSS, BDS	Position <1.0m CEP Velocity 0.1m/sec Time 10ns	-147dBm cold start -158dBm re-acquisition -162dBm tracking	1 / 2 / 4 / 5 / 8 / 10 Hz (default 1Hz)	16 x 12.2
PX1122C	GPS, BDS, Galileo, GLONASS, QZSS	Position <1.5m CEP Velocity 0.5m/sec Time 12ns	-	1 / 2 / 4 / 5 / 8 / 10 / 20Hz	16 x 12.2
PX1122R	GPS, Beidou, Galileo, GLONASS, QZSS	Position 2.0m CEP autonomous mode 1cm + 1ppm RTK mode Velocity 0.05m/sec Time 12ns Moving Base Heading : 0.13 degree	-148dBm cold start -160dBm tracking	-	16 x 12.2

Specifications	
For PX1100S / PX1100T / PX1120DP / PX1125-02 / PX1122C / PX1122R	
Startup Time	29 second cold start TTFF 3.5 second TTFF with AGPS 1 second hot start
Reacquisition	1s
Input Voltage	3.3V DC +/-10%
Weight	1 to 2g
Operating Temp	-40° C +85°C
Storage Temperature	-55 ~ +100°C
Humidity	5% ~ 95%



DEVELOPMENT BOARD

Printed circuit board containing a microprocessor and the minimal supporting logic necessary for a computer engineer to become familiar with the board's microprocessor and learn to program it.







USB310 USB Gateway

Ultra Long Range

USB gateway to connect PC's, DSLboxes and other USB master devices to EnOcean products.

Coaxial connector embedded !

Size	34 x 33 x 9mm
Connection	GPIO / UFL connector

INTEROPERABLE  
Future-assured  
Flexibility and comfort  
More than 1500 compatible products

SELF POWERED  
Batteryless / Energy Saving  
Maintenance-free  
Sensors that can be freely positioned

WIRELESS  
Flexibility  
Simple Installation  
Cost and time savings in installation

**GIGA-CONCEPT - RESEARCH & DEVELOPMENT SERVICES**  
With our internal R&D Service, GigaConcept can help you on your EnOcean development to meet your specific needs.

ECS 310/300

SOLAR ENERGY HARVESTER

The indoor solar cells ECS 300 and ECS 310 are designed for use with the EnOcean sensor module. The smaller ECS 300 is intended to be used in unidirectional sensor applications. ECS 310 is designed for use in bi-directional applications using EnOcean.

Dimensions	50.0x20.0x1.1 mm	35.0x12.8x1.1mm
Open Circuit Voltage, 200 lux, 25°C	4v (operating 3v)	4v (operating 3v)
Short Circuit Current, 200 lux, 25°C	14 µa (operating 11µa)	6.5 µa (operating 4.5µa)

ECO 200

MOTION ENERGY HARVESTER

The energy module ECO 200 is an energy converter for linear motion. Possible applications are miniaturized switches and sensors in building technology and industrial automation.

Dimensions	29.3 x 19.5 x 7.0 mm
Switching cycles	typ. >300.000 at 25 °C. Optimized applications >1 Mio cycles
Energy output	120 ... 210 µJ @ 2 V (with circuit specified below)

ECT 310

THERMAL ENERGY HARVESTER

ECT 310 is a low-cost ultra-low-voltage DC/DC converter for powering battery-less EnOcean radio modules by Thermal Energy. Wireless sensors and even actuators can be operated.

Dimensions	14.0 x 14.0 x 5.0 mm
Input start-up voltage	20 mV typ. oc / 500mV oc (voltage max.)
Output Voltage	3..5 V (input = 20 .. 500mV, load < 10 MΩ)

**GUARANTEES THE OPERATION OF YOUR APPLICATIONS DURING A FAILURE OR ABSENCE OF THE POWER SUPPLY**

OS36-Plus

Backup power for routers and gateways

- Key features :
- Inverter 12v/15v/19v/24v
  - Real-time triggering and regulation
  - Protects against overvoltage and current fluctuations
  - Interface with dry contact
  - 3 LED status indicators
  - 18650 Lithium 5C battery
  - Intelligent battery management (BMS)



Ensures an uninterrupted power supply for connected electronic devices in case of power failure or fluctuation.

GC-BATSEC-AIO

DIN Rail power supply Kit + battery backup for routers, modems, gateways and more.

- Key features :
- Voltage input 230Vac
  - Voltage output: 12 or 24Vdc
  - Output protection : SCP / OVP / OLP
  - High efficiency, long life and high reliability
  - Extended ambient operating temperature: -10°C to -50°C
  - Long-life 105°C electrolytic capacitors
  - Atmospheric convection cooling



Available in 12 or 24 volts, and in 36W, 48W and 60W respectively, they are equipped with a double terminal block.

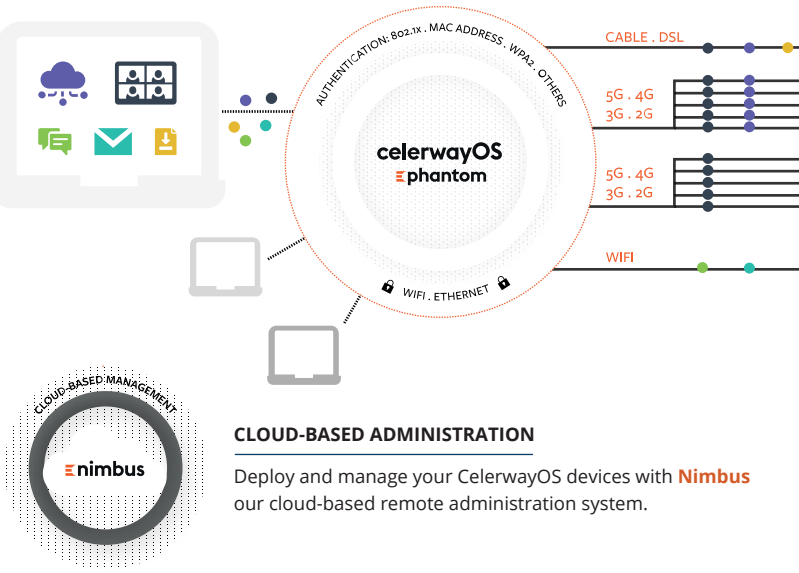




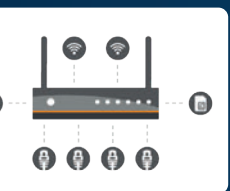
**THE ONLY PROVEN OPEN SOURCE-BASED MOBILE-FIRST SD-WAN PLATFORM**

Celerway unlocks the **full potential** of cellular data networks to give you always-on connectivity with **blazing performance**. Not just 4G/5G backup, cellular leads the way, taking your SD-WAN further than ever before.

Our multi-WAN routers deliver superior **price-per-performance** powered by CelerwayOS. Priced to scale, they're ideal for **large deployments**.



ARCUS is the **world's first and only rugged dual 5G mobile router** with a modular design. With more than 1 Gbps VPN throughput and a modular design, ARCUS lets you combine the right mix of WAN types for your marine connectivity scenario.



RELIABLE HIGH AVAILABILITY NETWORK



INTELLIGENT MONITORING OF THE NETWORK IN REAL TIME



SWITCH / NETWORK FAILOVER



Prevent outages and poor Internet connection to limit productivity losses.



Aggregate multiple wired and/or 4G LTE Internet connections to provide good bandwidth for guests.



Provide a reliable connection for the cash register system, inventory management, Internet access.



Easily provide 4G LTE Internet access with built-in failover in the event of disruption.



Easily provide 4G LTE Internet access to temporary locations such as events, construction sites, foodtrucks...



Model	Arcus	GO	Stratus	Fractus	Cirrus	Cumulus
Availability	CAT12 (or 5G)	CAT12 (or 2 x CAT12)	CAT20 (or CAT18)	CAT4 (or CAT6 or CAT11)	2 x CAT4 (or CAT6 or CAT4)	Dual (or Dual CAT6)
Max Load Balancing	1 Gbps+	950 Mbps	1 Gbps+	950 Mbps	95 Mbps	95 Mbps
Phantom VPN Encryption	1 Gbps+	180 Mbps	600 Mbps	180 Mbps	60 Mbps	60 Mbps
IPSec VPN encryption	1 Gbps+	60 Mbps	280 Mbps	60 Mbps	15 Mbps	15 Mbps
Simultaneous WANs	7	5	8	7	7	6
SIM card slot	6 x nano	2 x Micro	2 x full size or 4 x full size (dual SIM for each modem)	1 x full size	2 x full size	2 x dual full size
Ethernet (WAN and / or LAN)	3 x M12 X-coded GBE	2 x 10/100/1000 Mbps RJ-45	5 x 10/100/1000 Mbps RJ-45	5 x 10/100/1000 Mbps RJ-45	5 x 10/100 Mbps RJ-45	5 x 10/100 Mbps RJ-45
Wi-Fi (Wan and / or LAN)	5GHz / 2.4GHz dual-band (optional)	2.4GHz + 5GHz simultaneous dual-band	2.4GHz + 5GHz simultaneous dual-band	2.4GHz + 5GHz simultaneous dual-band	2.4GHz	2.4GHz
USB	2 x USB 3.0	2 x USB-C (self-charging, other device charging)	1 x USB 3.0	1 x USB 3.0	1 x USB 2.0	1 x USB 2.0
Mini-PCie	1 x WiFi, 1 x cellular (LM940 or EG25)	-	-	1	2	1
Antenna connectors LTE	3 x RP-SMA female	2 x SMA female	4 x or 8 x SMA female (depending on model)	2 x SMA female	4 x SMA female	2 x SMA female
Wi-Fi Connectors	3 x RP-SMA female	-	4 x RP-SMA female	(2.4GHz) 2 x RP-SMA female (5GHz) 2 x SMA female	2 x RP-SMA female	2 x RP-SMA female
Antenna connectors GPS	1 x SMA female	-	1 x SMA female	-	1 x SMA female	-
PoE .at IN/OUT	M12 X-coded PoE 802.3af OUT	-	WAN/LAN configurable (1 x IN, 2 x OUT)	-	-	-
Operating Temp. (°C)	-20 to 70	5 to 35	-10 to 60	-20 to 60	-20 to 60	-20 to 60
Humidity (%)	5 to 95	5 to 85	5 to 85	5 to 95	5 to 95	5 to 95
Power supply (DC)	6-36V	USB-C 5V, 3A	6-36V	Barrel, 12V, 2A	4-pin click, 9-18V, 2A, 40V	Barrel, 12V, 2A
Dimensions (mm)	200 x 55 x 280	79 x 141 x 30	210 x 43 x 145	255 x 175 x 25	145 x 95 x 30	110 x 80 x 30
Weight (kg)	2.20	0.33	1.08	0.80	0.40	0.50

# TELTONIKA Routers, gateways and switches



## PROFESSIONAL NETWORK CONNECTIVITY EQUIPMENT FOR INTERNATIONAL MARKETS

Through long-term experience and research and development of industrial network devices for IoT and M2M communication, we have developed a wide portfolio of products for the most complex areas of Industry 4.0, Smart City, and Green Energy.

