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TENSOR PRODUCTS AND THE SPECTRAL CONTINUITY FOR k -QUASI- $*$ -CLASS A OPERATORS

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ABSTRACT. An operator $T \in B(\mathcal{H})$ is called k -quasi- $*$ -class A if $T^{*k}(|T^2| - |T^*|^2)T^k \geq 0$ for a positive integer k , which is a common generalization of $*$ -class A and quasi- $*$ -class A. In this paper, firstly we prove some inequalities of this class of operators; secondly we consider the tensor products for k -quasi- $*$ -class A operators, giving a necessary and sufficient condition for $T \otimes S$ to be a k -quasi- $*$ -class A operator when T and S are both non-zero operators; at last we prove that the spectrum is continuous on the class of all k -quasi- $*$ -class A operators.

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