



Making sure of a healthy environment

Narda EMF Monitors

Improving safety in electromagnetic fields





EMF: The invisible radiation that permeates our world

Rapid growth in complex infrastructures is taking place practically everywhere around the globe, primarily in wireless communication and power distribution networks. The result on the one hand is an increase in the equipment emitting electromagnetic radiation. On the other hand, it is more and more necessary for both national and international safety requirements to be met, particularly regarding the people who live and work in the vicinity of such equipment.

Regardless of compliance with statutory safety requirements and the use of every technical facility, this has resulted in the general public having a tangible awareness of the possible risks. This feeling often develops into resistance to the implementation of projects involving such equipment, frequently leading to delays in installation as well as lengthy and costly litigation.

Narda gives you confidence

Narda Safety Test Solutions is the global leader in the development and production of equipment for measuring electric, magnetic, and electromagnetic fields. Our competence derives from years of experience in gathering know how in high frequency and microwave technology, and from owning more than 95% of all published patents relating to the measurement of these fields. The result of all this is a range of high quality measurement solutions tailored to each application, fully backed up by our management system that covers all areas and implements the requirements of the ISO 9001/2008 and ISO/IEC 17025 standards.



At home, at work, or at play: No matter where you may be, you are surrounded by electric, magnetic or electromagnetic fields.

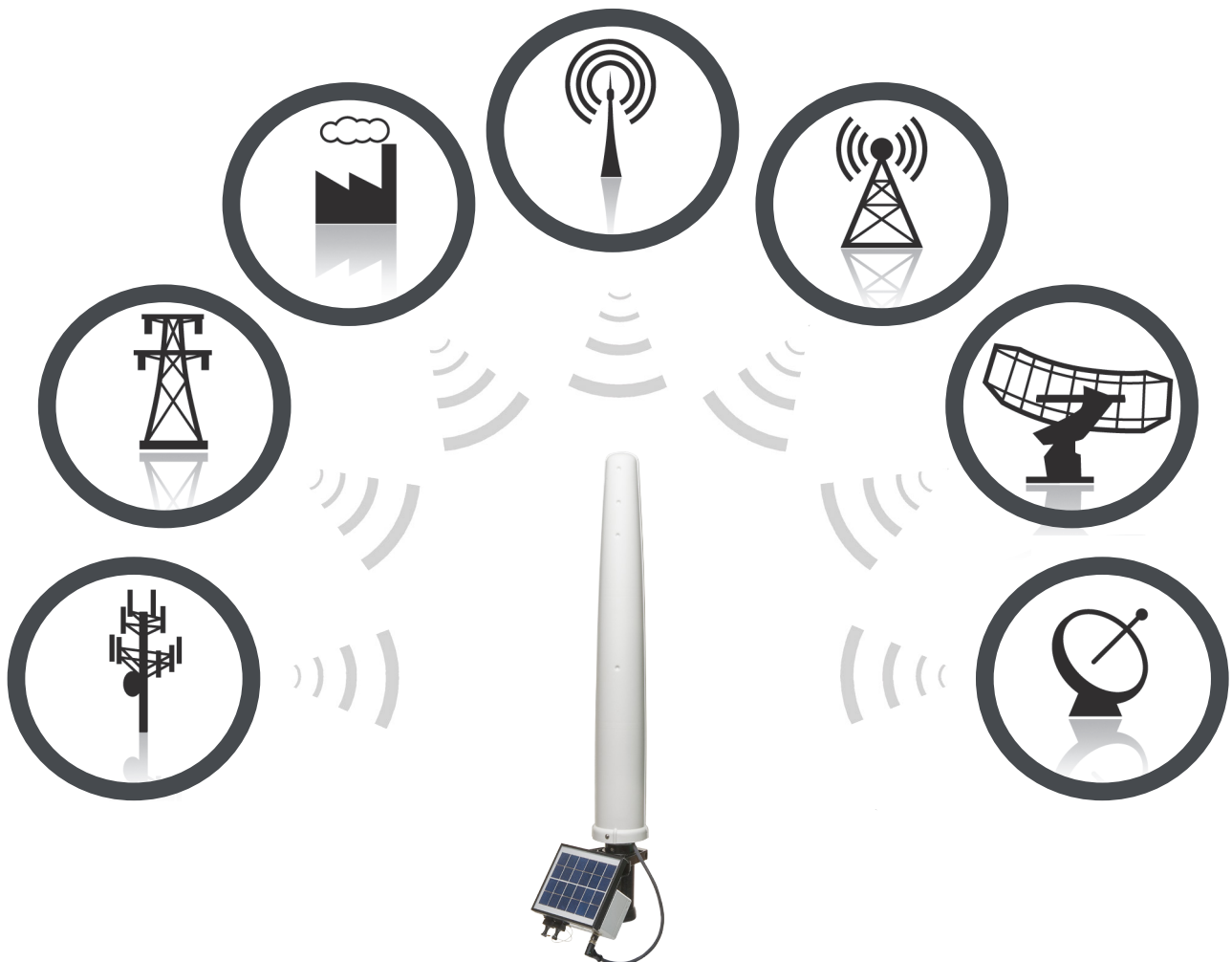
Guideline values and monitoring

Among other things, the authorities are charged with the institutional tasks of developing society and fostering growth in the economy. In all of this, though, the health and safety of the population must also be guaranteed. When putting up technical installations that radiate electromagnetic fields, the authorities can provide the public with precise and trustworthy measurement data right from the start. Comprehensive monitoring, evaluation and publication of the relevant data at an early stage in such cases demonstrate transparency and diligence to the general public, resulting in a feeling that the institutions involved can be trusted.

