

Frequency selective monitoring and logging of environmental electromagnetic fields

- ▲ Up to 20 fully programmable frequency bands
From 100 kHz to 6 GHz
- ▲ Real built-in spectrum analyzer for better performance and flexibility
- ▲ Built-in tri-axial sensor
- ▲ Automatic & manual data download by internal GSM/GPRS modem
- ▲ Remote FTP, CSD, SMS communication
- ▲ Sends SMS alarms and reports to mobile phones
- ▲ Ethernet and serial communication
- ▲ Unlimited power autonomy by solar panel



Area Monitor AMS-8061/G

APPLICATIONS

The wide range of electrical and electronic equipment present everywhere and the large number of wireless applications – from mobile communications to radio frequency identification (RFID), from electronic article surveillance (EAS) to broadcast and data transfer - represent the base for the presence of “uncontrolled” electromagnetic environments.

The effects of non-ionising radiation (i.e., e.m. fields) are a very important and sensitive issue at an international level.

Several international agencies and standardisation bodies are regulating the matter, and many countries have already implemented local regulations for the control of electromagnetic fields.

The Selective Area Monitor AMS-8061/G is the most advanced solution available to meet the growing demand for monitoring the e.m.f. both remotely and selectively, to avoid the continuous surveillance of sites by technical personnel.

The Area Monitor AMS-8061/G is weatherproof, lightweight and can easily be installed either outdoors or indoors, through use of its specifically designed pole and base.

The Selective Area Monitor is the most suitable solution to monitor field variations in the electromagnetic spectrum and to pick out the frequency of the sources of electromagnetic fields.

GENERAL DESCRIPTION

The AMS-8061/G Selective Area Monitor is a complete and flexible measuring system for monitoring high-frequency fields ranging from 100 kHz up to 6 GHz, by means of the built-in, tri-axial sensor.

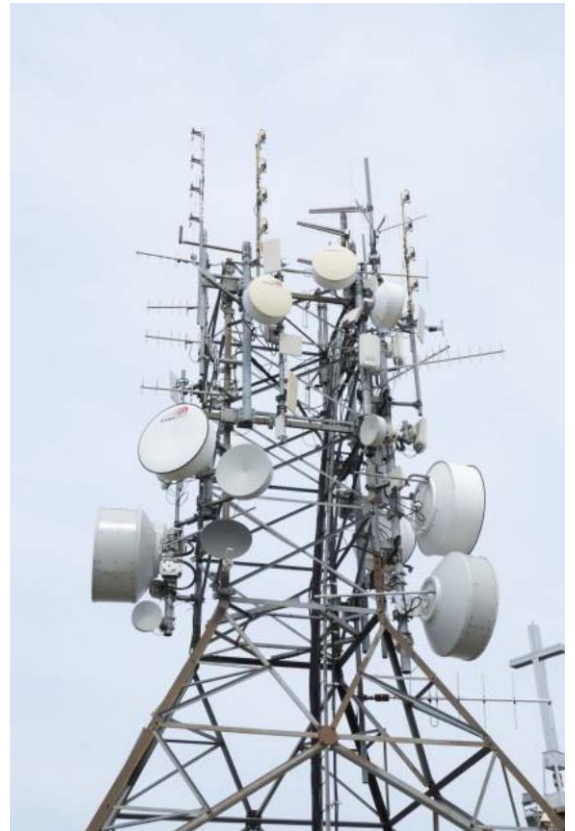
The unit includes also a powerful data logger, a power supply with solar panel and back-up battery for continuous selective measurements when no external power is available, a GSM/GPRS modem for FTP and CSD communication protocol.

Its rugged construction allows its installation in the field, be it indoors or outdoors, while its compact size and limited weight allow the AMS-8061/G to be easily relocated at any time.

All the measuring parameters can be easily set and modified remotely or locally via Ethernet and serial communication.

The measured data are safely stored in the AMS-8061/G memory over a long period of time and are downloaded periodically, at user choice, onto a PC or FTP server.

An automatic, continuous check system provides alarm signals should any abnormal situations occur.



TECHNICAL SPECIFICATIONS

AMS-8061/G 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 (ø)	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; Calibration interval	Performed in EA accredited laboratory: Accredia LAT nr. 008; 2 years (recommended)
Reading rate	Down to 200 ms (depending on the band setting)
Measuring parameters	Settable bands and automatic configuration
Intrinsic noise suppression	Yes
Unit	V/m
EMF stored values	AVG or RMS, Max value
Average and Average time	Arithmetic or RMS; Average time 6 minutes
Storing rate	6 minutes
Max logging before overwriting	30 days @ 6 minutes storing rate; circular memory
Alarms	SMS and/or data download for: field over limit, open case, temperature, humidity, low battery, sensor 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, 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, RS-232 and USB)
Interface	RS-232C, Ethernet and USB
External memory	Micro SD card (not included)

TECHNICAL SPECIFICATIONS - Continued

AMS-8061/G Selective Area Monitor	
Specifications	
Power supply	Solar panel 17,5 V Backup sealed Pb rechargeable battery, 12 V External DC 12 V – 3A AC power supply and battery charger 100...240 V, 50/60 Hz to 24 VDC, 1.25 A
Autonomy with battery only	48 hours
Autonomy with solar panel	24 hours/365 days for PSH >= 2
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
Overall Dimensions (L x H x D)	1480 x 1100 x 715 mm
Radome dimension (ø x H)	250 x 740 mm
Pole dimension (ø x H)	60 x 760 mm
Base dimension (L x H x D)	660 x 95 x 600 mm
Solar panel dimension (L x H x D)	1100 x 610 x 35 mm
Weight	Approx. 34 kg

ORDERING INFORMATION

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

Standard accessories supplied with AMS-8061/G:

- AC/DC power supply / battery charger
- USB cable
- Ethernet cable
- Ballast bags
- Tools kit
- Certificate of calibration
- Operating manual
- Return for Repair form

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Narda Safety Test Solutions GmbH
 Sandwiesenstrasse 7
 72793 Pfullingen, Germany
 Phone: +49 (0) 7121-97 32-777
 Fax: +49 (0) 7121-97 32-790
 E-Mail: support@narda-sts.de
 www.narda-sts.de

Narda Safety Test Solutions
 435 Moreland Road
 Hauppauge, NY 11788, USA
 Phone: +1 631 231-1700
 Fax: +1 631 231-1711
 E-Mail: NardaSTS@L-3COM.com
 www.narda-sts.com

Narda Safety Test Solutions srl
 Via Leonardo da Vinci, 21/23
 20090 Segrate (MI) ITALY
 Phone: +39 02 26.998.71
 Fax: +39 02 26.998.700
 E-Mail: support@narda-sts.it
 www.narda-sts.it