

The logo for MTS Systemtechnik features the letters 'MTS' in a large, bold, blue sans-serif font. The letter 'M' is stylized with a diagonal cut on its left side. Below 'MTS', the word 'Systemtechnik' is written in a smaller, bold, black sans-serif font. The logo is positioned on a white background with a decorative pattern of thin, parallel grey lines on the left side.

MTS
Systemtechnik

// Competence Quality Reliability



Your partner company for
customised solutions -
"Development, Production &
Service" all from one source.

- // High-frequency technology
- // EMC technology
- // CNC milling technology



// *The Company*

Development and manufacture of customised products

Telecommunications industry

An important sector is the telecommunication industry for which we manufacture Shielding Boxes, Relay Switch Units, Standard Coupling Units and Air Interface Adapters (Air Interface Emulation). For the control of our devices and systems, we offer software solutions and integrate desired programm sequences.

High frequency and measurement technology

Our high frequency components include e.g. programmable attenuators, semiconductor switches, hybrid couplers, power dividers, RF filters, coaxial relays, etc.

For EMC measurement technology we sell relay switching units and other accessories.

CNC milling technology

We produce high-precision milled parts in our modern CNC production centres. From prototypes to series production, especially according to customer specifications. Our mechanical product range also includes standard aluminium enclosures such as profile enclosures, milling cassettes and 19" racks.

// The Company

The company history at a glance

Foundation of MTS Mikrotechnik
as a developing and producing
company in the field of EW

1980

1995

2005

2020

Relocation of the company
into a new company building
in Mertingen

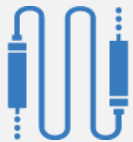
Change of the company name
MTS Mikrotechnik to
MTS Systemtechnik with
new shareholders

25 years of MTS Systemtechnik

// *Main products*



Systems for the distribution of LF, video and RF signals in the fields of tele- and satellite communication as well as radio surveillance.



Development and production of active and passive components for high-frequency technology



Manufacture of mechanical components for the aerospace, high-frequency and optical industries

// **Company facts**

Operating area
1800 m²
(can be enlarged
to 2800 m²)

Employees
50 employees in full
and part time, consisting
of engineers, technicians,
skilled workers and trainees

Training

- Electronics technician (m/f/d)
for devices and systems
- CNC cutting machine
operator (m/f/d)
- Industrial clerk (m/f/d)

// *Company facts*



DIN EN ISO 9001:2015 certified
(Development, production, distribution)

Modern measuring devices

Modern machines



// **Competences**

- // In-house development, simulation and production of high-frequency components and systems
- // Software and hardware laboratory
- // System integration
- // EMC absorber chamber
- // CAD services
- // CNC machining centre
- // Modern production processes
- // Quality standard DIN EN ISO 9001

// *Our markets*



Our customers are developers and manufacturers of highly sensitive equipment in the market sectors of mobile communications, telecommunications, aerospace, defence technology, medicine, automotive and electronics.

MTS Systemtechnik represents the highest technology, absolute reliability, discretion, transparent processes and certified quality.



