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## Qualification of components for installation in LHC kicker magnets

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LHC injection kickers (MKI) are pulsed at high voltage to achieve magnetic field pulses with fast rise time. The MKIs contain a beam screen to help shield their ferrite yoke from beam induced heating. However, additional means of mitigating beam induced heating, for the high luminosity LHC (HL-LHC) era, are required. To achieve this, the MKIs are sequentially being upgraded to low impedance versions (MKI Cool) with several critical components including (a) a 3-m long alumina tube, installed in the magnet aperture, used to hold screen conductors that help shield the magnet yokes from beam induced heating; and (b) an RF damper which moves beam induced power from the ferrite yoke to a ferrite cylinder which is part of the damper. This paper discusses the measurements carried out to qualify these components for installation in an MKI Cool. In addition, for the alumina tube, the interpretation of the measurement data is discussed together with the optimization of the angular orientation of the tube in the magnet aperture.

### Footnotes

### Funding Agency

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LaTeX

### Region represented

Europe

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