

POWERFUL & FLEXIBLE 5G mmWAVE NETWORKS FOR INDUSTRY-LEADING ENTERPRISES

Discover the new dimension of industrial connectivity with Microamp 5G mmWave.

Microamp Solutions is arming enterprises and network providers worldwide with flexible, scalable and mighty networks based on ground-breaking 5G mmWave technology. Easy to set up, scale and integrate.



THE NEW GENERATION OF 5G mmWAVE INDUSTRIAL NETWORKS

Microamp Solutions is building the new-generation wireless networks based on the ground-breaking 5G mmWave technology. Powerful, agile and steadfast - as networks of the future should be.



01

PERFECT FOR INDUSTRIAL NETWORKS

Fully suited for indoor and outdoor industrial use: from production halls and factories, energy plants, mining facilities, ports, and logistics centers to disaster connectivity, mass events broadcasting and powering smart cities.

02

CUTTING-EDGE CAPABILITIES

We give you the most powerful industrial 5G mmWave radio units available on the market. Superior speed, near-zero latency and extended range locked in one, compact device.

03

FLEXIBLE, SCALABLE & EASY TO SETUP

With plug & play approach, Microamp's network is deployed in a matter of hours. Enterprises get the full coverage when and where it's needed the most and can easily modify the setup when necessary.

04

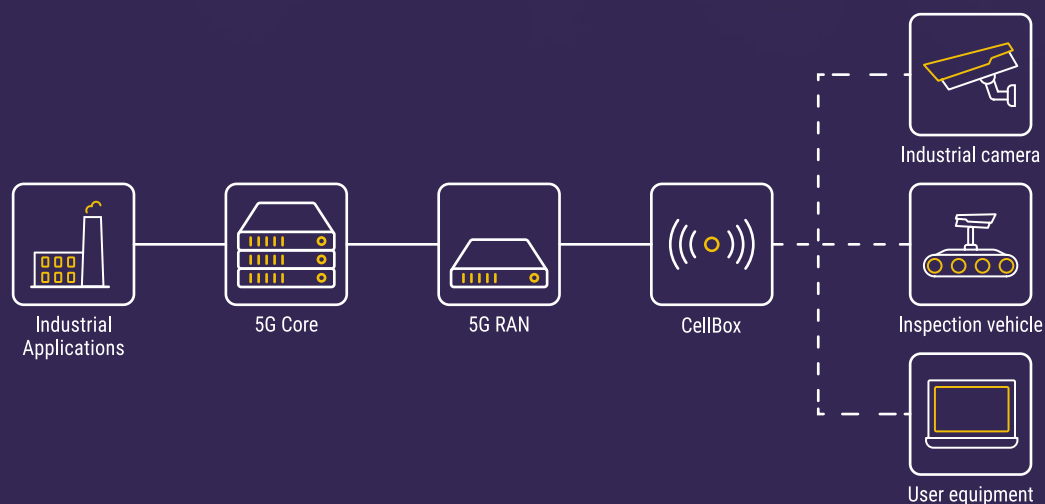
TECHNOLOGICAL DOOR TO INDUSTRY 4.0

Microamp's networks unlock the full potential of Industry 4.0 solutions: from industrial AR/VR and remote controlling to autonomous vehicles. Superior capabilities of mmWave broadband make even the most bandwidth-hungry implementations possible.

MICROAMP 5G mmWAVE ARCHITECTURE OVERVIEW

Microamp 5G mmWave consists of 5G Core, CellBox mmWave Radio Units providing wireless ultra-low latency gigabit connectivity, a selection of plug & play-end devices like 10K/IR cameras or VR/AR headsets and use-case optimized applications.

Microamp 5G mmWave supports cloud-based applications and can be fully autonomous (isolated from external networks) and is ready to be deployed in sensitive areas.



WHAT'S INSIDE?

Microamp's network comes as out-of-the-box solution, easy to set up and get running in no time.



