



Overview

This document summarizes all of the T1 link scenarios. Unlike traditional network PHYs, Automotive T1 PHYs do not offer parallel detect. A link partner with Auto-Neg enabled is not able to link with a link partner with Auto-Neg disabled.

- Auto Negotiation is required on both link partners in order to utilize Auto Negotiation.
- Already deployed devices with Auto Negotiation off or without Auto Negotiation to begin with, they cannot be connected to a new link partner with Auto Negotiation enabled.
- Some vendors may have a bypass mode to produce the effects of parallel detect, however they are proprietary methods as the specification does not describe parallel detection and therefore is considered non-standard.

	Auto-Neg On, advertise 1000Base-T1, advertise master and slave	Auto-Neg On, advertise 1000Base-T1, advertise master	Auto-Neg On, advertise 1000Base-T1, advertise slave	Auto-Neg On, advertise 100Base-T1, advertise master and slave	Auto-Neg On, advertise 100Base-T1, advertise master	Auto-Neg On, advertise 100Base-T1, advertise slave	Auto-Neg On, advertised 100Base-T1 and 1000Base-T1, advertise master and slave	Auto-Neg OFF, 1000Base-T1 master	Auto-Neg OFF, 1000Base-T1 slave	Auto-Neg OFF, 100Base-T1, master	Auto-Neg OFF, 100Base-T1, slave
Auto-Neg On, advertise 1000Base-T1, advertise master and slave	Gig link master or slave	yes	yes				Gig link master or slave				
Auto-Neg On, advertise 1000Base-T1, advertise master	yes	no	yes				yes				
Auto-Neg On, advertise 1000Base-T1, advertise slave	yes	yes	no				yes				
Auto-Neg On, advertise 100Base-T1, advertise master and slave				100M link master or slave	yes	yes	100M link master or slave				
Auto-Neg On, advertise 100Base-T1, advertise master				yes	no	yes	yes				
Auto-Neg On, advertise 100Base-T1, advertise slave				yes	yes	no	yes				
Auto-Neg On, advertised 100Base-T1 and 1000Base-T1, advertise master and slave	Gig link master or slave	yes	yes	100M link master or slave	yes	yes	Gig link master or slave				
Auto-Neg OFF, 1000Base-T1 master								no	yes	no	no
Auto-Neg OFF, 1000Base-T1 slave								yes	no	no	no
Auto-Neg OFF, 100Base-T1, master								no	no	no	yes
Auto-Neg OFF, 100Base-T1, slave								no	no	yes	no

1. Document Revision History

This section lists the entries made to this document, sorted by date: this documentation is periodically submitted to the extranet and may not reflect the actual date of an errata discovery.

Entry Date	Entry Description
Feb 2, 2021	Initial Creation

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