narda Safety Test Solutions®
an L3 Communications Company

MULTI-BAND EMF AREA MONITOR

AMB-8057

New "Out of the Box" solutions for easiest operation!

see page 5/12 for details

Continuous, remote monitoring and logging of electromagnetic fields

- **Discrimination of GSM and UMTS contributions to total emf values**
- **Electric field monitoring up to 7GHz**
- **Magnetic fields monitoring from 10Hz to 5kHz**
- **Accurate and safe data measurement and storage**
- **GSM-CSD, GPRS-FTP and SMS remote communication**
- **Automatic data download to PC or FTP server**
- **Daily report by SMS**
- **Warning and alarm messages to PC and mobile phones**
- **Its large memory does not require frequent downloading**
- **Easy to use PC software**
- **Easy integration in systems for data collection and publishing**
- **Outdoor and indoor installation**
- **Self-powered by solar panel or high capacity lithium battery**
- **Lightweight, easy to install and remove**

Area Monitor AMB-8057-03 with Solar Panel

APPLICATIONS

The Area Monitor AMB-8057 provides the ultimate, reliable, and precise answer to continuous remote monitoring and logging of electric (E) or magnetic (H) fields generated by low and high frequency sources such as radio / TV, GSM, UMTS, transformer stations, power lines etc., as a means of assessing the long-term exposure of the populace to potentially hazardous electromagnetic fields (EMF).
Several AMB-8057 Area Monitors connected to the base station through the GSM network can be used to build reliable monitoring systems to cover large geographical areas, including nationwide coverage.
The Area Monitor AMB-8057 is weatherproof, light (< 3 kg) and can be easily installed outdoors or indoors, using the pole and base designed for it. Thanks to its exceptionally low power consumption, the AMB-8057 does not require any external power supply. Two versions are available with different power supply modes:

- Solar panel and internal rechargeable battery for unlimited outdoor operation
- Internal Li-ion disposable battery for up to one year's operation

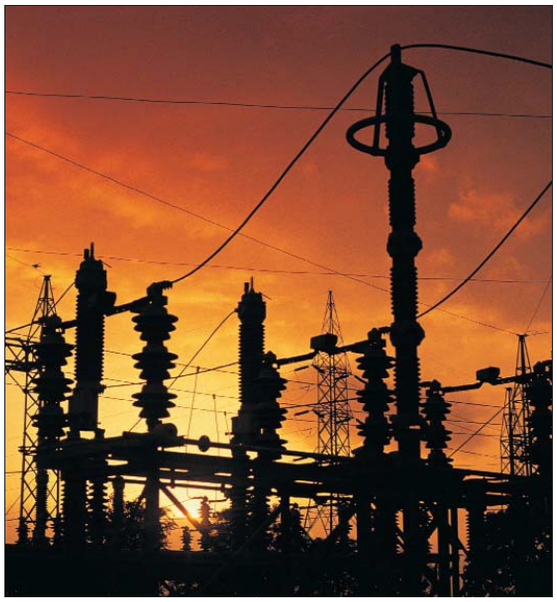
All-in-one concept
The single, small housing (112 mm max dia. x 780 mm length) contains:

- A high-sensitivity probe that measures the EM field along three axes
- A sophisticated data logger that stores the measured values, events (alarm signals, communications), and settings in non-volatile memory
- A dual-band GSM/GPRS modem for uploading data and remote control (*)

Unique Features
The AMB-8057 is designed to provide unique features, such as:

- Correct measurements regardless of the EM field source direction
- Excellent accuracy and repeatability of measurements
- Simultaneous measurement in all frequency bands
- Easily calibrated field probes

(*) Excluding AMB-8057-00 and AMB-8057-01 specifically designed for local communication only



Wide range of digital probes

AMB8057 utilizes the new generation of multiband, three-axis, replaceable digital probes.

Multiband – Several probe models are available to best fit applications ranging from low frequency magnetic field monitoring in the proximity of power stations and power lines, through to the monitoring of fields generated by modern communication services like wireless data communication.
The high level of attention paid to the subject of electromagnetic field pollution on the part of many public administrations continues to stimulate our company into providing even more sophisticated probes to meet special requirements such as double field monitoring (electric + magnetic) for low frequency applications, as well as “service discriminating” multiband probes for monitoring the electric field activity generated by mobile communication installations (BTS).

Multiband probes like the EP-3B-01 allow discrimination between the fields generated by different services, such as broadcast transmissions and mobile communications.
As well as the 100kHz – 3GHz wideband measurement function, low and high frequency bands have been implemented to allow additional measurements in the 100 kHz – 862 MHz “low” band, mainly used by radio / TV broadcasting services, and the 933 MHz – 3 GHz “high” band, which includes mobile communications.
The EP-4B-01 probe offers more detailed frequency band discrimination by providing additional frequency bands specially tailored for monitoring mobile communications frequencies such as the 900, 1800, and 2100 MHz bands specific to GSM, DTS, and UMTS mobile transmissions as well as the overall 100 kHz – 3 GHz wide band.

