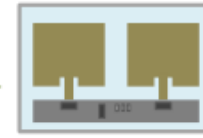
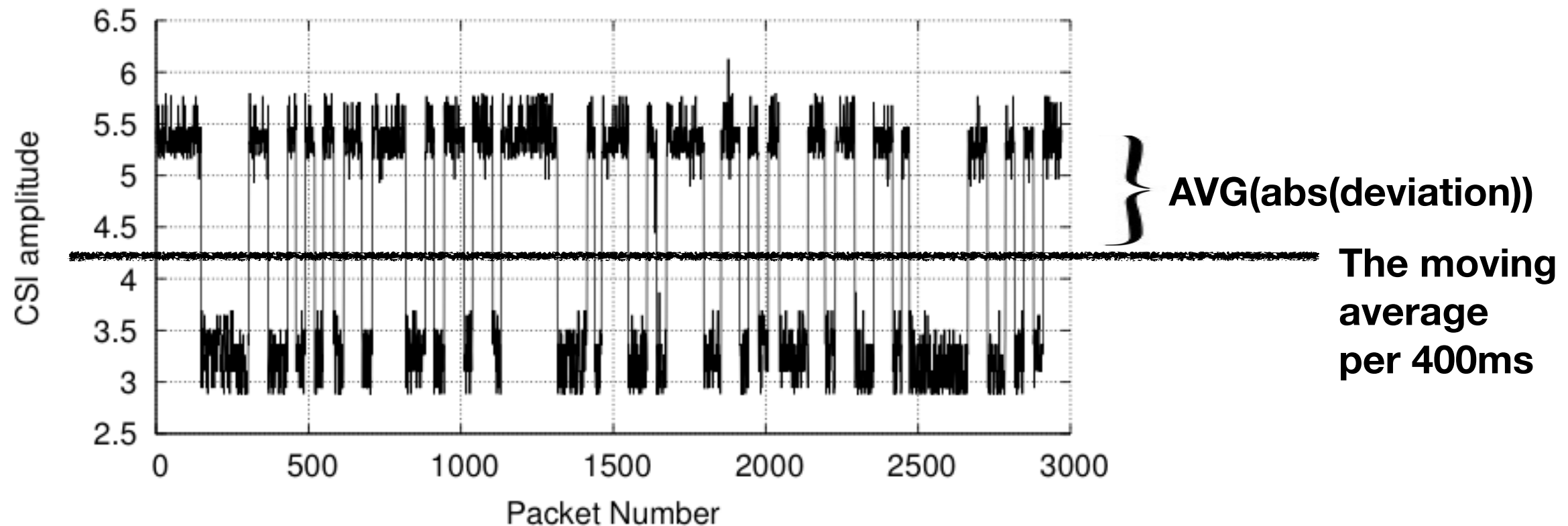


# Design



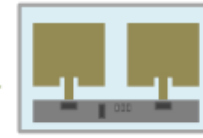
## Uplink communication - from tag to reader

- Then how the reader interprets those data coded inside of the CSI amplitude?
- Step 1: normalization (or Signal Conditioning in the paper)



$$\text{normed\_value} = ( \text{CIS\_measurement} - \text{the\_moving\_ave} ) / \text{abs\_dev\_ave}$$

# Design



## Uplink communication - from tag to reader

*Adjacent pair of the 60 OFDM subcarriers*

- However **not every sub-channel** can observe such obvious amplitude deviation, the best sub-channel **seems distance-dependent**. (Following marks out the acceptable sub-channels)

