

Abstract Submitted
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Status of ITER ICH Matching System Design¹ D. SWAIN, R. GOULDING, D. RASMUSSEN, ORNL — Work on the design of the ITER ICH matching system is progressing. The system will deliver a total power of 20 MW for long-pulse (> 3000 s) operation. The present matching system design has: hybrid combiner-splitter circuits for ELM resilience, active matching during a shot using a double-stub tuner circuit, decouplers between the eight inputs to each antenna, water-cooled matching components, and air-cooled matched transmission lines using turbulent cooling. The matching/decoupling system is evolving. While the main components are fairly well determined, the configuration of the decoupler connections and tuning of the decouplers is still under discussion. More detailed specifications and predicted performance of the rf system under different plasma conditions will be presented.

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