MTS radio field
emulations for
military communication



Brings
reality
into your
test area

// Radio Field Emulation AIAD

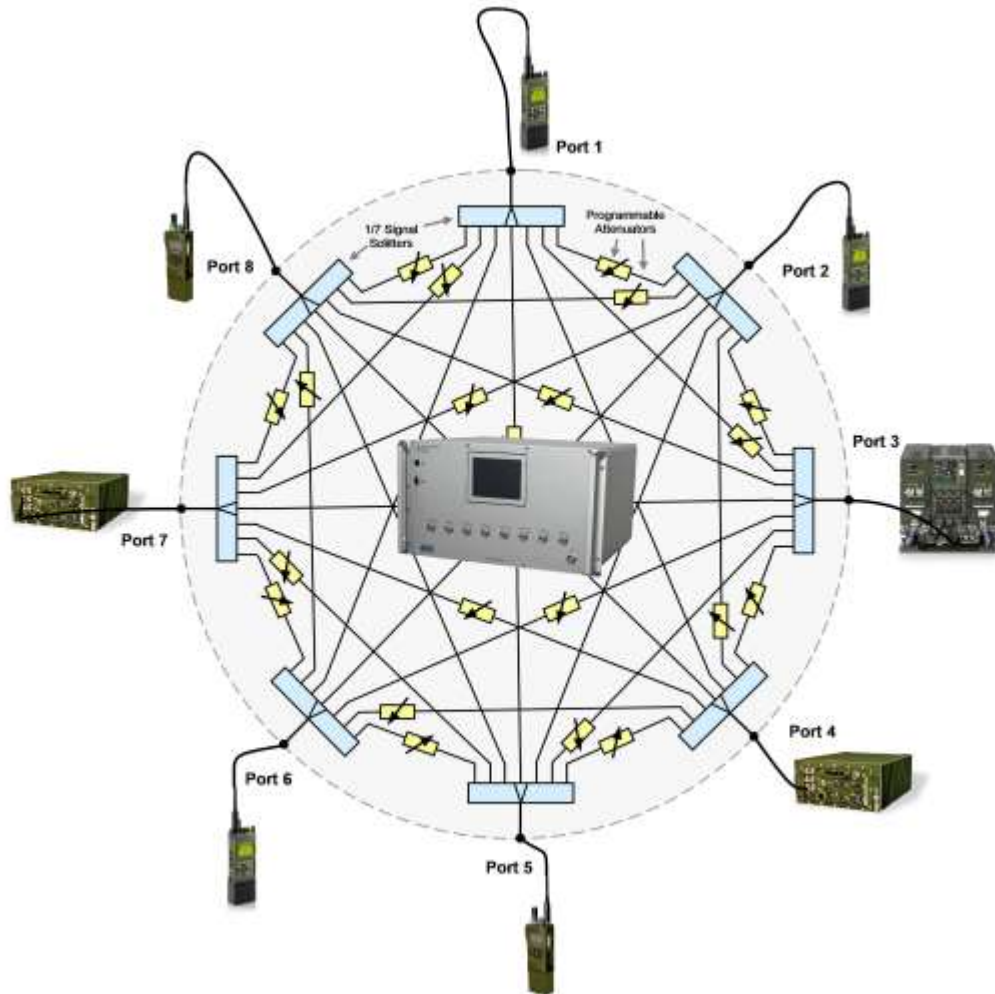


Development or integration of tactical communication systems

Current approach (Over-the-Air-Testing):

Basic development takes place in the company, functional tests and integration take place in the field. Use cases such as range test, cell change, interoperability, dynamic movement, aborts, etc. are simulated under different climatic conditions. Equipment, the test objects themselves and personnel have to be transported to different locations (test labs, military training area, different climatic zones, ...). This testing method is called OTA Testing (Over-The-Air) and is currently standard.

// Radio Field Emulation AIAD



Development or integration of tactical communication systems

Procedure with MTS AIAD series:

Any transmission situation, status or problem cases can be reproduced in the laboratory with the AIAD. This is possible because we do not operate the radio "over-the-air", but rather exclusively wired. All propagation possibilities and models are emulated in a network of cables, filters, splitters/combiners and attenuators, etc. – the AIAD. This brings reality into the laboratory or test area. For test objects, it really looks as if they are in a real radio environment.

// **Radio Field Emulation AIAD**

Development or integration of tactical communication systems

- // Any application, situation and/or problem case can be simulated in the laboratory.
- // Scalable number of participants (ports) and configuration possible.
- // Field trials are reduced to a minimum.
- // Even wireless devices with extreme transmitting powers of 10 W and more can be connected directly to the AIAD+ solution.
- // It is easily possible to attenuate signal levels below to the UE's sensitivity threshold.
- // Independent reproducible results.
- // Extremely wide frequency range of 30 - 1000 MHz.
(other frequency ranges are available on request).

