INTEGRATED GRADIENT AND SHIM COIL SYSTEM FOR SMALL ANIMAL MR
Model BFG-270/150-S7
and
Model BFG-270/150-S14

Application in imaging of small rodents - Designed for high speed EPI and DWI.

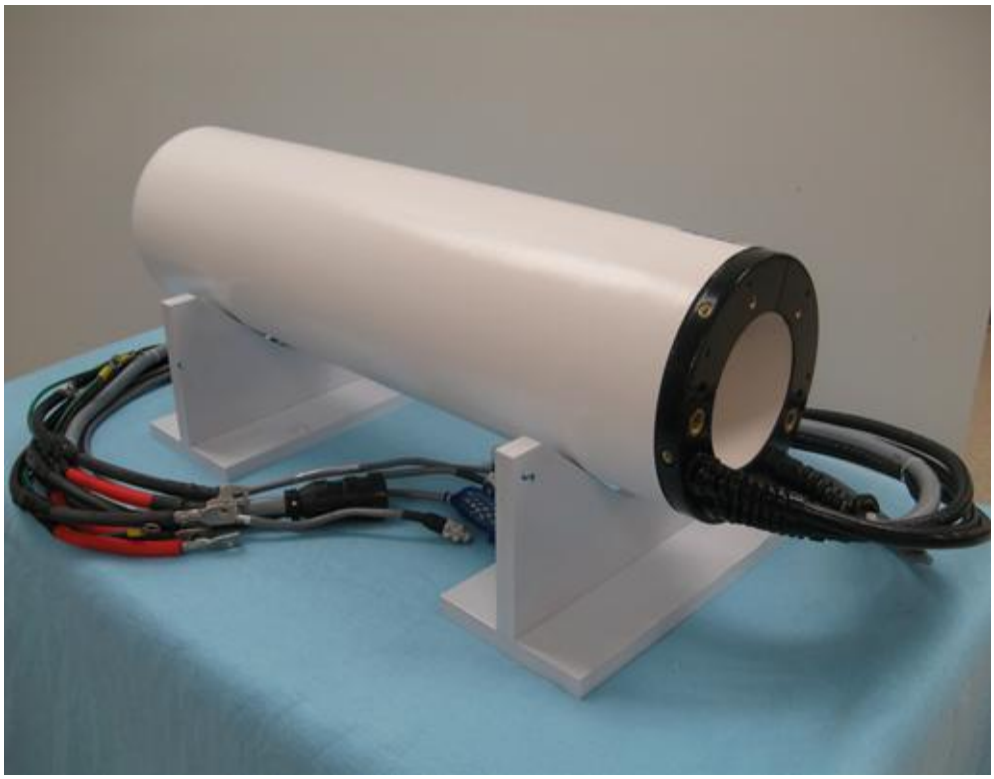
Technical Specifications

Shielded Gradient Sub-System	
Gradient Strength	
300A Nominal	450 mT/m
Peak Values	
Peak Current	400A
Peak Voltage	1400V
Rise Time	
200 A, 300 V	130 us
Shim Sub-system 10A typ.	
7 Shim Channels	Strength ^{1}H Hz/cm^{n}/A
Z0 (shielded)	2,100 Hz/A
Z2	230
Z3	18
ZX/ZY	210
C3/S3	90
Dimensions	
Internal Diameter	151 mm +/-1
External Diameter	270 mm +/-5
Field linearity (design)	
80 mm DSV	+/- 5%
Z0 Compensation	Yes
Shim Sub-system 5A typ.	
14 Shim Channels	Strength ^{1}H Hz/cm^{n}/A
Z0 (shielded)	2,100 Hz/A
Z2	230
Z3	18
Z4	3
ZX/ZY	210
Z2X/Z2Y	8
C2/S2	90
ZC2/ZS2	15
C3/S3	9
Cooling system	
Water Flow at 6 bar	6 l/min
Temperature monitoring	
Type	Number
PT-100	6
PTC	6
Other types available	

Construction Aspects

Materials
Oxygen free copper, fiber glass, epoxy resins
Cooling system
Forced water circulates in multi-path cooling circuits with independent feeds. Redundant temperature sensors ensure accurate temperature control. The whole system is impregnated with high thermal conductivity resin.
Cabling
Imagrad™ coaxial cables
Support fixtures
Compatible with standard magnet structures
Durability
Vacuum impregnated with resin for decreased vibration and increased durability

System ready for insertion (mounting fixtures not shown)



