Introduction

During the July meeting, the joint meeting of the PHY group determined additional changes are required to the PHY MIB to support the PHY operation. The following text shows the required changes for the PHY MIB section.
Physical Layer Management

This section covers the attribute definitions and templates of PHY layer management. This includes both the PHY-dependent and the PHY-independent portions of the PHY-layer Management Information Base. Not all attributes in the following section are supported by every PHY. Each PHY contains a Managed Object list which defines the PHY-specific values required for each PHY implementation.

PHY Management Information Base

Phy Attributes

agPhyOperation grp

aPHY_Type,
aReg_Domains_Suprt,
aCurrent_Reg_Domain,
aSlot_Time,
aCCA_Asmnt_Time,
ARxTx_Turnaround_Time,
ARx_PLCP_Delay,
ARxTx_Switch_Time,
ARxRamp_On_Time,
ARx_RF_Delay,
ARx_SIFS_Time,
ARx_RF_Delay,
ARx_PLCP_Delay,
ARMAC_Prc_Delay,
ARxRamp_Off_Time;
acCA_Watchdog_Timer_Max;
acCA_Watchdog_Count_Max;
acCA_Watchdog_Timer_Min;
acCA_Watchdog_Count_Min;

agPhyRate grp

aSuprt_Data_Rates_Tx,
aSuprt_Data_Rates_Rx,
AMPDU_Max_Lngth_1M,
AMPDU_Max_Lngth_2M,
aPref_Max_MPDU_Frgmnt_Lngth;

agPhyAntenna grp

aSuprt_Tx_Antennas,
aCurrent_Tx_Antenna,
aSuprt_Rx_Antennas,
aDiversity_Suprt,
aDiversity_Slct_Rx;
agPhyTxPwr_grp

aNbr_Suprt_Pwr_Lvls,
ATx_Pwr_Lv11,
ATx_Pwr_Lv12,
ATx_Pwr_Lv13,
ATx_Pwr_Lv14,
ATx_Pwr_Lv15,
ATx_Pwr_Lv16,
ATx_Pwr_Lv17,
ATx_Pwr_Lv18,
ACurrent_Tx_PwrLvl;

agPhyFHSS_grp

AHop_Time,
ACurrent_Channel_Nbr,
AMax_Dwell_Time,
ACurrent_Dwell_Time,
ACurrent_Set,
ACurrent_Pattern,
ACurrent_Index;

agPhyStatus_grp

ASynthesizer_Locked;

Not Grouped

PHY Object Class

PHY MANAGED OBJECT CLASS
DERIVED FROM "ISO/IEC 10165-2":top;
CHARACTERIZED BY
pPHY_base PACKAGE
BEHAVIOR
bPHY_base BEHAVIOR
DEFINED AS "The PHY object class provides the necessary support for all the
required PHY operational information which may vary from PHY to PHY and from
STA to STA to be communicated to upper layers."
ATTRIBUTES

aPHY_Type, GET,
aReg_Domains_Suprt, GET,
aCurrent_Reg_Domain, GET-REPLACE,
aSlot_Time, GET,
aCCA_Asmnt_Time, GET,
aRxTx_Turnaround_Time, GET,
aTx_PLCP_Delay, GET,
aRxTx_Switch_Time, GET,
aTxRamp_On_Time, GET,
aTx_RF_Delay, GET,
aSIFS_Time, GET,
aRx_RF_Delay
aRx_PLCP_Delay
aMAC_Prc_Delay
aTxRamp_Off_Time
aCCA_Watchdog_Timer_Max
aCCA_Watchdog_Count_Max
aCCA_Watchdog_Timer_Min
aCCA_Watchdog_Count_Min
aSupr_Data_Rates.Tx
aSupr_Data_Rates_Rx
aMPDU_Max_Length_1M
aMPDU_Max_Length_2M
aPref_Max_MPDU_Fragment_Length
aSuprt.Tx_Antennas
aCurrent.Tx_Antenna
aSupr.Tx_Antennas
aDiversity_Suprt
aDiversity_Slcct_Rx
aNbr_Suprtd_Pwr_Lvl
aTx_Pwr_LVL_1
aTx_Pwr_LVL_2
aTx_Pwr_LVL_3
aTx_Pwr_LVL_4
aTx_Pwr_LVL_5
aTx_Pwr_LVL_6
aTx_Pwr_LVL_7
aTx_Pwr_LVL_8
aCurrent.Tx_PwrLvl
aHop_Time
aCurrent_Channel_Nbr
aMax_Dwell_Time
aCurrent_Dwell_Time
aCurrent_Set
aCurrent_Pattern
aCurrent_Index
aSynthesizer_Locked
ATTRIBUTE GROUPS
agPhyOperation_grp,
agPhyRate_grp,
agPhyAntenna_grp,
agPhyTxPwr_grp,
agPhyFHSS_grp,
agPhyStatus_grp
ACTIONS
acPHY_init,
acPHY_reset;
NOTIFICATIONS
REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY() };
PHY Attribute Group Templates