**TRB500 / Gateway**

- 5G sub-6 GHz CAT20
- GPS, GNSS
- Interface : Ethernet
- 2 x Configurable I/O
- 1 x Mini SIM socket
- 4 x SMA

**TRB255 / Gateway**

- 4G LTE CAT.M1, NB-IoT, 2G
- GPS, GNSS
- Interface : RS232, RS485
- 3 x Configurable I/O
- 2 x Mini SIM socket
- 2 x SMA

**TRB140 / Gateway**

- 4G LTE CAT4
- Interface : Ethernet
- 2 x Digital I/O
- 1 x Mini SIM socket
- 1 x SMA

**RUTX50 / Router**

- 5G sub-6 GHz
- 5x RJ45
- 1 x Digital Input
- 1 x Digital Output
- 2 x Mini SIM socket
- 5 x SMA / 2 x RP-SMA
- 1 x USB-A

**RUTXR1 / Router**

- 4G LTE CAT6, 3G, WiFi
- 5 x Gigabit Ethernet ports
- 1 x RJ45, RS232
- 1 x SFP port
- 2 x Mini SIM socket
- 2 x SMA / 2 x RP-SMA

**RUT241 / Router**

- 4G LTE CAT4, 3G, 2G, WiFi
- 2 x RJ45 Ethernet
- 1 x Digital Input
- 1 x Digital Output
- 1 x Mini SIM socket
- 2 x SMA / 1 x RP-SMA

**TSW110 / Switch**

- Rail DIN
- Plug-n-Play
- 5 x Gigabit Ethernet ports
- Passive PoE
- 2 pin industrial power socket
- Full aluminum housing

**TSW304 / Switch**

- Rail DIN
- 7-57 V
- Compact and rugged
- 4 x Gigabit Ethernet ports
- Passive PoE
- Anodized aluminum housing

**TSW114 / Switch**

- Rail DIN
- Plug-n-Play
- 5 x Gigabit Ethernet ports
- Passive PoE
- 2 pin industrial power socket
- Full aluminum housing

### SECURE AND EASY TO USE

Security risk tests are performed constantly on all Teltonika Networks devices and all products are being periodically updated to eliminate any breaches in order to assure highest level of security.

Teltonika Networks devices are highly professional however they are very easy to use. Ability to offer products which do not require any special training is one of our strengths.

### RMS

The **Remote Management System (RMS)** by Teltonika Networks allows you to be in control of your connected solution and consists of three main parts :

- **RMS Management** (full control on routers & gateways)
- **RMS Connect** (control other smart devices without Public IP)
- **RMS API** (take from RMS and directly into any IoT platform)



# MILESIGHT Industrial Cellular Routers

More products available on [www.giga-concept.fr](http://www.giga-concept.fr)



## INDUSTRIAL CELLULAR COMMUNICATION ROUTERS

Industrial cellular routers with **high-performance designed for multiple M2M/IoT applications**. Cost-effective with embedded intelligent features, they have fast Ethernet ports (with PoE) that provide users with uninterrupted Internet access.

**UR75 / 5G/4G-LTE/3G**

- Failback (ethernet, cellular and WiFi)
- 5 x Gigabit Ethernet switch
- 4 x PoE on LAN ports (optional)
- WiFi (GPS optional)
- 1 x RS232 / 1 x RS485 (+2 in option)
- 4 x SMA / 2 x Mini SIM

**UR35 / 4G-LTE/3G**

- Failback (ethernet, cellular and WiFi)
- Compact and rugged design
- 4 x PoE on LAN ports optional
- WiFi and GPS optional
- 1 x RS232 / 1 x RS485 (+1 in option)
- 2 x SMA / 2 x Mini SIM

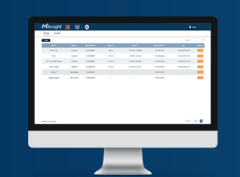
**UR32 / 4G-LTE/3G CAT4**

- Failback (ethernet, cellular and WiFi)
- Compact and rugged design
- 2 x PoE on LAN ports optional
- WiFi and GPS optional
- 1 x RS232 (RS485 optional)
- 2 x SMA / 2 x Mini SIM

**UR32L / 4G-LTE/3G CAT4**

- Failback (ethernet and cellular)
- Compact and rugged design
- 2 x PoE on LAN ports optional
- Watchdog/multi-link failover detection
- 1 x SMA / 1 x Mini SIM

### POWERFUL SOFTWARE SUITES



**MilesightVPN**  
Remote access solution



**DeviceHub**  
Remote management



Smart Automation



Smart Machines



Smart Parking



Secure ATM



# OPTION CloudGate



## CONNECTING THINGS TO THE CLOUD

The CloudGate IoT/M2M Gateway provides competitively priced **LAN to 2G,3G and LTE WWAN routing and GPS** functionality. The CloudGate gateway is simple to configure locally or remotely from your PC, tablet or SmartPhone.

### RELIABLE AND SECURE

CloudGate is able to **automatically resolves common problems** associated with wireless M2M connectivity.

Built in software and hardware **watchdogs** continuously monitor each component of the product and the product's connectivity to home servers.

All software and configuration images are **protected with digital signatures** and have dual rollback images that allow the product to revert to previous working settings if an issue is detected.

### FLEXIBLE AND COST EFFECTIVE TO INTEGRATE AND DEPLOY

CloudGate provides flexibility that allows customers and system integrators to **tailor the product** to their solution.

## SRAS

SARS offers a **complete data security solution** and removes most of the restrictions imposed by existing VPN solutions. It **enables secure connection to the enterprise platform, or cloud**, using advanced, dedicated VPN technologies.



ARS allows you to **securely connect to the corporate platform or cloud** using virtual private network (VPN) technologies.

This allows system administrators and mobile employees to **securely access connected machines and objects** even from locations that do not have secure network connections.



### HARDWARE EXPANSION SLOTS

CloudGate incorporates two hardware expansion slots that allow the CloudGate to be enhanced with additional radio and/or wired interfaces.

The expansion cards are simple and quick to install, allowing the field upgrade of the device when new functionality is required.

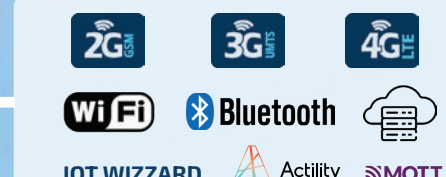


### ADVANTAGES

- Simple, value priced LTE WWAN M2M IP connectivity
- Automatic connection monitoring and error recovery
- Secure, redundant firmware and configuration images
- Unique software and hardware configuration flexibility
- Automatic provisioning of custom middleware

# CloudGate

## GATEWAY



### ETHERNET



### LTE WW



### LTE HELIUM



### MINI



### MICRO



### NANO



## WATERPROOF ENCLOSURE FOR CLOUDGATE IOT GATEWAY | IP67 IK10



### KEY FEATURES

- Compatible train tracks
- Power Over Ethernet
- Stainless steel fixations
- IP67 / IK10
- 300g / 180 × 350 × 106mm



### USE CASE WITH SNCF

The GC-EA\_GATEWAY for IoT Cloud Gate box is used here for SNCF railways.

**Perfectly protected against humidity, dust and shocks**, the CloudGate IoT gateway installed inside allows the management of the different sensors of the park.

For more information, please visit our dedicated website.



# CloudGate

## SPECIFICATIONS

# CloudGate


## EXPANSION CARDS

MODEL	ETHERNET	ETHERNET MINI	LTE WW	MINI	MICRO	NANO
LTE	N/A	N/A	CAT 4 20 bands	CAT 4 20 bands	CAT 4 20 bands	CAT M/NB-IoT 20 bandsX
3G HSPA+	N/A	N/A	Yes 7 bands	Yes 7 bands	Yes 7 bands	No
2G	N/A	N/A	Yes 4 bands	No	No	"Yes 4 bands"
SIM holder	N/A	N/A	1 Micro SIM	1 Micro SIM	1 Micro SIM	1 Micro SIM
GNSS	No	No	Yes	Yes	Yes	See CloudGate nano w/ GPS (on demand)
LoRa	Optional card 868/915MHz forwarder or server (CG2132-12193)	Optional card 868/915MHz forwarder or server (CG2132-12193)	Optional card 868/915MHz forwarder or server (CG2132-12193)	Optional card 868/915MHz forwarder or server (CG2132-12193)	The Cloudgate Micro also exists in Native LoRaWAN™	The Cloudgate Nano also exists in Native LoRaWAN™
Ethernet	1 LAN/WAN	1 LAN/WAN	1 LAN + 1LAN/WAN	1 LAN + 1LAN/WAN	1 LAN + 1LAN/WAN	1 LAN/WAN
Expansion card slots	2	1	2	1	0	0
USB	Optional cards	No	Optional cards	No	No	No
Serial Port	Optional cards	RS232 or RS485 Half and Full Duplex	Optional cards	RS232 or RS485 Half and Full Duplex	No	RS232 or RS485 Half and Full Duplex
Other Ports	Optional cards	CAN, I2C	Optional cards	CAN, I2C	No	Mbus
I/O	Optional cards	3	Optional cards	3	0	0
Ignition Sense	Yes	Yes	Yes	Yes	Yes	Yes
VPN	Yes	Yes	Yes	Yes	Yes	Yes
Max. # VPN Tunnels	1	1	1	1	1	1
Operating Temperature	-30° to +70° C	-30° to +70° C	-30° to +70° C	-30° to +70° C	-30° to +70° C	-30° to +70° C
Class 1 Div 2 Cert.	No	No	Optional	No	No	No
Power Range	9 to 33 VDC	9 to 33 VDC	9 to 33 VDC	9 to 33 VDC	9 to 33 VDC	9 to 33 VDC
Battery Backup	No	No	Optional card 900mAh	Optional card 900mAh	Optional card 900mAh	Optional card 900mAh
Dimensions	4.5" × 4.1" × 1.8"	4.5" × 4.1" × 1.8"	4.5" × 4.1" × 1.8"	4.5" × 4.1" × 1.8"	4" × 3.8" × 1.1"	4" × 3.8" × 1.1"


