

149.5.1 Test Modes

Modify Test Mode 2 as follows

Test mode 2: Transmit MDI Jitter in Master Mode

Test mode 2 is for transmitter jitter testing on MDI when transmitter is in MASTER timing mode. When test mode 2 is enabled, the PHY shall transmit a continuous pattern of JP03A (as specified in Clause 94.2.9.1) or JP03B (as specified in Clause 94.2.9.2) with the transmitted symbols timed from its local clock source.

149.5.2.3 Transmit Timing Jitter

Add the following to Transmit Timing Jitter

149.5.2.3.2 Transmit MDI Jitter in Master Mode

Jitter measurements in this subclause are performed with transmitter is enabled in Master timing mode with a local clock. To Measure Random Jitter in RMS (RJrms) and Deterministic Jitter (DJ) follow steps as specified in Clause 94.3.12.6.1, with following modifications:

$$f_n = 1\text{MHz} \times s, T = 68\text{ns}/s \quad (\text{where } s=1 \text{ @10G, } s=0.5 \text{ @5G, } s=0.25 \text{ @2.5G})$$

And for Even-odd jitter (EOJ) measurement follow steps as specified in Clause 94.3.12.6.2.

The calculated transmit timing jitters for RJrms, DJ, and EOJ from above measurements should be:

$$\text{RJrms} = 1\text{ps}/s, \text{ DJ} = 9\text{ps}/s, \text{ EOJ} = 4\text{ps}/s \quad (\text{where } s=1 \text{ @10G, } s=0.5 \text{ @5G, } s=0.25 \text{ @2.5G})$$