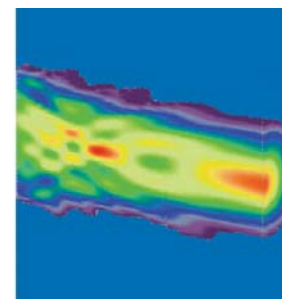
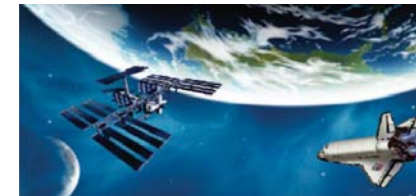
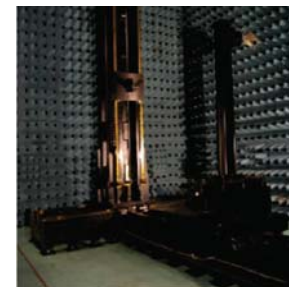


A faint, dotted world map is visible in the background of the contact information section.

ALLWAVE CORPORATION
3860 Del Amo Blvd, #404
Torrance, California 90503
Tel: (310)793-9620
Fax: (310)793-9629
www.allwavecorp.com
info@allwavecorp.com

Allwave Corporation is located in
Torrance, California, USA.



leading scientific company specializing in:

- antenna testing
- wave propagation
- wireless communication

Hybrid Antenna Near-Field & Far-Field Test System

All about waves

Whether You Recognize or Not,
Waves Are Everywhere in Nature, Science,
Engineering, Business, and Even Your Life.

Allwave Corporation is a leading scientific company specializing in antenna testing, wave propagation, and wireless communication. From 1996 until September of 2007, Allwave was known as Antcom Corporation. Its antenna production division was then sold to Novatel, Inc. As of September 18, 2007, Allwave has assumed all of Antcom's previous business activities, except for the antenna production sector. Allwave is committed to continue providing to industry its cutting edge technologies in a wide spectrum of electromagnetic wave propagation. The company consists of Hardware Products, Software Products, and Services, as follows:

A. Hardware Products

- Antenna near-field and far-field test systems. In addition to antenna pattern and parameter measurements, the systems also provide features including antenna diagnosis and near region wave propagation determination.
- Microwave photography systems, which take pictures of microwaves, instead of objects images.
- Radar cross section test systems, which measure RCS and also generate ISAR.
- Time domain test systems, which make it possible to measure antennas in an absorber-free environment.

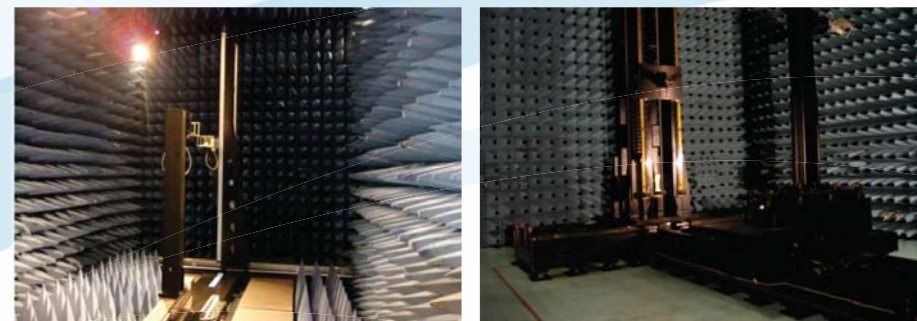
B. Software Products

- Mathhub: powerful plotting software and mathematical tool.
- PlotHub: user-friendly and powerful plotting software.
- MathCal: calculator software with powerful mathematical tools.
- MapHub: map maker software with more than 100 projection methods.

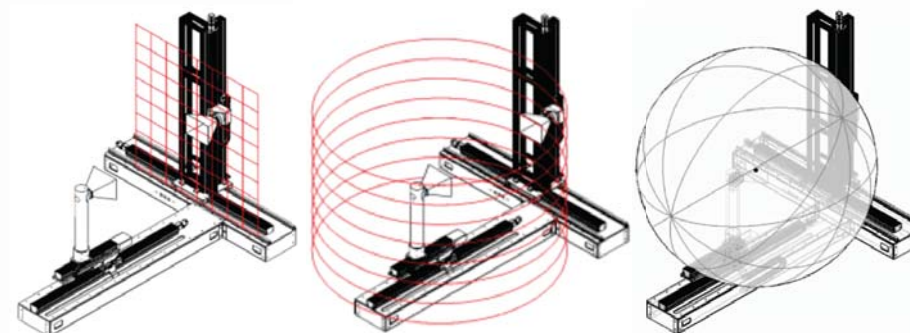
C. Services

- Antenna testing, which includes near-field and direct far-field measurements.
- Antenna diagnosis and optimization.
- Wave propagation detection and determination.
- Radar cross section (RCS) and Inverse Synthetic Aperture Radar (ISAR) testing
- Consulting services for antenna and microwave systems