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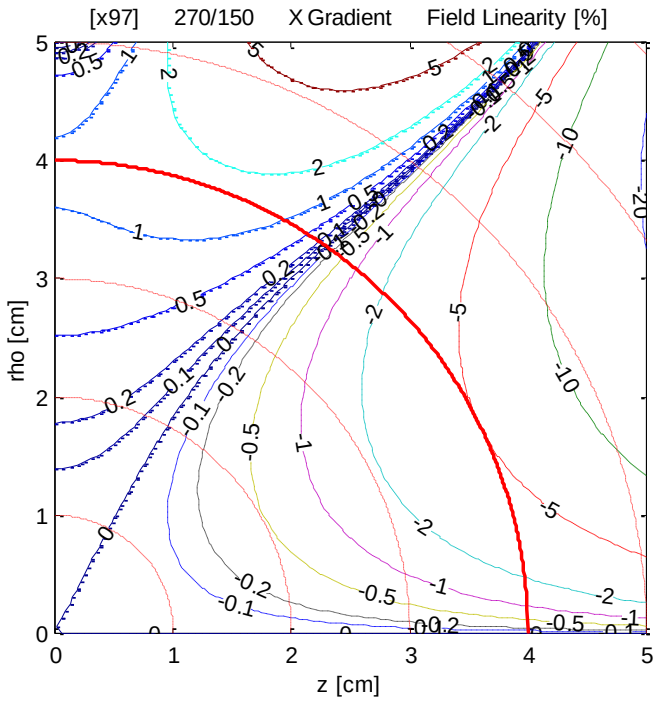
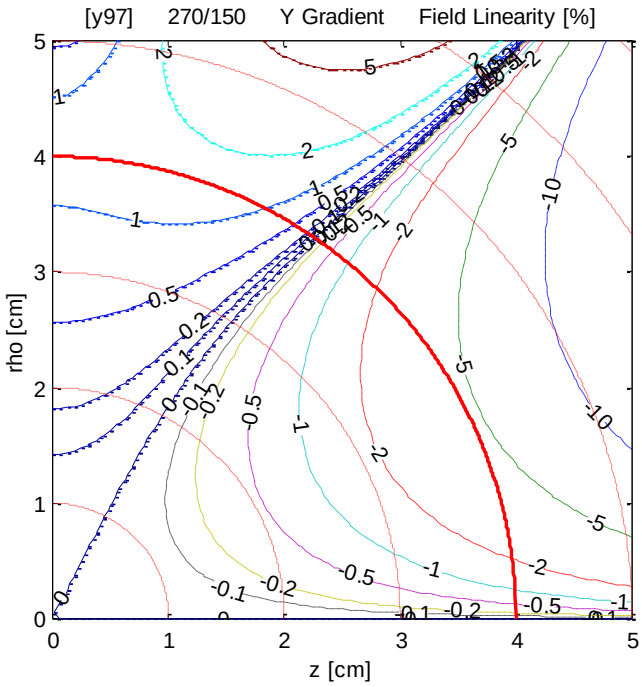
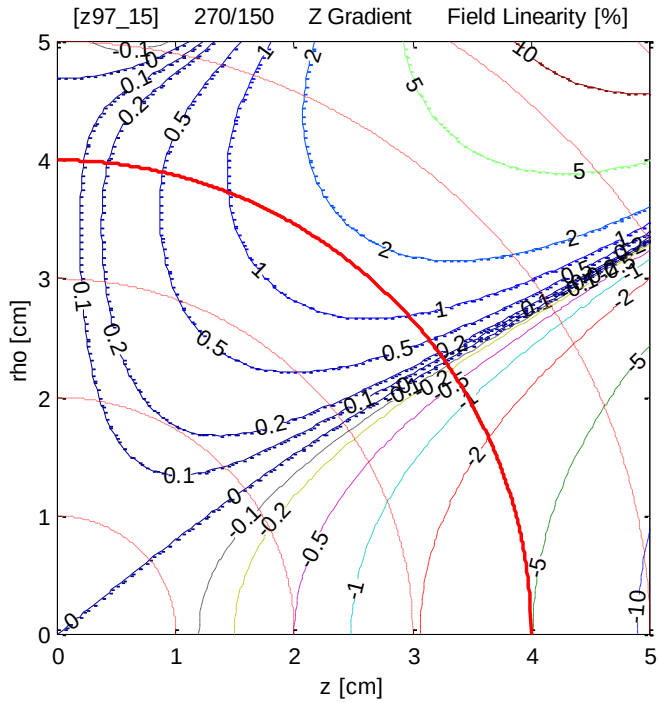
Field Linearity X, Y, and Z







Specifications subject to change pending improvements in technology and design.

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