### **High-end Autonomous Measurement Systems**

ACT

## The Autonomous.

Focus Infocom's ACT autonomous drive test systems provide 24/7 network monitoring all year round. The highly robust boxes are placed in taxis or trains and remote controlled from a single server. ACT boxes supports single, group or fleet operation, and deliver continuous and secure data collection and transfer, for any number and size of networks and all network technologies. Boxes equipped with the latest smartphones offer a highly autonomous and stable platform for smartphone-based measurement or benchmarking plus additional speech server functionality.



## **%** focusinfocom

Focus Infocom's ACT product family is designed for operation in extreme conditions: the boxes are shock and humidityresistant and operate at a wide temperature range.

Together with self-testing and self-configuration functionality, and a highly versatile power management, our ACT systems live up to their name: a truly reliable autonomous solution.

The ACT product famiy supports all major network technologies from 2G to 4G as well as GSM-R/LTE/R, and numerous web services from telephony over web browsing to Youtube video streaming. Additional service test options are available on request.





ACT [

#### **SAM for All**

ACT boxes come with SAM, Focus Infocom's innovative Smart App Manager that allows you to create service tests for almost any smartphone app (social networks, news, video players, messaging, VoIP etc.).

#### **All Major Networks**

ACT boxes support data and voice service tests of all major network technologies: 2G, 3G, 4G, GSM-R/LTE-R.

#### **Benchmarking? Yes!**

In addition to our autonomous standalone boxes, we also offer autonomous benchmarking solutions, which combine the power of our benchmarking tools with the added value that they need no human resources to control them.

#### **IoT Devices**

IoT testing is supported with dedicated modules using original NB-IoT building blocks for maximum end-user perspective. These modules can be combined with other mobile devices in multi-channel systems, or used in stand-alone autonomous IoT testing systems.

#### **Antennas: Up to you**

Do you prefer to use the internal smartphone antenna? Or would you rather attach the boxes to external antennas in a car or train? We got you covered.

#### **Investment Protection**

When you buy a Focus Infocom measurement product, you may rest assured that your investment is future-proof and your product can be upgraded to upcoming technologies like 5G, IoT, and beyond.

#### **Different Models**

ACT boxes are available in different designs and sizes for multiple use cases (in-car, in-train, rooftop, stationary etc.). Both PC-controlled and smartphone-only solutions are available.

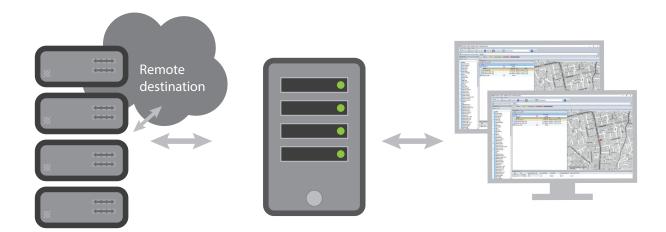
#### **Safe Data Transmission**

Advanced file compression and segmentation techniques and a secured transport layer guarantee high upload ratios and safe data transmission even in weak radio coverage conditions.

#### **Especially for You**

If you have requirements that are not covered by our standard set of autonomous boxes, we can build custom solutions according to your specifications, no matter if you need different designs or technical features.

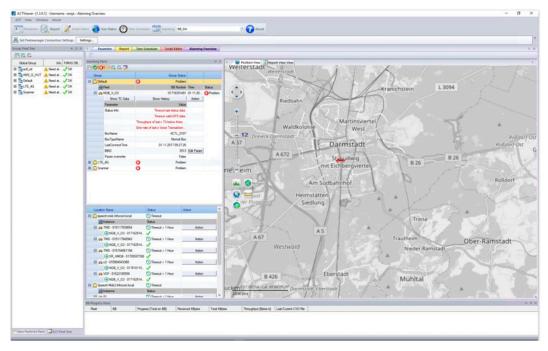
# ACT



ACT boxes flexibly equipped with scanning units, multiple UE /smartphones, or combinations thereof collect data autonomously all year round. The boxes send their data to a central server over an air interface.

On the server, the data is imported into an SQL-database which is accessible from either a central or a distributed Fleet Manager software.

The sophisticated "SAAS"-style FleetManager allows users to control multiple ACT fleets over the air, define measurement jobs, update boxes, schedule jobs, set alarms, and more.





The FleetManager is the central control unit for an unlimited number of ACT Fleets. The Alarming View shown here allows you to define rules. Based on these views an alarm is triggered when a box operates outside of the set rules.



