

# INTEGRATED GRADIENT AND SHIM COIL SYSTEM FOR SMALL ANIMAL MR Model BFG-240/120-S6

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

## Technical Specifications

Shielded Gradient Sub-System	
<b>Gradient Strength</b>	
200A Nominal	615 mT/m
325A Peak	1000 mT/m
<b>Peak Values</b>	
Peak Current	325A
Peak Voltage	1400V
<b>Rise Time</b>	
325 A, 750 V	150 us
<b>Gradient Strength Coefficient</b>	
X axis	3.83 mT/m/A
Y axis	4.29 mT/m/A
Z axis	3.13 mT/m/A
<b>Gradient coil inductance (nominal)</b>	
X axis	375 uH
Y axis	435 uH
Z axis	250 uH
<b>Dimensions</b>	
Internal Diameter	120 mm +/-1
External Diameter	235 mm +/-5
<b>Field linearity (design)</b>	
60 mm DSV	+/- 5%
80 mm DSV	+/- 10%*
<b>Shim Sub-system 10A typ.</b>	
Shim Channel (2 sets)	Strength <sup>1</sup> H Hz/cm <sup>n</sup> /A
Z0 (shielded)	2,100
Z2	200
Z3	45
ZX/ZY	155
C2/S2	120
<b>Cooling system</b>	
Type	Flow at 6 bar
Water	6 l/min
<b>Temperature monitoring</b>	
Type	Number
PT-100	6
PTC	6
Other types available	

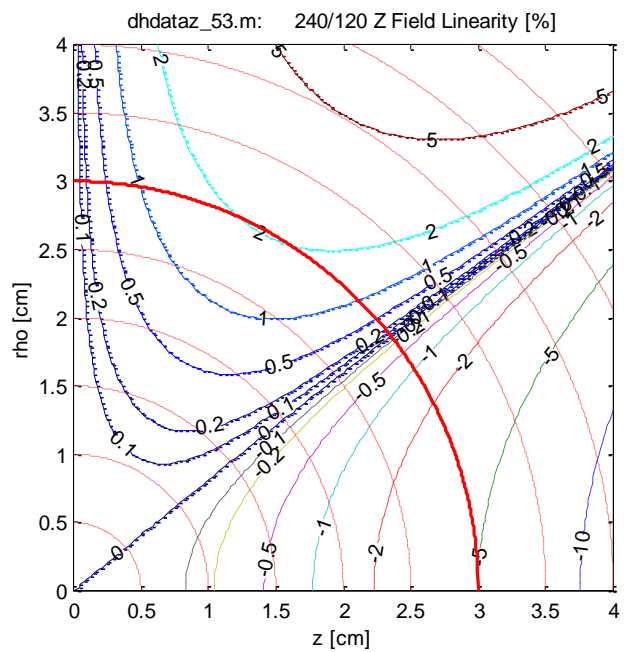
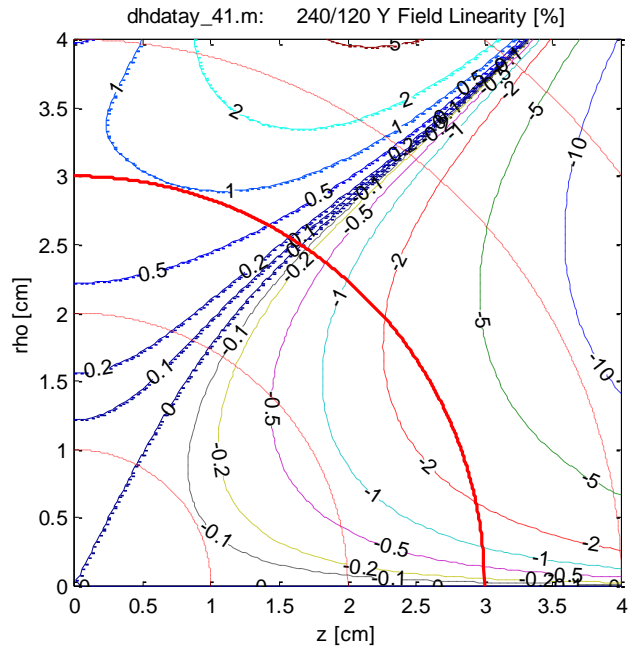
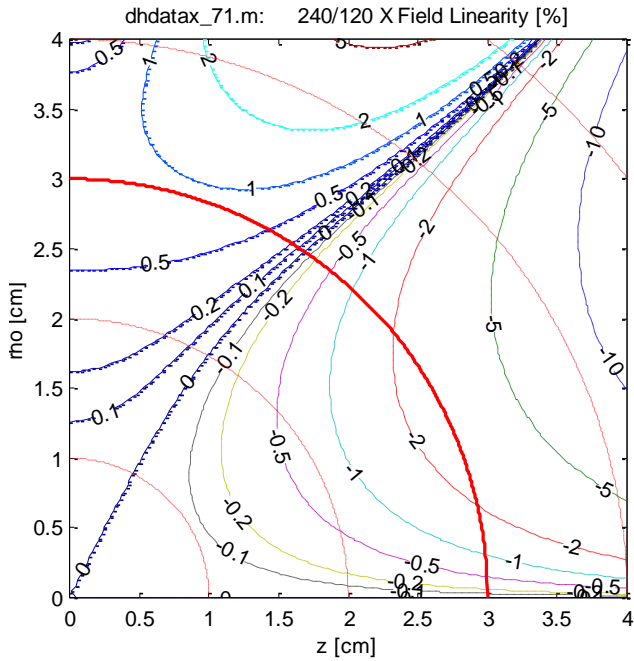
## Construction Aspects

<b>Materials</b>	Oxygen free copper, fiber glass, epoxy resins
<b>Cooling system</b>	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.
<b>Cabling</b>	Imagrad™ coaxial cables
<b>Support fixtures</b>	Compatible with standard magnet structures
<b>Durability</b>	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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