

PMD Outline

Subclause	Title	Description
95.1	Overview	Overview
95.1.1	Terminology and conventions	Terminology, power budget classes, etc.
95.1.2	Goals and objectives	From SG Objectives
95.1.3	PMD classes	Define classes of CLTs and CNUs, based on RF bandwidth, power, etc.
95.1.4	Positioning of PMD sublayer within the IEEE 802.3 architecture	Architecture diagram
95.2	PMD types	Nomenclature for different PMD types (e.g. different rates, etc.)
95.2.1	Mapping of PMDs to PMD classes	Table of mappings
95.3	PMD functional specifications	Interface definitions, descriptions of how the PMD transfers data between PMA and the MDI
95.3.1	PMD service interface	Description of the interface
95.3.1.1	Delay constraints	Maximum delay of the PMD and delay tolerances
95.3.1.2	PMD_UNITDATA.request	Request to send data (PMD and PMA)
95.3.1.3	PMD_UNITDATA.indication	Indication that data is available (PMD and PMA)
95.3.1.4	PMD_SIGNAL.request	Request to send data (PMD and MDI)
95.3.1.5	PMD_SIGNAL.indication	Indication that data is available (PMD and MDI)
95.3.2	PMD block diagram	Block Diagram, shows test points.
95.3.3	PMD transmit function	Procedure of what the transmit function does
95.3.4	PMD receive function	Procedure of what the receive function does
95.3.5	PMD signal detect function	Detection of the signal on the medium (power detection)
95.3.5.1	CNU PMD signal detect	CNU version
95.3.5.2	CLT PMD signal detect	CLT version
95.3.6	PMD transmit enable function for CNU	For burst mode the PCS tells the PMD when to begin the burst and end the burst
95.3.7	PMD auto-negotiation function	Need to specify some form of initial communications and method to agree on rate. TDD will need to auto-negotiate TDD parameters.
95.4	PMD to MDI RF specifications for EPoC CLT PMDs	OFDM modulation, QAM modulation, etc. Core of the PMD specification.
95.4.1	Transmitter RF specifications	Core of the OFDM transmitter specification
95.4.2	Receiver RF specifications	Some overview of the receiver specification. TF may choose to keep this brief.
95.5	PMD to MDI RF specifications for EPoC CNU PMDs	Same as 95.4, but for CNU
95.5.1	Transmitter RF specifications	Same as 95.4.1, but for CNU

95.5.2	Receiver RF specifications	Same as 95.4.2, but for CNU
95.6	Definitions of RF parameters and measurement methods	RF definitions and how to make measurements
95.6.1.1	Insertion loss	
95.6.1.2	Test patterns	
95.6.1.3	Frequency and frequency range measurement	
95.6.1.4	RF power measurements	
95.6.1.5	Transmit waveform (transmit eye)	Spectral mask, error vector magnitude (EVM), PAPR, etc.
95.6.1.6	Transmit penalty	Non-ideal parameters of the transmitter
95.6.1.7	Receive sensitivity	Receiver sensitivity in dBm
95.6.1.8	Stressed receiver conformance test	Receiver performance test
95.6.1.9	Jitter measurements	
95.6.1.10	Transmitter on/off timing measurement	
95.6.1.11	Receiver settling timing measurement	
95.7	Environmental, safety, and labeling	
95.7.1	General safety	
95.7.2	RF safety	
95.7.3	Installation	
95.7.4	Environment	
95.7.5	PMD labeling	
95.8	Characteristics of the coaxial cabling	
95.8.1	Coaxial cabling model	Channel model of cable plant
95.8.2	Coaxial cable	Cable type
95.8.3	Coaxial connection	Connectors
95.8.4	Medium Dependent Interface (MDI)	
95.9	EEE capability	Energy efficient Ethernet. Do we support this? Not supported in EPON.
95.10	TimeSync capability	
95.11	Protocol implementation conformance statement (PICS) proforma for Clause 95, Physical Medium Dependent (PMD) sublayer and medium for coaxial distribution networks, type EPoc_PMD_Name	Table of mandatory and optional features.