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**agPhyOperation_grp**

PhyOperation_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aPHY_Type,
  aReg_Domains_Suprt,
  aCurrent_Reg_Domain,
  aSlot_Time,
  aCCA_Asmnt_Time,
  aRxTx_Turnaround_Time,
  aTx_PLCP_Delay,
  aRxTx_Switch_Time,
  aRxRamp_On_Time,
  aRx_RF_Delay,
  aSIFS_Time,
  aRx_RF_Delay,
  aRx_PLCP_Delay,
  aMAC_Prc_Delay,
  aTxRamp_Off_Time,
  aCCA_Watchdog_Timer_Max,
  aCCA_Watchdog_Count_Max,
  aCCA_Watchdog_Timer_Min,
  aCCA_Watchdog_Count_Min;

REGISTERED AS { iso(1) member-body(2) us(840) ieee802dotll(xxxx) phy(3) PhyOperation_grp(0) };

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**agPhyRate_grp**

PhyRate_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aSuprt_Data_Rates_Tx,
  aSuprt_Data_Rates_Rx,
  aMPDU_Max_Lngth_1M,
  aMPDU_Max_Lngth_2M,
  aPref_Max_MPDU_Frgmnt_Lngth;

REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) phy(3) PhyRate_grp(1) };

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**agPhyAntenna_grp**

PhyAntenna_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aSuprt_Tx_Antennas,
  aCurrent_Tx_Antenna,
  aSuprt_Rx_Antennas,
  aDiversity_Suprt,
  aDiversity_Slt_Rx;

REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) phy(3) PhyAntenna_grp(2) };

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Submission 5

Ed Geiger, Apple Computer Inc.
**agPhyTxPwr_grp**
PhyTxPwr_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aNbr_Suprted_Pwr_Lvl1,
aTx_Pwr_Lvl1,
aTx_Pwr_Lvl2,
aTx_Pwr_Lvl3,
aTx_Pwr_Lvl4,
aTx_Pwr_Lvl5,
aTx_Pwr_Lvl6,
aTx_Pwr_Lvl7,
aTx_Pwr_Lvl8,
aCurrent_Tx_PwrLvl;
REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) phy(3) PhyTxPwr_grp(3) };

**agPhyFHSS_grp**
PhyFHSS_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aHop_Time,
aCurrent_Channel_Nbr,
aMax_Dwell_Time,
aCurrent_Dwell_Time,
aCurrent_Set,
aCurrent_Pattern,
aCurrent_Index;
REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) phy(3) PhyFHSS_grp(4) };

**agPhyStatus_grp**
PhyStatus_grp ATTRIBUTE GROUP
GROUP ELEMENTS
  aSynthesizer_Locked;
REGISTERED AS { iso(1) member-body(2) us(840) ieee802dot11(xxxx) phy(3) PhyStatus_grp(5) };

**PHY Attribute Templates**

**aPHY_Type**
PHY_Type ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This is a 8 bit integer value which identifies the PHY Type supported by the attached PLCP and
PMD"
  FHSS 2.4GHz = 01 , DSSS 2.4GHz = 02, IR Baseband = 03";
aReg Domains Suprt

Reg_Domains_Suprt ATTRIBUTE
WITH APPROPRIATE SYNTAX
   Null Terminated list of byte integers;
BEHAVIOR DEFINED AS
   "There are different operational requirements dependent on the regulatory domain. This attribute list describes the regulatory domains the PLCP and PMD support in this implementation. Each integer is an 8 bit value as defined below:
   FCC = 10, DOC = 20, ETSI = 30, MKK = 40";

aCurrent Reg Domain

Current_Reg_Domain ATTRIBUTE
WITH APPROPRIATE SYNTAX
   integer;
BEHAVIOR DEFINED AS
   "This octet defines the current regulatory domain this implementation of the PMD is supporting. This octet corresponds to one of the Reg_Domains list in the Reg_Domains_Suprt attribute list";

aSlot Time

Slot_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
   integer;
BEHAVIOR DEFINED AS
   "The time in microseconds the MAC will use for defining the PIFS and DIFS periods. The Slot_Time is defined as a function of the following the equation:
   CCA_Asmnt_Time + RxTx_Turnaround_Time + Air_Propagation_Time.
   Air_Propagation_Time is defined as 1 usec."

