

**Proposed
Draft**

**Serial ATA
International Organization**

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**Serial ATA Revision 2.6 ECN # 029
Title : Addition of Pattern to the TX AC Common
Mode Voltage (Gen3i) Measurement Description**

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1 Introduction

1.1 Problem Statement

When the 6G PHY Working Group created the “Tx AC Common Mode Voltage” parameter and test for Gen3i, the D10.2 pattern that was intended to be part of the proposal was inadvertently excluded from the final draft. (See 13-May-2008 minutes, first page entry of proposed pattern.)

1.2 Solution Summary

Add the excluded words to section 7.4.21.

1.3 Background (optional)

2 Technical Specification Changes

2.1 Section 7.4.21 – Tx AC Common Mode Voltage

[Editor’s Note: The changes marked in **BLUE** (an addition to the text) will be incorporated in section 7.4.21 of the 6G PHY draft specification, revision 0.95.]

7.4.21 Tx AC Common Mode Voltage (Gen3i)

A method to measure the common mode voltage is attaching a metrology-grade power combiner between the Tx+ and Tx- outputs of the transmitter; at the Device or Host transmit connector. Both outputs shall be joined to the combiner with phase matched cables having $\leq \pm 3$ ps of mismatch, diminishing phase distortion during the measurement. The power combiner’s output is connected to a spectrum analyzer having sufficient bandwidth to measure the fundamental and 2nd harmonic frequencies of the data rate. (Example: 6 Gbps, fundamental = 3 GHz.)

The measurement shall be made using a 1 MHz resolution bandwidth.

The transmitter shall output the HFTP (D10.2) pattern during the test.