MITS 1.5/3.0

Precise, Repeatable, Fast,
User-Friendly MRI Compatible
Evaluations Automated

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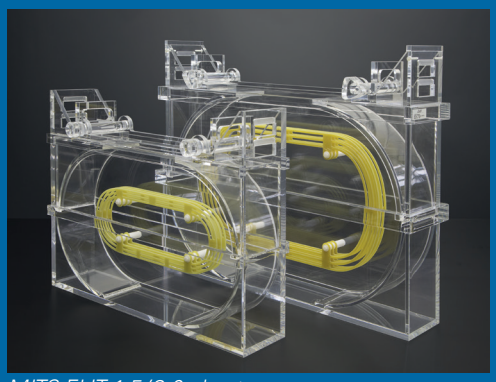
MITS System operated in vertical mode

MITS System operated in horizontal mode



MITS ELIT 1.5/3.0 phantoms

MITS Applications

The Medical Implant Test Systems (MITS) are designed to produce a well-defined and validated radio frequency exposure simulating the birdcage systems of 1.5 and 3.0T Magnetic Resonance Imaging scanners. They are optimally suited to testing compliance of passive and active implantable medical devices with radiofrequency (RF) heating guidelines and Electromagnetic Compatibility (EMC) of active devices (AIMD). MITS 1.5 is in compliance with the latest draft of the ISO/IEC AIMD Joint Working Group (JWG) TS10974 and 3T closely follows the concept of the standard. The systems combine cutting-edge technology with accuracy, versatility and user-friendliness. They are validated and guarantee repeatability and well control environment during the evaluations.

MITS Specifications

Operating Frequencies for MITS 1.5/3.0	64 MHz/128 MHz
Maximum B1 field strength	>> 30 µT
Maximum induced E1	>> 500 V/m
Arbitrary pulse shapes	50 M Samples/sec 14 bit resolution 128k samples
Length of birdcage for MITS 1.5/3.0	650 mm/490 mm
Diameter of birdcage	700 mm
Weight of birdcage	60 kg (70 kg with horizontal table)

MITS Phantoms

- Optimized to generate uniform exposure for implants in the MITS 1.5T and 3.0T Systems for RF Safety Evaluation
- Equipped with racetracks for mounting medical devices
- Size: 600 x 400 x 90 mm (Elliptical Implant Test Phantom ELIT 1.5), 500 x 300 x 90 mm (ELIT 3.0) and 440 mm diameter x 200 mm height (DUAL CYLINDER PHASE PHANTOM)
- Racetrack size: 459 x 270 x 26.3 mm for ELIT1.5, 336 x 131.7 x 26.3 mm for ELIT3.0 (3 tracks: 1 track 2.1 mm, track spacing 10 mm)
- Meet the specifications of the current ISO/IEC AIMD JWG TS10974 Test Requirements
- Phantoms composed of transparent Plexiglas (PMMA), racetracks composed of FR4

Compatibility

The DASY52NEO scanner (from SPEAG) supports the system for rapid and high-precision SAR and temperature evaluations. The open user interface allows customized, automated EMC evaluations.

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