



**SDI Review Form 1.6**

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| Journal Name:            | <a href="#">British Journal of Applied Science &amp; Technology</a>                                                                  |
| Manuscript Number:       | 2015_BJAST_18358                                                                                                                     |
| Title of the Manuscript: | Digital Beamformation Technology In Scan Radar And Its Essentiality For Achieving Predefined Surveillance Under Air-borne Operations |
| Type of the Article      |                                                                                                                                      |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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**PART 1: Review Comments**

|                                            | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)                                                                                            |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Compulsory</u></b> REVISION comments | <ul style="list-style-type: none"> <li>- Figures 1 – 9 have to be more clear.</li> <li>- How many bits have A/D conversion in fig. 1. It is important because of ratio signal/noise and when the radar received signal has lower peak power.</li> <li>- How the number of A/D conversion bits influence to the results in authors method in chapter 3 and 4.1.</li> <li>- In chapter 4.1: Program code should not be included in the article.</li> <li>- Figures 5 to 9 need more comments.</li> <li>- In line 31 and in line 204: Temperature stability of frequency transmitting signal 1.45 GHz (frequency reference) is very important for high precision measurement. The authors should cite also other new switching methods for temperature compensation for high precision measurement such as ref.:</li> </ul> <p>- Matko V. and Milanović M., "High Resolution Switching Mode Inductance-to-Frequency Converter with Temperature Compensation", <i>Sensors</i>, 2014, vol. 14, iss. 10, p. 19242-19259, doi: <a href="https://doi.org/10.3390/s141019242">10.3390/s141019242</a>.</p> <p>- MATKO, Vojko. Next generation AT-cut quartz crystal sensing devices. <i>Sensors</i>, 2011, vol. 5, iss. 11, p. 4474-4482, doi: <a href="https://doi.org/10.3390/s110504474">10.3390/s110504474</a></p> <p><b>Authors should include this references in line 31.</b></p> | <ul style="list-style-type: none"> <li>- Figures 1-9 have been made more clear.</li> <li>- 10-Bit</li> <li>- Explanation has been given.</li> <li>- Code has been removed</li> <li>- Temperature stability has been pointed out with the use of a precise LNA</li> </ul> |
| <b><u>Minor</u></b> REVISION comments      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                          |
| <b><u>Optional/General</u></b> comments    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                          |