

Abstract Submitted
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Upgrade of JET AE Active Diagnostic for Low Frequency Eigenmodes Detection¹ P. PUGLIA, P. BLANCHARD, D. TESTA, A. FASOLI, EPFL Switzerland, V. ASLANYAN, M. PORKOLAB, P. WOSKOV, MIT-PSFC, L. RUCHKO, R. GALVAO, W. PIRES DE SA, A. DOS REIS, USP Brazil, S. SHARAPOV, S. DOWSON, H. SHEIKH, T. BLACKMAN, G. JONES, S. DORLING, CCFE UK, J. FIGUEIREDO, C. PEREZ VON THUN, EUROfusion PMU, JET COLLABORATION² — The upgrade of the Toroidal Alfvén Eigenmode Active Antenna diagnostic at JET was commissioned last year. The new amplifiers have an operational frequency range limited to bands within 10-1000 kHz by a choice of filters. In the last campaigns the AE excitation system was operated on the Alfvénic range of frequencies ($f > 80$ kHz). For the next campaigns we are proposing operation on the frequency range of 25-50 kHz to excite eigenmodes on the Alfvén-acoustic range (GAMs, BAEs and Alfvén Cascades). The next JET campaigns will involve use of deuterium, tritium and hydrogen, giving a wide range of parameters for the modes to be investigated. Details of the system modifications for operation in this new frequency range and experimental scenarios will be discussed.

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²See the author list of X. Litaudon et al 2017 Nucl. Fusion 57 102001

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