// Radio Field Emulation AIAD

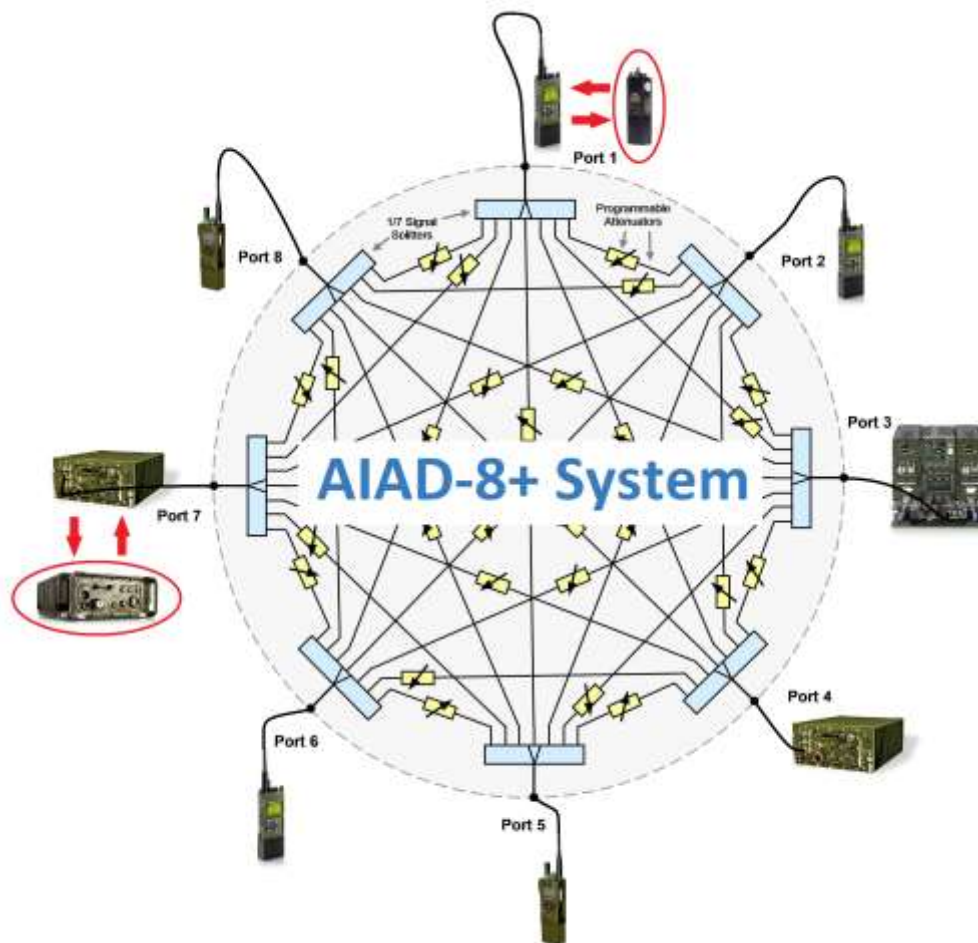


Replace obsolete systems or certify new ones

Current approach (Over-the-Air-Testing):

Functional tests take place on a demonstration unit, which is usually customized or covers only a small range of functions. Tests under real conditions with the already existing technology are usually not carried out or can only be realised at great expense in terms of personnel and material. Similar situation as development or integration.

// Radio Field Emulation AIAD



Replace obsolete systems or certify new ones

Procedure with MTS AIAD series:

Any situation, status or problem cases can be reproduced in the laboratory with the AIAD. The new systems will be connected via RF cable to the network. A quick exchange of different brands or types is very easy to handle. Also independent measurement of the specifications of the devices and systems.

// **Radio Field Emulation AIAD**

Replace obsolete systems or certify new ones

- // Any situation or known critical case can be easily reproduced.
- // Performance of the new systems can be fully tested under real conditions.
- // Independent test results.
- // Field trials are almost no longer necessary.
- // Shortening the validation process.
- // Immense reduction in time to launch.

