

INTEGRATED GRADIENT AND SHIM COIL SYSTEM FOR SMALL ANIMAL MR Model BFG-102/60-S13

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

Technical Specifications

Shielded Gradient Sub-System	
Gradient Strength	
134A Nominal	1000 mT/m
Peak Values	
Peak Current	150A
Peak Voltage	750V
Rise Time	
134 A, 300 V	300 us
Performance	
Slew rate @300 V	10000 T/m/s
Gain	7.34 mT/m/A
Orthogonality	90+/-1 deg.
Shielding	>99%
Dimensions	
Internal Diameter	60 mm +/-0.5
External Diameter	102 mm +/-3
Field linearity (design)	
40 mm DSV	+/- 5%
Shim Sub-system 5A typ.	
6 Shim Channels	Strength H1 Hz/cm ⁿ /A
Z0 (shielded)	1326
Z2	1600
Z3	155
ZX/ZY	1500
Z2X/Z2Y	150
C2/S2	450
ZC2/ZS2	270
C3/S3	180
Cooling system	
Water Flow at 6 bar	2.5 l/min
Power dissipation DC	1.5 KW
RMS current 3x	35A
Temperature monitoring	
Type	Number
PT-100	6
PTC	6
Other types available	
Total mass	
Weight	20 kG

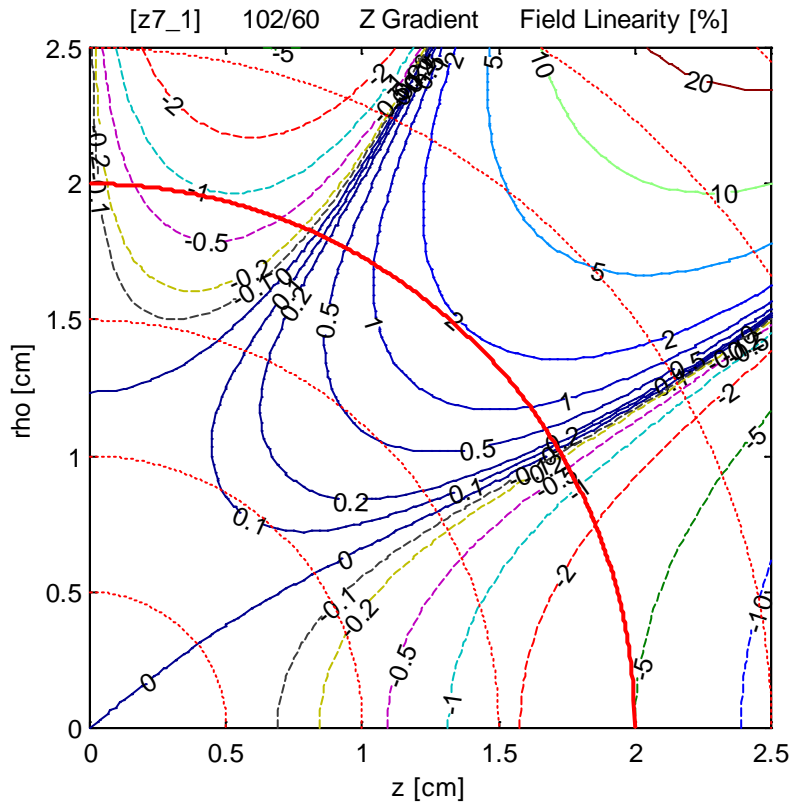
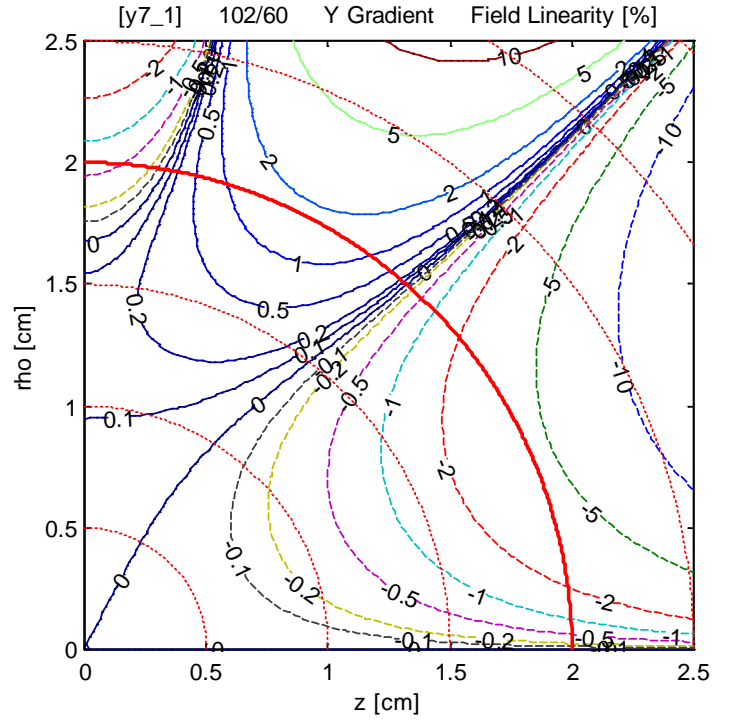
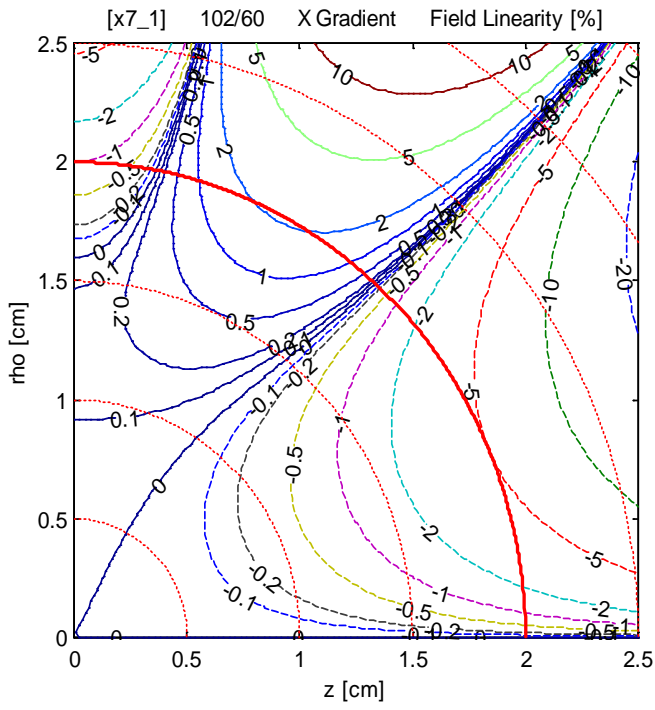
Construction Aspects

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 shown)



Field Linearity X, Y, Z Axis



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