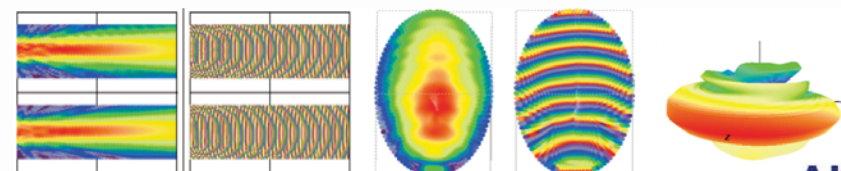
Universal Antenna Measurement System®



Allwave's **Universal Antenna Measurement System (UAMS®)** provides a turnkey solution for planar, spherical, and cylindrical near-field measurements, as well as direct far-field measurements, for both frequency-domain and time-domain RF equipment. Moreover, the system also allows for active antenna measurements, involving both transverse and longitudinal near-field probing throughout 3D regions. In particular, its holography feature generates exact, closed-form solutions based on planar, spherical, and cylindrical near-field data, regardless of whether such data is acquired on open or fully enclosing surfaces.



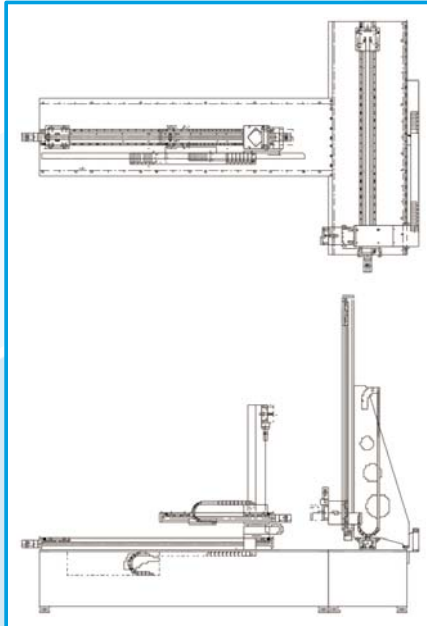
- Near-Field Antenna Measurements
- Active Antenna Measurements
- Time Domain & Frequency Domain Antenna Measurements Dual System
- Time Domain & Frequency Domain Near-field RCS System
- Far-Field Antenna Measurements
- Wave Propagation Measurements



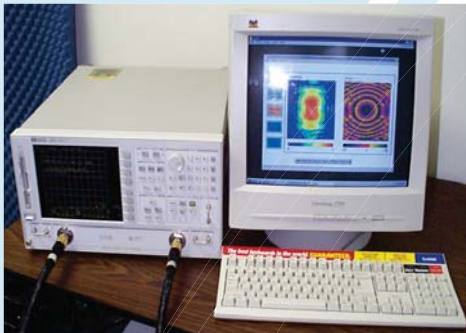
Vertical Near-field Test System



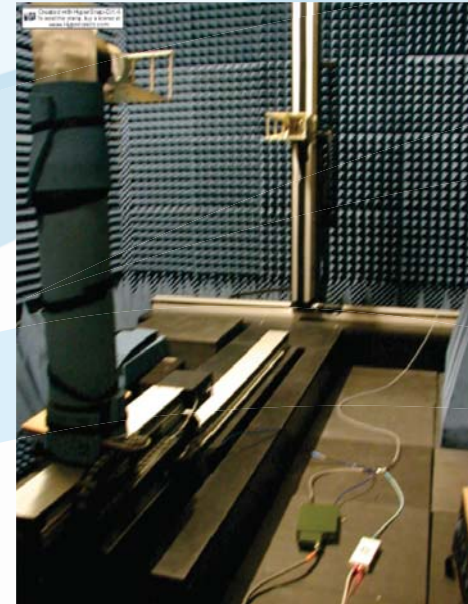
- Turnkey frequency-domain antenna near-field & far-field measurement
- A fully computer-controlled automated 7-axis system