// Radio Field Emulation AIAD

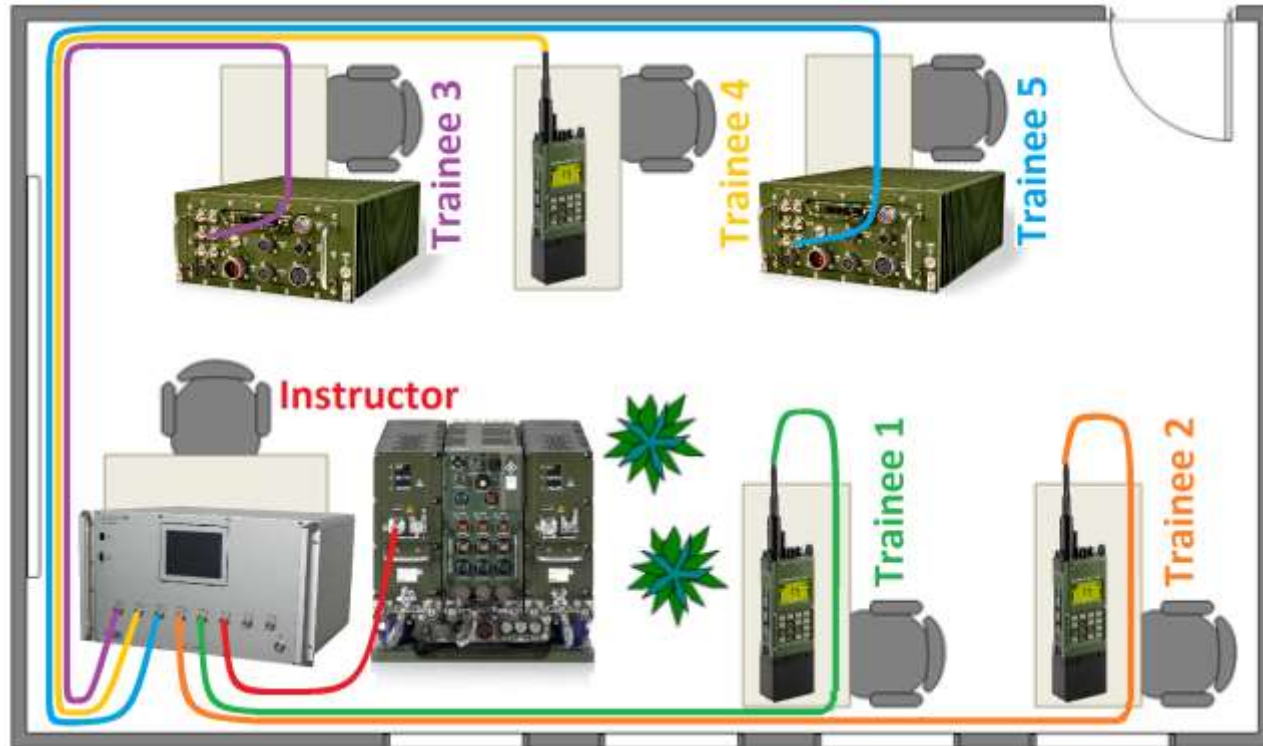


Education and training

Current approach:

Basic theoretical and practical content is traditionally taught in classrooms. However, skills are only consolidated and automated in the long term if they are permanently applied and repeated. Training rooms or even existing operational vehicles are only partially suitable for this purpose, as realistic applications and problems only occur under real conditions, i.e. in the field.

// Radio Field Emulation AIAD



Education and training

Procedure with MTS AIAD series:

With the AIAD, any situations, states or extreme cases can be reproduced in the training room. As already mentioned several times, the basic structure is the same as in the previous applications. All trainees are linked via the AIAD network and the instructor can dynamically create any possible constellation. In this way, knowledge levels and learning checks can be queried and combat simulations can be run... and all this without having to leave the building.

// **Radio Field Emulation AIAD**

Education and training

- // Any real situation can be easily reproduced by a instructor.
- // Training objectives are achieved in the shortest possible time, as they can be reproduced and repeated as often as required.
- // Fast and varied verification of learning success.
- // Field trials are almost no longer necessary.
- // Simple handling for the instructor.
- // Saves resources and time.
- // New scenarios or error causes can be added very easily.

// *Radio Field Emulation AIAD*

Summary

With AIAD type system solutions, any state of a radio environment can be generated dynamically. For the systems involved, it really looks as if they are actively moving through a given terrain formation or area. Likewise, the neighboring systems or interferers can be integrated.



We bring reality to your test area

// Accessory

- // RF components
- // Shielding boxes series MSB
- // Shielded racks series SRK
- // Installation service
- // RF cable assembly
- // Mechanics



Other configuration possible on request!

// Autonomous solution
for radio measurements,
monitoring, Jammer,
Drone Defence and
Wiretaps



// *Measuring vehicle*

The autonomous solution for mobile, measuring, monitoring and communication vehicles

H
I
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H
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I
G
H
T
S

Universal equipment carrier

5G

All types of radio measurements

Radio optimisation

Benchmarking

Troubleshooting / Debugging

IMSI Catcher

Optional radio direction finder

authorities and organisations with security tasks applications

Self-sufficient power supply, can be used almost anywhere

// **Measuring vehicle**

Further application possibilities:

- // Jammer Technology
- // Drone defence
- // Monitoring
- // Wiretaps



// Main customers





// Contact us

Gewerbepark Ost 8

86690 Mertingen

Germany

info@mts-systemtechnik.de

Tel.: +49 9078 91294-0

www.mts-systemtechnik.de