

INTEGRATED GRADIENT AND SHIM COIL SYSTEM FOR SMALL ANIMAL MR Model BFG-200/115-S14

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

Technical Specifications

Shielded Gradient Sub-System	
Gradient Strength	
300A Nominal	675 mT/m
Peak Values	
Peak Current	325A
Peak Voltage	1400V
Rise Time	
290 A, 500 V	100 us
Gradient Strength Coefficient	
X axis	2.31 mT/m/A
Y axis	2.33 mT/m/A
Z axis	2.30 mT/m/A
Gradient coil inductance	
X axis	124 uH
Y axis	150 uH
Z axis	134 uH
Dimensions	
Internal Diameter	116 mm +/-1
External Diameter	200 mm +/-5
Field linearity (design)	
80 mm DSV	+/- 4%
100 mm DSV	+/- 10%
Shim Sub-system 10A typ.	
Shim Channel	Strength ¹ H Hz/cm ⁿ /A
Z0 (shielded)	4,100
Z2	360
Z3	19
Z4	9
ZX/ZY	260
Z2X/Z2Y	22
C2/S2	145
ZC2/ZS2	32
C3/S3	20
Cooling system	
Type	Flow at 6 bar
Water	6 l/min
Temperature monitoring	
Type	Number
PT-100	6
PTC	6
Other types available	

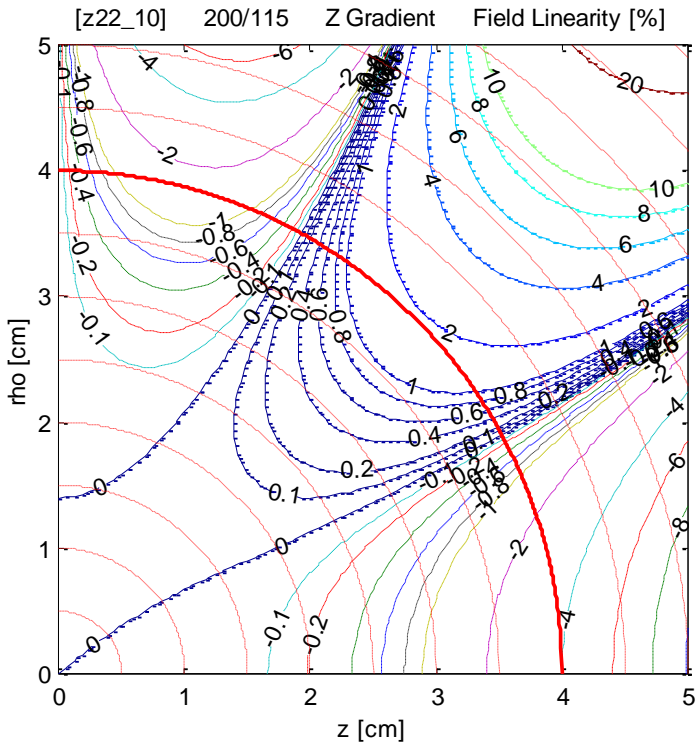
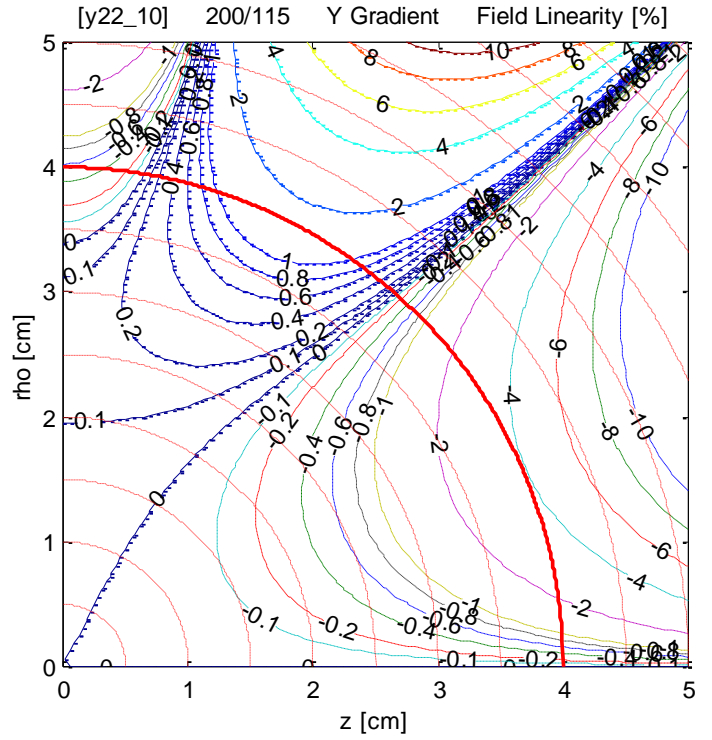
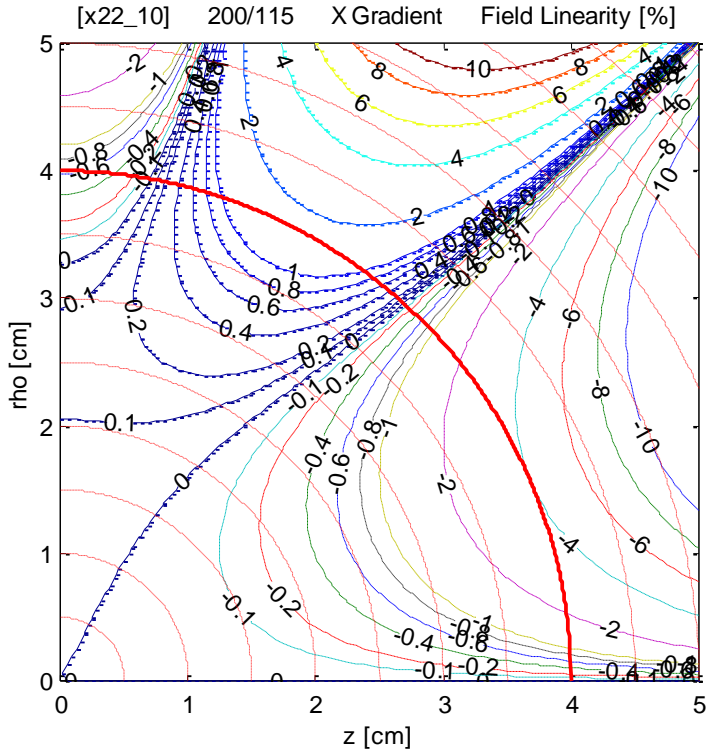
Construction Aspects

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)



Field Linearity



Specifications subject to change pending improvements in technology and design.

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