aCCA Asmnt Time

CCA_Asmnt_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
   integer;
BEHAVIOR DEFINED AS
   "The minimum time in microseconds the CCA mechanism has available to assess the media within every slot to determine whether the media is clear or busy";

Submission 7
Ed Geiger, Apple Computer Inc.
**aRxTx Turnaround Time**

RxTx_Turnaround_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The maximum time in microseconds the PHY requires to change from receive to transmitting the start of the first symbol out on the air. The following equation is used to derive the RxTx_Turnaround_Time:
\[\text{aTx}_{\text{PLCP}}_{\text{Delay}} + \text{aRxTx}_{\text{Switch}}_{\text{Time}} + \text{aTxRamp}_{\text{On}}_{\text{Time}} + \text{aTx}_{\text{RF}}_{\text{Delay}}.\];

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) RxTx_Turnaround_Time(44) };

**aTx PLCP Delay**

Tx_{PLCP} Delay ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in microseconds the PLCP uses to deliver a symbol from the MAC interface to the transmit data path of the PMD";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_{PLCP} Delay(88) };

**aRxTx Switch Time**

RxTx_Switch_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in microseconds the PMD takes to switch from Receive to Transmit";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) RxTx_Switch_Time(88) };

**aTx Ramp On Time**

TxRamp_On_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The maximum time in microseconds the PMD takes to turn the Transmitter on";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) TxRamp_On_Time(88) };

**aTx RF Delay**

Tx_{RF} Delay WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in nanoseconds the PMD uses to transfer a symbol through the Transmit path of the PMD";
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_RF_Delay(88) };

**aSIFS Time**
SIFS_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The time in microseconds the MAC and PHY will require to receive the last symbol of a frame at
the air interface, process the frame and response with the first symbol on the air interface of the
earliest possible response. The following equation is used to determine the SIFS_Time:
aRx_RF_Delay + aRx_PLCP_Delay + aMAC_Prc_Delay +
aRxTx_Turnaround_Time";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) SIFS_Time(88) };

**aRx RF Delay**
Rx_RF_Delay ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in nanoseconds the PMD uses to deliver a symbol from the antenna to the
PLCP."

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Rx_RF_Delay(88) };

**aRx PLCP Delay**
Rx_PLCP_Delay ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in nanoseconds the PLCP uses to deliver a bit from the PMD receive path to
the MAC";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Rx_PLCP_Delay(88) };

**aMAC Prc Time**
MAC_Prc_Delay ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The nominal time in microseconds the MAC uses to process a frame and prepare a response to
the frame";

REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) MAC_Prc_Delay(88) };

Submission 9
Ed Geiger, Apple Computer Inc.
**aTxRamp Off Time**

\[ \text{TxRamp\_Off\_Time ATTRIBUTE WITH APPROPRIATE SYNTAX}\]

\[ \text{integer; BEHAVIOR DEFINED AS} \]

"The time in nanoseconds the PMD takes to turn the Transmit PA off;"

\[ \text{REGISTERED AS} \]

\[ \{ \text{iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) TxRamp\_Off\_Time(88)} \}; \]

**aCCA Watchdog Timer Max**

\[ \text{CCA\_Watchdog\_Timer\_Max ATTRIBUTE WITH APPROPRIATE SYNTAX}\]

\[ \text{integer; BEHAVIOR DEFINED AS} \]

"The time (in hundreds of nanoseconds) at which the watchdog timer in the PMD CCA mechanism generates an alarm. The product of aCCA_Watchdog_Timer_Max and the aCCA_Watchdog_Count_Max must be set to match the length of the maximum-length undecoded packet that is to be allowed time to operate."

\[ \text{REGISTERED AS} \]

\[ \{ \text{iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) CCA\_Watchdog\_Timer\_Max(99)} \}; \]

**aCCA Watchdog Count Max**

\[ \text{CCA\_Watchdog\_Count\_Max ATTRIBUTE WITH APPROPRIATE SYNTAX}\]

\[ \text{integer; BEHAVIOR DEFINED AS} \]