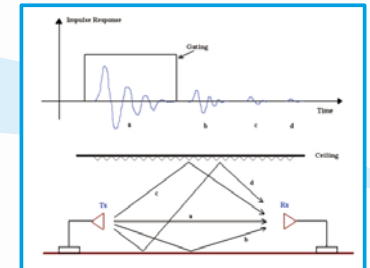
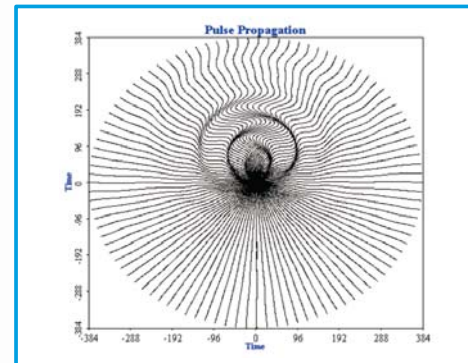
- Planar Near-Field Test Systems
- Spherical Near-Field Test Systems
- Cylindrical Near-Field Test Systems
- Cover Frequency: 100MHz~1000GHz
- High Precision, Reliability



Time Domain Test System



- Planar Near-Field Test Systems
- Spherical Near-Field Test Systems
- Cylindrical Near-Field Test Systems
- Cover Frequency: DC~40GHz
- High Precision, Reliability



- Turnkey time-domain antenna near-field & far-field measurement system
- Narrow Pulse Generator
- Sampling Converter



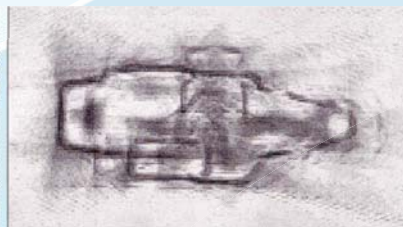
Time-domain Near-field RCS & ISAR measurement



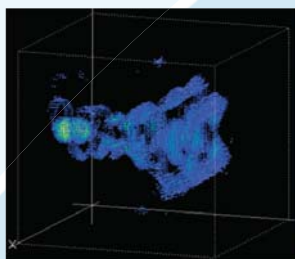
Aircraft RCS & ISAR



Ship Model
RCS & ISAR

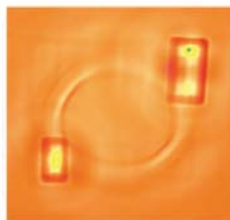
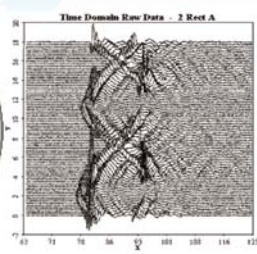
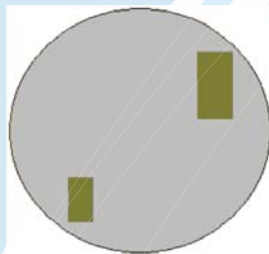


Near-field RCS to far-field RCS & ISAR

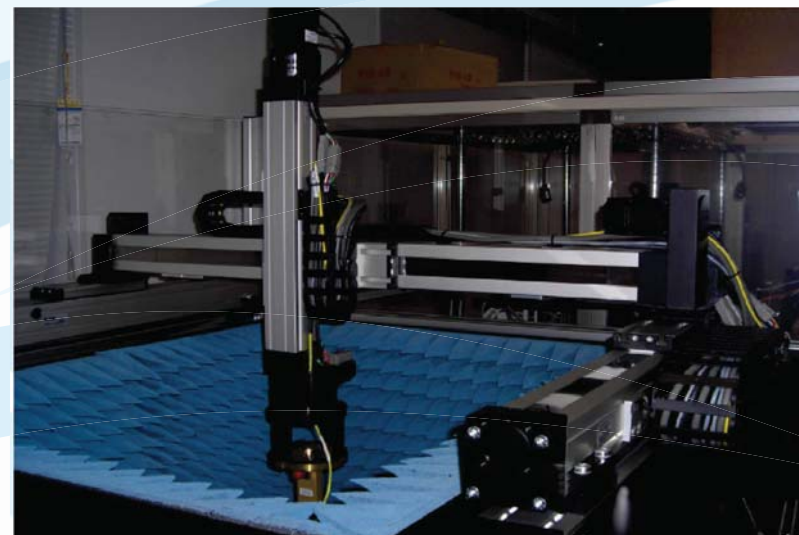


Standard Gain
Horn ISAR

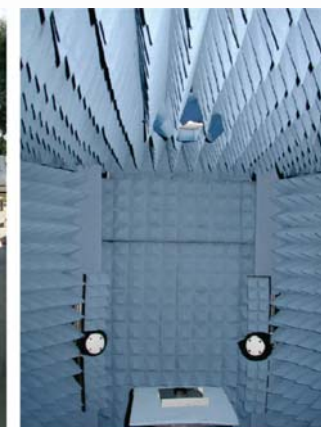
Object near-field to far-field and ISAR



Other Scanner Models



- Horizontal Scanner System
- Time-domain & Frequency domain Dual-system
- High precision, reliability



- WLAN Test solutions
- GPS Test Solutions

- Active Antenna Test Solutions
- Very High Measurement speed

FiMA®

Allwave Corporation announces a new release on March 1, 2013 of software package **FiMA®**, v.1.0, for the simulation and implementation of **electromagnetic holography**.