Single band probes are available for making wideband measurements on ELF 10 Hz – 5 kHz, RF 100 kHz – 3 GHz and, using the latest EP-1B-03 probe, from 100 kHz – 7 GHz to include wireless data services.

Three-axis – All AMB8057 probes make three-axis measurements, providing an isotropic response. The measurement values for the three orthogonal axes are internally processed to yield the isotropic result, which is output digitally for each frequency band.

Digital – AMB8057 probes include on board circuitry such as multiple A/D converters, a microcontroller, and calibration data memory that produce measurement results in digital form, which are not changed by any additional processing performed by the main unit.

Replaceable – Probes can easily be replaced by the user to meet differing monitoring application requirements and for periodic calibration.

Electric field probe

Magnetic field probe

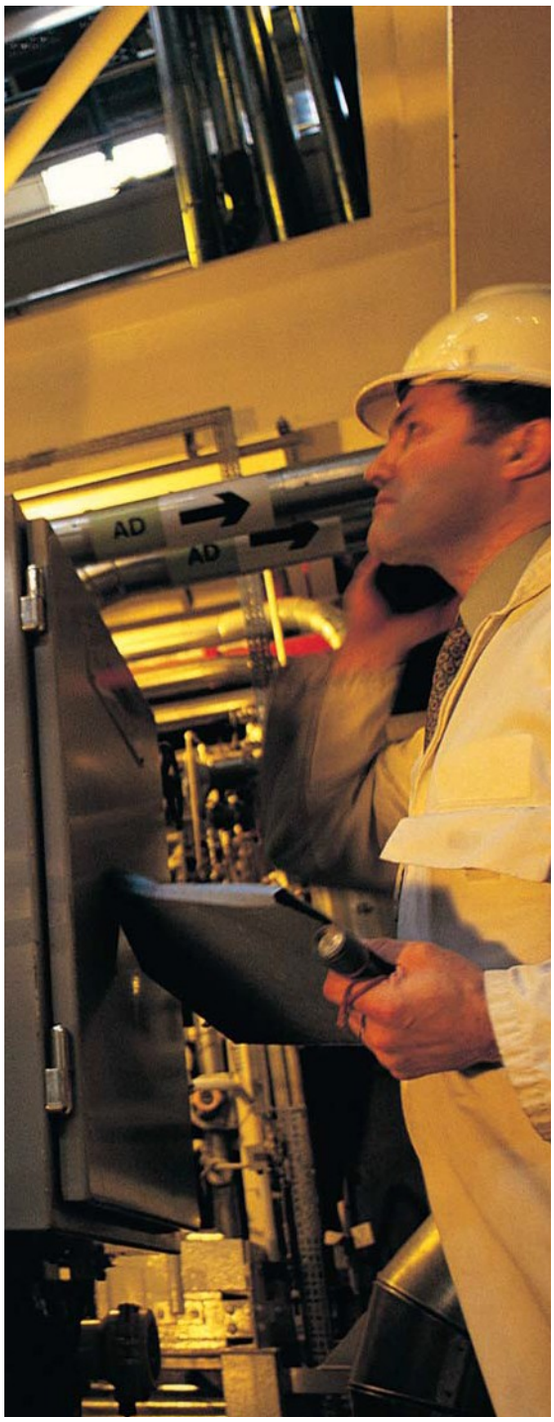
Flexible communication

Electromagnetic field monitoring networks utilize remote units like the AMB8057 for installation in “sensitive” locations such as schools, hospitals, residential areas, etc., that are close to sources of electromagnetic fields.
It should be possible to suitably install remote units practically anywhere. Other important considerations in addition to providing accurate measurement results are facilities for self-powering and flexible communications.
The AMB8057 is self-powered from a solar panel or Lithium battery and does not require any external power supply. Furthermore, its large capacity internal memory means that data can be acquired and retained over very long time periods, so that monitoring activities are possible even in locations where no communications service is available. The AMB8057 is equipped with several different modes of communication to cover any specific need.

RS232 local communication – With direct connection to the controller PC, local communication not only allows preliminary settings and tests to be made before remote installation but also enables periodic downloading of data where no wire- less communication service is available or desirable.
Model AMB8057-00 and AMB8057-01 are designed for local communication only to provide easiest operation frequently required for spot monitoring activities.
The data storage capacity of the AMB8057 means that users can download results even after a long period of monitoring activity (up to several months, depending on the station settings) without any need to access the station more frequently.
The serial connection can be used to transmit commands, as described in the documentation provided, to set specific parameters, query station status information, and execute specific actions immediately.

