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EHT Integrator Demonstration at DIII-D ILIA SLOBODOV, KEN MILLER, TIMOTHY ZIEMBA, JAMES PRAGER, Eagle Harbor Technologies, Inc. — Eagle Harbor Technologies, Inc. (EHT) has developed a series of analog integrators for magnetic diagnostics for the fusion science and plasma physics communities. Three varieties of EHT integrators: short pulse, high dynamic range, and long pulse, have all been tested at DIII-D. The EHT short pulse integrators were used to measure the poloidal magnetic field coil, saddle coil, and Rogowski coil. The results were compared to existing diagnostics at DIII-D. The EHT high dynamic range integrator was used to measure the toroidal magnetic field. Due to the high dynamic range, this integrator resolved features in the signal that could not otherwise be observed. Additionally, preliminary testing of the EHT long pulse integrator was conducted. The long pulse integrator meets all the specifications for ITER.

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