Microtron®
Flexible electronic solutions

narda
Safety Test Solutions®
an L3 Communications Company

Frequency selective monitoring by using a three axis isotropic antenna

ITU-T K.83 compliant

⚠ **Frequency range: 100 kHz to 6 GHz**

⚠ **Built in spectrum analyzer for monitoring up to 20 user defined frequency bands**

⚠ **Fully autonomous operation:**

- Solar panel power supply
- Built-in mobile modem
- Automatic data transfer
- Daily reports, warnings & alarm massages via SMS
- On-board GPS

⚠ **Easy integration into test environments and Web Based Applications**

⚠ **Low weight, robust design, compact size for indoor and outdoor operations**

**Area Monitor AMS-8061
with Solar Panel**

INTRODUCTION

Narda EMF Monitors are equipped with exclusive, state-of-the-art antennas having high sensitivity, accuracy and reliability. Their robust, uncluttered construction is perfect for long-term outdoor installation. The AMS-8061 combines a tried and tested measurement method with selective frequency range by using a three axis isotropic antenna.

Minimum outlay, maximum result

An EMF monitoring system is made up from a series of EMF monitors installed wherever the EMF presence needs to assessed continuously or by long term observation. The EMF monitors store the data and report them using conventional mobile data communication 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.
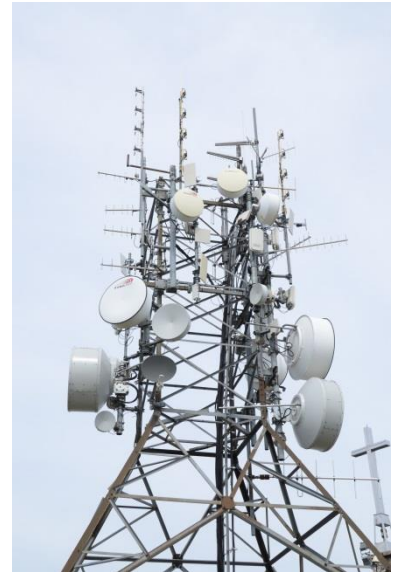
You can be certain to find the ideal solution for every area of application with Narda. And you can depend on its reliability, thanks to our decades of experience coupled with cutting edge technology, backed up by our own certified calibration laboratory.

The AMS-8061

Its frequency selective application is the optimum solution for technical superiority from a tight budget. Narda EMF Monitors can do more than just record and save measurement values at a specific location. The AMS-8061 recognizes 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. By the help of the built in spectrum analyzer it is 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 telecoms providers with powerful instruments for performing long term on-vise evaluations for their clients.

TECHNICAL SPECIFICATIONS

AMS-8061 Selective Area Monitor

Specifications	
Frequency range	100 kHz to 6 GHz
User-Programmable frequency bands	Up to 20, individual start-stop frequency settings
Sensor type	Triaxial, isotropic antenna system
Sensor dimensions	120 mm
Sensor RF connection	50 Ohm, N-male
Sensor control	Multi-pin connector
Measurement range	0,01 to 200 V/m
Dynamic range	> 60 dB in all settings of the attenuator
Sensitivity	0.01 V/m (depending on the band setting)
Overload	435 V/m
Resolution	0.01 V/m
Linearity	≤ ±2 dB
Frequency response (flatness)	≤ ±3 dB
Overall anisotropy (EN50383)	< 2,5 dB to 3 GHz; < 3.5 dB to 6 GHz
Out of band attenuation	> 50 dB, depending on settings
Rejection	> 20 dB
Calibration interval	2 years (recommended)
Sampling rate	Down to 200 ms (depending on the band setting)
Measuring parameters	Automatic and settable (RBW, Hold time, Detector Pk-RMS, Attenuator, Zero Span)
Intrinsic noise suppression	Yes
Unit	V/m, % of preset limit of each band, A/m
EMF stored values	AVG or RMS, Max value
Average and Average time	Arithmetic or RMS; 1 – 15 minutes
Storing rate	1, 2, 6, 15 minutes
Max logging before overwriting	30 days @ 6 minutes storing rate; circular memory
Alarms	SMS and/or data download for: field over limit, memory full, open case, temperature, humidity, low battery, sensor failure, main unit failure.
Communication	FTP and CSD protocols via internal GSM/GPRS modem, Ethernet, RS-232 and USB link
Data download	FTP: automatic to server; CSD: automatic or manual to PC
SIM card type (not included)	Enabled for selected data transmission
SMS	SMS to 10 mobile phones (daily report of Max. EMF value, min. battery voltage)
Battery history	Recording of battery voltage
Temperature and humidity sensors	Internal, logged in memory
GPS coordinates	Latitude, longitude
Clock	Internal real time clock
Firmware upgrade	Remotely upgradable (FTP, CSD), Ethernet, RS232
Interface	RS-232, Ethernet and USB
External memory	Micro SD card (not included)

AMS-8061 Selective Area Monitor

Specifications

Power supply	Solar panel 17.5 V, 2 x 40 W Backup sealed Pb rechargeable battery, 12 V External DC 12 V – 3 A AC power supply and battery charger 100…240 V, 50/60 Hz to 24 VDC, 1.25A
Autonomy with battery only	48 to 60 Hours, setting depending
Autonomy with solar panel	24 hours/365 days for PSH (Peak Sun Hours) >= 2; equal to >=2 kWh/m^2 per day
Operating temperature	-10 °C to 55 °C
Humidity	< 29g/m^3 93%
Wind speed	Max 150 km/h (unit must be installed according to instructions)
Protection grade	IP55
Radome dimensions (Ø x H)	250 x 740 mm
Base dimension (LxHxD)	660 x 95 x 600 mm
Pole (Ø x H)	60 x 760 mm
Weight approx.	34 kg
Country of origin	Italy

AMS-8061-SW-02 PC Software

Main Functions and requirements

Main functions	Local and remote communication for AMS-8061 setup and data downloading
	Data display/analysis in graphical and table format
	Vertical and horizontal zoom, linear and logarithmic graphs, marker
	Data export
PC minimum requirements	Operating system: Windows XP, Vista, Windows 7, Windows 8
	Minimum display resolution: 1024x768
	Internet connection for FTP remote communication mode (ports 20 and 21 for FTP data communication must be open)
	Line or GSM modem for CSD (Circuit Switched Data) remote communication mode

AMS-8061 set	
Remote Station	
Selective field area monitor station including tri-axial antenna, solar panel and back-up battery, support base and mast.	AMS-8061

Standard accessories supplied with AMS-8061:

- 2 cable ties
- Ballast bag
- Tools kit
- AC/DC power supply / battery charger
- RS-232 cable
- Ethernet cable
- Software CD
- Operating manual
- Certificate of calibration

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 Subject to change without notice