FRONT SLOT

BACK SLOT


STANDARD Serial (RS232)




ETHERNET EXPANSION 1 port




BLUETOOTH Low Energy (Wirepas)




SMART METERING (1X6P CONNECTOR)




INDUSTRIAL Serial (RS232/RS485)




ETHERNET EXPANSION 4 port  
(available with PoE)




BLUETOOTH Low Energy (nRF52)




REAR TO FRONT extender card




LoRaWAN™ 868 + 9XX MH




WLAN card client & access point



ZIGBEE



wMbus 868MHz



EXPAND THE FUNCTIONALITY OF CLOUDGATE

- Reduce stocking and deployment costs
- Unique software and hardware configuration flexibility
- As simple or full featured as you need it to be

- Configure CloudGate provisioning server
- Configuration and customized middleware installed
- Device is ready to connect things to the cloud

For more information on Cloudgate products,  
please visit our site [giga-concept.fr](http://giga-concept.fr)





**CloudGate**

**SOFTWARE**

- Customer Software
- Firmware
- IPSec
- Prote
- Core
- Plan
- Dyn
- Plan

**HARDWARE**

- Bluetooth
- 3G with GPS

# IOT WIZZARD

## GATEWAY SOFTWARE SOLUTION

- SIMPLIFIES THE CONNECTION OF IOT OBJECTS
- FACILITATES THE CONVERSION OF PROTOCOLS
- AUTOMATES CONNECTION TO THE CLOUD / BMS

**LoRaWAN®**

**BACnet™**

**Modbus**

**ONE CLICK**

**MQTT**

**amazon web services**

**Microsoft Azure**

## ALL LORAWAN™ SENSORS ARE SUPPORTED: OVER 40 MANUFACTURERS SUPPORTED!

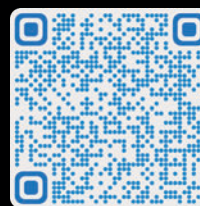
The IoT Wizzard assistant **offers a unique set of automations to facilitate IoT** with the CloudGate.

Creating a professional **IoT and IIoT network and scenarios has never been this easy**. It is fast and does not even require any programming knowledge.

## THE 4 UNIQUE STRENGTHS OF THE IOT WIZZARD

- 1 Assisted pairing and configuration of LoRaWAN™ sensors
- 2 Connection of Modbus, BACnet and other devices: simplified
- 3 LoRa® data transfer to BACnet and Modbus objects: simplified
- 4 Output, locally and/or to the cloud: simplified and simultaneous

More on IoT Wizzard



## LORAWAN™ AUDIT SUITCASE

LoRaWAN® orange™ Activity Obienious



VALISE-AUDIT-LORA3

### KEY FEATURES

- CloudGate IoT/M2M gateway
- LoRa® network coverage tester
- Compact LoRa® 868 antenna
- LoRa® 868 fiberglass antenna
- Battery : 12V
- Mobile application available
- Dimensions : 56 x 34,5 x 23 cm
- Weight : 13.70 Kg

**Pre-wired, pre-configured and self-sufficient** in energy thanks to its integrated battery, our LoRaWAN™ Audit suitcase enables coverage tests of a LoRa network before deployment of an IoT ecosystem.



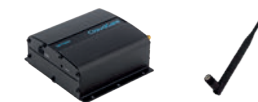
### MOBILE APPLICATION

Test and analyze LoRaWAN™ coverage using INS-BlueRead and its mobile application.



### WHAT'S IN THE BOX ?

#### 1. CloudGate + 868 MHz Antenna



#### 2. LoRaWAN™ Coverage Tester



#### 3. 868 MHz outdoor antenna



## LORAWAN™ EDUCATIONAL SUITCASE

LoRaWAN® orange™ Obienious

Activity MQTT BACnet



EDUCATIONAL\_CASE1

### KEY FEATURES

- 1x LoRaWAN™ Gateway + Wizzard IoT
- 1x LoRaWAN™ door sensor
- 1x LoRaWAN™ RGB Light Indicator
- 1x Modbus temperature/humidity sensor
- 1x 868 MHz antenna
- 46 x 33 x 15 cm / 3.80 Kg

Provides a **simplified and intuitive** way to learn about LoRaWAN™, Modbus and other industrial protocols. Pre-wired and pre-configured, our case includes a professional multi-protocol IoT gateway.

Our LoRaWAN™ gateway is equipped with the Wizzard IoT software (see page 30) that allows pairing and configuration of LoRaWAN™ sensors in just a few clicks.

### WHAT'S IN THE BOX ?

#### 1. CloudGate Nano



#### 2. T°/Humidity Sensor



#### 3. Opening/Closing Sensor



#### 4. Light Indicator







VISIT HELIOS WEBPAGE



## LATEST PRODUCTS

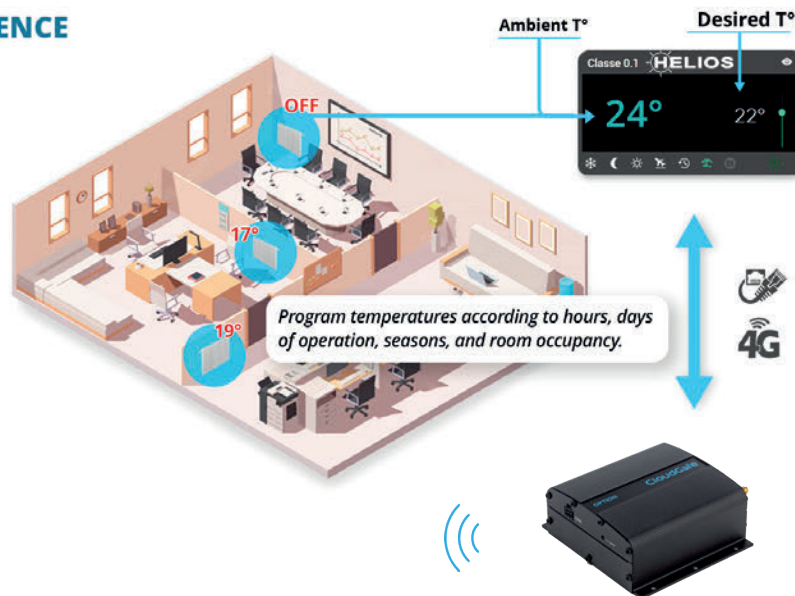


### ADD ECONOMY AND GIVE INTELLIGENCE TO YOUR ACTUAL HEATING SYSTEM



#### FOR EACH HEATER :

- REMOTE CONTROL AND CONFIGURATION
- CONSUMPTION MONITORING AND STATISTICS
- AUTOMATIC SWITCH-OFF ON INCIDENTS
- CONTROL BY ROOM OF DEFINED AREA
- MULTI-BUILDING MANAGEMENT



GC-MC\_CLIMATE\_LW

#### LORAWAN™ THERMOSTATIC VALVE WITH | AA BATTERY

##### KEY FEATURES

- Thermostatic valve for hydraulic radiators
- Remote monitoring and control of radiators
- Programmable on/off and temperature
- Lifetime up to 10 years
- Compatible with our Helios solution

Monitor, control and automate the temperature of each radiator remotely while maintaining classic manual operation.

The temperature of the radiators in the network is regulated according to the temperature indexed by the boiler and the opening of the conventional valves.



GC-MIC\_MLR003

#### LORAWAN™ THERMOSTATIC VALVE | SELF-POWERED

##### KEY FEATURES

- Eliminates the need to change batteries
- Robust design for use in public areas
- Operates in valve position (%) or T° setpoint (°C)
- Ambient and flow sensor temperatures (°C)
- Dimensions : 59 × 64 × 59mm

Allow control of radiators over long distances, even inside buildings. Installing the Micropelt MLR003 system is simple and only a matter of hours.

Significant cost savings on labour and material cost for wiring, network infrastructure, and building structural changes.



GC-RF004

#### LORAWAN™ NFC READER



##### KEY FEATURES

- Ultra low power design (8 years)
- LoRaWAN™ 1.0.4 class A connectivity
- Easy to install : stand-alone product
- Temperature range : -20°C,+55°C
- Dimension s: 25 x 85 x 100mm
- Weight : 90g

The LoRaWAN™ NFC Reader is a compact, self-contained compact and self-contained NFC badge reader with low power.

This product is also designed to identify and time-stamp a technician or a maintenance operation.



GC-IN024

#### POWER CONSUMPTION MONITORING



##### KEY FEATURES

- Alarms on threshold detection
- Clocked sensor acquisition
- industrial and environmental measurement
- IP66 grommets for external sensors
- Timed spontaneous transmissions
- Time-stamped event logging (+3000)

ESG-Logger is a battery powered product dedicated to industrial and environmental measurement.

Its NRJ version adapts to your environment to allow you to identify your large consumption items, to do predictive maintenance but also to monitor your electricity consumption.



GC-MicroARM-A13

#### LORAWAN™ COMPATIBLE PLC



##### KEY FEATURES

- LoRa / Sigfox / RS232 / RS485 / Bluetooth
- 7 input and 5 output
- Power supply : 12 - 24 VDC
- 512 Ko Flash / 48 ko SRAM
- IP20 certification
- Dimensions : 98 x 36 x 57

Designed for the control of automated systems or data acquisition in highly constrained areas. It has a complete development and supervision environment.

The MicroARM-A13 is programmable using the free MicroLADDER software. For more than 20 years, this API has already proven itself in many industrial sites.





## ENERGY MEASURES

LoRa WAN



GC-NK006

### PULSE SENS'O 3 ENTRIES

IP68/55



Objenious

orange

Activity

#### KEY FEATURES

- 3 configurables input
- Up to 12 years of autonomy
- Outdoor housing IP55/IP68
- Available in ATEX (GC-NK033)
- Remote reading of metering data from water, gas, electricity or energy meters.

Transforms existing meters into connected meters : its readings are sent via a LoRaWAN™ network, public or private.

Three meters can be simultaneously supported by the PULSE SENS'O, allowing a significant reduction in implementation and deployment costs.