SMS remote messaging – AMB8057-02 and AMB8057-03 are equipped with an internal GSM/GPRS modem.
Automatic SMS functionality can be activated to inform users immediately of any abnormal situation, such as the measured field exceeding thresholds preset by the user, or the need to download results to avoid overwriting old data where no download has been performed for a long time, or notification of temperature, probe or case open alarms. The messages are sent to the mobile phones of one or two users. A “daily report” can also be activated. This sends information about the highest field value and lowest station battery voltage by SMS each day.
SMS communication can additionally be used to send query or setting commands to a remote station using the same commands that can be transmitted using the local RS232 connection.
Downloading data blocks is not available in SMS mode for the obvious reason of allowed message size.

Remote CSD communication via the GSM modem – Many mobile communication service providers offer CSD (circuit switched data) communication mode.
To make use of CSD communications, the AMB8057-02 or AMB8057-03 remote station must be equipped with a user SIM card enabled for CSD communication mode.
CSD allows remote communication via the GSM network in dial-up mode, which means that the controller PC, equipped with a modem, calls the station by dialing its data telephone number to establish a direct connection. The remote station can be set to automatically download all the measurement results acquired since the last download.
The CSD remote connection allows the remote station configuration to be set in real time.
Remote stations configured for CSD communication can be set to automatically generate a call to the controller PC at pre-programmed times and to download the results automatically without any intervention from the user.
Besides scheduled automatic calls, CSD mode also allows automatic calls when alarm events occur.
The software provided also allows users to call a remote station in CSD mode to establish a connection, download results manually, change settings, update firmware, and so on.

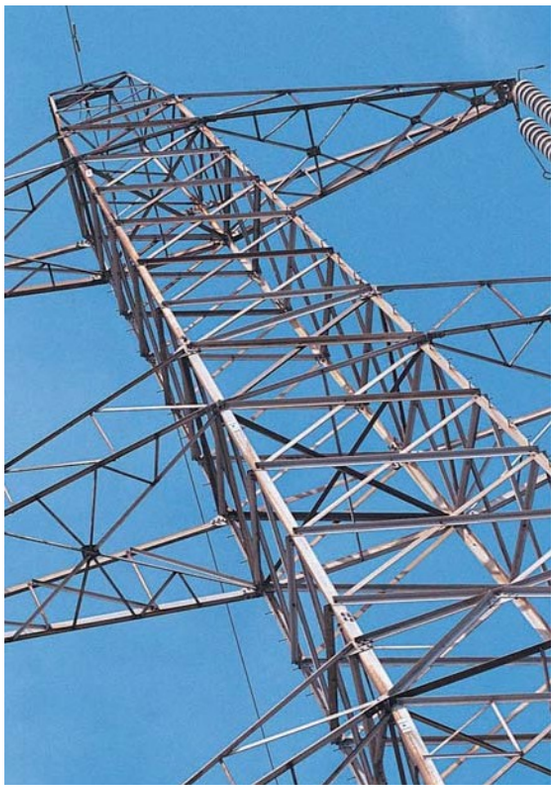


Flexible communication *(continue)*

GPRS/FTP communication mode – Users can set the predefined communication mode of the AMB8057-02 and AMB8057-03 to CSD as well as FTP.
Stations set for FTP communication activate their modems at programmed times and access the user's server for downloading results and checking for any requests to change settings via the GPRS network and the Internet.
After they have been set up initially, monitoring stations set to GPRS/FTP communication mode are completely independent as they download results regularly to the FTP server without any intervention from the user. There is no need for the user to ensure that a controller PC with application software is on line to receive calls from monitoring stations, as there is never any direct connection between the remote station and the controller PC.
The controller PC does not need a modem, as management of the system as well as the downloading of data to the controller PC is performed by accessing the FTP server.
The controller PC connected to the Internet can on demand or automatically at pre-programmed times access the server, download measurement results, and, if required, transmit a new configuration file.
GPRS/FTP reduces communication costs as GPRS data communication is charged on the basis of the very low volume of data transferred. Furthermore, there is no additional cost related to distance, as the FTP server can be accessed from anywhere that an Internet connection is available.

AMB8057-00 and AMB8057-01: Easiest local communication for spot monitoring activities

EM field experts, consultants and companies which perform EMF measurement to determine conformity against Standards and local regulations, need often to evaluate, through monitoring activity, field variations in medium to long time periods.
After assessment have been made in conformity with the reference standard using portable wideband or selective meters, a monitoring device can be placed to continuously acquire field measurement results, for few days or more, providing then indication about field strength variation with time.
For such simple applications, model AMB8057-00 and AMB8057-01 provide the "out of the box solution" for easiest operation even though maintaining the AMB8057 family's outstanding monitoring performances.
After desired monitoring period all results are easily downloaded to the controller PC through the local RS232 connection.
AMB8057-00 is powered by disposable lithium battery which offers several months autonomy.
Unlimited autonomy for outdoor application is provided by the solar powered AMB8057-01.
Besides maintaining the full monitoring capacity and high accuracy standard of AMB8057 product family, they offer maximum operating simplicity and convenient price having no remote communication module installed.
Nevertheless, they are upgradeable to the modem versions, saving thus initial investment should any more powerful configuration be needed for more sophisticated applications.



