Project	IEEE P802.16 Broadband Wireless Access Working Group		
Title	Outline for PHY Specification		
Date Submitted	23 June, 1999		
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Re:	Call for PHY contributions (23 June, 1999)		
Abstract	The following document is a tentative outline for a PHY specification with the main purpose of initiating discussions on the more general topic of physical layer for BWA systems.		
Purpose	Discussion Kick-off.		
Notice	This document has been prepared to assist the IEEE P802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.		
Release	The contributor acknowledges and accepts that this contribution may be made publicly available by 802.16.		

Outline for PHY Specification

Jay Klein

Proposed Outline for PHY specification

Scope

Describe scope of intended scope of work

References

Reference to other 802.16 documents or any relevant contributed material

Definitions and Abbreviations

Dictionary of term being used specific to the PHY spec

PHY Services

RF Channelization

Target Spectrum

Channel definition

Accuracy and Stability

Duplexing Mode

FDD

TDD

Frame Structure

Downstream

Control Plane

TDM

Upstream

Multiple Access Scheme (TDMA ?)

Transmission

Base Station (Hub)

Transmission Power Levels

Modulation Scheme

FEC

Unwanted Emissions

CPE (Subscriber Unit)

Transmission Power Levels

Attack/Release Time
Minimum/Maximum Power and Power Control
Transmitter Idle Power
REMARK: Some of these issues are relevant to the Hub in case of TDD duplexing mode

Modulation Scheme

FEC

Unwanted Emissions

Reception

Reference Set-up and Test Conditions

Minimum Performance Requirement

Radio Sensitivity

BER

Interference Performance

PHY Interfaces with other entities

MAC Service Access Points

Example: PHY_CPE_Adj_Power (Inc_dec_flag)

Management Service Access Points

Example: PHY_TimeFrame_Adj (Val)

PHY Procedures

Synchronization:

Time

Frequency
Signal level Measurement
Packet reception (in case of TDMA)
Support for Registration Service
Support for Contention and Non-contention based Access

Expected Deployment Scenario

Interference Model
Cells and Sectors
Polarization

Other NMS related issues