GC-NK007

### FLASH'O REMOTE PROBE

NFC

IP55

Objenious

orange

Activity

#### KEY FEATURES

- NFC configuration
- On / Off Magnetic switch
- Radio frequency metering and remote reading
- 12 years battery life (data compression mode)
- Infrared optical sensor
- IP55 protection

Count and remotely read the light pulses of any electronic meter: water, gas, electricity, energy.

It is a simple and economical solution transforming any electronic meter emitting light pulses into a connected meter, communicating on a LoRaWAN™ network, public or private.



GC-NK004

### IN'O STATUS REPORT

IP55

Objenious

orange

Activity

#### KEY FEATURES

- Supervision and remote control of industrial equipment
- 10 pulse inputs
- 4 opto-isolated outputs
- Remote external antenna
- Up to 10 years battery life

Transforms any type of digital sensor and actuator (On/Off) into a LoRaWAN™ Class A\* or C compatible sensor.

It allows remote supervision, remote monitoring and remote control of industrial equipment (valves, pumps, motors, generators, etc.) by transmitting the status of its inputs/outputs (10/4) to a management system.



GC-ADE002

### BINDER CONNECTOR

NFC

EX

IP68/67

Objenious

orange

Activity

#### KEY FEATURES

- Gas & steam : Zone 1 and Group C
- Dust : Zone 21
- Solution already wired to a Binder connector
- Self-powered
- Emission on alert or periodic
- Fraud and leak detection, flow monitoring

The Binder Connector is a ready-to-use product for pulse metering on gas meters for remote monitoring.

It consists of the Pulse Atex transmitter and a 6-pin female BINDER connector. Atex product : to be used in explosive atmosphere.



GC-PE6-ETH-LORA

### 6 THREE-PHASE OUTLETS (18 CLAMPS)

Modbus

4G-LTE

3G

Ethernet

#### KEY FEATURES

- Measures : 70 / 200 / 500 / 1000 / 2500A
- 1% or 0.5% degree of accuracy
- Data access : LoRa or Modbus TCP
- A LoRaWAN™ network, private or operated
- An Ethernet connection (requires a Gateway)
- 3G or 4G (with a Gateway and a 3G/4G router)

Facilitates electrical metering. Brings major innovations to energy metering equipment.

Up to six 3 phase circuits in a switchboard or 18 single phase circuits or any combination of both. Combinations of three-phase and single-phase feeders are possible.



GC-NK035

### SENSOR ONE 3 PHASE / 3 SINGLE PHASE

Objenious

orange

Activity

#### KEY FEATURES

- LoRaWAN™, Class C, 2U DIN rail
- External RF antenna that can be remote
- Active, reactive power 10mn
- Differential data compression
- Instantaneous power
- One 3 phase circuits or 3 single phase circuits.

The Triphas'O sensor allows remote reading via LoRaWAN™ network, of electrical energy consumption of a three-phase installation in a non-intrusive way.

It operates with medium and high power equipment and high energy consumption.



## COMBINED MEASURES



ERS-CO2

### 5-IN-1 SENSOR



#### KEY FEATURES

- T°, humidity, CO2, Luminosity / mouvement
- 4 environmental measurements
- Accuracy of  $\pm 0.5^\circ\text{C}$  and  $\pm 2\%$  RH
- Presence sensor
- Battery life up to 10 years
- Replaceable batteries (not included)

Equipped with NFC (Near Field Communication) technology, it is easily configurable via an Android phone or tablet.

The dedicated mobile app (Sensor Settings) allows you to activate and change the sampling rate, data rate, encryption keys, trigger thresholds, and more.



GC-ELI001

### AURA CO2 SENSOR



#### KEY FEATURES

- Pressure & humidity monitoring
- LoRaWAN™ & BLE communication
- Real-time CO2, temperature
- Auto-calibrated
- IOS/Android application
- Battery operated (5-year autonomy)

The CO2 Aura is self-calibrating, certified drift-free, and can be used for over 15 years without any recalibration.

Thanks to its integrated display, each value can be displayed and monitored in real time. When the alarm is triggered, it can be disabled using the button on the front panel.



GC-URS007

### TEMPERATURE AND HUMIDITY SENSOR



#### KEY FEATURES

- IP67 Waterproof
- NFC for Configuring
- 0% to 100% RH
- $-30^\circ\text{C}$  to  $70^\circ\text{C}$
- 5/10 Years Battery Life
- LoRaWAN™ Wireless

Adopts Sensirion industrial-grade digital temperature & humidity sensor, providing  $\pm 0.3^\circ\text{C}$  high accuracy of temperature and  $\pm 3\%$  RH of humidity.

Compatible with industry-standard LoRaWAN™ gateways with a range of up to 15 km in rural areas and 2 km in urban areas.



GC-URS009

### 3-IN-1 SENSOR : IP30/CO2 TEMP/HUMIDITY



#### KEY FEATURES

- Real-time data display / NFC configuration
- T° measurement :  $-20^\circ\text{C}$  to  $+70^\circ\text{C}$
- Relative humidity : 0% to 100% RH
- CO2 measurement range : 400 to 5000 ppm
- Battery life : AM103 : 3 years
- 2 replaceable batteries : 2700 mAh

The Milesight AM103 IoT sensor features three high-precision sensors for real-time indoor temperature, humidity and CO2 measurements.

The measured data is transmitted over LoRaWAN™ and is simultaneously displayed on the screen in real time.



GC-URS030

### 9-IN-1 INDOOR ENVIRONMENT SENSOR



#### KEY FEATURES

- OTAA/ABP Class C mode
- Temperature and Humidity
- Mouvement detection / light measurement
- TVOC measurement
- Barometric pressure
- Supports batteries or DC power

The Milesight AM319 allows connected and complete monitoring of indoor air quality in any room or space :

Temperature, Humidity, CO2, VOC, PM2.5 and PM10, HCHO or O3, barometric pressure, plus two sensors: Presence and Brightness.



GC-NET015

### WEATHER STATION WIND / T° AND HUMIDITY



#### KEY FEATURES

- Wind speed and direction detection
- Temperature and humidity detection
- Compatible with LoRaWAN™ Class A
- Adopt SX1276 communication module
- Spread spectrum technology
- Activity/ThingPark, TTN, MyDevices/Cayenne

The GC-NET015 is equipped with wind speed sensor and wind direction sensor that communicate with the LoRa® module via RS-485.

The temperature and humidity sensor communicates with the LoRa® module via I2C.





## LEVELS / FILLING



## COUNTING / PRESENCE



GC-DF703

### IP68 ULTRASONIC LEVEL AND FILL SENSOR

IP68

#### KEY FEATURES

- Allows for remote level monitoring
- Filling level measurement (solid or liquid)
- Detection up to 4 meters
- Battery life up to 8 years
- Available in NB-IoT (and Sigfox) version
- GPS option available

Transmits a precise measurement of the level of filling of waste bins and allows real-time monitoring.

Its detection range of up to 4 metres also allows it to be used in sewers (to prevent overflows), or in car parks to detect the presence or absence of vehicles.



ACW-LVL

### LEVEL MEASUREMENT SENSOR

IP65

#### KEY FEATURES

- Measurement range : 20 cm to 5 m
- Accuracy : 1% of measurement
- 3+ years battery with 24 measurements/day
- Configuration via USB, downlink or mobile app
- Data redundancy and data logging modes
- Plug & Play

The ACW-LVL is designed for remote level monitoring of many types of containers, such as rubbish bins, agricultural silos and liquid tanks.

It facilitates wireless distance reporting with its powerful ultrasonic sensor measurements.



GC-XTE001

### PIR PRESENCE DETECTOR 360°

#### KEY FEATURES

- Operates without electricity or internet
- Fully autonomous : battery life up to 5 years
- False alarm protection / noise reduction
- Pulse count selectable for sensitivity
- Installation height : 2.4 - 3.6 m
- Detection zones (ø) : 8 - 10 - 12

Ceiling-mounted passive infrared IoT sensor (2.4 m to 3.6 m) with a 360-degree detection range of 12 m in diameter.

Ideal for indoor protection of commercial and industrial sites, its rigid spherical lens ensures reliable detection over its entire detection field.



GC-XTE006

### INFRARED PRESENCE DETECTOR 85°

#### KEY FEATURES

- LoRaWAN™ Class A
- Real-time detection notifications
- Temperature and battery level information
- OTAA configuration / AES128 data encryption
- Operates without electricity or internet
- Fully autonomous; battery life up to 5 years

PIR IoT sensor with a detection range of 12m x 12m.

Using its false alarm protection. It creates a large number of high density detection zones and able to differentiate a human from an animal (less than 40cm high), reducing the risk of false alarms.



ACW-DINDA

### ANALOGUE GATEWAY 4-20 MA | 0-10V

#### KEY FEATURES

- 1 analog input 4-20 mA | 0-10 V
- 2 ToR inputs : 30Vmax
- External power supply 10-30 Vdc
- Configuration via USB, downlink
- For Smart Building / Smart City / Smart Industry
- Input 4-20 mA or 0-10 V / 2 ToR inputs

The readings are transmitted regularly on the Sigfox or LoRaWAN™ networks and its configuration is configurable from the ATIM suite tools.

Compatible with the computer and mobile versions of the IoT web platform.



GC-IN011

### DOOR OPENING/CLOSING SENSOR WITH ACCELEROMETER

#### KEY FEATURES

- Opening count with "door always open" alarm
- Detection by accelerometer or dry contact
- Periodic or event-triggered transmissions
- Management of detections by time slots
- Time-stamped event logging (+3,000)
- More than 5 years of battery life

ACS-Switch detects the opening and closing of doors, windows, garage doors, vaults or even cold rooms.

The sensor can also be used in building management systems to provide security alerts or even to optimise actions such as maintenance. Batteries are replaceable.



# GEOLOCATION & TRACKING



ABW00001

## MICRO-TRACKER ALERT & BUZZER



### KEY FEATURES

- GPS, LP-GPS, LoRaWAN™, WiFi and Bluetooth LE
- Allows you to locate the carrier even indoors
- Sensors : temperature, motion and pressure
- 59×34×13mm / 21g

This 5-in-1 tracker combines several geolocation technologies to ensure accurate positioning and tracking. Allows it to operate for up to a year in standby mode on a single charge.



ABW00002

## 5-IN-1 TRACKER



### KEY FEATURES

- GPS, LP-GPS, LoRaWAN™, WiFi and Bluetooth LE
- Temperature sensor and accelerometer included
- Accelerometer (3-axis) / Pressure / Temperature
- Compact : 147×76×42 mm, 240 g

This industrial Abeeway tracker has no less than 5 technologies to ensure an accurate positioning and tracking. Uses low power energy consumption (over 5 years with one GPS position per hour).