PLANNING SOFTWARE

Effortlessly design your solution



SPECTRUM ACCESS

5G mmWave licencing support



CELLBOX mmWAVE RADIO

Indoor/outdoor cellular wireless coverage



5G MOBILE CORE

Ensure optimal performance and reliability



PRIVATE SIM CARDS

Secure & customizable connectivity



MANAGEMENT SOFTWARE

AI-based autonomous system for configuration and automation



USER INTERFACE

Intuitive and user-friendly interface



USER EQUIPMENT

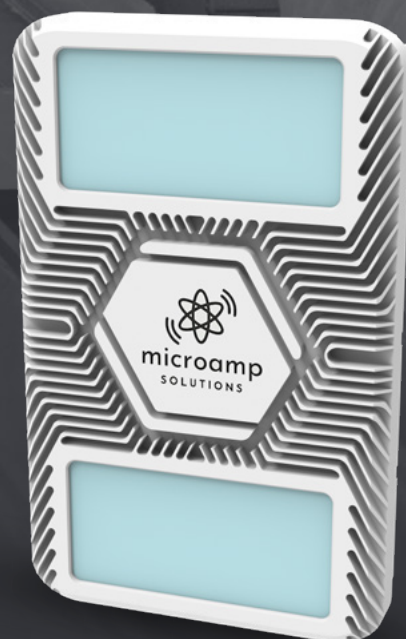
End-devices depending on your needs

CELLBOX AIR FROM MICROAMP SOLUTIONS

Set up the 5G mmWave industrial infrastructure with state-of-the-art connectivity tech born in the heart of Europe.

CellBox Air is a field-proven device that enables enhanced mobile broadband supporting up to 800 MHz channel bandwidth. The device interfaces with the Distributed Unit (DU) over O-RAN split 7.2x and consists of an integrated Massive MIMO antenna array to offer wide coverage up to 300 m per device, making it a perfect solution for indoor and outdoor industrial use.

CellBox Air meets the highest certification standards including ATEX enabling the most demanding deployments. Every unit is produced in the EU and covered with post-deployment service, customer support, and a warranty.





HIGH-CLASS PERFORMANCE

A powerful wireless solution of the highest capabilities possible: 10 Gbps throughput and latency below 5 ms.



SCALABILITY & INTEROPERABILITY

Seamlessly integrable with your existing network and fully scalable with Microamp 5G mmWave.



PLUG & PLAY AND COMPACTNESS

Compact and durable enclosure with an integrated antenna and plug & play approach allowing rapid deployment.



SUPERIOR RANGE AND POWER

Extended range is perfect for outdoor and indoor use and covering urban, rural or hard-accessible areas.

CELLBOX AIR TECHNICAL SPECIFICATION

PARAMETER	CONDITION
SPEED & PERFORMANCE	10+ Gbps
COVERAGE	300 m
LATENCY	<5 ms
DEPLOYMENT (INDOOR/OUTDOOR, SMALL/MACRO CELL)	OUTDOOR MACRO CELL
FREQUENCY BAND	n257 (26.5 – 29.5 GHz) n258 (24.25 – 27.5 GHz)
MODULATION SCHEME	64 QAM 256 QAM
BANDWIDTH	800 MHZ
DUPLEX (TDD/FDD)	TDD
POWER SUPPLY	-48VDC / 110-240VAC
SYNCHRONIZATION	IEEE 1588v2 (PTPv2) SyncE



SUPERIOR CONNECTIVITY FOR INDUSTRY-LEADING ENTERPRISES

From quick testing to tailor-executed implementations. We will lead you or your customers every step of the way, so the full potential of our technology can be unlocked.

IMPLEMENTATION ROADMAP

Have a specific implementation in mind? Microamp network consultants will put a deployment roadmap on a table, propose solutions and integrate the system with all the end-devices that you need.

TESTING AND SETUP SUPPORT

Tell us about your current network setup and get **Microamp 5G mmWave** Starter Kit delivered to you. Discover, how easy it is to set up and launch our Cellbox Radios and add devices to the network. We will lead you all the way.

DEPLOY AND INTEGRATE

With Microamp's out-of-the-box solution, launching 5G industrial networks is easier than ever and CellBox radio units are fully scalable over Microamp 5G mmWave.



INDUSTRIAL LIVE VIDEO ANALYTICS AND SURVEILLANCE

A classic setup for a production facility or a small industrial plant.

The main server is located on the premises, with the CellBox Light radios plugged in inside of indoor facilities. A broad selection of wireless industrial CCTV equipment is installed, including infrared (IR), 10K, and 360 cameras.

