

The Revolutionary EMC Immunity Test Solution

Compact · Efficient · Scalable

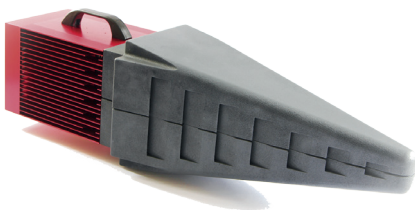
The patented RadiField® Triple A is a revolutionary new product causing a paradigm shift in the world of EMC immunity testing. The RadiField® system involves a combination of high level integration and a lossless field combining technique, making several discrete components like combiners, couplers, power meters and cabling superfluous.

Conventional testing

Conventional immunity testing systems involve a broadband amplifier, including inefficient internal combiner, directional coupler, two RF power meters and interconnecting cables. The efficiency of such setup is poor due to power loss in the combiners and both the internal and external cabling.

Eliminate loss

By removing all components that cause the power loss and integrating all the other components into one single instrument all these unwanted power losses are eliminated. The low power RF carrier signal is transmitted in a lossless fashion over the standard coaxial cable.



Active Antenna Array

At the same time the RadiField® makes use of the field combining technology of an Active Antenna Array. Integrated amplifiers are directly connected to the same number of integrated antennas making a discrete inefficient combiner superfluous. Instead of combining power the RadiField® combines field.

Revolutionary and yet Full Compliant Design

Although the approach is revolutionary it is still completely full compliant with the international EMC immunity standards. These standards merely prescribe aspects like frequency, field strength and homogeneity which is exactly where the

RadiField® is adhering to. The integrated system is also less error prone.

Low Cost of Ownership

The new RadiField® Triple A is not only cost effective due to its much lower price but also due to its easy installation, low power consumption, less mechanical wear and tear of cables and connectors and even more important, lower calibration cost. All these aspects result in a substantially lower cost of ownership of this immunity system.

RadiCentre Integration

The RadiField® Triple A is easily integrated with a modular RadiCentre® EMC test system. The mainframe contains the RadiSupply® plug-in card which powers the RadiField® over the standard coaxial cable running from the RadiCentre® to the RadiField®. This same cable is used to drive the carrier signal and to provide bidirectional communication with the RadiField® unit. The RF signal may be generated either by an external RF signal generator or by an integrated RadiGen® EMC signal generator. Finally the control of the automated H/V positioner is arranged over the same coaxial cable if the RadiField® is used with the RTW2000A mast.



Broad Range

The RadiField® Triple A® approach covers frequencies ranging from 80 MHz up to 18 GHz, reaching homogeneous fields up to 600 V/m! Another advantage of the technology used in the RadiField® is the opportunity to upgrade your system to higher field levels.

From now on...
Forget about Power,
it's all about
Field!

RadiField® Triple A®

Technical Specifications



Performance	RFS2003A	RFS2006A	RFS2003B	RFS2006B
Frequency range	1 GHz - 3 GHz	1 GHz - 6 GHz	1 GHz - 3 GHz	1 GHz - 6 GHz
Three Meter Equivalent (TME) Field ¹	3 V/m		10 V/m	
Input connector	N- Type			
Max. input power to reach TME Field ¹	0 dBm			
Harmonic Supression	12 dBc (minimum, 2nd harmonic)			
Harmonic Supression	16 dBc (typical, 2nd harmonic)			
Number of internal power meters	2 (Forward & Reflected)			
Power meter type	Integrated RadiPower			
Directional Coupler	Integrated			
Safety				
Safety circuit	Safe start & shutdown			
Cable (dis)connect	Intrinsically safe			
Voltage	<50 VDC (Safe Voltage)			
Interlock	Hardware interlock			
Connections				
Tri-pod mount	1/4-20 inch UNC thread			
Antenna mast mount (optional)	22 mm Ø stinger boom			
Antenna mast mount (optional)	40 mm Ø stinger boom			
Dimensions				
Length	860 mm			
Width x Height	250 mm x 250 mm			
Weight	9 kg		11 kg	
Environmental conditions				
Temperature range	10 °C - 40 °C			
Relative humidity	10% - 90% (non-condensing)			
Power consumption				
Supply voltage	115 VAC / 230 VAC			
Power consumption	< 150 W, 125 W typical		< 400 W, 350 W typical	
Warranty	3 Years (molest excluded)			

¹) Three Meter Equivalent (TME) Field: 1,5 m x 1,5m Homogeneous field @ 3 m and 2 dB field compression according to IEC 61000-4-3

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