FiMA® provides exact, closed-form solutions, based upon Allwave's proprietary **Field Mapping Algorithm**, to the problems of electromagnetic holography based upon near zone data acquired on any one of following surfaces: a) **plane**, b) **sphere**, c) **cylinder**, d) **enclosing rectangular box**, or e) **enclosing cylinder**. This software package serves as a powerful design and simulation tool for both analytic and measured data. Users from a broad spectrum of scientific communities will be gratified to discover here a considerable utility across a wide range of applications, such as microwave holography, imaging, inverse scattering, near zone field reconstruction and 3D visualization, materials testing, antenna diagnosis, synthesis, and design, ISAR, EMI/EMC, and EM wave propagation in general.

FiMA® Supports a Wide Range of Applications wherein it

Antenna diagnosis/synthesis/design

Determines exact source region fields directly from near-field data, as an aid to antenna surface or feed element diagnostics, as well as synthesis/design.

Closed-form near-to-near, near-to-far, and far-to-near field transforms

Provides near-field to near-field transformations from five different surfaces to any surface; near-field to far-field from five surfaces; and far-field to near-field over any arbitrary surface, including probe corrections and data enhancement through Nyquist sampling.

Microwave photography: a snapshot of microwaves

Invokes exact solutions so as to enable a single slice of near-field data to unfold into a full 3D visualization of electromagnetic wave propagation.

Microwave imaging

Provides a powerful tool for single-frequency microwave imaging.

RCS & ISAR

Determines the geometry of aircraft based on one slice of single-frequency near-field data, altogether free from wide-band requirements.

Materials measurement

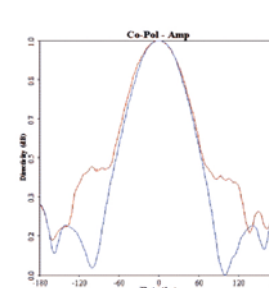
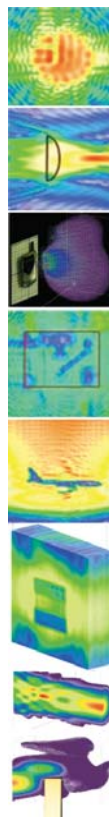
Determines material properties from either transmitted or reflected near-field data.

EMC/EMI detection

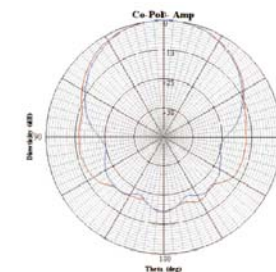
Identifies noise and interference sources via one slice of near-field data.

Wave diffraction phenomena

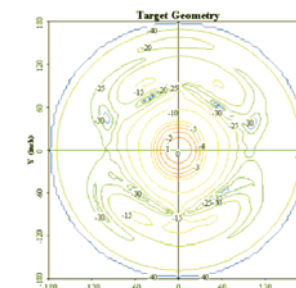
Obtains diffraction fields around objects from a given slice of near-field data: it's real!



