

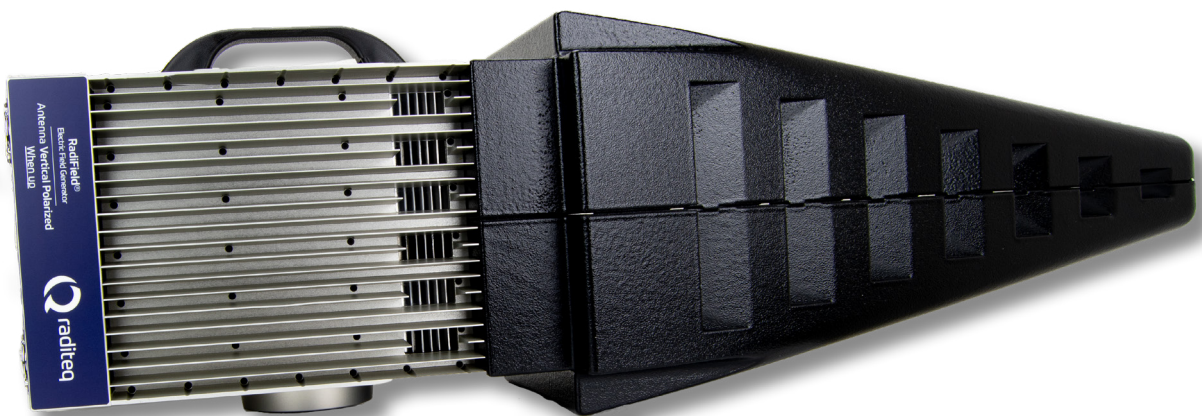


RadiField® Series

Compact

Efficient

Full Compliant



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RadiField®

The Revolutionary EMC Immunity Test Solution

Compact Efficient Full Compliant

The patented RadiField® Triple A is a revolutionary concept that caused a paradigm shift in the world of EMC immunity testing when it was introduced in 2015. The RadiField® system consists of a combination of high level integration and a lossless field combining techniques. This makes several discrete components with high power losses like combiners and external cabling superfluous.

Conventional testing - Conventional radiated immunity testing system involve a broadband amplifier and antenna. Including inefficient internal power combiners, directional couplers, two RF power meters and interconnecting cables. The efficiency of such a setup is poor at high frequencies due to severe power loss in the combiners and in both the internal and external cabling from the amplifier.

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 RF carrier signal towards the RadiField® unit is transmitted in low power over the standard N-type coaxial cable and reamplified before it reaches the internal power amplifiers. Thus a virtual lossless transmission between the signal generator and the RadiField® is achieved.

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

Revolutionary and yet full compliant design - Although the approach was revolutionary, it is full compliant with all international EMC immunity standards. These standards solely prescribe aspects like frequency, field strength and homogeneity, which is exactly where the RadiField® is adhering to.

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.

Flexible - Due to its small dimensions, low weight and easy setup, the RadiField® can be easily moved between different rooms and/or locations.

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

Broad Range - The RadiField® Triple A approach covers frequencies ranging from 800 MHz up to 18 GHz and homogeneous fields up to 100 V/m!

RadiField® Specifications

Model	RFS2006A	RFS2006B
Frequency range	0.8 GHz - 6 GHz	0.8 GHz - 6 GHz
Three Meter Equivalent ¹	3 V/m	10 V/m
One Meter Maximum field	16 V/m	54V/m
Max. dBm input to reach TME ¹ Field	0 dBm	
Number of internal power meters	3x forward 3x reflected	
Power meter type	Integrated RadiPower®	
Directional coupler	Integrated	
Input connector	N-Type	
Harmonic suppression @ 1 dB compression	- 12 dBc (minimum, 2nd harmonic) - 16 dBc (typical, 2nd harmonic)	
Safety specifications		
Voltage	50 VDC (Safe voltage)	
Safety circuit	Safe start & shutdown	
Cable (dis)connect	Intrinsically safe	
Connections		
Tri-pod mount	¼-20" UNC thread	
Dimensions		
	RFS2006A	RFS2006B
Length	860 mm	860 mm
Height	250 mm	250 mm
Width	250 mm	250 mm
Weight	10 kg	11 kg
Environment conditions		
Temperature range	10° C – 40° C	
Relative humidity	10% - 90% (non-condensing)	
Sound level produced	< 70 dB(A)	
Maximum installation height	2.000 meters above sea level	
Power consumption		
	RFS2006A	RFS2006B
Max power consumption	300 W	400 W
Mains fuse of PSU	4 AT	
Supply voltage	115 VAC / 230 VAC	
Mains	Safety class I, Over voltage category II	

- All specifications are measured after 10 minutes warm-up time and 0dBm unless specified otherwise.
- Typical specifications indicate that the measured values are met on at least 80% of the points.
- 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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