Particularly sensitive locations

These are where people live or normally visit, for example private homes, workplaces, schools, hospitals, public places and areas close to power lines and installations.

Narda EMF Monitors measure the EM field strengths directly on the spot and record the data permanently and securely. The measurement can be read out remotely at any time via the mobile network. Alarms can be sent to selected recipients if preset measurement limits are exceeded. In this way, Narda EMF Monitors achieve effective surveillance tailored to specific requirements from selective check.



Electric, magnetic and electromagnetic fields occur everywhere where voltages are present or current flows. So not only telecommunications, TV and radio signal transmitters but also industrial plant and medical equipment emit electromagnetic fields. This is sometimes the desired effect, as in telecommunications for transmitting information, and at other times it is an unwanted side effect – from high voltage cables, for example.



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An EMF monitoring system is made up from a series of EMF monitors installed wherever the EMF presence needs to be assessed continuously or by long term observation. The EMF monitors store the data and report them using conventional mobile data communications at set time intervals to a central unit, e.g. PC or data server. The system size can range from a single location up to countrywide coverage. Narda EMF Monitors combine all the features that are essential for this purpose: autonomy, outdoor usability, mobility, robustness and low operating costs.



Data transfer over mobile network

Station Information	
Serial No.	0200X501006
Type	Broadband
Station Status	Service
Temperature	24°C
Humidity	42%
Longitude and Latitude	23.780560, 38.010871
Address	Lefkorea Marousioudromon 95
Municipality	Filotheis - Pausiliou
Prefecture	Voreiou Tornea Athanon
Active since	26-01-2015 14:00:00
Last update	25-05-2015 10:00:00
Measurement files captured by handheld device	Click here

Electric Field Strength			
Frequency Bands (MHz)	Frequency Band Limit (V/m)*	Average Value (V/m)	Peak Value (V/m)
Broadband Zone	21.7	1.53	1.70
ECISMA-900	21.8	0.63	0.70
ECISMA-1900	45.1	0.45	0.58
UMTS	47.2	0.75	1.02



Narda EMF Monitors not only ensure effective and reliable monitoring of electromagnetic fields, they also allow fast and easy access to the results via the Internet.

Four valuable approaches to EMF measurements

- **Sensitive locations approach:** Effective and useful monitoring of schools, hospitals, residential and public areas, and workplaces.
- **Anxiety approach:** EMF Monitors are installed wherever people feel they are unsafe.
- **Hot spot approach:** Critical sites identified in previous measurement campaigns are monitored over a predefined time period.
- **New installations approach:** Reduction of the risk that new installations may have an undesirable or uncontrolled impact on the environment.

All-round talents for exact results

Narda EMF Monitors can do more than just record and store measurement values at a specific location. Different models can also recognize which frequency bands and services are responsible for a particular radiation.

