

INTEGRATED GRADIENT AND SHIM COIL SYSTEM FOR SMALL ANIMAL MR Model BFG-305/210-S6

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

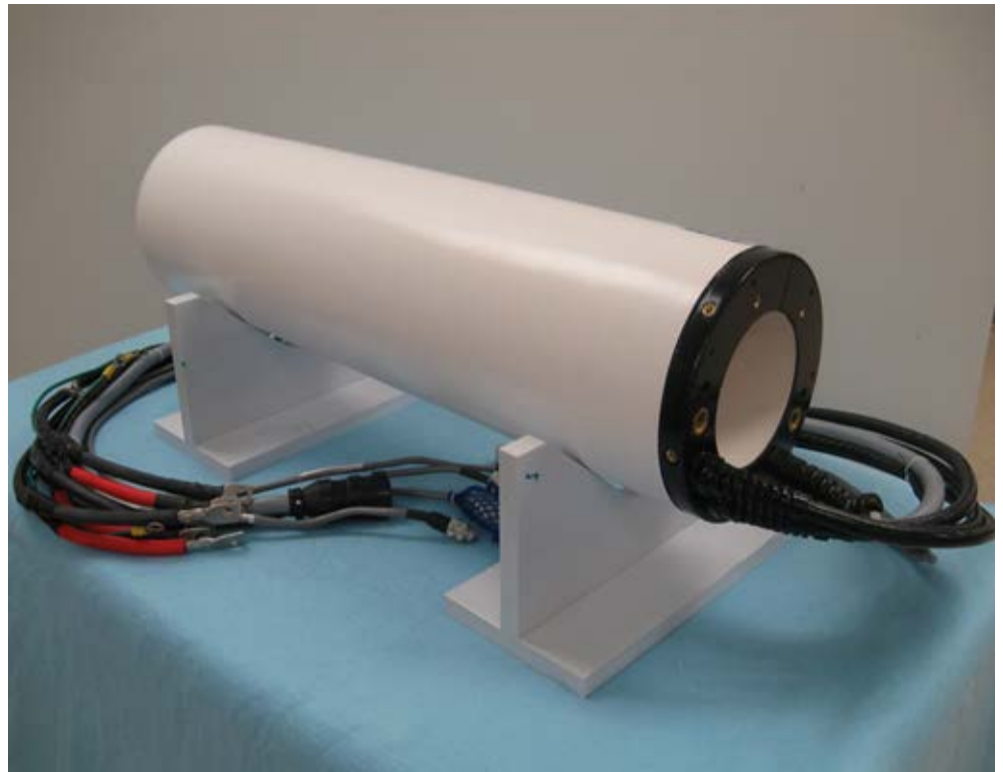
Technical Specifications

Shielded Gradient Sub-System	
Gradient Strength	
300A Nominal	300 mT/m
Peak Values	
Peak Current	300A
Peak Voltage	1400V
Rise Time	
300 A, 750 V	300 us
Performance	
Slew rate @750 V	1000 T/m/s
Gain	1 mT/m/A
Orthogonality	90+/-1 deg.
Shielding	>99%
Dimensions	
Internal Diameter	210 mm +/-1
External Diameter	305 mm +/-3
Field linearity (design)	
120 mm DSV X and Y	+/- 3%
120 mm DSV Z	+/- 2.5%
Shim Sub-system 10A typ.	
6 Shim Channels	Strength mG/cm ⁿ /A
Z0 (shielded)	380
Z2	29.7
ZX/ZY	36.6
C2/S2	16.8
Cooling system	
Water Flow at 6 bar	12 l/min
Power dissipation DC	4.5 KW
RMS current 3x	70A
Temperature monitoring	
Type	Number
PT-100	6
PTC	6
Other types available	
Total mass	
Weight	200 kG

