Modify the first paragraph of 120D.3.1.1 as follows:

The CDAUI-8 chip-to-chip transmitter includes programmable equalization to compensate for the frequency-dependent loss of the channel and to facilitate data recovery at the receiver. The functional model for the transmit equalizer is the three tap transversal filter shown in Figure 120D–4. The transmitter output equalization is characterized using the linear fit method described in 94.3.12.5.2 with the following exceptions~~. that the PRBS13Q test pattern (see 120.5.10.2.3), a D_p value of 2, , and an N_p value of 13 are used.~~

a) The test pattern is PRBS13Q (see 120.5.10.2.3).
b) The aligned symbols $x(n)$ are assigned normalized amplitudes −1, $-ES$, ES, and 1 to represent the PAM4 symbol values 0, 1, 2, and 3 respectively. ES is defined to be ($ES1$ + $ES2$)/2 where $ES1$ and $ES2$ are defined in 120D.3.1.a.
c) The value of D_p is 2 and the value of N_p is 13.

The state of the CDAUI-8 transmit output is manipulated via management.

Modify Table 120D-1 as follows (numbering to be determined by the editor).

Parameter	Reference	Value	Units
…	…	…	…
Output waveform Level separation mismatch ratio R_{LM} (min)	~~94.3.12.5.1~~ 120D.3.1.a	0.95	—
…	…	…	…

Insert a new subclause 120D.3.1.a (numbering to be determined by the editor).

120D.3.1.a Transmitter linearity

Transmitter linearity is defined as function of the mean signal level transmitted for each PAM4 symbol. Given the PAM4 symbols 0, 1, 2, and 3, the mean signal level for each symbol are V_0, V_1, V_2, and V_3 respectively. The calculation of the mean signal levels is defined in 120D.3.1.a.1. The mid-range level V_{mid} is defined by Equation 120D–x. The mean signal levels are then normalized so that V_0 corresponds to −1, V_1 to $-ES1$, V_2 to $ES2$, and V_3 to 1. $ES1$ is defined by Equation 120D–y and $ES2$ is defined by Equation 120D–z.

$$V_{\text{mid}} = \frac{V_0 + V_3}{2} \qquad \text{Equation 120D–x}$$

$$ES1 = \frac{V_1 - V_{\text{mid}}}{V_0 - V_{\text{mid}}} \qquad \text{Equation 120D–y}$$

$$ES2 = \frac{V_2 - V_{\text{mid}}}{V_3 - V_{\text{mid}}} \qquad \text{Equation 120D–z}$$

The level separation mismatch ratio R_{LM} is defined by Equation 120D–w. R_{LM} shall be greater than or equal to 0.95.

$$R_{LM} = \min(3ES1, 3ES2, 2 - 3ES1, 2 - 3ES2) \qquad \text{Equation 120D–w}$$

120D.3.1.a.1 Measurement of mean signal levels

The signal levels are measured from a waveform captured using the procedure defined in 85.8.3.3.4 while the transmitter is transmitting the PRBS13Q test pattern. The waveform consists of *M* samples per unit interval and is aligned such that the first *M* samples of the waveform correspond to the first PAM4 symbol of the test pattern, the second *M* samples to the second PAM4 symbol, and so on. This allows each sample of the waveform to be associated with specific PAM4 symbol in the test pattern.

Denote the number of PAM4 symbols in the test pattern as *N*. Reduce the captured waveform to *N* samples by choosing the central sample from each unit interval. The central sample is defined as m^{th} sample in a given unit interval where *m* is the integer closest to *M* / 2.

For each PAM4 symbol *x*, V_x is the mean value of the waveform samples that correspond to that symbol.