8057SW02 control software

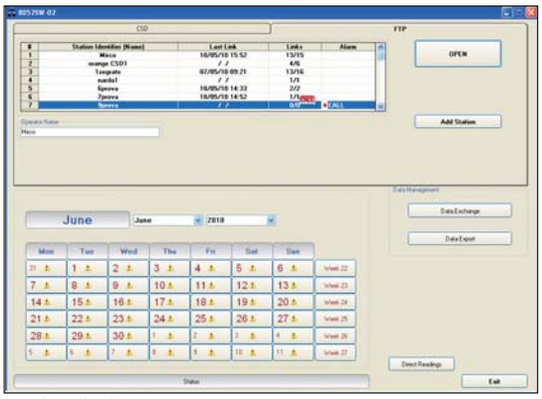
The 8057SW02 Windows™-based control software provides all the functions needed for efficiently controlling everything from a single station to a complete monitoring network.
CSD and FTP communication modes are provided as well as local control via RS232 cable.
The user station list can be created simply by providing all the relevant parameters, such as station name (ID), APN for Internet access, FTP server IP address, as well as the data telephone number for CSD communication.
The station list, shown in the main window, allows access to a specific station or station folder on the FTP server by simply clicking on a dedicated button for:

- Reading, editing and transmitting all measurement settings and communication schedules
- Selecting and downloading logged data, either manually or automatically
- Receiving warnings and alarm signals

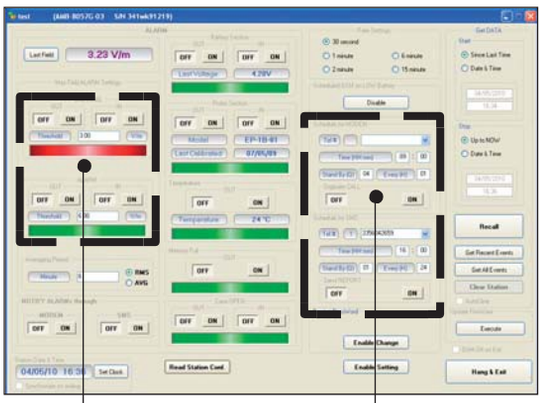
Data management functions are provided for:

- Saving, printing and exporting data
- Displaying data in graphs or tables

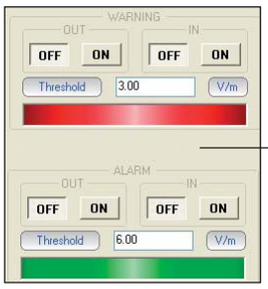
The data transfer and all the station parameters can therefore be monitored, modified, and set through either a remote or a direct connection by means of this software.
Data integrity checking and double-password access provide a maximum of reliability and security.
Polling of the station from the PC is easy and can be conveniently set to manual or automatic mode according to the user's requirements.



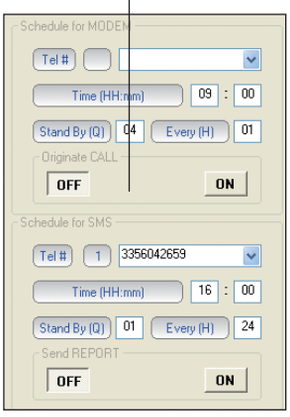
Main window



Control window



Field Alarm Setting



Modem/SMS Settings

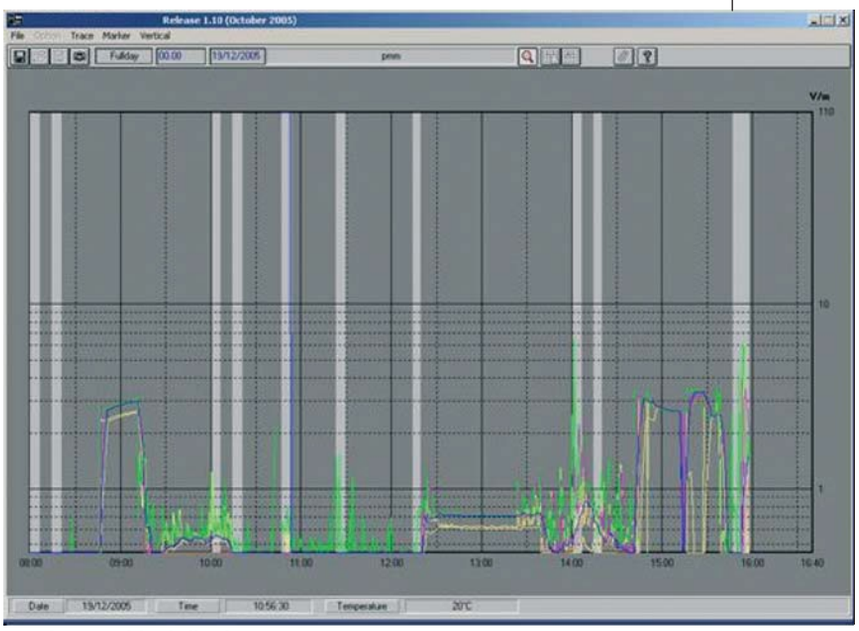
8057SW02 control software *(continue)*

All measurement results are conveniently filed on the controller PC and can be immediately displayed in graph or table format.
A calendar-style data memory block presentation allows easy selection of the period to be analyzed.
Zoom, marker and other common functions are available to improve data readability.