"The count of alarms which the watchdog counter in the PMD CCA is permitted to generate before an undecoded energy detection in the medium is ignored."

\[ \text{REGISTERED AS} \]

\[ \{ \text{iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) CCA\_Watchdog\_Count\_Max(1010)} \}; \]

**aCCA Watchdog Timer Min**

\[ \text{CCA\_Watchdog\_Timer\_Min ATTRIBUTE WITH APPROPRIATE SYNTAX}\]

\[ \text{integer; BEHAVIOR DEFINED AS} \]

"The minimum time (in hundreds of nanoseconds) to which the aCCA_Watchdog_Timer_Max may be set."

\[ \text{REGISTERED AS} \]

\[ \{ \text{iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) CCA\_Watchdog\_Timer\_Min(1111)} \}; \]

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1 A default product of 22 msec allows time for 802.11 type maximal length packets.
**aCCA_Watchdog_Count_Min**

CCA_Watchdog_Count_Min ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The minimum time (in hundreds of nanoseconds) to which the aCCA_Watchdog_Count_Max may be set."

REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) CCA_Watchdog_Count_Min(1212) }

**aSuprt Data Rates Tx**

Supr_Data_Rates_Tx ATTRIBUTE
WITH APPROPRIATE SYNTAX
    Null Terminated list of byte integers;
BEHAVIOR DEFINED AS
    "The transmit bit rates supported by the PLCP and PMD. The following list defines the supported transmit data rates:
    1M bps = 01, 2M bps = 02";
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) Suprt_Data_Rates_Tx (2424) }

**aSuprt Data Rates Rx**

Supr_Data_Rates_Rx ATTRIBUTE
WITH APPROPRIATE SYNTAX
    Null Terminated list of byte integers;
BEHAVIOR DEFINED AS
    "The receive bit rates supported by the PLCP and PMD. The following list defines the supported receive data rates:
    1M bps = 01, 2M bps = 02";
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) Suprt_Data_Rates_Rx (2424) }

**aMPDU_Max_Lngth-1M**

MPDU_Max_Lngth-1M ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The maximum number of octets in a MPDU that can be load into the PLCP_PDU when transmitting at 1M bit per second. Maximum MPDU length the PHY can accept from the MAC sublayer or from the media."
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) MPDU_Max_Lngth-1M (2424) }
MPDU_Max_Length_2M

MPDU_Max_Length_2M ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The maximum number of octets in a MPDU that can be load into the PLCP_PDU when transmitting at 2M bit per second";
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) MPDU_Max_Length_2M (2424) };

Pref_Max_MPDU_Fragment_Len

Pref_Max_MPDU_Fragment_Len ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The preferred initial maximum fragment length the MAC will use when fragmenting a packet. This variable can be modified by the LME."
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) Pref_Max_MPDU_Fragment_Len (2424) };

Suprt_Tx_Antennas

Suprt_Tx_Antennas ATTRIBUTE
WITH APPROPRIATE SYNTAX
    Null terminated list of integers;
BEHAVIOR DEFINED AS
    "This attribute represent a list of one or more antennas which can be used as the transmit antenna. Each antenna is define as an integer starting with antenna 1 to antenna N where N is ≤ 255";
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) Suprt_Tx_Antennas (2424) };

Current_Tx_Antenna

Current_Tx_Antenna ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The current antenna being used to transmit. This value is one of the attributes appearing in the list defined as the Suprt_Tx_Antennas."
REGISTERED AS
    { iso(1) member-body(2) us(840) ieee802dot11(xxx) PHY(3) attribute(7) MPDU_Max_Length_1M (2424) };

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Ed Geiger, Apple Computer Inc.
aSuprt_Rx_Antennas

Suprt_Rx_Antennas ATTRIBUTE
WITH APPROPRIATE SYNTAX
   Null terminated list of integers;
BEHAVIOR DEFINED AS
   "This attribute represent a list of one or more antennas which can be used as the transmit antenna.
   Each antenna is define as an integer starting with antenna 1 to antenna N where N is < or = 255.";
REGISTERED AS
   { iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Suprt_Rx_Antennas (2424) }

