

Annex 4B

Editors' Notes: To be removed prior to final publication.

This is a proposal for a new annex to be added to 802.3.

Revision History:

Draft 1.1, March 2006

Preliminary draft for Task Force review.

(informative)

Summary of MAC options

This annex summarizes the optional functions defined in Clause 4 and Annex 4A.

4B.1 Full and half duplex options

Clause 4.1.1 describes the restrictions on the use of half and full duplex.

4B.1.1 Full duplex

To operate in full duplex mode, variable halfDuplex will be false (4.2.7.5).

A device that only supports full duplex mode may use Annex 4A: "Simplified full duplex media access control."

4B.1.2 Half duplex

To operate in half duplex mode, variable halfDuplex will be true (4.2.7.5).

4B.1.3 Half duplex, carrier extension

If a device supports half duplex for 1000Mbps operation, it may use carrier extension and frame bursting as defined in 4.2.3.2.7

4B.2 Frame length options

The MAC may truncate or discard frames that are longer than the supported frame length. The MAC may support one of the three defined frame lengths. The format for the different frame lengths are defined in 3.1

4B.2.1 Basic frame

The basic frame length is 1518 bits as defined in 1.4.xxx.

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4B.2.2 Q-tagged frame

The q-tagged frame length is 1522 bits as defined in 1.4.xxx.

4B.2.3 Envelope frame

The envelope frame length is 2000 bits as defined in 1.4.xxx.

4B.3 Rate control options

The MAC may support one or more rate control options.

4B.3.1 WIS support

The MAC may increase the interframe spacing in order to adapt the nominal data rate of the MAC sublayer to SONET/SDH data rates (with packet granularity) for WAN-compatible applications of this standard as defined in 4.2.3.2.2.

4B.3.2 Rate limit: frame overhead

The MAC may increase the interframe spacing by a fixed amount for each frame by setting the variables txRateLimitFrameOverheadEnable and txAdditionalFrameOverhead as defined in 4A.2.7.2.

4B.3.3 Rate limit: payload data rate

The MAC may increase the interframe spacing to adapt the nominal data rate of the MAC sublayer to an arbitrary rate by setting the variables txRateLimitPayloadRateEnable and txIfsStretchRatio as defined in 4A.2.7.2.

4B.3.4 Rate limit: frame rate

The MAC may increase the interframe spacing to limit the maximum frame rate of the MAC sublayer by setting the variables txRateLimitFrameRateEnable and txFrameRateStart as defined in 4A.2.7.2.

4B.4 MAC control options

4B.4.1 Full duplex deference

The MAC may respond to the assertion of the carrierSense signal by deferring while in full duplex mode as defined in 4A.2.8.

4B.4.2 Non deference mode

The MAC may rely on another sublayer to enforce the interframe spacing rules normally defined in the deference process by setting the variable deferenceMode to false as defined in 4A.2.7.5.

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