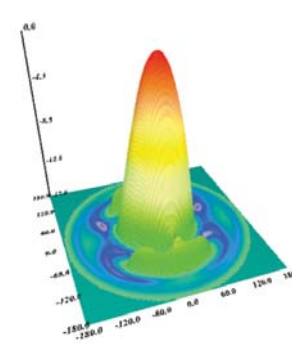
Rectangular Plot



Polar Plot



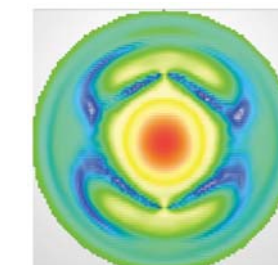
Line Contour



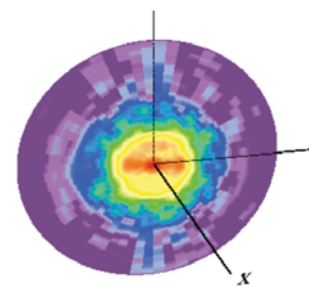
Rectangular 3D



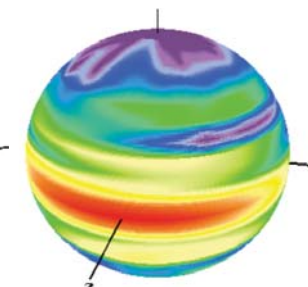
Polar 3D



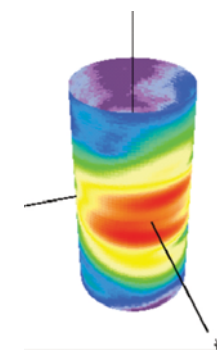
Color Contour



Planar 3D

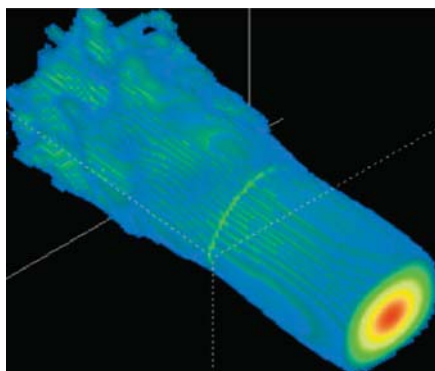
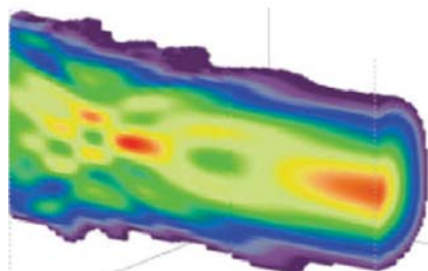
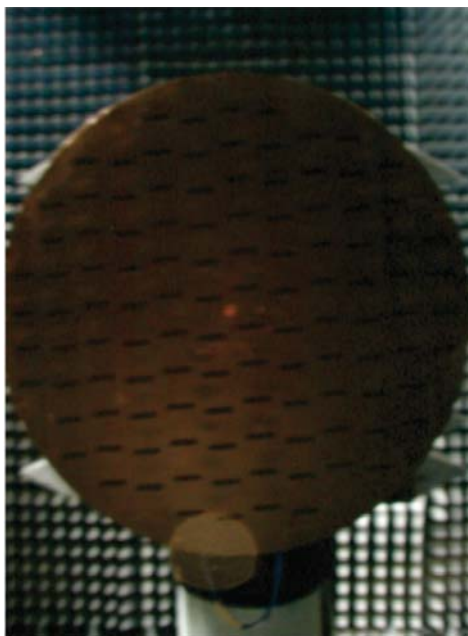


Spherical 3D

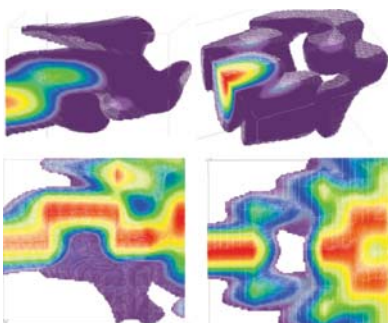


Cylindrical 3D

Microwave Photography



Simply speaking, Microwave Photography is to take pictures of microwaves, to capture the images of microwaves in terms of its field intensity and/or phase.



Pulse Generator

Waveform	Amp.(V)	Freq.center (MHz)	Pulse width (ps)	Rise time (ns)	Max.PRf (MHz)	Polarity
	25		30+2		1	N
	170(p-p)	100±10			100	
	13.5		0.5-2.0	0.3	50	N
	13.5		35±5		50	N
	30(p-p)	2000±200			1	

Precision Digital Sampling Converter

Channel	Bandwidth of channel (Ghz)	Maximal Sampling Rate (kHz)	Dynamic range (mV)	Sensitivity Range (ns/div)	Noise factor (RMS)(mV)	Instability rms (ps)
2	0.1-26	1000	±1000	0.002-200	1.6	10(2.5)
2	0-26	7000	±1000	0.002-6@7MHz	1.7	1.5(1)
	0.1-40	1000	±1000	0.002-200	1.9	10(2.5)

Standard Gain Horn

Frequency(GHz)	Gain(dBi)	Connector type
0.3-1.12	-1-4.2	N
1.12-1.7	14.5	N
1.7-2.6	14.0	N
2.6-3.95	15.0	N
3.95-5.85	14.5	N
5.85-8.20	14.7	N
8.20-12.4	15.8	N
12.4-18.0	14.9	N
18.0-26.5	14.8	SMA
26.5-40.0	14.5	2.9mm

Reference Gain Horns

Frequency(GHz)	Gain(dBi)	Connector type
0.3-1.12	-1-4.2	N
0.8-18Ghz	3.0-14.5	N
18-40Ghz	5.0-18	2.92mm