Review of: "Designing and modeling microwave photonic spectral filters based on optical microcombs"

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Potential competing interests: No potential competing interests to declare.

This paper presents a comprehensive performance analysis for microcomb-based MWP spectral filters based on the transversal filter approach. The topic is interesting, which has been widely studied in recent years. The paper is well organized and written. Bellows are some suggestions for the paper improvement.

1) The performance analysis for MWP spectral filter is universal, not only just for microcomb-based MWP transversal filter in my opinion. Other approaches based on laser array, EO combs and mode-locked fiber lasers also can be analyzed by this proposal. I suggest the author comment on it, and give a comparison with the previous papers in the literature on this subject, and clarify the paper's contribution more clearly.

2) What are the effects of comb line linewidth on the filter performance? I suggest the author give an analysis. In addition, if the source is changed by broadband optical source, what about the analysis principle and filter properties?

3) The abbreviation should be given by full name when it is first appeared, for example, TOD.