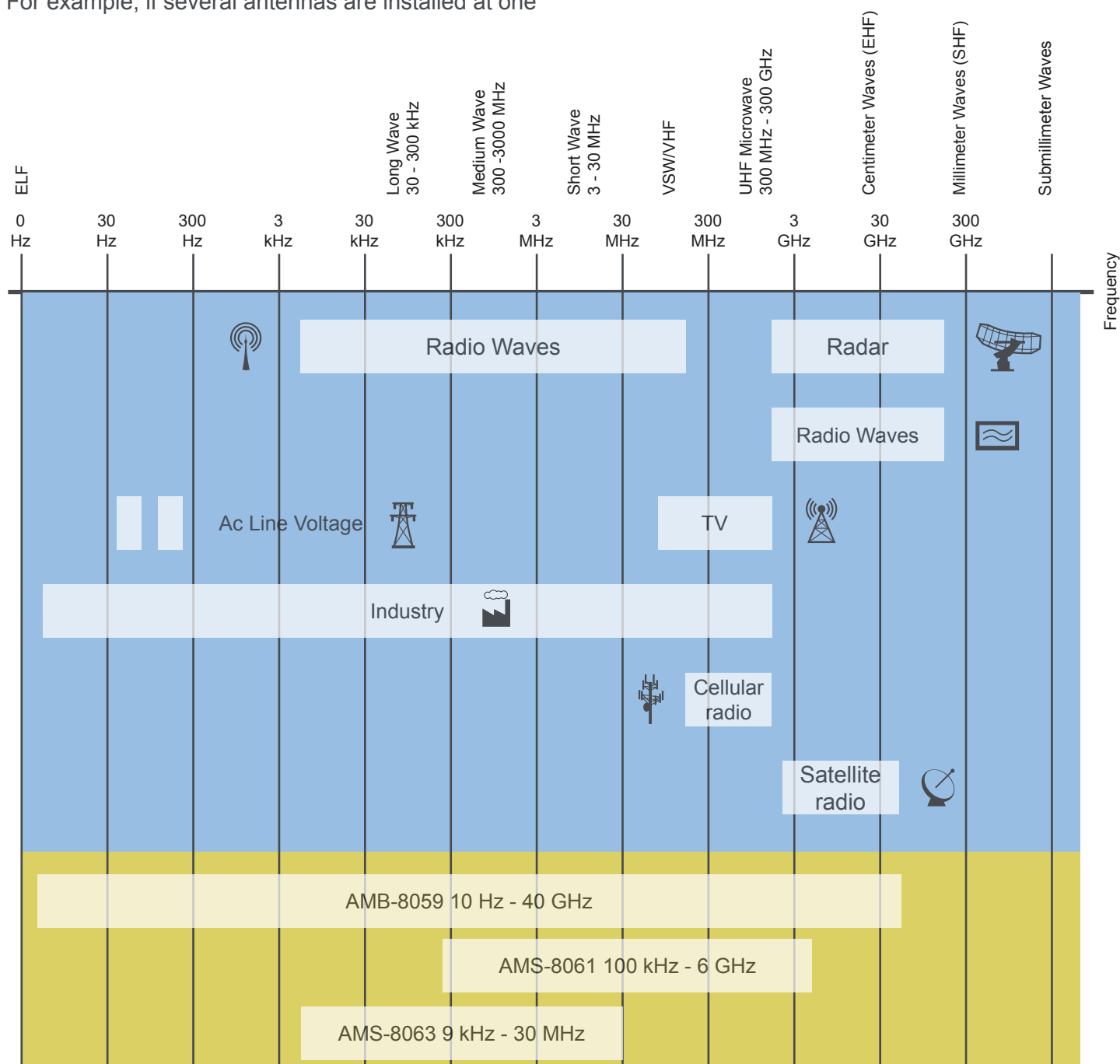
For example, if several antennas are installed at one

location, it is possible to distinguish between the various mobile services (GSM, UMTS, LTE) as well as between FM TV transmitters or short, medium and long wave broadcasters. It is therefore possible to determine for each individual EMF source whether the corresponding emission limit values are being adhered to, in addition to evaluating the effects on the environment.

Narda EMF Monitors provide companies, authorities, and mobile providers with powerful instruments for performing long term on-site evaluations for their clients.

EMF monitoring systems already realized

Narda has the longest and widest experience in EMF monitoring, with systems adopted by the authorities of several countries around the world. This exclusive record of applications include systems covering the territory of an entire country.



Complete program for all requirements

Narda EMF Monitors are equipped with exclusive, state-of-the-art sensors having high sensitivity, accuracy and reliability. Their robust, uncluttered construction is perfect for long-term outdoor installation. You can be certain to find the ideal solution for every area of application with Narda. And you can depend on its reliability, thanks to our decades of experience coupled with cutting edge technology and backed up by our own certified calibration laboratory.



AMB-8059: Minimum outlay, maximum result. Its broadband application is the optimum solution for combining tight budgets and technical superiority.

- Frequency range: 10 Hz - 40 GHz
- ITU-T K.83 compliant
- Simultaneous monitoring of electric and magnetic fields
- Quad-band probes for separating mobile networks as well as wideband measurements
- Solar panel provides independent power supply
- Tried and tested with more than 3500 stations in operation
- Built in modem for data transfer
- Dimensions: 112 mm max dia. x 780 mm length



AMS-8061: In-depth monitoring and analysis of critical sites. The combination of a tried and tested measurement method with a selective frequency range.

- Frequency range: 100 kHz - 6 GHz
- ITU-T K.83 compliant
- Built in spectrum analyzer for monitoring user defined frequency bands
- Data transfer via mobile modem
- Solar panel ensures unlimited power supply
- Low weight and compact size for easy location changes
- Robust design for use both indoors and outdoors
- Dimensions: 1480x1100x715 mm



AMB-8059 Car Mounting Kit option: automated EMF drive test solution covered by isotropic antennas.

- Frequency range: 10 Hz - 40 GHz
- ITU-T K.113 compliant
- Electromagnetic fields level maps in a minimum of time
- On board GPS synchronized with the field strength
- Common GPS format for easy exchange
- Easy installation and removal on vehicle roof thanks to the magnetic mounting kit
- Dimensions: 301 x 241 x 750 mm



AMS-8063: spectrum analysis in area monitoring. A field analyzer, with electric and magnetic sensors, to guarantee an optimal sensitivity and anisotropy.

- Frequency range: 9 kHz - 30 MHz
- ITU-T K.83 compliant
- Built in spectrum analyzer for monitoring up to 100 user defined frequencies
- Simultaneous monitoring of electric and magnetic fields
- Suitable LW, MW and SW broadcasting antenna installations
- Low weight and compact size for easy location changes
- Robust design for use both indoors and outdoors
- Dimensions: 1480x1100x715 mm



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