Data acquired during the station modem transmission are conveniently marked when displayed as a table or saved in ASCII format. Modem transmissions are shown as highlighted bands when results are displayed or saved in graphical format. Values measured that correspond with the RF emission of the modem can therefore be easily excluded from calculations.

The export function allows the creation of additional result files in ASCII or BMP format that are related to user definable time periods.

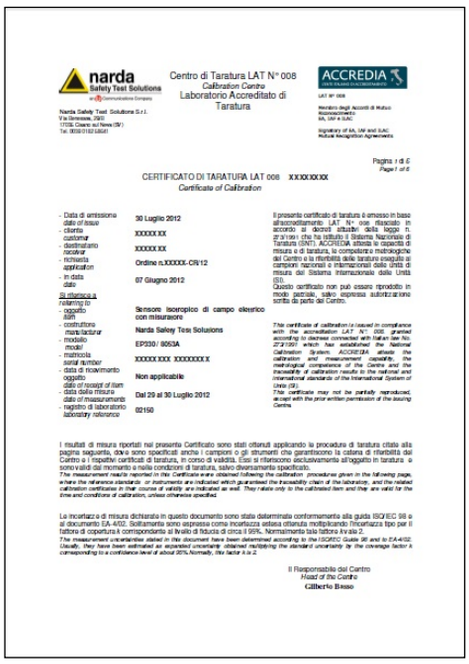
The Calendar-style Data Memory Block



The graphical display

CUSTOM APPLICATIONS

The 8057SW02 control software provided can be set up to create separate ASCII files and bitmap graphs containing the measurement results for each period every time these results are downloaded from a station or the FTP server.
These additional files, stored in a dedicated folder on the controller PC, can be used by custom software for further evaluation or publication of the data. The ASCII files include all the measurement results downloaded by the station, such as AVG and MAX field values, as well as the station temperature and battery voltage, which are included in every data record.
A complete command set and communication protocol is additionally provided, so that customers can develop specific application software.



narda Safety Test Solutions — Centro di Taratura LAT N° 008 — Calibration Centre — Laboratorio Accreditato di Taratura

