

Proposed Edits for SEND_S Voltage Limits (Comments 43 & 44)

P802.3dm / D2.1

The following table details the recommended editing instructions to resolve the lack of normative bounds for SEND_S identified in Comments #43 and #44.

These instructions distinguish between the High Speed direction (which requires a wide bounded range to prevent arbitrary DAC gain switching) and the Low Speed direction. By explicitly defining the peak-to-peak voltage minimums directly in the clause, we avoid the technical error of forcing a 3% duty-cycle SEND_S pulse to pass a continuous-wave PSD or Average Power measurement, while perfectly satisfying the commenter's requirement for a firm receiver lower-bound.

Section	Page/ Line	Change From Text	Change To Text	Explanation
191.5.2.8	135L24	<i>(No replacement. Insert at the end of the paragraph beginning "A SEND_S pulse is defined to be a 4-bit pulse of 1001 mapped to DME symbols...")</i>	[INSERT NEW TEXT]: For the High Speed direction, when measured at the MDI using test fixture 4, the peak-to-peak differential output voltage for the SEND_S signal for -T1 shall be between 0.40 V and 1.5 V, and the peak-to-peak output voltage for the SEND_S signal for -V1 shall be between 0.20 V and 0.75 V. For the Low Speed direction, the peak-to-peak differential output voltage for the SEND_S signal for -T1 shall be between 0.45 V and 1.0 V, and the peak-to-peak output voltage for the SEND_S signal for -V1 shall be between 0.22 V and 0.50 V.	Defines explicit normative peak-to-peak boundaries for both the High Speed and Low Speed SEND_S signals directly in the Link Sync clause. This avoids the technical error of forcing a duty-cycled SEND_S pulse to meet continuous-wave PSD and Average Power tests, while still providing firm targets for receiver designers and closing the lower-bound loophole identified by the commenter.
191.6.2.7	147L49	These limits apply to all transmitted symbol sequences, including SEND_S, SEND_T, and SEND_N.	These limits apply to all transmitted symbol sequences other than SEND_S, including SEND_T, and SEND_N. The limits for SEND_S are defined in 191.5.2.8.	Prevents a contradiction in the High Speed limits without accidentally stripping coverage for SEND_Z (quiet mode). Because the HS SEND_S is now governed by its own universal bounds in 191.5.2.8, it must be explicitly exempted from the rate-specific High Speed maximums, providing a clear cross-reference.

Section	Page/ Line	Change From Text	Change To Text	Explanation
191.7.2.8	155L3	This limit applies to all transmitted symbol sequences, including SEND_S, SEND_T, and SEND_N.	This limit applies to all transmitted symbol sequences other than SEND_S, including SEND_T, and SEND_N. The limits for SEND_S are defined in 191.5.2.8.	Prevents a contradiction. Because SEND_S is now explicitly bounded in 191.5.2.8 for the Low Speed direction as well, it is exempted here to maintain consistent document structure and provide a clear cross-reference back to the primary Link Sync subclause.

(Note for the Editor: A new PICS item will need to be generated to correspond to the new `shall` statement introduced in 191.5.2.8).