

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [Resolutions to Comments on HSI]

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Abstract: [Resolutions to Comments on HSI]

Purpose: [This document provides proposed resolution fro some comments on 802.15.3c/DF00]

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- **Comment 469:** Preamble length for base rate HSI-OFDM does not achieve 10 m range.

- **Resolution:**
 - a) base rate (make it optional for a dual mode device, i.e. SC/HSI)

 - b) Changes in reference to table 132
 - long SYNC : 32
 - long CES : 8
 - SFD : 8 [-1 -1 -1 1 -1 1 -1 -1]
 - Spreading : 48

 - c) Keep medium and short preambles only to be used in CTAs & beamforming.

- Spreading by 48 (replace lines 38-54 on page 118 by)
For a spreading ... of 24 48, the ...into sets of 24 48
complex numbers. This is ... as

$$a_{k,n} = a_{k+n \times 28}, \text{ for } k=0:13-6, n=0,1,2,\dots$$

where n is the ... a factor of 24 48 to generate ... as follows:

$$b_{k,n} = q_{\text{floor}(k/14 \ 28)} a_{k,n}, \text{ for } k=0:167, \text{ and}$$

$$b_{k,n} = b_{335-k,n}^*, \text{ for } k=168:335$$

where $q = [+1 \ +j \ -1 \ +j \ +j \ +1 \ -1 \ +j \ -j \ +j \ -1 \ -j \ -1 \ +1$
 $+1 \ +1 \ +j \ -j \ -1 \ -1 \ -1 \ +j \ -j \ +j]$