

# 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.

The manuscript titled "Designing and modeling microwave photonic spectral filters based on optical microcombs" presents a comprehensive guide for optimizing the performance of microwave photonic transversal filters with signal processing functions without changing hardware. Dedicated efforts have clearly been done to accomplish such work. The paper is informative, well detailed and organized. Only minor comments exists:

1. The paper presents in section 3.2 the discrepancies appears due to the imperfect response of components in experimentally realized systems. However, it is not clear where are these experiments. It is evident that the paper states only designing and modeling, so no experiments done. So references need to be mentioned that contain such experiments, and a discussion is advised to be added explaining whether their experimental results agrees with the model presented in the paper or not. Otherwise, it should be stated that typical practical error values are used in the modeling, which is apparently what has been done, not experiments.
2. It is required to mention what the abbreviation stands for at the first time they appear in the manuscript. For instance, MSSR is first mention in page 10, and then it is explained later in page 11, which should have been done earlier. In addition, TOD is first mention in page 9, but it is not clarified until page 18.
3. The references styling should be unified.