

**Interpretation Number:** 2-03/03 (Pause priority resolution)  
**Topic:** Pause priority resolution  
**Relevant Subclause:** 37.2.4.2  
**Classification:** Unambiguous

### **Interpretation Request**

I have a question about the interpretation of IEEE 802.3-2002, Clause 37, paragraph 37.2.4.2, regarding Auto-negotiation and the Pause priority resolution for a 1000Base-X system.

Specifically my confusion is with Table 37-4, "Pause priority resolution". At the PHY level, are the PAUSE and ASM\_DIR bits actually changed in the MDIO registers 4 (local device) and 5 (link partner) at the end of the Auto-neg process to reflect Table 37-4?

The text descriptions (e.g. "Disable PAUSE, Transmit and Receive") confuse me into thinking that perhaps this resolution is done by the MAC, not by the PHY. If the resolution was done by the PHY, I would have expected 4 columns in Table 37-4: (1) Local Device PAUSE and ASM\_DIR bits \*before\* AN (2) Link Partner PAUSE and ASM\_DIR bits \*before\* AN (3) Local Device PAUSE and ASM\_DIR bits \*after\* AN (4) Link Partner PAUSE and ASM\_DIR bits \*after\* AN.

As it is, it seems that some interpretation of the resolution description is needed.

Can you clarify this point for me? I appreciate your help. Thank you.

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### **Interpretation for IEEE std 802.3-2002**

The standard states in subclause ability 37.2.5.1.4 that Register 5 is a status of the remote device's advertised ability and in subclause 37.2.5.1.3 that Register 4 is an advertisement of the local device's advertised ability. These bits are not required to be changed to represent the result of priority resolution.

Table 37-4 'Pause priority resolution' specifies how this information should be processed to determine the optimal pause mode. We however do not specify, nor is there a need to specify, where the resolution takes place, as it does not relate to any compatibility interfaces.

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