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| Title | The uplink subchannelization preamble with lower PAPR | |
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| Re: | Contribution supporting Sponsor ballot | |
| Abstract | This contribution proposes an uplink subchannelization preamble having lower value of PAPR. | |
| Purpose | Adoption of the proposed uplink subchannelization preamble into P802.16-REVd/D4-2004 | |
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The uplink subchannelization preamble with lower PAPR

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Background

Subchannelized transmission in the uplink is an option. When the subchannelization is employed, the subchannelization preamble is used. The subchannelization preamble consists of 256 sample sequence preceded by a cyclic prefix. For the uplink transmission, the principal design objective of a preamble is to attain the lowest possible PAPR. We propose a preamble sequence having lower value of PAPR than the

1+j, 1+j, -1-j, 1+j, -1+j, 1+j, 1+j, 1+j, -1-j, -1-j, 1-j, -1-j, -1-j,
 1+j, 1-j, 1+j, 1+j, -1-j, -1-j, 1+j, 1-j, 1+j, -1-j, 1+j, 1+j,
 -1-j, -1-j, 1+j, 1+j, 1+j, -1-j, -1-j, -1-j, 1+j, -1-j, -1-j, 1+j, -1+j,
 -1+j, -1+j, 1-j, 1-j, 1-j, -1+j, -1+j, -1+j, 1-j, -1+j, -1+j, 1-j,
 1+j, 1+j, -1-j, 1+j, -1+j, 1+j, 1+j, 1+j, -1-j, -1-j, 1-j, -1-j, 1-j,
 -1-j, -1+j, -1-j, -1-j, 1+j, 1+j, -1-j, -1+j, -1-j, 1+j, -1-j, -1-j,
 0,
 1-j, -1+j, -1+j, 1-j, -1+j, -1+j, 1-j, -1+j, -1+j, -1+j, 1-j, 1-j, 1-j,
 1+j, -1-j, -1-j, 1+j, -1-j, -1-j, 1+j, -1-j, -1-j, -1-j, 1+j, 1+j,
 -1-j, -1-j, 1+j, -1-j, 1-j, -1-j, -1-j, -1-j, 1+j, 1+j, -1+j, 1+j, 1-j,
 -1-j, -1+j, -1-j, -1-j, 1+j, 1+j, -1-j, -1+j, -1-j, 1+j, -1-j, -1-j,
 1+j, -1+j, 1+j, 1+j, -1+j, 1+j, 1+j, -1+j, 1+j, -1-j, 1+j, -1-j, 1+j,
 1-j, 1+j, 1-j, 1-j, 1+j, 1-j, 1-j, 1+j, 1-j, -1+j, -1-j, -1+j,
 1+j, 1+j, -1-j, 1+j, -1+j, 1+j, 1+j, 1+j, -1-j, -1-j, 1-j, -1-j, -1-j,
 -1-j, -1+j, -1-j, -1-j, 1+j, 1+j, -1-j, -1+j, -1-j, 1+j, -1-j, -1-j}