Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещеск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владимир (4922)49-43-18 Волаград (844)278-03-48 Волоград (844)278-03-48 Волоград (8472)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Коломна (4966)23-41-49 Кострома (4942)77-07-48 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Краснодар (851)203-40-90 Курск (4712)77-13-04 Курган (3522)50-90-47 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Ноябрьск (3496)41-32-12 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Пенза (8412)25-98-37 Псков (8112)59-10-37

Казахстан +7(7172)727-132

Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Сарара (846)206-03-16 Саранск (8342)22-96-24 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Суррт (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97

Киргизия +996(312)96-26-47

Тверь (4822)63-31-35 Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Улан-Удь (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (4112)23-90-97 Ярославль (4852)69-52-93

Россия +7(495)268-04-70

www.dare.nt-rt.ru || der@nt-rt.ru

Технические характеристики на генераторы электрического поля RadiField, RadiField 18 компании DARE

RadiField® Series

The RadiField® series offers a variety of Electric Field Generators. These Generators are composed of integrated amplifiers, antennae, directional couplers and power meters in one compact instrument. Due to the use of an array of antennae combiners are no longer needed. This innovation of the RadiField® results in a very efficient field generator which increases efficiency up to three times compared to conventional antenna – amplifier setups.



RadiField® models overview

Product Name Freque		quency Range	uency Test Range Levels		Standard Applications Get	
	RadiField® RFS2018B	6 GHz - 18 GHz	Max 75 V/m @ 1m Max 54 V/m @ 2m max 36 V/m @ 3m	EN61000- 4-3	RI/RS Testing	
	RadiField® RFS2006B	800 MHz - 6 GHz	Max 54 V/m @ 1m Max 36 V/m @ 2m max 18 V/m @ 3m	EN61000- 4-3	RI/RS Testing	
	RadiField® RFS2006A	800 MHz - 6 GHz	- Max 28 V/m @ 1m Max 15 V/m @ 2m max 5 V/m @	EN61000- 4-3	RI/RS Testing	

Conventional Testing

Conventional immunity testing setups involve an amplifier including a combiner, coupler, two RF power meters, and interconnect cables. The efficiency of such an arrangement is low due to power

loss in the combiner and internal and external cabling.

High level integration

By integrating all these components into one instrument, all these unwanted power losses are practically leveled. The single cable, running from the RadiCentre® to the RadiField®, is used to power the unit with an RF signal, to power the unit, and to provide bidirectional communication with the unit. The low power RF signal is also transmitted through this cable. The power loss of the RF signal through the coaxial cable is easily overcome by an internal amplifier.

Broad Range

The RadiField® Triple A approach covers frequencies ranging from 80 MHz to 12 GHz and achieves homogeneous fields up to 600 V/m! Another benefit is the ability to upgrade your system to higher field levels.

Antenna mast & H/V positioner

RF signal, power and control signals go all over a standard coaxial cable allowing the unit to be easily transported to different locations in the laboratory.

RadiCentre® integration

The RadiField® Triple A is easy to integrate with the modular RadiCentre®. This mainframe contains the RadiSupply® that feeds the RadiField® via a standard coaxial cable that also carries the RF and controller signals. The RF signal can be generated by an external RF signal generator or by an integrated RadiGen® EMC signal generator.



RadiField® 18

The High Frequency 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 re-amplified 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 dimentions, 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	RFS2018B					
Frequency range	6 GHz - 18 GHz					
OME (1) field	75 V/m					
Max. input power to reach OME	+10 dBm					
Field	(Typical 0dBm)					
Number of internal power meters	1x forward					
	1x reflected					
Power meter type	Integrated RadiPower®					
Directional coupler	Integrated					
Input connector	N-type					
Harmonic suppression @ 1 dB	- 12 dBc (minimum, 2nd harmonic)					
	- 16 aBc (typical, 2nd harmonic)					
Safety specifications						
Voltage	55 VDC (Safe voltage)					
Safety circuit	Safe start & shutdown					
Cable (dis)connect	Intrinsically safe					
Connections						
Tri-pod mount	14-20" UNC thread					
Dimensions						
Length	715 mm					
Height	250 mm					
Width	250 mm					
Weight	9 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						
Max power consumption	350 W					
Mains fuse of PSU	4 AT					
Supply voltage	115 VAC / 230 VAC					
Mains	Safety class I, Over voltage category II					
Safety						
Warranty (2)	3 Years					

• 1) One Meter Equivalent

• 2) Standard one year of warranty is given on Raditeq equipment. After you register your new Raditeq product two (2) years of warranty will be added for free resulting in three (3) years of warranty.

• 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.



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 amplifyer.

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 dimentions, 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						
	5x reflected						
Power meter type	Integrated RadiPower®						
Directional coupler							
Input connector	N-Type						
Harmonic surpression @ 1 dB	- 12 dBc (minimum, 2nd harmonic)						
	- io abc (typical, zna narmonic)						
Voltage	50 VDC (Safe voltage)						
Satety 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						
Saftey							
Warranty (2)	3 Ye	ears					

• 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

• 2) Standard one year of warranty is given on Raditeq equipment. After you register your new Raditeq product two (2) years of warranty will be added for free resulting in three (3) years of warranty.

Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владимир (4922)49-43-18 Волаград (844)278-03-48 Волоград (844)278-03-48 Волоград (8472)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (3332)68-02-04 Коломна (4966)23-41-49 Кострома (4942)77-07-48 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Краснодар (861)203-40-90 Курск (4712)77-13-04 Курган (3522)50-90-47 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (383)20-46-81 Ноябрьск (3496)41-32-12 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Петрозаводск (8142)55-98-37 Псков (8112)59-10-37

Казахстан +7(7172)727-132

Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Сарара (846)206-03-16 Саранск (8342)22-96-24 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Суррт (3462)77-98-35 Сыктывкар (8212)25-95-17 Тамбов (4752)50-40-97

Киргизия +996(312)96-26-47

Тверь (4822)63-31-35 Тольятти (8482)63-91-07 Томск (3822)98-41-53 Тула (4872)33-79-87 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Улан-Удэ (3012)59-97-51 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Чебоксары (8352)28-53-07 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Чита (3022)38-34-83 Якутск (4112)23-90-97 Ярославль (4852)69-52-93

Россия +7(495)268-04-70

www.dare.nt-rt.ru || der@nt-rt.ru