IEEE 802.3 Ethernet Working Group
DRAFT Liaison Communication

Source:	IEEE 802.3 Working Group[1]	
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From:	David Law	Chair, IEEE 802.3 Ethernet Working Group
Subject:	Liaison letter to ITU-T Q6 SG15 - TQM	
Approval:	Agreed to at IEEE 802.3 interim meeting, Hamburg, Germany, 19 Sept 2024	

Dear Mr. Parsons and Members of ITU-T Study Group 15,

As noted in our prior communication, the IEEE P802.3dj Task Force has been evaluating different transmitter quality metric (TQM) approaches for the different coherent PHYs being developed as part of the project. Based on input from the ITU-T, the Task Force has adopted the following TQM calculation:

[1] This document solely represents the views of the IEEE 802.3 Working Group, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE 802.

· TQM = $\Delta RSNR_{tx}$, Tx-only RSNR penalty (Renamed as “Extended TCC”) in dB (normative with a maximum specification)

This approach has been specified in IEEE P802.3dj D1.2 for the project’s different coherent PHYs. It will be subject to further refinement and development, as well as continued collaboration with the ITU-T. This specification also includes the definition of a TQM reference receiver. This definition also provides guidance on the calibrated coherent detector front-end with the goal of improving measurement repeatability. Please refer to Sub-Clauses 185.9 and 187.9.

The optical track ad hoc will continue to work on this topic. We encourage any participation from any interested individuals. We also look forward to further collaboration on this topic and would be interested in any progress you make on specification updates, specification evaluation techniques or specification validation data.

Sincerely,

David Law

Chair, IEEE 802.3 Ethernet Working Group

Group