IEEE P802.11  
Wireless LANs

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| Draft text for SSW-Feedback/Ack to avoid selecting different Tx and Rx antennas | | | | |
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Abstract

This submission proposes text changes to the SSW-feedback/Ack procedures to avoid selecting different Tx and Rx antennas, after SLS was performed by short SSW packets. The baseline text is 802.11ay Draft 0.5.

10.38.2.4 Sector sweep (SSW) feedback

*Modify the paragraph starting at line 15, page 75 as follows*

When a responder TXSS comprising Short SSW packets was performed during the preceding RSS, the initiator shall transmit an SSW-Feedback frame through the sector identified by the value of the Short SSW Feedback field received from the responder during that responder TXSS. In the SSW-Feedback frame, the initiator shall set the EDMG Extension Flag subfield to 1, the Sector Select and Sector Select MSB subfields to represent the value of the CDOWN field within the Short SSW packet that was received with the best quality during the responder TXSS, and shall set the DMG Antenna Select subfield to the value of the RF Chain ID field within the same Short SSW packet. The determination of which frame is received with the best quality is implementation dependent and beyond the scope of this standard but should be based on the reception quality measured over the DMG antenna used to transmit the current SSW Feedback frame. In addition, the initiator shall set the SNR Report field to the SNR measured for the packet received by the sector and DMG antenna indicated by the Sector Select, Sector Select MSB and DMG Antenna Select fields.

10.38.2.5 Sector sweep (SSW) ack

*Change the second paragraph as follows*

When a responder TXSS is performed during an RSS, the responder shall transmit an SSW-Ack frame to the initiator to perform an SSW ack procedure. The SSW-Ack frame shall be transmitted through the sector identified by the value of the Sector Select field and the DMG Antenna Select field received from the initiator in the last SSW-Feedback frame if the RSS comprises SSW frames, and by the value of the Sector Select field, Sector Select MSB field and the DMG Antenna Select field received from the initiator in the last SSW-Feedback frame if the RSS comprises Short SSW packets. If the RSS comprises Short SSW packets, the Sector Select field and the Sector Select MSB field in the SSW-Ack frame shall be set to values corresponding to a sector from the same initiator DMG antenna that was used to transmit the preceding SSW Feedback frame. The values should be based on the reception quality measured over the same DMG antenna used to transmit the current SSW-Ack frame and may correspond to a sector different from the sector indicated by the Short SSW Feedback field in Short SSW packets transmitted during the RSS.

*Change the last paragraph as follows*

If the RSS comprises SSW frames, at the start of an SSW ack procedure, the initiator should have its receive antenna array configured to, a quasi-omni antenna pattern using the DMG antenna through which it received with the highest quality during the RSS, or the best receive sector if an RXSS has been performed during the RSS, and should not change its receive antenna configuration while it attempts to receive from the responder until the expected end of the SSW ack procedure.

If the RSS comprises short SSW packets, at the start of an SSW ack procedure, the initiator should have its receive antenna array configured to a quasi-omni antenna pattern using the DMG antenna used to transmit the preceding SSW Feedback frame.