

Since a local device and a link partner may have multiple [commoncompatible](#) abilities, a mechanism to resolve which mode to configure is required. The mechanism used by Auto-Negotiation is a Priority Resolution function that predefines the hierarchy of supported technologies. The single PHY enabled to connect to the MDI by Auto-Negotiation shall be the technology [corresponding to the bit in the Technology Ability Field common to](#) of the local device [and that is compatible with the](#) link partner [Technology Ability Field](#) that has the highest priority as defined in 98B.4 ([listednumbered](#) from highest priority [\(1\)](#) to lowest priority). [Compatible technologies in Table 98B-2 have numbers at the intersection of the PHY row and Link Partner column. Empty cells represent incompatible technologies.](#)

[In order to avoid priority conflicts, Leader/Follower configuration is logically resolved before applying Table 98B-2.](#)

The [commonhighest priority compatible](#) technology is referred to as the [highest common denominator](#), or HCD, technology. If the local device receives a Technology Ability Field with a bit set that is reserved, the local device shall ignore that bit for priority resolution. Determination of the HCD technology occurs on entrance to the AN GOOD CHECK state. In the event that there is no [commoncompatible](#) technology, HCD shall have a value of "NULL," indicating that no PHY receives link\_control = ENABLE and link\_status[HCD] = FAIL.

**Formatted:** Font: Not Italic