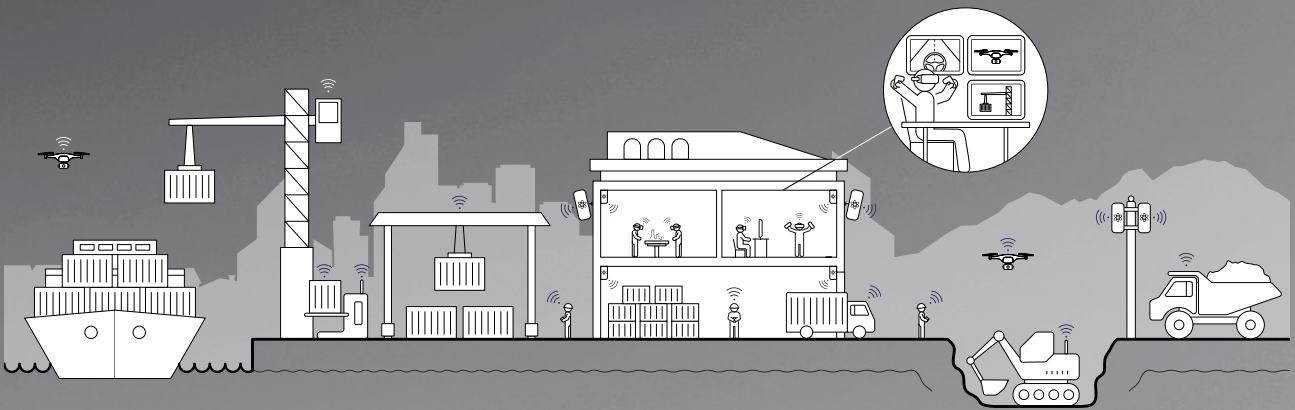
On the external grounds, the network is distributed by CellBox Air devices allowing next generation Live Video Analytics and surveillance of the grounds with the use of autonomous drones or vehicles for advanced preventive maintenance and field-fault diagnosis including micro or macro cracks and real-time inspection.

CellBox Air radios located on the premises can also power all the offices with broadband internet and intranet connection.



INDUSTRIAL VR/AR & REAL-TIME ASSISTANCE

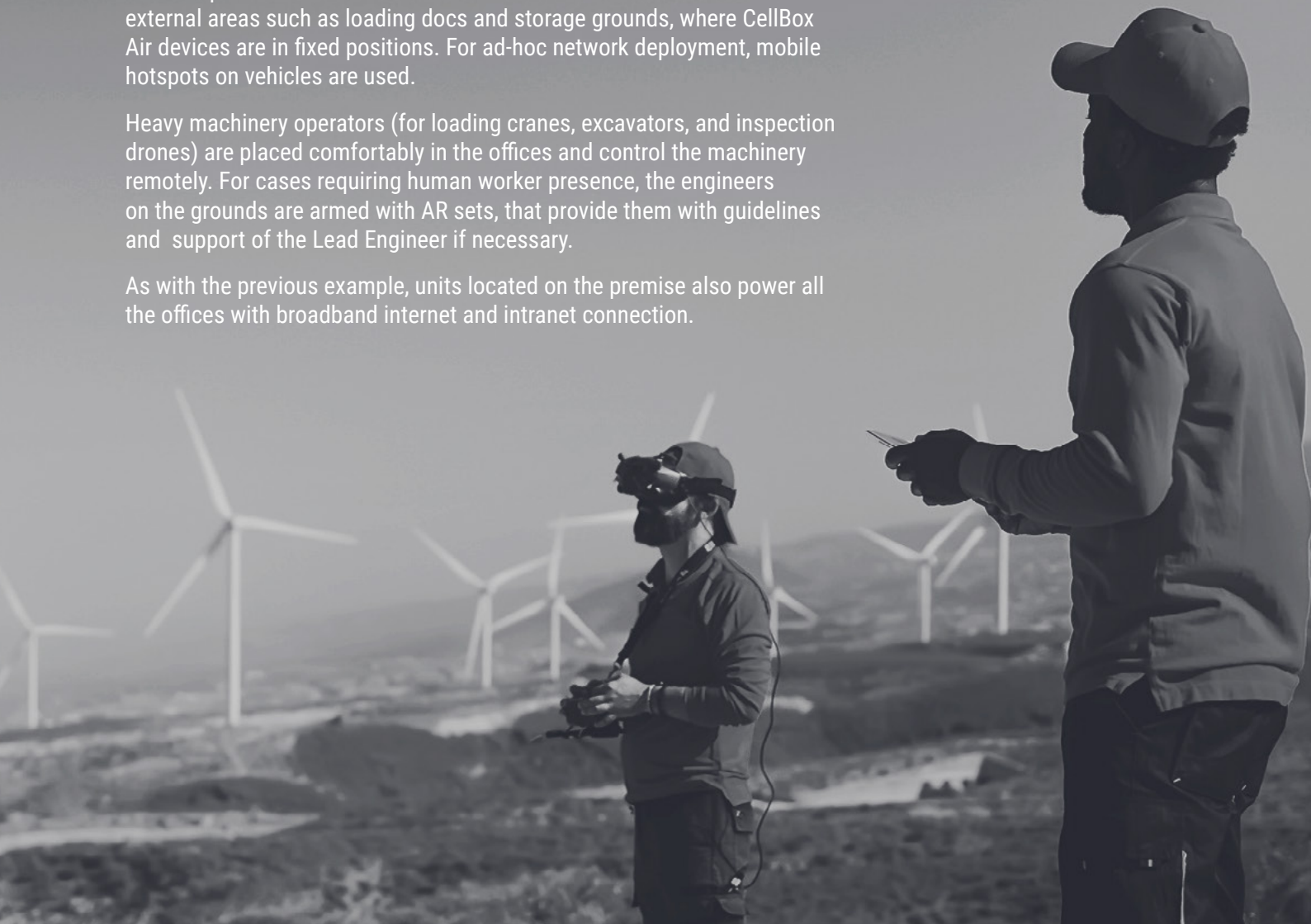
In this scenario, Microamp 5G mmWave fully enables Industry 4.0 capabilities.