ACCREDIA

CERTIFICATO DI TARATURA LAT 008 XXXXXXXX
Certificate of Calibration

Sensore isotropico di campo elettrico con misuratore

Nanda Safety Test Solutions

EP330 / 8053A

XXXXXX XXX XXXXXXXX

Non applicable

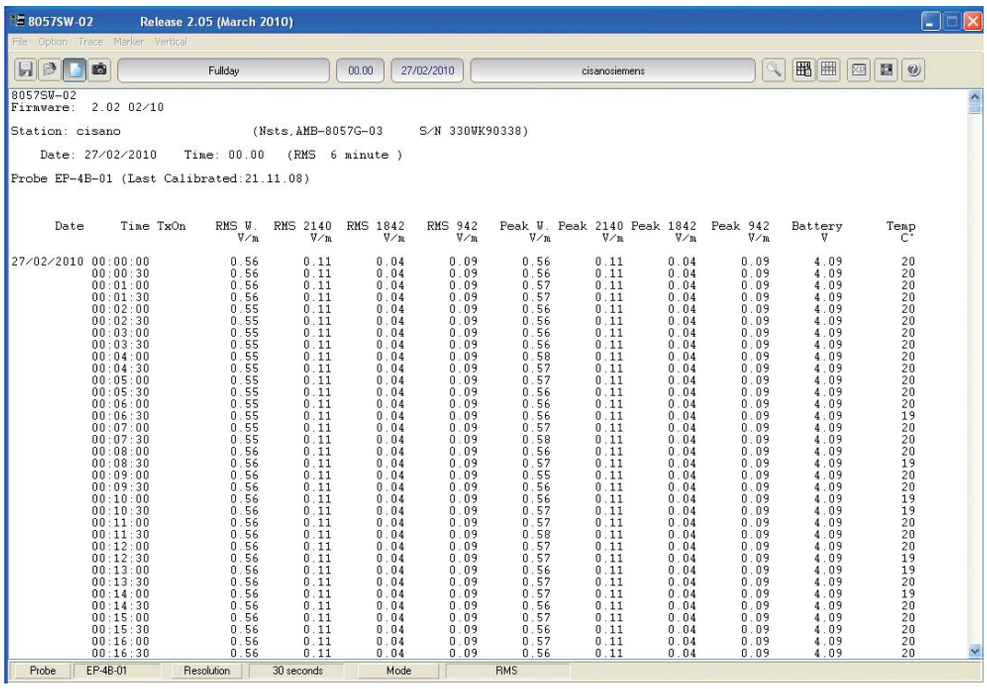
Dal 29 al 30 Luglio 2012

02150

CALIBRATION AND CERTIFICATION

Every Narda product comes with a standard certificate of calibration. Accredited calibration can be additionally provided on request.
Narda STS in Italy, as Accredia LAT n.008, is an accredited calibration laboratory for electro- magnetic field strength at frequencies up to 18 GHz and for magnetic flux density up to 100 kHz as well as for other quantities such as frequency and RF power level. Narda accredited certificates of calibration are therefore recognized internationally.

Data Table display



8057SW-02 Release 2.05 (March 2010)

File Option Trace Marker Vertical

Fullday | 00.00 | 27/02/2010 | cisanosiemens

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8057SW-02
Firmware:  2.02 02/10

Station: cisano                  (Nsts,AMB-8057G-03     S/N 330WK90338)

    Date: 27/02/2010    Time: 00.00   (RMS  6 minute )

Probe EP-4B-01 (Last Calibrated:21.11.08)
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Date	Time TxOn	RMS W. V/m	RMS 2140 V/m	RMS 1842 V/m	RMS 942 V/m	Peak W. V/m	Peak 2140 V/m	Peak 1842 V/m	Peak 942 V/m	Battery V	Temp C°
27/02/2010	00:00:00	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:00:30	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:01:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:01:30	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:02:00	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:02:30	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:03:00	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:03:30	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:04:00	0.55	0.11	0.04	0.09	0.58	0.11	0.04	0.09	4.09	20
	00:04:30	0.55	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:05:00	0.55	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:05:30	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:06:00	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:06:30	0.55	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	19
	00:07:00	0.55	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:07:30	0.55	0.11	0.04	0.09	0.58	0.11	0.04	0.09	4.09	20
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	00:08:30	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	19
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	00:10:30	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	19
	00:11:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:11:30	0.56	0.11	0.04	0.09	0.58	0.11	0.04	0.09	4.09	20
	00:12:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:12:30	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	19
	00:13:00	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	19
	00:13:30	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:14:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	19
	00:14:30	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:15:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:15:30	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20
	00:16:00	0.56	0.11	0.04	0.09	0.57	0.11	0.04	0.09	4.09	20
	00:16:30	0.56	0.11	0.04	0.09	0.56	0.11	0.04	0.09	4.09	20

Probe | EP-4B-01 | Resolution | 30 seconds | Mode | RMS

TECHNICAL SPECIFICATIONS

EP-1B-01 Electric Field Broadband Probe	
Frequency range	**100 kHz to 3 GHz**
Measurement range	0.2 to 200 V/m
Measurement resolution	0.01 V/m
Overload	600 V/m
Typical accuracy @ 6V/m	± 0.8 dB @ 50 MHz
Flatness @ 20V/m	1– 200 MHz ± 0.8 dB; 150 kHz - 3 GHz ± 1.5 dB
Anisotropy @ 6V/m	± 0.8 dB @ 50 MHz (typical 0.6 dB)
H-Field rejection	> 20 dB
Temperature error	0.1 dB/°C
Size and weight	450 mm length, 55 mm diameter – 180 g

EP-1B-03 Electric Field Broadband Probe	
Frequency range	**100kHz – 7GHz**
Measurement range	0,2 V/m – 200 V/m
Measurement resolution	0.01 V/m
Overload	600 V/m
Typical accuracy @ 6V/m	± 0.8 dB @ 50 MHz
Flatness @ 20V/m	3MHz-200MHz: ±0,8dB ; 0,15MHz-3GHz: ±1,5dB ; 0,1MHz-6GHz: ±2dB
Anisotropy @ 6V/m	± 0.8 dB @ 50 MHz (typical 0.6 dB)
H-Field rejection	> 20 dB
Temperature error	0.1 dB/°C
Size and weight	450 mm x 55 mm (diam.), 180 g

EP-1B-04 Electric Field Probe	
Frequency range	**10 Hz to 5 kHz**
Measurement range and overload	5 V/m to 20 kV/m -- >30 kV/m
Measurement resolution	0.1 V/m
Flatness @ 100 V/m	40 Hz – 1 kHz ± 1 dB (typical 0.5)
Anisotropy	0.5 dB @ 50 Hz, 100 V/m
H-Field rejection	> 20 dB
Size and weight	77 mm length, 53 mm diameter -- 110 g