ABW00006

## COMPACT TRACKER 5-IN-1



### KEY FEATURES

- GPS, LP-GPS, LoRaWAN™, WiFi, Sniffer and BLE
- Designed to withstand harsh environments
- Temperature sensor and accelerometer included
- Compact : 112 × 66 × 33 mm, 190 g

This Abeeway industrial tracker combines several network geolocation technologies (indoors and outdoors). Uses low power consumption energy ; over 5 years with one GPS position per hour, and up to 10 years.



ABW00007

## CONNECTED BADGE



### KEY FEATURES

- GPS, LP-GPS, LoRaWAN™, WiFi, Sniffer and BLE
- Multi-mode tracking: employees, workers...etc
- Up to 1 year and 3 months standby time
- Compact : 90 × 65 × 11mm, 80g

Portable multi-mode tracker in ID card format. with on-board sensors enabling accurate and continuous geolocation in outdoor and indoor environments.



GC-ISW004

## NB-IOT/LTE-M + GPS | SWIPTRACK-LTE



### KEY FEATURES

- Reacts to movement and identifies a new route
- Captures precise GPS position
- Periodically transmits on radio
- Waterproof, durable and compact

Allows geolocation to determine a position, a route, an estimated time of arrival. Useful for managing a fleet of geographically dispersed equipment. Battery life and is quick and easy to install (5 minutes).



GC-RF001

## GPS | RFT-TRACKER 7 V3



### KEY FEATURES

- Motion management (with accelerometer)
- Dimensions : 94 × 58 × 25 mm
- Temperature range: -20°C to +55°C
- Low Power => Battery up to 5 years

Equipped with an accelerometer, the compact RFT-Tracker 7 (v3) sensor allows the geolocation of all types of vehicles and objects by transmitting GPS positioning data to a network LoRaWAN™.



GC-RF002

## GPS | RFT-TRACKER 16 V3



### KEY FEATURES

- Very low power design
- Motion management (with accelerometer)
- Onboard battery: 17Ah
- Battery up to 10 years

Equipped with an accelerometer, the compact RFT-Tracker 16 (v3) enables geolocation of all types of vehicles and objects by transmitting GPS positioning data to a LoRaWAN™ network.



GC-RF003

## GPS/GPRS IP65 | ASSET LOGGER



### KEY FEATURES

- GPS/ GPRS / 2G with BT and MQTT / TLS 1.2
- Powered by the vehicle's +12V or +24V
- Internal accelerometer
- IP65 / 145 x 66 x 40 mm

Geolocates vehicles and measure their usage time, tracking of the vehicle fleet with hour meter index. Useful for tracking and monitoring of construction or agricultural machinery.





## ENERGY MEASURES



GC-OPT(XXX)

### INFRARED BARRIER PRECISION

IP65 Android iOS Obienious orange Activity

#### KEY FEATURES

- LoRaWAN™ Class A
- Available in 868 MHz and 915 MHz
- Real-time detection notifications
- Temperature and battery level information
- OTAA configuration / AES128 encryption
- Battery life up to 5 years

#### GC-OPT005

- Range : 30 M
- Channels : 4

#### GC-OPT006

- Range : 60 M
- Channel : 1

#### GC-OPT007

- Range : 100 M
- Channels : 4

#### Use case :

- Secure vineyards / Car parks
- Protected sites / public and private places
- Monitor agricultural sites / Secure sports facilities



GC-IN013

### ELECTRONIC SEAL

IP66 IK09 GPS NB-IoT LTE-M Bluetooth Obienious orange Activity

#### KEY FEATURES

- Exist in NB-IoT / LTE-M and ATEX version
- Classe A Tri-Bands : 868 / 915 & 433MHz
- Cellular connection with GPS
- Detection of cable cut and short circuit,
- Detection of housing tampering,
- Motion detection, identification and location.

Enables real-time securing, tracking and monitoring of all types of sensitive containers or accesses to be protected.

Enables near global indoor/outdoor connected monitoring. Whether securing a fixed location (electrical cabinet, sensitive room, etc.) or a container in transit.



GC-IN014

### INFRARED PRESENCE DETECTOR

IP44 IK07 Obienious orange Activity

#### KEY FEATURES

- LoRaWAN™ Class A
- Infrared detection (PIR)
- LED signalements
- Periodic or event-driven transmissions
- Configurable parameters according to use case
- Battery life up to 5 years (replaceable battery)

Monitoring of accesses and premises by infrared detection (PIR) for better optimisation of on-call duty and security automatisms.

Counting of passages and feedback of room/office occupancy rates for a better organisation



PPMS\_BOITIER

### 1-BUTTON RADIO BOX FOR PPMS

IP40 IK07 Obienious orange Activity

#### KEY FEATURES

- Duration of the general alarm : 6min30s
- Storage temperature : -20°C / + 70°C
- Operating RH : -95%
- Number of independent alarm zones : 4
- Range in free field : 400 m maximum
- Range in obstructed field : 100 m maximum

Regulatory device whose objective is to set up an internal organization to ensure the safety of all persons present in an establishment.

Used in the event of a major accident external to the establishment. Its battery can last 2 years in standby + 2h30 in alarm mode.



GC-SENSA(XXX)

### ULTRA-COMPACT MULTI-SENSOR

Obienious orange Activity

#### KEY FEATURES

- LoRaWAN™ up to 10 km
- Temperature and magnetic contact sensor
- Small, discreet and ultra thin (3mm)
- 10 year battery life, no maintenance required
- Adhesive backing for quick and easy mounting
- Compatible with the Sensative +Switch

#### GC-SENSA003

Temperature, humidity and LUX sensor.

#### GC-SENSA008

Temperature and water leakage sensor.

#### GC-SENSA005

Office occupation sensor.

#### GC-SENSA004

Opening/ Closing door, windows sensor.



GC-IN016

### STAND-ALONE SECURITY ALARM

IP66 IK08 Obienious orange Activity

#### KEY FEATURES

- Quick and easy installation
- Stand-alone alarm for secure access
- Alarm for remote LoRaWAN™ sensors
- Siren up to 100 dB with tone adjustment
- Door opening detection/counting
- Time-stamped event logging (+3,000)

The ACS-Switch-Buzz® is a connected object equipped with a smart sensor (tilt, motion, rotation) and a 3-level power alarm (configurable, up to 100dB).

A two-colour LED on the casing makes it easy to install the product and to know its status. Its battery can go up to 5 years.



# ENERGY MEASURES



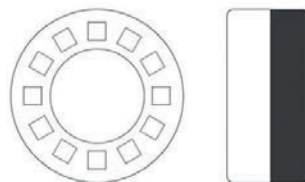
## PROGRAMMABLE CONNECTED LIGHT INDICATOR



GC-MD001/B

### KEY FEATURES

- Visual control of configured thresholds on your IoT sensors
- Works with WiFi and LoRaWAN™
- Compatible with all IoT sensors on the market
- 12 programmable RGB LEDs
- Simplified customization, numerous APIs available
- Dimensions : Ø 68mm x h 35 mm



When using the light indicator, the values transmitted by your LoRaWAN™ sensors become immediately with different visuals color (green : good / yellow : middle / red : bad).

The use cases are unlimited: whether it's air quality, min/max number of people, intrusion, or a free/occupied space system, the GC-MD001/B lights up, flashes, and changes colour according to the states transmitted by its associated sensor.

### TWO MODES OF USE

1. In WiFi via numerous APIs, notably interfaceable with home automation boxes
2. In LoRaWAN™ for a larger coverage area.

CUSTOMISE YOUR COLOURS AND ANIMATIONS ACCORDING TO THE VALUE TRANSMITTED BY YOUR SENSORS



GC-IN021

## STAND-ALONE INDICATOR LIGHT



### KEY FEATURES

- LoRaWAN™ Class A / Signaling for all uses
- Customizable LED flashing and colours
- Time-stamped event logging (+3000)
- Can be coupled with ACS-Report-Buzz
- Battery life up to 5 years
- Replaceable battery

This professional LoRaWAN™ light indicator can be used in various environment is adaptable to all signage needs.

The lighting, flashing of the LEDs and their colours (RGB) are fully configurable to suit all use cases. The colour and length of the tube (from 20cm to 1.5m) are customisable as an option.



GC-NK013



GC-NK012



GC-NETW'O



GC-SKI002

## MODBUS RS485 TO LORAWAN™ CONVERTER



### KEY FEATURES

- Allows data collection from ModBus devices
- LoRaWAN™ / Class A or C
- 10 years of battery life
- 10 different Modbus profiles

Manages a set of ModBus slaves connected on a wired bus (RTU mode) and has an interface allowing it to communicate with a remote server in LoRaWAN™, public or private.

## RECHARGEABLE / SELF-POWERED LORAWAN™ CTI

### KEY FEATURES

- 1 U DIN rail
- Energy self-sufficient
- Allows the transfer of remote customer information from electric/electronic meters of private individuals and industries

This autonomous ICT (Tele-Customer Information) sensor is dedicated to the reading of electric/electronic meters of private individuals and low-power industrialists. It decodes and analyses the ICT flow fields of the blue (CBE), yellow (CJE), green (ICE) and Linky meters.

## LORAWAN™ NETWORK TESTER

### KEY FEATURES

- Remote control from a smartphone
- RSSI, SNR, number of gateways, ...
- Recording on various networks at once
- Measurement report in json or csv format

With uplink and downlink LED status, it records and time-stamps all information related to the quality of the radio link. Can be controlled by a smartphone application and the measured data can be viewed on it.

## CONNECTED SURVEY SENSOR - 5 BUTTONS



### KEY FEATURES

- Customisable connected buttons
- Up to 7 years of battery life
- Signal for different events, capable of time-stamping interventions

Allows you to obtain opinions on the quality of an equipment or a service, to be alerted in case of equipment malfunction. Collect answers to all types of surveys by offering 5 possible choices of answers.



## TABLETS Wall Mounted, Rugged and semi-rugged

### HIGH-PERFORMANCE ANDROID TABLETS INTEGRATING ITSELF IN ALL SOBRIETY

Developed to fit **perfectly into its built-in case**, this tablet will find its place in a wall for **home automation applications**, or in a headrest for embedded applications.

The **POE (Power Over Ethernet)**, mean that you don't need a power cable at all, as power is supplied via the Ethernet cable.

