SG15-LS58 STUDY GROUP 15

Original: English

Question(s): 5,7/15 Geneva, 13-24 October 2025

LS

(Ref.: TD149R1/Plen-Annex II)

Source: ITU-T Study Group 15

Title: LS/r on the development of weakly-coupled multi-core fibre Recommendations

(Reply to IEEE 802.3 Ethernet WG-LS147)

LIAISON STATEMENT

For action to:

to:

For information

IEEE 802.3 Ethernet Working Group

Approval: ITU-T SG15 meeting (Geneva, 24 October 2025)

Deadline: -

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This liaison statement thanks IEEE 802.3 for their kind information on the

Abstract: applicability and candidate objectives for a weakly coupled multi-core

fibre (WC-MCF) with the latest status of this standardization activity.

ITU-T Q5/15 and Q7/15 thank IEEE 802.3 Ethernet Working Group for your kind information on the current discussion status on the WC-MCF technology. ITU-T Q5/15 and Q7/15 also appreciated your suggestions on the initial lists which would be required when considering the applicability of WC-MCF to the ethernet technology.

ITU-T Q5/15 has agreed to develop two types of WC-MCF Recommendations, one for single-mode fibre (i.e., G.652/G.657 fibres) G.smmcf and another for cutoff shifted fibre (i.e., G.654 fibre) G.csmcf. The application spaces for G.smmcf are expected to be intra/inter-datacentre and terrestrial networks supported by four-core and submarine networks supported by two/four-core. The application spaces for G.csmcf are expected to be inter-datacentre and terrestrial networks supported by four-core and submarine networks supported by two/four-core.

ITU-T Q7/15 informed that we discussed WC-MCF FIFO devices at SG15 meeting in October 2025 and decided to harmonize this topic with IEC SC86B.

ITU-T Q5/15 and Q7/15 appreciate continuous harmonized discussion with IEEE 802.3 Ethernet Working Group for developing these WC-MCF Recommendations.