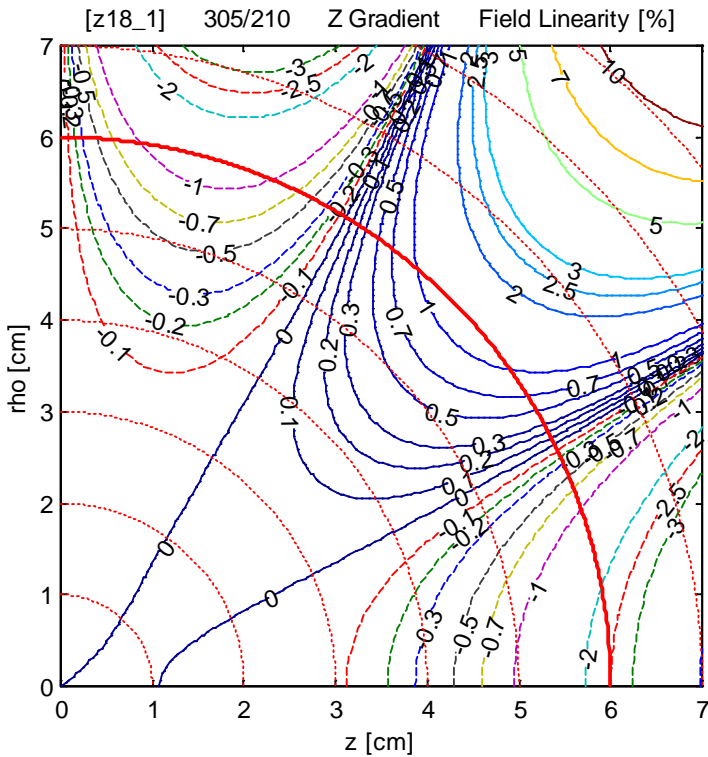
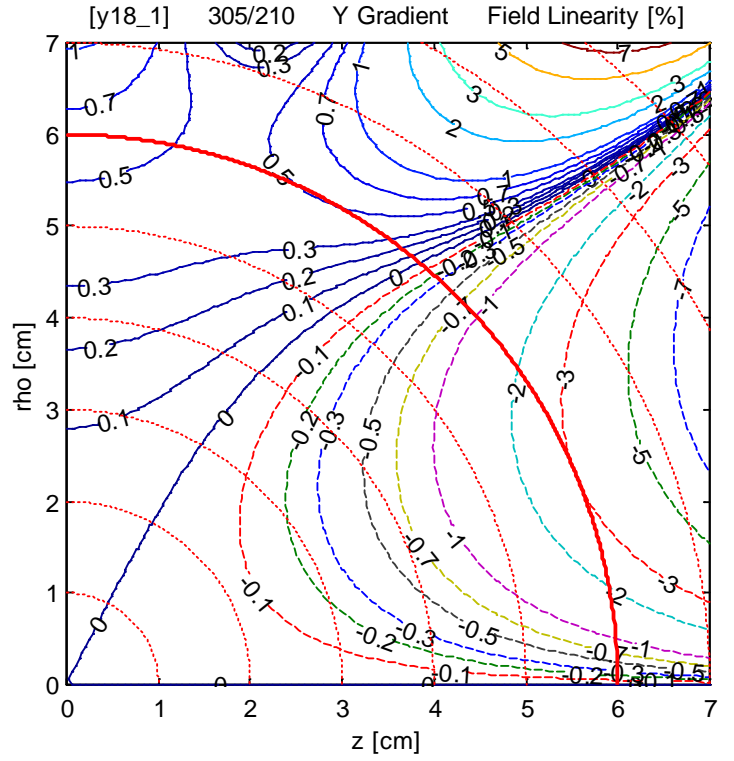
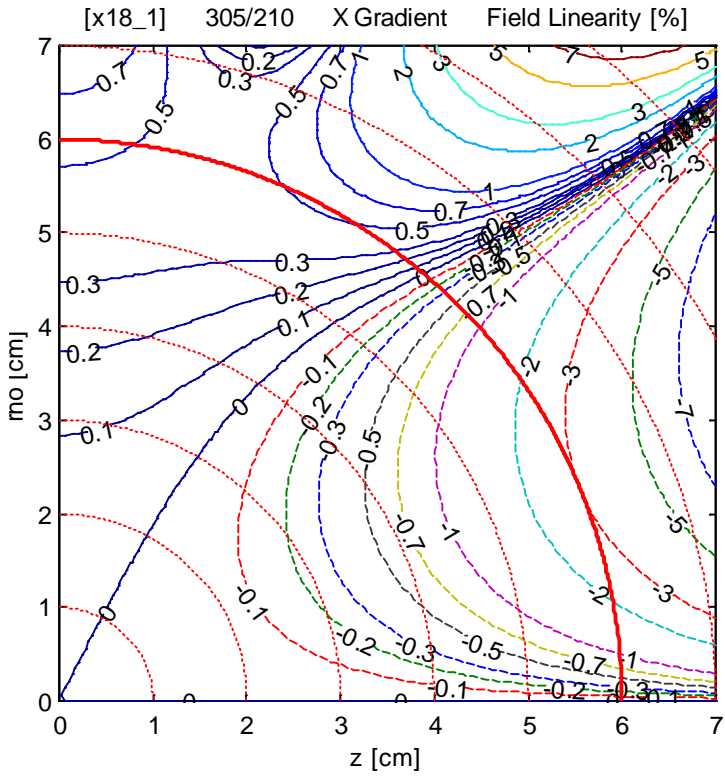
Construction Aspects

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)



Field Linearity X, Y, and Z



Specifications subject to change pending improvements in technology and design.

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