### THE BEST OF ANDROID FOR YOUR APPLICATIONS

With a powerful **ANDROID version 6.0 and above**, offering an excellent user experience. Install your favorite applications on your tablet, browse the Internet with ease or view your favorite **multimedia content**.

The **GC-VEG** model is an android based automation console. It is designed to be embedded into wall for seamless touch experience. It allows a **one touch control** platform for buildings and apartments. GC-VEG offers **flexibility and diverse customization** to the IOT industry.




**WALL MOUNTED TABLET 7"**  
**DO-TABQ896S-7B**

- Android 6.0
- 7 inch tablet, built-in
- POE power supply
- 8-Core ARM Cortex A7 CPU, 1.2GHz
- 2GB RAM
- 8GB Nand Flash
- WiFi, Ethernet, Bluetooth
- Ethernet, USB, UART, Jack, HDMI, CVBS



**WALL MOUNTED TABLET 10"**  
**DO-TABQ8919-9**

- Android 6.0.1
- 10 inch tablet, built-in
- POE power supply
- 8-Core ARM Cortex A7 CPU, 1.2GHz
- 2GB RAM
- 8GB Nand Flash
- Connectivity: WiFi, Ethernet, Bluetooth
- USB 2.0, MicroUSB (OTG), DC Jack



**WALL MOUNTED TABLET 7" / 10.1" | GC-VEG Series**

- Android 7.1
- 7" / 10"(VEG073/VEG101) built-in
- POE power supply
- RK3128 Quad-core processor
- 1GB RAM
- 8GB eMMC (Upgradable to 128GB)
- WiFi, Ethernet, Bluetooth
- USB 2.0, MicroUSB, RJ45, Microphone



**IP65 SEMI RUGGED TABLET 8"**  
**T8100R (not wall mounted)**

- Android 10.0
- 7-inch Capacitive Touch Screen
- 4G-LTE / Wi-Fi / Bluetooth / NFC
- GPS / GNSS / Glonass / BeiDou
- DC Input / RS232 / RJ45 / 2x USB Port
- Rechargeable Battery
- 7500mAh battery, 6-8 hours endurance
- 5MP Front & 13MP Back Camera

## TABLET Wall Mounted



APC140F13



APC156F63



APC185F53



APC240F03



APC270F03



APC320F03



APC430F03



APC550F03



### WALL MOUNTED MODELS

Allow cables to be safely stored in the back and can be mounted on any **VESA compatible stand**.

### KEY FEATURES

- Screen Size : 14.0" / 15.6" / 17.3" / 18.5" / 21.5" / 24" / 27" / 32" / 43" / 55"
- Resolution : 1366 x 768 / 1920 x 1080
- 3 (or 2) x USB Host
- Capacitive Touch Screen
- 1 x Micro-USB OTG / 1 x RJ45 (PoE)
- Front Camera / 2GB RAM + 16GB Storage
- 1 x HDMI / 1 x Audio-out / 1 x Power-in
- Some Wall Mount models work with PoE
- VESA Mounting Interface

TABLETS PoE



APC156F23



APC080F82



APC101F23



APC101F33



APC101L13



APC101L33



APC101L43



APC133L33



APC133L43



APC101L53



APC156L43



APC156L63



POE MODELS

The **special feature** is the power supply via "PoE", which means you **only need one cable** for **power** and **data** supply.

KEY FEATURES

- Screen Size : 8.0" / 10.1" / 11.6" / 15.6"
- Wall mounted tablets
- Capacitive Touch Screen
- Front Camera
- 2GB RAM + 16GB Storage
- Resolution : 1280 x 800 / 1920 x 1080
- 2 x USB Host / 1 x Micro-USB OTG / 1 x USB RS232
- 1 x RJ45 (PoE) / 1 x HDMI / 1 x Audio-out / 1 x Power-in
- Optional NFC and 4G LTE connectivity
- More information on [giga-concept.fr](http://giga-concept.fr)

TABLET Led Bar



APC133L43



APC101L13



APC101L33



APC101L43



APC101L53



APC156L43



APC156L63



LED BAR MODELS

Add **colorful side-view LEDs** to make the perfect conference room sign or **attention grabbing digital installation.**

KEY FEATURES

- Screen Size : 10.1" / 13.3" / 15.6"
- Wall mounted tablets
- Capacitive Touch Screen
- Front Camera / 2GB RAM + 16GB Storage
- Some LED BAR models work with PoE
- Resolution : 1280 x 800 / 1920 x 1080
- 1 x USB 3.0 Host / 1 x Micro-USB OTG / 1 x USB RS232
- 1 x RJ45 (PoE) 1 x Audio-out / 1 x Power-in
- Optional NFC and 4G LTE connectivity
- More information on [giga-concept.fr](http://giga-concept.fr)





# VEHICLE DEVICES



## YOUR OWN SOFTWARE SOLUTION ON OUR NAVIGATION DEVICES

Personal navigation devices (PNDs) are **portable devices specifically designed to run road navigation applications.**

Like in-vehicle navigation systems, PNDs have the advantage of being more **affordable, portable, universal** and more easily upgradeable.

Our PNDs (personal navigation devices) running on Windows CE or Android, offer connectivities options improving the user experience.

**Bluetooth, GSM/GPRS/3G, USB, RS232, NFC** and more.  
We also offers support on your developments with our PND.

## PROFESSIONAL DEVICES FOR A LARGE RANGE OF VEHICLE TO MEET YOUR SPECIFIC NEEDS !

In order to meet the different needs of **modern mobile communication**, vehicles are loaded with various functional antennas.

**The Internet of vehicles (IoV)** is an important part of mobile communication system with the development of Internet of things.

**Real-time vehicle monitoring** and tracking, automatic vehicle location & fleet management, SMS messaging and mobile communication, internet connectivity and more...

## ACCESSORIES & CRADLES

For each activities, many accessories are available to extend your efficiency and productivity such as :

Simple Cradle, Active Cradle, Anti-theft Cradle, Suction Mount, Fixed Mount, Cigarette Charger, AC Home Charger, USB Cable, Headphones, and more !



## Driver Monitoring Systems | GM2U / GM2H

Real-time DMS with an HD image sensor and a driver safety alert vis LED and/or sound.

Sleep deprivation detection & alert.  
Works in dark environment (tunnels or at night) via infrared LED and tracks eyes beyond smoke, glasses or sunglasses.

Customizable alarm sound and voice announcement. GM2H has a multi-cable for power supply and can also receive GNSS.



## GPS/GLONASS 4G-LTE Cat-M1/NB-IoT vehicle location system | GC-ST4500

Solution for fleet management in need of monitoring location, speed, and other codes available on the OBD port of vehicles. Dedicated back office (Sentinel/Interceptor).

Easy and self-installation in the form of a plug and play. Provides the various accessible information (RPM, calculated load value, coolant temperature, fuel system status, vehicle speed, etc...)



## Anti-fuel theft 4G-LTE/3G | Fuel Alert

The Fuel Alert warns you in case of theft or abnormal fuel leakage thanks to its unique detection system, without false alarm.

Easily connected, with intelligent electronics and directly linked to the tank gauge (see diagram below).

The Fuel Alert monitors any anomaly that could be a siphoning or abnormal drop (leak).



## LoRaWAN™ connected Anti-theft device for vehicle | TRC-868

Anti-theft detection system operating on the LoRaWAN™ network detecting cabin intrusion, vehicle relief and power cut.

Ideal for all vehicles, especially trucks, tractors, construction equipment, etc. with valuable equipment or accessories. Dedicated back office (Sentinel/Interceptor).



## Wireless camera kit + 7" screen Night vision | GC-V76362-W

This wireless rear view camera and display package is suitable for all types of vehicles. It greatly increases the view around and behind the vehicle, especially with its wide angle format.

The possibility of adding an additional camera allows you to double the viewing angles in order to keep everything under control.



## Vehicle kit with 4 HD cameras + 7" colour monitor | GC-V774152-W

Pack with 4 cameras + HD colour screen is designed for all types of vehicles: trucks, lorries, construction equipment, etc.

It considerably increases the vision around and behind the vehicle, notably thanks to the wide angle format and its screen capable of displaying all 4 views at the same time.



## Compact IPX6 GPS/GNSS plotter with very low power consumption | GMT200



- GPS, GNSS, QZSS, Galileo, GLONASS, BeiDou,
- Small size for discreet installation,
- Wide operating voltage range,
- Multiple inputs/outputs,
- Zero power consumption when power is off,
- Water resistant, IPX6 compliant.

GPS/GNSS tracker specially designed for two-wheelers and other vehicles (motorboats, water scooters, etc.) requiring accurate tracking and geolocation without power consumption during immobilisation.



## PERSONAL NAVIGATION SYSTEM



OVERVIEW	PN7070	PN7090	PN7091	PN7043
Microprocessor	Quad-core 1.0 GHz Cortex-A7	Quad-core ARM Cortex-A7	Qualcomm Octa-core ARM Cortex-A53	Octa-core ARM Cortex-A53
RAM	1 GB DDR3 RAM	2 GB LPDDR3 RAM	2 GB LPDDR3 RAM	2 GB DDR4 RAM
ROM	8 GB eMMC Flash	16 GB eMMC Flash	16 GB eMMC Flash	32 GB eMMC
Android	Android 7.1.2 NougatOS	Android 7.1.2	Android 9.0	Android 9.0
LoRa (optional)	-	-	-	Embit EMB-LR1272 LoRa Module
WWAN	LTE 4G Optional	4G-LTE	4G-LTE	4G-LTE Cat-4, Cat-7 DL / Cat-13 UL
WLAN	IEEE 802.11 a/b/g/n	IEEE 802.11 a/b/g/n, 2.4/5 GHz dual-band	IEEE 802.11 a/b/g/n/ac, 2.4/5 GHz dual-band	IEEE 802.11 b/g/n, 2.4/5 GHz dual-band
BLUETOOTH	BT2.1+EDR/3.0/4.1LE Optional	Bluetooth 4.2 LE	Bluetooth 4.2 LE	Bluetooth 5.0
NFC (optional)	-	13.56 MHz (optional)	13.56 MHz (optional)	ISO / IEC
GPS/GNSS	SiRFstar V GNSS Receiver	GNSS (GPS / GLONASS)	GNSS (GPS / GLONASS)	GNSS Antenna Module
DISPLAY	7" TFT LCD 1024 x 600 pixels	7.0-inch TFT LCD panel 1280 x 800 pixels, 800 nits	7.0-inch TFT LCD panel 1280 x 800 pixels, 800 nits	7.0-inch TFT LCD panel 1024 x 600 pixels
Type	Capacitive touch panel	Capacitive touch panel	Capacitive touch panel	Capacitive touch panel
CAMERA (optional)				
Front	-	0.2M-pixel Front Camera	5.0M-pixel Front Camera	-
Rear	-	8.0M-pixel Back Camera with Auto-focus & Flashlight	16.0M-pixel Back Camera with Autofocus & Flashlight	16M-pixel Back Camera with Autofocus & Flashlight
Port	USB 2.0 host, SD Card, SIM Card, RS232, D-SUB Port	USB-C, SD Card, SIM Card, Jack, RS232, Speaker, Microphone	USB-C, SD Card, SIM Card, Jack, RS232, Speaker, Microphone	USB-C, SD Card, SIM Card, RS232, Speaker, Microphone
Battery	-	5000 mAh Battery	5000 mAh Battery	4300 mAh Battery
Cradle and Accessories	Mounting Pedestal 9V-36V DC Power Input Range	Mounting Pedestal DC 8-36V Power Input	Mounting Pedestal DC 8-36V Power Input	Mounting Pedestal, DC 9-36V Power Input via Active Cradle

