

# 检定证书

## VERIFICATION CERTIFICATE



证书编号: JL2414113411

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送检单位

Applicant

深圳大学总医院

计量器具名称

Name of Instrument

医用磁共振成像系统

型号/规格

Type/Specification

Discovery MR750 3.0T

出厂编号

Serial No

PG75S1700021MR

资产编号

Asset No

未标明

制造单位

Manufacturer

西门子

检定依据

Verification Regulation

JJG(粤)009-2023 医用磁共振成像系统

检定结论

Conclusion

合格

(证书专用章)

Stamp

批准人:

Approved by

谢康

核验员:

Checked by

叶秋红

检定员:

Verified by

王恩利

检定日期:

Operation Date

2024 年 09 月 04 日

Year Month Day

有效期至:

Suggested Recal.Date

2025 年 09 月 03 日

Year Month Day

证书首页背面“重要声明”是证书的组成部分,任何未包含“重要声明”内容的复制均为不完整复制。

法定计量检定机构授权证书号: (粤)法计(2019)01002 号

Authorization Certificate No.

地址: 广东省深圳市南山区龙珠大道 92 号

Address

邮编: 518055

Post Code

客户服务热线: 400 900 8999 - 1

Customer Service Hotline.

电子邮件: kfzx@smq.com.cn

Email

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National Digital Electronic Product Testing Center (NETC)  
国家营养食品质量检验检测中心(广东)  
National Nutrition Food Testing Center (Guangdong)  
国家体育用品质量检验检测中心(广东)  
National Sports Product Testing Center (Guangdong)  
国家环保产品质量检验检测中心(广东)  
National Environmental Product Testing Center (Guangdong)  
国家分布式光伏发电系统质量检验检测中心(广东)  
National Distributed Photovoltaic Power Generation System Testing Center (Guangdong)  
国家电动汽车电池及充电系统产业计量测试中心  
National Metrology Center for Electric Vehicle Battery and Charging System Industry  
国家民用无人机产品质量检验检测中心(广东)  
National Civil Unmanned Aerial Vehicle Product Testing Center (Guangdong)  
国家高新技术计量站  
National Hi-tech Metrology Station  
国家医疗器械产业计量测试中心  
National Metrology and Testing Center for Medical Device Industry  
国家计量数据科学中心深圳分中心  
National Metrology Data Science Center (Shenzhen)  
国家城市能源计量中心(深圳)  
National Urban Energy Measurement Center (Shenzhen)  
中国轻工业联合会家具质量监督检测深圳站  
Accredited Testing Station (Shenzhen) for Furniture by China National Light Industry Council (CNLIC)  
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Guangdong Quality Supervision and Inspection Institution for Food (Shenzhen)  
广东省质量监督生态纺织服装产品检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Ecological Textile and Garment Products (Shenzhen)  
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Guangdong Quality Supervision and Inspection Institution for Leather Products  
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Guangdong Quality Supervision and Inspection Institution for Furniture Products (Shenzhen)  
广东省质量监督学生用品检验站(深圳)  
Guangdong Quality Supervision and Inspection Institution for Student's Articles (Shenzhen)  
广东省质量监督自行车检验站  
Guangdong Quality Supervision and Inspection Institution for Bicycle Quality  
广东省质量监督钟表检验站(深圳)  
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Guangdong Quality Supervision and Inspection Institution for Safety Performance of Environmental Protection and Energy Saving Products (Shenzhen)  
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深圳市消防产品燃烧性能检测中心  
Shenzhen Testing Center for Burning Behavior of Fire Protection Products

### 联系方式 Contact Information

联系电话 Contact Tel.: 0755-26941696 26941546(龙珠) 27591789(宝安) 82426246(八卦岭) 28932280(龙岗) 0769-21684525(东莞)  
传真电话 Fax No.: 0755-27591716(宝安) 82408176(八卦岭) 28932840(龙岗) 0769-21684527(东莞)  
投诉及证书/报告真伪查询电话 Complaint Tel.: 400-900-8999 按5 Email: complaint@smq.com.cn

## 检定证书

VERIFICATION CERTIFICATE

证书编号: JL2414113411  
Certificate No

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### 检定用主要计量标准装置信息

#### Main Standard Devices Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	计量标准考核证书号 Certificate No	有效期至 Due Date
医用磁共振成像 系统检定装置	磁场强度: (0.043~3.4) T; 空间分辨力: (1~11) ) Lp/cm; 低对比分辨力 (直径): 4.0mm, 6.0mm , 10.0mm; 目标深度: 0.5mm, 0.75mm, 1.0mm , 2.0mm	磁场强度 MPE: $\pm 0.3\%$ ; 空间分辨力: $U_{rel}=1$ Lp/cm ( $k=2$ ); 低对比分辨力: $U_{rel}=0.01$ mm ( $k=2$ )	[2013]粤量标鹏法证 字第 109 号	2024-09-27

### 检定用主要标准器信息

#### Main Standards of Measurement Used

名称 Equipment Name	测量范围 Measuring Range	不确定度/准确度等级/ 最大允许误差 Uncertainty/Accuracy Class/ Maximum Permissible Error	设备编号 Equipment No	证书号/溯源单位 Certificate No/ Traceability to	有效期至 Due Date
磁场强度测量仪	0.043T~3.4T	基本误差 $\leq 5 \times 10^{-5}$ T	SB5947	DCcx2024-02997/ 中国计量院	2025-07-08
磁共振性能模体	空间分辨力:(1~11)LP/cm 空间线性:(20~120)mm 低对比分辨力: ( $\varnothing 4.0$ mm 深 0.5 mm 的孔~ $\varnothing 10.0$ mm 深 2.0 mm	低对比分辨力及空间线性: $U=0.01$ mm, $k=2$	SB4694	JL2412446901/深圳检测院	2026-08-12

### 附加说明

#### Appended Directions

委托日期: 2024 年 09 月 04 日

Application Date

检定地点: 门诊楼放射科 MR1 室

Operation Location

环境条件: 温度 22.4℃ 相对湿度 50.2%

Operation Environment

检定结果

RESULTS OF VERIFICATION

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一、扫描条件

线圈(coil)	头 部 (Head)	采集点数 (Acquisition matrix)	250
脉冲序列 (Pulse sequence)	自旋回波 (SE)	显示矩阵 (Reconstruction matrix)	256×256
重复时间 (TR)	500 ms	视野 (FOV)	250 mm
回波时间 (TE)	30 ms	层厚 (Slice thickness)	5.0 mm
平均次数 (NEX)	2	层间距 (Slice gap)	----

二、检定结果

项目	相位和频率 编码方向	检定结果 [横断面(Trs)]	
信噪比	正方向	SNR	406
	反方向	SNR	401
图像均匀性	正方向	U	96.1%
	反方向	U	97.5%
几何畸变	正方向	L	0.6%
	反方向	L	0.5%
层厚	正方向	d(mm)	5.31
		Δ(mm)	0.31
	反方向	d(mm)	5.16
		Δ(mm)	0.16
空间分辨力	正方向	6.0 Lp/cm	
	反方向	6.0 Lp/cm	
低对比分辨力	正方向	可见孔直径: 4.0 mm, 孔深: 0.5 mm	
	反方向	可见孔直径: 4.0 mm, 孔深: 0.5 mm	

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