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#128 (1569650729): OFDM Performance with Odd-Even Quantisation in Cartesian
Upconverters

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- Paper title** *OFDM Performance with Odd-Even Quantisation in Cartesian $\square\square$ Upconverters* [✎](#)
- Conference and track** **2012 Sixth International Conference on Signal Processing and Communication Systems - Fifth International Conference on Signal Processing and Communication Systems**
- Abstract** [✎](#) This paper studies the odd-quantisation technique when subjected to OFDM input signals in a...
- Keywords** no keywords Only the chairs can edit
- Personal notes** [+](#)
- Roles** You are the creator and an author for this paper.
- Status** Published ✖
- Presented** by not specified [+](#) in session O5: *Communications Theory* from Thu, December 13, 2012 09:45 AEST until 10:45 (2nd paper) (15 min.)

Final



Review

Actions	Relevance and timeliness	Technical content and scientific rigour	Novelty and originality	Quality of presentation
completed	Acceptable 3	Valid work but limited contribution. 3	Some interesting ideas and results on a subject well investigated. 3	Substantial revision work is needed. 2

Strong aspects

This paper presents a comparison of quantization techniques.

Weak aspects

Although the paper has some novelty command some respect, it is poorly written. Significant revision is needed before a possible publication.

Actions	Relevance and timeliness	Technical content and scientific rigour	Novelty and originality	Quality of presentation
Recommended changes				
Writing needs it be significantly improved.				
completed	Acceptable	Valid work but limited contribution.	Some interesting ideas and results on a subject well investigated.	Well written.
	3	3	3	4

Strong aspects

This paper compares even-quantisation and odd-quantisation schemes for Cartesian $\Delta\Sigma$ upconverters where OFDM is used as the input signal. The overall performance of the even-quantisation scheme was worse than the odd-quantisation scheme as the even-quantisation structure has an inherently higher noise floor. It can be observed that the third harmonic is the biggest noise contributor followed by the image. The overall better performances of the odd-quantisation scheme occur at lower input signal levels. These levels benefit from the lower first quantisation step of the odd-quantisation scheme.

Weak aspects

The authors state that the overall better performances of the odd-quantisation scheme occur at lower input signal levels without any explanation.

Recommended changes

The authors state that the overall better performances of the odd-quantisation scheme occur at lower input signal levels without any explanation. Logical explanation or reasonable argument needs to be followed.

completed	Excellent	Solid work of notable importance.	Significant original work and novel results.	Excellent.
	5	4	4	5

Strong aspects

This work presents a solid and timely contribution to the development of an all digital approach for driving switch mode power amplifiers. This work yields a significant 5dB reduction in adjacent signal power when compared to the recently developed even-quantisation technique. The publication of this paper is definitely recommended.

Weak aspects

No significant weaknesses were noted.

Actions	Relevance and timeliness	Technical content and scientific rigour	Novelty and originality	Quality of presentation
<p>Recommended changes</p> <p>It would be useful to have comments on areas of future research, at least within the summary.</p>				

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