## ANTENNAS FOR VEHICLES



GC-7110B

## IP69 outdoor TETRA IP67/IP69/IK09

Gain	± 2.5dBi
Connectors	N-Female
Dimensions	Ø 96 x 130 (mm)
Mounting	Screw Mount



GC-8407BGF

## GPS/GNSS TETRA/UHF IP67/IP69

Gain	2dBi / 27dB@5V
Connectors	SMA (M)
Dimensions	99 x 60 x 154
Mounting	Screw Mount



GC-8600BGF

## 3G/2G GPS/GNSS IP67/IP69

Gain	6.7dBi / 27dB@5V
Connectors	SMA (M)
Dimensions	98 x 60 x 46
Mounting	Pole



GC-4441RGP

## Iridium hemispherical outdoor IP67

Gain	4.1 dBi
Connectors	SMA (M)
Dimensions	161 x 76.5 x 16
Mounting	Adhesive



GC-8606BGF

## 3G/2G LPWA GPS/GNSS WiFi/BT IP69

Gain	5.1dBi / 27dB@5V
Connectors	RP-SMA (M) / SMA (M)
Dimensions	98 x 60 x 46
Mounting	Screw Mount



GC-4A50PCF

## 2x4G-LTE 3G/2G 2x2.4/5GHz WiFi/BT IoT LPWA GPS/GNSS IP69

Gain	4dBi / 28dB@2.7V
Connectors	SMA (M) / RP-SMA (M)
Dimensions	61.8 x 155.6 x 17.0
Mounting	Adhesive



GC-4841PGF

## 4G-LTE 3G/2G LPWA GPS/GNSS IP69

Gain	2.4dBi / 28dB@2.7V
Connectors	SMA (M)
Dimensions	83 x 35 x 13.3
Mounting	Adhesive



GC-7182BGF

## 4G-LTE 3G/2G WiFi TETRA/UHF GPS/GNSS IP67/IP69/IK09

Gain	5.6dBi / 28@2.7V
Connectors	SMA (M) / SMA-RP(M)
Dimensions	Ø 96 x H 130
Mounting	Screw Mount



## KEY FEATURES

- Active gain up to 10 dBi
- Compatible with all type of vehicle
- Compatible with a lot of technologies
- No compromise on performance
- Ultra Wide band Antenna

## UNLIMITED CUSTOMIZATION

- Custom manufacturing
- Multiple form factor
- Prototyping service
- EM simulations on demand
- Customizable cable and connector

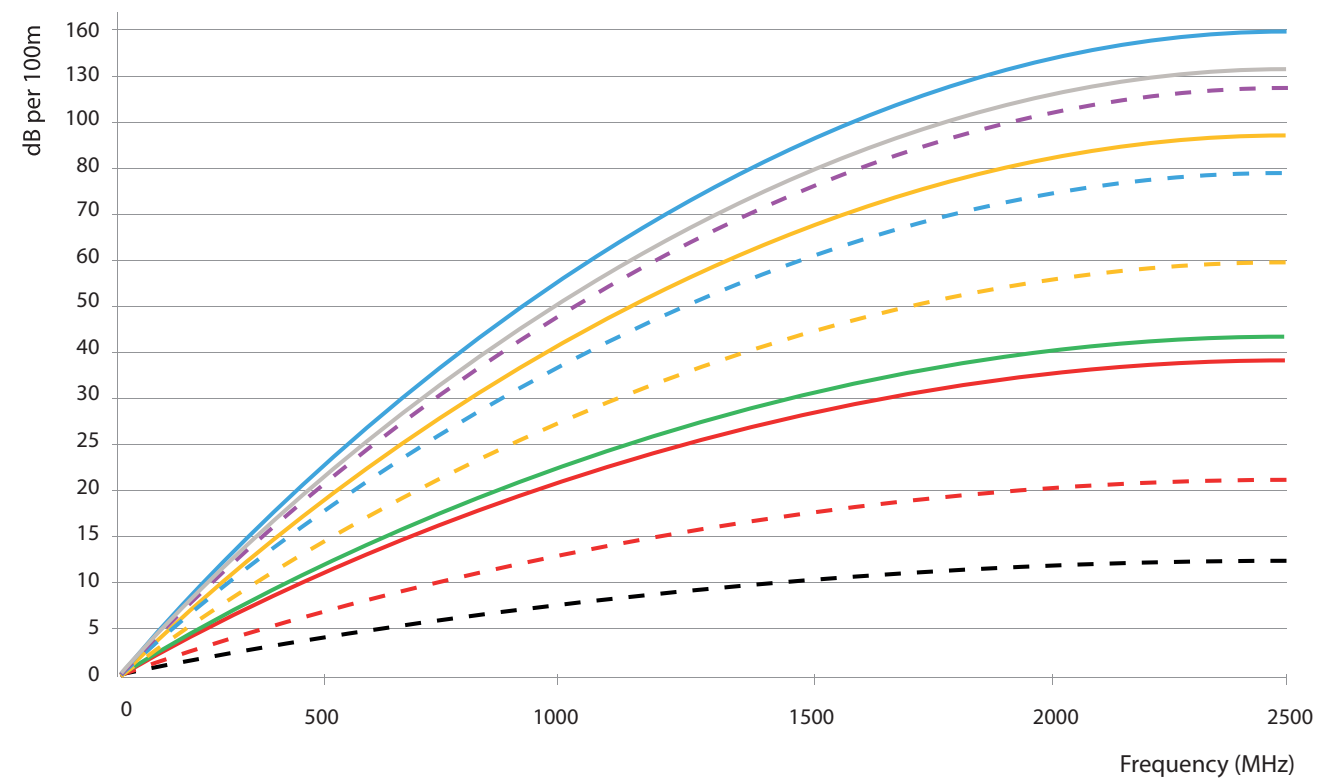
## SCREW, ADHESIVE, AND MORE :





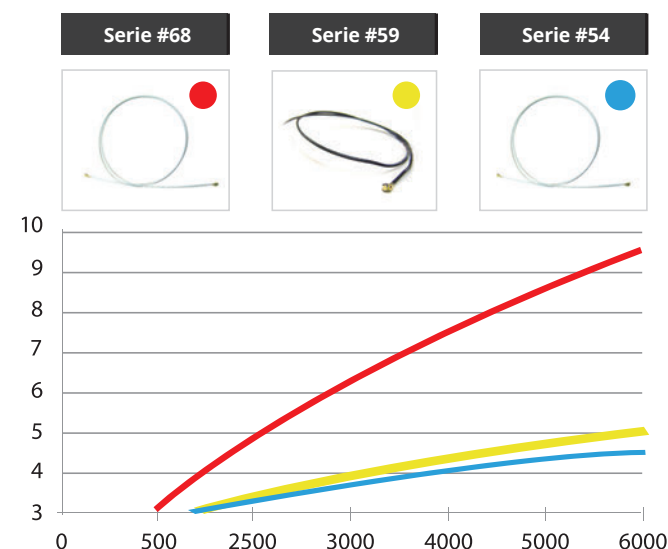
## COAXIAL CABLES

Cable Type	Min Bend Radius	Center conductor	Center conductor diameter (mm)	Dielectric	Overwall diameter (mm)	Shielding Effectiveness (dBmin)
Series S600 LOW LOSS	50	Solid BCCAI	4.47	Foam PE	14,9	-90
Series S400 LOW LOSS	50	Solid bare copper clad aluminium	2.74	Foam PE	10.3	-90
Series S214	50	Copper Silver	2.25	Solid PE	10.80	-80
Series S240	50	Solid BC	1.42	Foam PE	6,10	-90
Series S195 LOW LOSS	12.7	Solid bare copper	0.94	Solid PE	4.95	-90
Series S58	15	Copper single braid	0.90	Solid PE	4.95	-60
Series S174 LOW LOSS	20	Stranded E-Cu Xire, bare	0.81	Solid PE	3.20	-60
Series S174	20	Solid bare copper	0.48	Foam PE	2.80	-60
Series S100 LOW LOSS	50	Solid BCCS	0.46	Solid PE	2,80	-90
Series S316	15	Silver Plated copper	0.51	Solid PTFE	2.52	-60



## COAXIAL CABLES Miniature

	Serie #68	Serie #59	Serie #54
Center conductor	Silver Plated copper	Silver Plated copper	Silver Plated copper
Center conductor diameter (mm)	0.15	0.24	0.305
Dielectric	Solid PFA / 0.4	Solid FEP / 0.68	Solid FEP / 0.88
Overwall diameter (mm)	0.81	1.13	1,32
Capacitance (pF/m)	96	97	96
Voltage rating (Vrms Max.)	300	300	300
Insertion loss (dB/m)	@ 1GHz : 3.53	@ 1GHz : 2.06	@ 1GHz : 1.61
	@ 2.4GHz : 5.71	@ 2.4GHz : 3.27	@ 2.4 GHz : 2.58
	@ 5GHz : 8.53	@ 5GHz : 4.87	@ 5 GHz : 4.1



## OUR CABLE WORKSHOP

## Cable customization



Cutting machine ✓



Stripping ✓



Crimp ✓



Touret/crown ✓



Coaxial cable strip



Coaxial cable processing



Confortable cable processing



Multilayer stripping



Two-layer stripping



Discrete wire stripping



Full stripping

# COAXIAL CONNECTORS

## A WIDE RANGE OF HIGH QUALITY COAXIAL CONNECTORS

### DESIGNED TO FIT ALL TYPES OF COAXIAL CABLES

SMA/RP-SMA, Type N, BNC/RP-BNC , TNC/RP-TNC, UFL (IPEX) FME, SMB, MC, MCx, MMCx/ RP-MMCx, Fakra, UHF, mini UHF, etc... Straight or angled, pre-wired or crimped. Cables and connectors are customizable on demand.