EP-3B-01 Electric Field Tri-Band Probe			
Frequency range	**Wide band: 0.1- 3000 MHz**	**Low pass: 0.1- 862 MHz**	**High pass: 933- 3000 MHz**
Measurement resolution	0.01 V/m		
Measurement range	0.2 to 200 V/m		
Overload	600 V/m		
Typical accuracy @ 6V/m	± 0.8 dB @ 50 MHz		0.8 dB @ 1 GHz
Flatness @ 20V/m	1-200 MHz±0.8 dB 150 kHz-3 GHz ±1.5 dB	1-200 MHz±0.8 dB 150 kHz-862 MHz±1.5 dB	933-3000MHz ±1.5dB
Anisotropy @ 6V/m	± 0.8 dB @ 50 MHz (typically 0.6 dB)		± 0.8 dB @ 1 GHz (typically 0.6 dB)
Out of band attenuation	Not applicable	933 MHz-3 GHz > 23 dB (ref. to 50 MHz)	0,1 – 862 MHz > 23 dB (ref. to 1 GHz)
H-Field rejection	> 20 dB		
Temperature error	0.1 dB/°C		
Size and weight	450 mm length, 55 mm diameter - 195 g		

EP-4B-01 Electric Field Quad-Band Probe				
Frequency range	**Wide band 0.1 - 3000 MHz**	**GSM 900 925- 960 MHz**	**DCS 1800 1805- 1880 MHz**	**UMTS 2110- 2170 MHz**
Meas. range	0.2 to 200 V/m	0.03 to 30 V/m	0.03 to 30 V/m	0.03 to 30 V/m
Meas. resolution	0.01 V/m			
CW damage level	300 V/m			
Flatness @ 6 V/m	1-200 MHz±0.8 dB 150 kHz-3 GHz±1.5 dB	925-960 MHz +0.5/-2.5 dB	1805 – 1880 MHz +0.5/-2.5 dB	2110 – 2170 MHz +0.5/-2.5 dB
Anisotropy	± 0.8 dB (typical 0.6 dB) @ 50 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 942.5 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 1842.5 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 2140 MHz, 3 V/m
Out of band attenuation	Not applicable	>8 dB @ 860 MHz >8 dB @ 1035 MHz (ref. to 942.5 MHz)	>8 dB @ 1540 MHz >8 dB @ 2050 MHz (ref. to 1842.5 MHz)	>8 dB @ 1860 MHz >8 dB @ 2350 MHz (ref. to 2140 MHz)
Centre frequency drift	Not applicable	40 – 50 °C = ± 100kHz -20 – 40°C = ± 100 kHz / °C		
H-field rejection	> 20 dB			
Temperature error	0 – 50 °C = ± 0.3 dB	-20 – 0 °C = -0.1 dB/°C		
Size and weight	450 mm length, 55 mm diameter – 210 g			

EP-4B-02 Electric Field Quad-Band Probe				
Frequency range	**Wide band 0.1 - 7000 MHz**	**GSM 900 925 - 960 MHz**	**DCS 1800 1805 - 1880 MHz**	**UMTS 2110 - 2170 MHz**
Meas. range	0.2 to 200 V/m	0.03 to 30 V/m	0.03 to 30 V/m	0.03 to 30 V/m
Meas. resolution	0.01 V/m			
Dynamic range	>60dB			
Flatness @ 6 V/m	3-200 MHz±1.5 dB 150 kHz-3 GHz ±2 dB 0.1MHz – 7 GHz ±3dB	925-960 MHz +0.5/-2.5 dB	1805 – 1880 MHz +0.5/-2.5 dB	2110 – 2170 MHz +0.5/-2.5 dB
Anisotropy	± 0.8 dB (typical 0.6 dB) @ 50 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 942.5 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 1842.5 MHz, 3 V/m	± 0.8 dB (typical 0.6 dB) @ 2140 MHz, 3 V/m
Out of band attenuation	Not applicable	>8 dB @ 860 MHz >8 dB @ 1035 MHz (ref. to 942.5 MHz)	>8 dB @ 1540 MHz >8 dB @ 2050 MHz (ref. to 1842.5 MHz)	>8 dB @ 1860 MHz >8 dB @ 2350 MHz (ref. to 2140 MHz)
Centre frequency drift	Not applicable	40 – 60 °C = ± 100kHz -20 – 40°C = - 100 kHz / °C		
H-field rejection	> 20 dB			
Temperature error	0 – 50 °C = ± 0.3 dB	-20 – 0 °C = -0.1 dB/°C		
Size and weight	450 mm length, 55 mm diameter – 210 g			

HP-1B-01 Magnetic Field Probe	
Frequency range	**10 Hz to 5 kHz**
Measurement range and overload	50 nT to 200 µT -- >1 mT without damage
Measurement resolution	1 nT
Flatness	40 Hz – 1 kHz ± 1 dB (typical 0.6)
Anisotropy	±0.3 dB @ 50 Hz, 3 µT
E-Field rejection	> 20 dB
Size and weight	83 mm length, 53 mm diameter -- 110 g

