

# MRI Information

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## ► MR Conditional

The Dale Bendable ArmBoard, #650 Large was determined to be MR-conditional.

The findings of the MRI results for the Dale 650 ArmBoard apply to the smaller versions (#651, #652, and #653) of the ArmBoards, made from the same materials.

Non-clinical testing demonstrated that the Dale Bendable ArmBoard, #650 Large is MR Conditional. A patient with this device can be scanned safely immediately after placement under the following conditions:

## ► Static Magnetic Field

- Static magnetic field of 3-Tesla or less
- Maximum spatial gradient magnetic field of 720-Gauss/cm or less

## ► MRI-Related Heating

In non-clinical testing, the Dale Bendable ArmBoard, #650 Large produced the following temperature rise during MRI performed for 15-min of scanning (i.e., per pulse sequence) in the 3-Tesla (3-Tesla/128-MHz, Excite, HDx, Software 14X.M5, General Electric Healthcare, Milwaukee, WI) MR system:

*Highest temperature change +2.6C*

Therefore, the MRI-related heating experiments for the Dale Bendable ArmBoard, #650 Large at 3-Tesla using a transmit/receive RF body coil at an MR system reported whole body averaged SAR of 2.9-W/kg (i.e., associated with a calorimetry measured whole body averaged value of 2.7-W/kg) indicated that the greatest amount of heating that occurred in association with these specific conditions was equal to or less than +2.6C.

## ► Artifact Information

MR image quality may be compromised if the area of interest is in the exact same area or relatively close to the position of the Dale Bendable ArmBoard, #650 Large. Therefore, optimization of MR imaging parameters to compensate for the presence of this device may be necessary. The maximum artifact size (i.e., as seen on the gradient echo pulse sequence) extends approximately 20-mm relative to the size and shape of the Dale Bendable ArmBoard, #650 Large.

Pulse Sequence	T1-SE	T1-SE	GRE	GRE
Signal Void Size	16,961-mm <sup>2</sup>	1,773-mm <sup>2</sup>	20,816-mm <sup>2</sup>	2,224-mm <sup>2</sup>
Plane Orientation	Parallel	Perpendicular	Parallel	Perpendicular