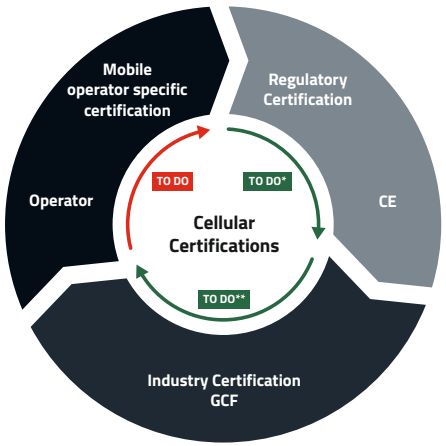
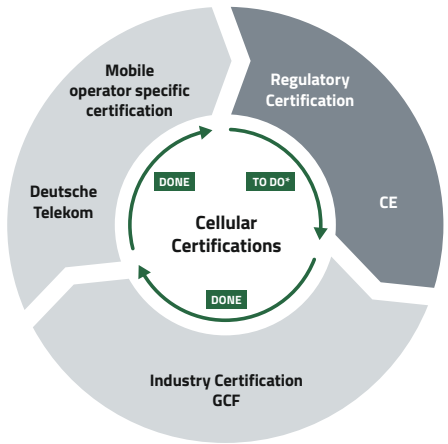
# ADRASTEA-I

## CELLULAR CERTIFICATIONS

Normal Cellular Certification Procedure

WE + T Certification

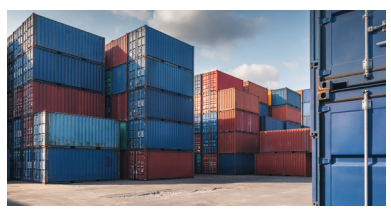



* To do on device level, Adrastea-I offers CE declaration
** To do on device level, Adrastea-I offers GCF certification

## CREATING IDEAS – APPLICATIONS EXAMPLES

LIVESTOCK MONITORING



CONTAINER TRACKING

TIME SYNCHRONIZATION

PEDESTRIANS AND TRAFFIC SAFETY

Get inspired by more application ideas:
www.we-online.com/wcs-creating-ideas

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WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

# YOUR KEY TO CELLULAR TECHNOLOGY.

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**Adrastea-I is a Cellular Module with High Performance, Ultra-Low Power Consumption, Multi-Band LTE-M and NB-IoT Module.**

Despite its compact size, the module has integrated GNSS, integrated ARM Cortex M4 and 1MB Flash reserved for user application development. The module is based on the high-performance Sony Altair ALT1250 chipset.

The Adrastea-I module, certified by Deutsche Telekom, enables rapid integration into end products without additional industry-specific certification (GCF) or operator approval. Provided that a Deutsche Telekom IoT connectivity (SIM card) is used. For all other operators the module offers the industry-specific certification (GCF) already.

**www.we-online.com/gocellular**

- Small form factor
- Security & encryption
- Long range / worldwide coverage
- Multi-band support

# ADDED VALUES

**Full Service Products**
**Hardware + Firmware**

**APIs and Software**
**Development Kits**

**Free of Charge PC-Software**
**and Mobile Apps**

**Configurable User Settings**
**with our Firmware WE-ProWare**

-2 dBm
0 dBm
+4 dBm

**Evaluation Kits**
**and USB Radio Sticks**

**Technical Support –**
**Talk from Engineer to Engineer**

**Proven High Frequency PCB-Design &**
**Proven Antenna Characteristics**

**Certification and Conformity –**
**CE, FCC, IC & Telec**

**Long Term Availability**

**Knowledge Seminars, Webinars,**
**AppNotes & Manuals**

# KEY FEATURES

## SUPPORTED CELLULAR TECHNOLOGIES

**LTE-M** and **NB-IoT** are two new standards of Radio Access Technology designed for Low Power Wide Area Networks (LPWAN).

**Benefits of Dual Mode:**
Enable international multi-regional coverage (in some regions LTE-M is not available then module will select NB-IoT and vice versa).

**Difference between LTE-M vs NB-IoT:**

| | Firmware updates | Indoor coverage | Remote control devices | Suitability for moving devices | Possibility to grow with new use cases |
|---|---|---|---|---|---|
| LTE-M | ●●● | ●●● | ●●● | ●●● | ●●● |
| NB-IoT | ● | ●●● | ●● | ● | ● |

## INTEGRATED MCU (EXCLUSIVELY FOR USER APPLICATION'S FIRMWARE)

| ARM® Cortex® M4 | 1 MB Flash | 256 KB RAM |
|---|---|---|

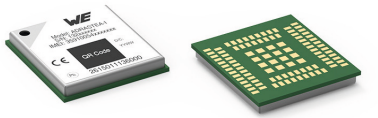
**Benefits of Integrated MCU:**
- ✓ Cost (external micro controller is not required)
- ✓ Size
- ✓ Power consumption

## EMBEDDED GNSS

| GPS | GLONASS |
|---|---|

**Supports GPS and GLONASS Satellite Systems.**
This allows GNSS positioning for asset management applications where infrequent position updates are required.

## SMALL FORM FACTOR



Compact 13.4 mm x14.6 mm x 1.85 mm design allows the module to fit in small-size applications.

## MULTI-BAND SUPPORT

Enables the support for international, multi-regional coverage:

- ✓ **LTE-Cat.M Supported Bands:**
  B2/B3/B4/B5/B8/B12/B20/B25/B26/B28
- ✓ **LTE-Cat.NB-IoT Supported Bands:**
  B3/B5/B8/B20/B28

Application Note about AWS Cloud Connectivity Using MQTT:
www.we-online.com/ANR032