A 32 Element Cardiac Array

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A 32-element coil array for use with cardiac MRI has been developed. The array consists of 16 hexagonal elements in a posterior section and 16 similar elements in the anterior side. Coil elements are overlapped to produce maximal isolation between nearest neighbors. Local preamplifiers are employed to improve inductive isolations. The total coverage for the array is approximately 30 cm square. Both parts are curved to fit the anatomy, but the anterior portion is also flexible to fit a wider range of patient body sizes. Results of parallel imaging for a variety of orientations and fields of view are demonstrated. Calculated and measured g-factors for these situations are presented. Volunteer images are demonstrated as well.