Justification FOR DNFM DIAGNOSTIC MEASURING PROCEDURES ON THE example of the COUNTING CHANNEL

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In this work we research the properties of counting channel of the "Divertor Neutron Flux Monitor" (DNFM) diagnostic data acquisition system. The spectral and statistical properties of signals including noise characteristics are determined. The dynamic range of the counting channel is determined. Adaptive filtering mode is selected to increase the signal-to-noise ratio [1]. Channel loads are evaluated for the new location of DNFM on the ITER vacuum chamber surface.

The quality control metrics of recovery algorithms for signals with pulses and noise characteristic for this channel are developed. The method of cross-linking signals of different channels by the weighted average method was tested [2].

The method of improving the quality of the signal by adaptive filtering is proposed for the counting channel of DNFM.

The work is supported with the state contract of 19.04.2018 № Н.4а.241.19.18.1027 «Special equipment development, experimental manufacturing, testing and delivery preparation to meet Russian Federation’s liabilities on ITER project in 2018 year»

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