AMB-8057 Multi-band EMF Area Monitor

General Specifications

Sampling time	Simultaneous measurement of all bands every 3 seconds	
Storing rate	30 seconds to 15 minutes	
Stored field values	AVG or RMS (calculated over the selected averaging period), MAX value	
Max. logging before overwriting	1-and 3-band: 338 days @ 15 min. storing rate; 11 days @ max storing rate 4-band: 169 days @ 15 min. storing rate; 5 days @ max storing rate	
Communication	Quad-band (850-900-1800-1900 MHz) GSM-GPRS modem (SIM card not included) *	
SIM card requirements	For remote communication, every station must be equipped with a SIM card (not provided) enabled for CSD (if desired) and/or GPRS data communication	
Download of measurement result from area monitor	Automatic and/or manual	
Call	Automatic from area monitor or from PC; manual from PC *	
TXT file generation	Generation of additional .txt and .bmp file for every data download	
SMS	Up to two mobile phones *	
Interface	RS232 - Jack connector	
Power supply	AMB8057-00 and AMB8057-02 Li-Ion primary battery 3,6 V – 13 Ah, Type LSH20 SAFT or equivalent	AMB8057-01 and AMB8057-03 Solar panel & Pb battery 4 V 2.5 Ah Battery charger 230 VAC-50 Hz
Battery operating time	> 6 months @ 30 min. GSM stand-by and 1 min. transmission per day	> 80 days in total darkness @ 30 min. GSM stand-by and 1 min. transmission per day
Operating temperature	-20 °C to 50°C	
Humidity	≤98% (45°C)	
Protection grade	IP54	
Alarms	Field over limit, full memory, open case, overheating, battery overcharge, low battery, probe failure	
Dimensions and weight	Station: 112 x 780 mm (max diameter x height) -- 2.4 kg Base and mast: 600 x 600 x 2000 mm (w x d x h) -- 5.1 kg	
Country of origin	Italy	

AMB-8057-SW-02 PC Software

Functions and Requirements

Data download	Manual; Automatic by the AMB-8057 or by PC at scheduled times *
Alarms	Two programmable thresholds (attention and alarm) with notice of trespassing from both ways (bottom-up and top-down)
Functions	Local and remote communication for AMB8057 setup and data downloading
	Calculation of AVG; RMS; Max.
	Vertical and Horizontal Zoom
	Linear and Logarithmic graphs
	Displaying of the probe type and calibration date, AMB-8057 Serial number
	Battery voltage and internal temperature recording
PC minimum requirements	Operating system: Windows XP, Vista, Windows 7
	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

* Remote communication available for AMB8057-02 and AMB8057-03 only

ORDERING INFORMATION

AMB-8057 set	
Remote stations:	
Area Monitor station powered by internal primary Li-Ion battery	**AMB-8057-00**
Area Monitor station powered by solar panel and back-up battery	**AMB-8057-01**
Area Monitor remote station with GSM/GPRS internal modem, powered by internal primary Li-Ion battery	**AMB-8057-02**
Area Monitor remote station with GSM/GPRS internal modem, powered by solar panel and back up battery	**AMB-8057-03**
Field probes:	
• Electric field probe 0.1 to 3000 MHz; 0.2 to 200 V/m	**EP-1B-01**
• Tri-band electric field probe 0.1 to 3000 MHz / 0.1 to 862 MHz / 933 to 3000 MHz; 0.2 to 200 V/m	**EP-3B-01**
• Electric field probe 0.1 to 7000 MHz; 0.2 to 200 V/m	**EP-1B-03**
• Quad-band electric field probe 0.1 to 3000 MHz; 0.2 to 200 V/m / 925 to 960 MHz / 1805 to 1880 MHz / 2110 to 2170 MHz, 0.03 to 30 V/m	**EP-4B-01**
• Quad-band electric field probe 0.1 to 7000 MHz; 0.2 to 200 V/m / 925 to 960 MHz / 1805 to 1880 MHz / 2110 to 2170 MHz, 0.03 to 30 V/m	**EP-4B-02**
• Magnetic field probe 10 Hz to 5 kHz; 50 nT to 200 µT	**HP-1B-01**
• Electric field probe 10 Hz to 5 kHz; 5 V/m to 20 kV/m	**EP-1B-04**
Optional accessories:	
• Metallic T-shaped base and Fibreglass mast (includes kit of screws, ties and 3 ballast bags)	**AMB-8057-MAST**

Standard accessories supplied with Area Monitor:

- RS232 cable, 2 m, DB9(m) - DB9(f)
- RS232 cable, Jack - DB9
- Power supply / Battery Charger (AMB8057-01 and AMB8057-03 only)
- RS232 / USB adapter
- Operating Manual, Test & Calibration Certificates
- Rotating joint for installation on mast
- AMB-8057-SW02 PC Software

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