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UNIVERSITAS MUHAMMADIYAH PROF. DR. HAMKA

Dwi Astuti Cahyasiwi <dwi.cahyasiwi@uhamka.ac.id>

International Journal of Microwave and Wireless Technologies - Decision on MRF-RP-22-211

1 message

International Journal of Microwave and Wireless Technologies <onbehalfof@manuscriptcentral.com>
Reply-To: medina@us.es
To: dwi.cahyasiwi@uhamka.ac.id, d.a.cahyasiwi@gmail.com
Cc: shiban_koul@hotmail.com

Fri, Jul 29, 2022 at 5:47 PM

29-Jul-2022

Dear Dr. Cahyasiwi,

Manuscript ID MRF-RP-22-211 entitled "Comparing Different Orders of Interdigital Filtering-Antenna Selectivity for 5G Application" which you submitted to the International Journal of Microwave and Wireless Technologies, has been reviewed. The comments of the reviewers and Associate Editor are included at the bottom of this letter.

The reviewers and Associate Editor see your paper as potentially suitable for publication, but suggest some major revisions to your manuscript and re-review by the referees. Therefore, I invite you to respond to the comments and revise your manuscript.

To revise your manuscript, log into https://mc.manuscriptcentral.com/mrf and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

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You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

Once the revised manuscript is prepared, you can upload it and submit it through your Author Center.

In order to expedite the processing of the revised manuscript, when submitting your revised manuscript, please include a letter responding to the reviewers comments. Please clearly indicate the changes you have made to your revised manuscript and please be as specific as possible in your response to the reviewer.

Please note - the submission and peer review process is limited to two revisions. At the stage of a second revision the editor will make a final decision on whether to accept or reject the paper.
We therefore remind you to address fully all comments made by the reviewers, and to amend your submission accordingly.

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the International Journal of Microwave and Wireless Technologies, your revised manuscript should be uploaded by 12-Sep-2022. If it is not possible for you to submit your revision by the due date, then can you please contact the editorial office at mrfadmin@cambridge.org.

Once again, thank you for submitting your manuscript to the International Journal of Microwave and Wireless Technologies and I look forward to receiving your revision.

Sincerely,

Prof. Francisco Medina
Editor-in-Chief, International Journal of Microwave and Wireless Technologies
medina@us.es

Associate Editor: Koul, Shiban
Comments to the Author:

Kindly incorporate all suggestions given by the reviewers and resubmit for re-review.

Reviewer: 1

Comments to the Author:

The paper presents a filter and antenna integration. This study compares the selectivity of antennas based on second and third-order filters. Although the main idea is interesting, the article is not well-written, and the design procedure is not explained clearly. The role of each part on the antenna performance is not studied. Thus this reviewer cannot recommend this paper for publication in the current form, and major revision is required.

Some minor comments should address in the revised manuscript:
- it is recommended that the final version of second and third-order designs be compared and remove the initial simulations.
- the efficiency was never stated
- the radiation pattern and the cross-polarization are also required and should be compared with the measurements
- there are typos and grammatical errors

Reviewer: 2

Comments to the Author:

1. The manuscript is poorly written.
2. Figs 1 & 2 are not clearly shown and not captioned properly, could not identified where is Fig.2.
3. Design methodology is not explained.
4. Novelty is not clear.
5. Comparison with state-of -art is missing
6. Radiation pattern performance is not included.
7. Simulated and measurement results (Fig.7) are not in agreement.

Reviewer: 3

Comments to the Author:

1. The filter characteristics of the antenna before integration with the antenna is not clear. Especially, Fig.3, it implies that the insertion loss is pretty high, does that mean that the signal being fed to the antenna is minimal ?
2. The reason for using/ integration the filter with the antenna is not clear. The authors must demonstrate that the harmonics, at least 2nd and 3rd order, have been eliminated with the filter
3. Please add a comparison table to justify the novel features of the proposed work

Reviewer: 4

Comments to the Author:

Two filtering antennas using different orders of interdigital filtering elements were designed, and their performance is compared in this work.
1. In section 2, elaborate on the antenna's working principle, such as the purpose of the through hole in the interdigital, how the field is getting coupled between the feed and the radiator, etc.
2. How Qrad value is verified for the radiator designed using simulation?
3. Fig. 3 (c) is missing. What are the side and perspective views in Fig. 3 (b) and (c)?
4. In Fig. 3 parametric study, plots is it S12 in the Y-axis, why does it have GHz as unit? For which design the S12 is being measured? Why is it in negative scale?

5. In Fig. 6 (b), there is no clarity of which is the simulated curve and which is measured?
6. What do the authors mean by 4.75 GHz operation bandwidth in section 3?
7. Fig. 7(a) explanation in section 3 is not clear. Does it compare the simulation gain with simulation gain?
8. What about the radiation pattern of the antenna in simulation and measurement?
9. How did the authors secure the two layers together in the fabricated unit? Is there any material used? Does it have any effect on the results obtained?
10. Include a table that compared the performance of filtennas with different orders from the literature with the proposed designs.
11. The authors' grammar may benefit by enlisting the aid of a professional English editor. The paper also needs proofreading by a native English speaker.