

A wearable MRI receiver

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Non-mangnetic, miniaturized 1 Gbit/s fiber optic link

Custom designed receiver and LNA





Challenges

System overview

WearableMRI receiver 26 mm x 45 mm (folded)

System design

Measurements and results

 $J(A/m^2)$ 1.00e+10 8.98e+9 7.77e+9 6.56e+9 5.34e+9 4.14e+9 3.17e+9 2.21e+9 1.11e+9 1.00e+8



Simulation of eddy current densities in PCB Estimation of EM influence on circuit performance and

Commercial MRI preamplifier + coil



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Human brain recorded by the WearableMRI receiver







EM immune, non- magnetic 🕼 glass fiber data link for > 1 Gbit/s











Data recording and offline computing