

Interpretation Number: 03-11/04
Topic: Frame Reception
Relevant Clause: 4.2.9
Classification: Unclear

Interpretation Request

We have a question with regard to IEEE 802.3 Part 3: CSMD/CD Access Method and Physical Layer Specification (dated 2002). The question concerns the Frame Reception pseudo code provided in 4.2.9. The function RemovePad is copied below.

The basic question is whether a received frame with the following attributes should be discarded:

- lengthOrTypeParam is $< \text{maxValidFrame}$.
- Received frame is $> \text{minFrameSize}$.
- Received frame is $\leq \text{maxValidFrame}$.
- Received frame contains padding.
- CRC is valid.

The "twist" in the above frame is that the transmitter has sent a frame with padding even though the `clientDataSize` is $> \text{minFrameSize}$. In the function `RemovePad()`, `validLength` is set based on "Length/Type field matches the received `clientDataSize`". So it seems like such a frame is discarded. Is this correct?

Interpretation for IEEE Std 802.3-2002

The standard is unclear on this issue, and no distinction can be made between alternative implementations based on this.

Note however that the example frame in the request should not exist. This is due to the requirement in subclause 3.2.7 that states that:

The length of PAD field required for MAC client data that is n octets long is $\max [0, \text{minFrameSize} - (8 \times n + 2 \times \text{addressSize} + 48)]$ bits.

A frame in excess of `minFrameSize` should always have a PAD field of size 0.