Microamp 5G mmWave covers all the interior facilities and the most crucial external areas such as loading docs and storage grounds, where CellBox Air devices are in fixed positions. For ad-hoc network deployment, mobile hotspots on vehicles are used.

Heavy machinery operators (for loading cranes, excavators, and inspection drones) are placed comfortably in the offices and control the machinery remotely. For cases requiring human worker presence, the engineers on the grounds are armed with AR sets, that provide them with guidelines and support of the Lead Engineer if necessary.

As with the previous example, units located on the premise also power all the offices with broadband internet and intranet connection.



BROADBAND HOTSPOTS FOR MASSIVE UPLINK/ DOWNLINK

An ad-hoc broadband access setup for emergency and disaster communication or military use.

The main server and CellBox Air radios are located on the vehicle (truck or car) and powered by the generator. For better coverage, a drone-signal amplifier is used. A cable-powered it can stay in-air indefinitely, expanding the network range.

Microamp 5G mmWave allows the control of surveillance drones and unmanned rescue vehicles from the safety of the car. Thanks to the Starlink connection a superfast, fiber-like internet is distributed to User Equipment devices on the grounds.



5G mmWAVE SPECTRUM – THE FUTURE OF INDUSTRIAL CONNECTIVITY

Millimeter wave (mmWave, also referred to as FR2) is 5G high-band spectrum that is found in the range of 24GHz to 40GHz and used for building ultra-fast and near-zero latency networks.

Quickly getting traction, mmWave is the answer to the demand for many enhanced mobile data services as well as new wireless broadband use cases such as remote object manipulation, industrial automation, virtual and augmented reality and next-generation connectivity for vehicles.

With the inherently limited range, mmWave stands out as a perfect choice for deploying private, stand-alone 5G industrial connectivity solutions.



HOW mmWAVE STACKS AGAINST POPULAR SPECTRUM BANDS?

	5G mmWAVE	SUB-6 5G	4G LTE	WI-FI
SPEED & PERFORMANCE	10+ Gbps	1 Gbps	300 Mbps	1.3 Gbps
COVERAGE (PER ONE RADIO UNIT)	300 m	4 km	8 km	10-40 m
LATENCY	5 ms	5-20 ms	10-50 ms	10-50 ms
ENERGY EFFICIENCY	VERY HIGH	HIGH	LOW	VERY LOW

DISCOVER THE FULL POWER OF 5G mmWAVE WITH MICROAMP SOLUTIONS

Setting up 5G mmWave industrial networks has never been easier. Experience that by yourself and build a test environment in your company.

01

TALK TO OUR SALES REP

Tell us about your idea, network requirements, your current setup, and end devices you would like to integrate.

02

SELECT YOUR STARTER KIT

Depending on your requirements, we will help you to select the Starter Kit perfect for your needs, composed of CellBox units, software, and (in most cases) the end-devices.

03

GET YOUR SET DELIVERED TO YOU

You will receive your Microamp 5G mmWave Starter Kit with the full instruction on how to install it. You can count on the help of a dedicated support assistance.





04

ENJOY YOUR SUPERFAST NETWORK

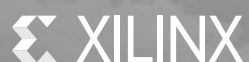
...and scale it. If you like our technology - it's time for further development. We will propose solutions, create the roadmap and manage the process.

[Start Now](#)

GET IN TOUCH WITH US.

-  microamp-solutions.com
-  hello@microamp-solutions.com
-  + 48 500 242 127
-  microamp-solutions

trusted by the top companies across industries



we are proud members of the following organisations



