

non-magnetic connectors

RF Solutions

TNC

SMB

MMCX

SMA

MCX

RF Cable Assemblies

features and benefits

Certified Non-Magnetic

Diverse Product Line

applications

Telehealth

Patient Imaging

- MRI

- CAT

- PET

Hospital Equipment RFID

Implantable Medical Devices

Amphenol[®] RF

Global **RF** Solutions

Non-Magnetic

The ever expanding medical field is now implementing concepts of telehealth and telerehabilitation to expedite the process of transmitting information. This rapidly developing application of clinical medicine transmits information either in real time (synchronous) or at given points throughout the day (asynchronous).

In 1999, the FCC set aside a frequency range between 402 and 405 MHz, which was specifically earmarked for wireless transition and communication between implanted medical devices and external equipment receiving the information. RF transceivers are at the forefront of the trend to supplement wireless communications for medical implantable devices. These devices not only include cardiac products such as pacemakers, but also extend to glucose insulin monitors for diabetes management and vascular blood pressure monitors.

Non Magnetic Connectors

- Developed for use in MRI and other medical application
- Designed to carry 50Ω RF signals within the magnetic imaging field of MRI equipment where a high signal-to-noise ratio (SNR) is required.
- Manufactured under strict quality procedures to ensure absolute permeability.
- 100% tested for magnetic permeability.

Incoming raw material

Outgoing machined components

Incoming plated components



Magnetic Resonance Imaging (MRI)

MRI is a diagnostic imaging tool which transmits an RF signal to a patient under a powerful magnetic field. The magnetic field causes the hydrogen atoms in the patient's body to spin in the same direction, while the RF signal excites the hydrogen atoms in the patient's body relative to the magnetic field, which produces an image. The RF signal is typically received by an MRI coil that is in direct contact with the patient on the area to be imaged.

MRI Equipment that uses RF connectors

- RF amplifier (amplifies signal to 4-25 kW)
- RF coil (receives & transmits signal)
- Filter panel & Cable Assemblies