SMA CONNECTOR (code-01)	
Frequency	DC-18GHz
Impedance	50 Ohms
Insertion Loss	0.2 dB Max
VSWR	1.3:1 Max
Available Type	Female, Male, Straight, Right Angle, Bulkhead, Reverse polarity
Mouting	Crimp, solder, PCB, Flange mount



N CONNECTOR (code-05)	
Frequency	DC-11GHz
Impedance	50 Ohms
Insertion Loss	0.2 dB Max
VSWR	1.3:1 Max
Available Type	Female, Male, Straight, Right Angle, Bulkhead
Mouting	Crimp, Clamp, Panel Mount



FME CONNECTOR (code-12)	
Frequency	DC-2GHz
Impedance	50 Ohms
Insertion Loss	0.2 dB Max
VSWR	1.3:1 Max
Available Type	Female, Male, Straight, Bulkhead
Mouting	Crimp, Bulkhead



MCX/MMCX CONNECTOR (code-03 / code-04)	
Frequency	DC-6GHz
Impedance	50 Ohms
VSWR	1.3:1 Max (Straight) 1.5:1 Max (Right Angle)
Available Type	Crimp, Solder, socket and PCB, Edge cart, SMT
Mouting	Crimp, Solder, socket and PCB



SMB CONNECTOR (code-02)	
Frequency	DC-4GHz
Impedance	50 Ohms
VSWR	1.3:1 Max (Straight) 1.5:1 Max (Right Angle)
Insertion Loss	0.4 dB ( Straight) 0.6 dB (Right Angle)
Available Type	Female, Male, Straight, Right Angle, Bulkhead
Mouting	Crimp, Solder, Bulkhead and PCB



MICRO CONNECTOR	
Frequency	Up to 6GHz
VSWR	1.3:1 Max
Withstanding V.	AC 300 Vrms
Compatibility	MCA: FSC (Murata) MCB : U.FL ( Hirose ) / MHF (I-PEX) MCB2 Low profile : U.FL (V) (Hirose) MCD : W.FL (Hirose) MCF : GSC (Murata) MCG : H.FL (Hirose)



FAKRA CONNECTOR (code-25 GPS / code-26 GSM)	
Frequency	DC-6GHz
Impedance	50 Ohms
Insertion Loss	0.2 dB Max
VSWR	1.3:1 Max
Available Type	Crimp, Solder, socket and PCB, Edge cart, SMT
Mouting	Crimp, Solder, socket and PCB



MCBG SOCKET	
Frequency	Up to 6GHz
Impedance	50 Ohms
VSWR	1.3:1 Max
Withstanding V.	AC 300 Vrms
Durability	50 Cycles
Mouting	SMT

# COAXIAL ADAPTORS

## DESIGNED TO FIT ALL TYPES OF COAXIAL CABLES

RF adapters are passive coaxial components used to **transfer signals from one type of connector to another**. For example, they are useful for connecting an SMA-type interface to an N-type interface, BNC to TNC, etc.

The geometry and gender of each type of connector can vary and be **customised to meet the needs of the installations and the equipment** to be connected between them : antennas, modems, routers, gateways, etc.

CONNECTOR		BNC		F		N		TNC		UHF		MINI UHF		FME		SMA	
		male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
BNC	male	V-7046	V-7047	V-7049	V-7050	V-7051	V-7052	V-7057	V-7058	V-7059	V-7060		V-7611	V-8113	V-8151	V-7819	V-7829
	female	V-7047	V-7061	V-7243	V-7066	V-7324	V-7068	V-7438	V-7073	V-7519	V-7074	V-7607		V-8115	V-8152	V-7820	V-7830
F	male	V-7049	V-7243	V-7234	V-7235	V-7237	V-7244	V-7240	V-7247	V-7241	V-7248						
	female	V-7050	V-7066	V-7235	V-7242	V-7325	V-7249	V-7439	V-7252	V-7520	V-7253	V-7608					
N	male	V-7051	V-7324	V-7237	V-7325	V-7321	V-7322	V-7327	V-7328	V-7329	V-7330		V-7612	V-8118		V-7823	V-7833
	female	V-7052	V-7068	V-7244	V-7249	V-7322	V-7323	V-7440	V-7334	V-7521	V-7335					V-7824	V-7834
TNC	male	V-7057	V-7438	V-7240	V-7439	V-7327	V-7440	V-7430	V-7431	V-7437	V-7443		V-7613	V-8120	V-8157	V-7825	V-7835
	female	V-7058	V-7073	V-7247	V7252	V-7328	V-7334	V-7431	V-7433	V-7523		V-7609	V-7613F	V-8122	V-8158	V-7826	V-7836
UHF	male	V-7059	V-7519	V-7241	V-7520	V-7329	V-7521	V-7437	V-7523	V-7514	V-7516		V-7614	V-8123		V-7827	V-7837
	female	V-7060	V-7074	V-7248	V-7253	V-7330	V-7335	V-7443		V-7516	V-7515	V-7610				V-7828	V-7838
MINI UHF	male		V-7607		V-7608				V-7609		V-7610	V-7605	V-7615	V-8125	V-8161	V-7821	V-7831
	female	V-7611				V-7612		V-7613	V-7613F	V-7614		V-7615	V-7606	V-8128	V-8162	V-7822	V-7832
FME	male	V-8113	V-8115			V-8118		V-8120	V-8122	V-8123		V-8125	V-8128	V-8110		V-8129	V-8132
	female	V-8151	V-8152					V-8157	V-8158			V-8161	V-8162		V-8150	V-8163	V-8164
SMA	male	V-7819	V-7820	V-7847	V-7857	V-7823	V-7824	V-7825	V-7826	V-7827	V-7828	V-7821	V-7822	V-8129	V-8163	V-7816	
	female	V-7829	V-7830	V-7858		V-7833	V-7834	V-7835	V-7836	V-7837	V-7839	V-7831	V-7832	V-8132	V-8164		V-7817



Connector	
A	N-male
B	SMA-male



Connector	
A	SMA-female
B	UFL/HFL



Connector	
A	SMA-female
B	UFL/HFL



Connector	
A	FME-male panel
B	UFL/HFL



Connector	
A	FME-male panel
B	MMCX-male



Connector	
A	FME-male panel
B	MMCX-male



## PROFESSIONAL AND CUSTOMISED BATTERIES

GigaConcept offers **batteries dedicated to industrial wireless applications requiring a small footprint**, increased safety and excellent performance.

In order to meet the most demanding specifications, **we also offer the design and manufacture of customised batteries** (dimensions, power, etc.). Do not hesitate to contact us regarding any specific needs.

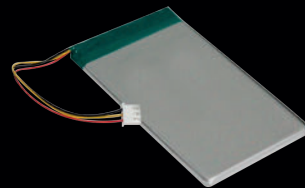


- 1300mAh rechargeable lithium-ion battery
- Nominal voltage: 3.70 V
- Charging voltage:  $4.20 \pm 0.05$  V
- Dimensions: 5.4 x 37.7 x 62 mm
- Weight: 25 g



## 9100 series lithium-ion battery - 2600mAh

- 2600mAh rechargeable lithium-ion battery
- Nominal voltage: 3.70 V
- Charging voltage:  $4.20 \pm 0.05$  V
- Dimensions: 5.4 x 38.5 x 62 mm
- Weight: 49 g

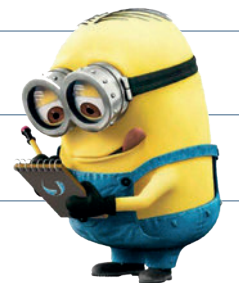


9100 series lithium-ion battery - 2600mAh

- 2600mAh rechargeable lithium-ion battery
- Nominal voltage: 3.70 V
- Charging voltage:  $4.20 \pm 0.05$  V
- Dimensions: 5.4 x 38.5 x 62 mm
- Weight: 49 g



TAKE YOUR TIME, TAKE SOME NOTES...





## Always stay one step ahead

GigaConcept offers you a **wide choice of products**, technologies and partners to meet your needs. We **study** your project, **accompany** you from the **beginning to the end** with the best **results and performances**.



## The world of RF dedicated to professionals

- **IoT sensors** (Measurement, Security, Levels, Tracking, ...)
- **IoT Gateways, Modems & Routers** (4G, LoRaWAN™, LTE Cat.M1, ...)
- **Repeaters / Signal amplifiers** (3G / 4G / 5G, GPS, LoRa, ...)
- **Wireless communication modules** (4G, Wifi, BT, GNSS, LoRa, ...)
- **Custom RF antennas** (GSM, Wifi, Bluetooth, GPS/GNSS, LoRa, ...)
- **Low-loss coaxial cables** (custom extensions and cords)
- **RF components and accessories** (connectors, adapters, splitters, ...)
- **Vehicle systems** (GPS communicating displays, road safety, ...)



## Research and Development

Since early **2003**, GigaConcept has chosen to increase its competences in research and development by creating **its own R&D department**.

In addition to sales, the R&D department offers **assistance, advice, development and design** of products or solutions that meet the **customer's needs**.

Every products we develop are **fully tested** and receive a validation from our R&D team. In direct contact with companies like SNCF, RATP, Renault, etc.

GigaConcept also **writes the technical and implementation documents**.

## Web, android & iOS custom softwares

GigaConcept goes as far as **developing web interfaces and applications** for its products & custom ers. These allow to display, retrieve data and manage everything in a simple & efficient way.



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## MORE PRODUCTS ON OUR WEBSITE



Find our selection of the best modems, routers, gateways, aggregators, signal amplifiers, antennas, PN...and all the IoT needed to bring you every single solution to your project.

## EASY ACCESS EVERYWHERE



Navigate easily and rapidly through our website to find your needs in just a click, whether you are on your computer, mobile or tablet.

## YOUR SATISFACTION OUR GOAL



Any questions ? No problem. Our customer service is always available to answer your questions in the direct, quickest and most efficient way.







## CONTACT US



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