## **Specifications**

Supported Technologies	ACT Standard/ ACT Standard w/ ext. Mobile GSM, GPRS, EDGE, UMTS, HSPA, HSPA+,	ACT Dual w/ ext. Mobile	ACT Compact/ ACT Rear Shelf	ACT Train	ACT LSP	ACT SPO
Supported Technologies						
	LTE™, LTE-A Carrier Aggregation/ w/ ext. Mobile: Wifi (HetNet)	GSM, GPRS, EDGE, UMTS, HSPA, HSPA+, LTE™, LTE-A Carrier Aggregation/ w/ ext. Mobile: Wifi (HetNet), NB-IOT	GSM, GPRS, EDGE, UMTS, HSPA, HSPA+, LTE™, LTE-A Carrier Aggregation, WiFi (HetNet)	GSM, GPRS, EDGE, UMTS, HSPA, HSPA+, LTE™, LTE-A Carrier Aggregation, WiFi	GSM, GPRS, EDGE, UMTS, HSPA, HSPA+, LTE™, LTE-A Carrier Aggregation, 5G, WiFi	GSM, GPRS, EDGE, UMTS, HSPA, HSPA+, LTE™, LTE-A Carrier Aggregation, 5G, WiFi
Input voltage range	11 – 30 V	11 - 30 V	11 – 14 V	11 – 30 V	11 – 30 V	n/a
Typical operating power consumption @ 12V	20W (Trace Phone), 48W (LTE modem/ smartphone) w/ ext. Mobile: 25W (2G/3G), 60W (LTE modem/smartphone)	25W (2G/3G), 60W (LTE modem/smart- phone)	< 48W	< 48W	20W	n/a
Maximum current (charging current with empty battery)	5A	5A	ACT Compact: 5A/ ACT Rear Shelf: n/a	n/a	n/a	n/a
Operating system base	Embedded Windows	Embedded Windows	Embedded Windows	Embedded Windows	Android	Android
Flash Disk (higher capacity on request)	min. 8 GB		min. 8 GB	min. 8 GB	n/a	n/a
GPS receiver	μ-blox 12-channel w/ ext. Mobile: also smartphone GPS		μ-blox 12-channel or smartphone GPS	μ-blox 12-channel or smartphone GPS	μ-blox 12-channel or smartphone GPS	internal GPS
Internal accumulator, typical buffering time at full oper- ation	45 minutes	30 minutes	ACT Compact: 45min. ACT Rear Shelf: n/a	n/a	n/a	n/a
Dimensions (mm), approx.	350*250*90 w/ ext. Mobile: 350*250*90 + 1 x 205*105*30	350*250*90 w/ ext. Mobile: 350*250*90 + 2 x 205*105*30	ACT Compact: 125*220*90 ACT Rear Shelf: 215*205*65	530*110*33	220*105*45	same as smartphone
Weight	5 kg/5,5 kg	6,4 kg/6,9 kg	1,6 kg/2,1 kg	2,5 kg	0,6 kg	same as smartphone
Operating temperature range (non-condensing)	–10 to +50° C	−10 to +50° C	-10 to + 60° C	-10 to +50° C	-10 to +50° C	same as smartphone
Extended environmental specs	Increased humidity	Increased humidity	Increased humidity	Increased humidity	Increased humidity	n/a
Available UE	Sony XZ, Sony XZ2, USM-modems, other devices on request/ w/ ext. Mobile: Sony XZ, Sony XZ 2, other smartphones on request	Sony XZ, Sony XZ2, USB-modems, other devices on request/ w/ ext. Mobile: Sony XZ, Sony XZ 2, IOT-NB devices	Sony XZ, Sony XZ2, other smartphones on request	Sony XZ, Sonjy XZ2, other devices on request	Samsung Note10+ 5G, Sony XZ, Sony XZ2, other devices on request	Samsung Note 10+ 5G, Sony XZ, Sony XZ2, other devices on request
Antennas/no.	External/2 w/ ext. Mobile: inter- nal SP antennas	External/2 or 4 w/ ext. Mobile: inter- nal SP antennas	Internal SP antennas	Optional External/4	Internal SP antennas	internal SP antennas
No. of SIMS in SIM card switcher	8 w/ ext. Mobile: 2	8 w/ ext. Mobile: 2 x 2	4	4	2	n/a
SW-controlled RF attenuator	On request w/ ext. Mobile: n/a	On request w/ ext. Mobile: n/a	n/a	n/a	n/a	n/a
In-train operation compliant	n/a	n/a	n/a	Yes	n/a	n/a
IDLE mode measurement	Yes					
Speech Telephony (MOC, MTC)	Yes					
Speech POLQA testing	Option					
FTP, HTTP (Web Browsing), Ping	Yes					
HTTP Download/Upload	Yes					
UDP, SMS, MMS	Option					
IP Trace	Yes					
YouTube* video streaming	Yes	Yes	Yes	Yes	Yes	Yes
Video Telephony (w/o MOS)	Option	Option	Option	Yes	Option	Option
SAM SmartAppManager	Option	Option	Option	Yes	Option	Option
Other service tests on request	Yes					
	Measurement Script including SIM Selection automatically switchable on a daily / hourly base. Mixed Testcases (Cellular, n/a					
Task Scheduler	Wifi) possible					

 $Specifications \ subject \ to \ change \ without \ notice.$ 



