# Cinterion® Support Package

## AP02

Pre-Approval RF measurements

#### **Motivation**

During the development, deployment and ramp-up phases of your project, you can be sure of our professional support – one of the most valuable and outstanding qualities of working with Telit Cinterion. The goal of our support is to increase product reliability, reduce the time to market and save you money. Based on our long-term experience we have developed the most suitable support packages and workshops for each project phase.

#### **Package Description**

The antenna is a key element in a wireless application. The performance of the antenna influences both the quality of transmission (network coverage) and the generation and radiation of unwanted spurious emissions (harmonics of the transmission).

The Pre-Approval test has the aim to check if the device fulfills the requirements for the RED, FCC, GCF and PTCRB approval. Also during the test our engineer will verify if the application does not interfere with any frequencies outside the GSM/ GPRS, WCDMA/HSPA, LTE, LTE-M and NB-IoT spectrum.

## **Customer Consulting**

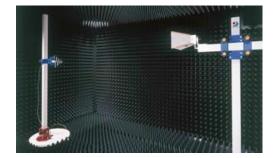
Design-In Consulting Schematics, Layout Review

Hardware Consulting Antenna, ESD, Spurious

Software / Application Consulting ATC, USB, MUX, RIL

Approval Consulting Protocol, Toolkit, SIM (SW, HW)

Production Consulting Production line, End of Line



## Package Offer

## **Package Content**

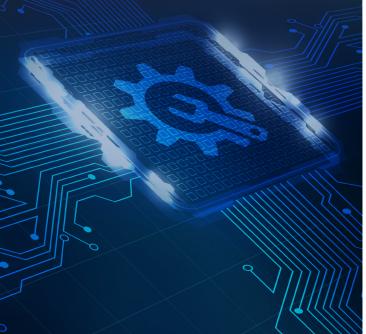
- Spurious emission test according to the RED EN55032
- Spurious emission test according to the FCC and PTCRB TS51.010
- Spurious emission test according to ETSI EN 301 908-1 & 3GPP TS
- Spurious emissions tests according to 3GPP TS 138 521-1
- 4 GSM bands in TX and idle mode, depending on module features
- More than 8 UMTS bands in TX and idle mode, depending on module features
- More than 19 LTE/ CAT-M/ NB-IoT/ 5G FR1 bands in TX and idle mode, depending on module features

## **Requirements/Pre-Conditions**

- All accessories which can be used together with the customer device is needed for EN 55022 measurements, e.g. charger, power supply, cradle, headset, data cable
- Each physical port must be wired
- I If battery driven application, 45min call must be possible with one battery charge
- Adjusted final antenna (harmonics depend strongly on matching of the antenna)

## Results/Outcome

- Test report with conclusions and recommendations
- Spurious emissions test report according to RED, FCC and PTCRB



## Conclusion – Next

Our experienced engineers will be glad to share their expertise with you, to improve the hardware and software design of your application. We offer further project attendant services which may be valuable for your project. Feel free to contact our representative for further information.



Estimated effort:

2 - 7 working days

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