aDiversity_Suprt

Diversity_Suprt ATTRIBUTE
WITH APPROPRIATE SYNTAX
   integer;
BEHAVIOR DEFINED AS
   "This attribute defines this implementation's support for diversity. This attribute can have one of three
   values. 01h indicates that diversity is available and performed over a fixed list of antennas define in
   attribute Diversity_Sltc_Rx. 02h indicates that diversity is not supported. 03h indicates that diversity
   is supported and that control of diversity is also available. Diversity control indicates that the
   Diversity_Sltc_Rx can be dynamically modified by the LME."
REGISTERED AS
   { iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) MPDU_Max_Lngth_1M
     (2424) }

aDiversity_Sltc_Rx

Diversity_Sltc_Rx ATTRIBUTE
WITH APPROPRIATE SYNTAX
   Null terminated list of integers;
BEHAVIOR DEFINED AS
   "This attribute represent a list of one or more antennas which can be used as receive antennas. Each
   antenna is define as an integer starting with antenna 1 to antenna N where N is < or = 255.";
REGISTERED AS
   { iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Diversity_Sltc_Rx (2424) }

aNbr_Suprt_Pwr_Lvls

Nbr_Suprt_Pwr_Lvls ATTRIBUTE
WITH APPROPRIATE SYNTAX
   integer;
BEHAVIOR DEFINED AS
   "This defines the number of power levels supported by the PMD. This attribute can have a value of 1
to 8.";
REGISTERED AS
   { iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Nbr_Suprt_Pwr_Lvls
     (2424) }
aTx Pwr Lvl 1

Tx_Pwr_LVL_1 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL1 in mWatts. This is a nominal value +/- 3 dB at nominal temperature and voltage. This is also the default power level."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_LVL_1 (2424) };

aTx Pwr Lvl 2

Tx_Pwr_LVL_2 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL2 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_LVL_2 (2424) };

aTx Pwr Lvl 3

Tx_Pwr_LVL_3 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL3 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_LVL_3 (2424) };

aTx Pwr Lvl 4

Tx_Pwr_LVL_4 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL4 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_LVL_4 (2424) };

aTx Pwr Lvl 5

Tx_Pwr_LVL_5 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL5 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_LVL_5 (2424) };

Submission

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Ed Geiger, Apple Computer Inc.
aTx Pwr Lvl 6
Tx_Pwr_Lvl_6 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL6 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_Lvl_6 (2424) };

aTx Pwr Lvl 7
Tx_Pwr_Lvl_7 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL7 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_Lvl_7 (2424) };

aTx Pwr Lvl 8
Tx_Pwr_Lvl_8 ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This defines the transmit output power for LEVEL8 in mWatts dBm. This is a nominal value +/- 3 dB at nominal temperature and voltage."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Tx_Pwr_Lvl_8 (2424) };

aCurrent Tx Pwr Lvl
Current_Tx_PwrLvl ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The Tx_Pwr_Lvl_N currently being used to transmit data. Some PHYs also use this value to determine the receiver sensitivity requirements for CCA."
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Current_Tx_PwrLvl (2424) };

aHop Time
Hop_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"The time in millinoseconds for the PMD to change from channel 2 to 80"
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(xxxx) PHY(3) attribute(7) Hop_Time (2424) };

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_aCurrent Channel Nbr_
Current_Channel_Nbr ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "This defines the current channel number of the frequency loaded in the RF synthesizer";
REGISTERED AS
    \{ iso(1) member-body(2) us(840) iee802dot11(xxxx) PHY(3) attribute(7) Current_Channel_Nbr (2424) \};

_aMax Dwell Time_
Max_Dwell_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The maximum time in milliseconds that the radio can operate on a single channel";
REGISTERED AS
    \{ iso(1) member-body(2) us(840) iee802dot11(xxxx) PHY(3) attribute(7) Max_Dwell_Time (2424) \};

_aCurrent Dwell Time_
Current_Dwell_Time ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "The current time in milliseconds that the radio shall operate on a single channel set by the
    LMEMAC";
REGISTERED AS
    \{ iso(1) member-body(2) us(840) iee802dot11(xxxx) PHY(3) attribute(7) Current_Dwell_Time (2424) \};

_aCurrent Set_
Current_Set ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "This attribute represents the current set of patterns the PHY LME is using to determine the hop
    sequence.";
REGISTERED AS
    \{ iso(1) member-body(2) us(840) iee802dot11(xxxx) PHY(3) attribute(7) Current_Set (2424) \};

_aCurrent Pattern_
Current_Pattern ATTRIBUTE
WITH APPROPRIATE SYNTAX
    integer;
BEHAVIOR DEFINED AS
    "This attribute represents the current pattern the PHY LME is using to determine the hop sequence.";
REGISTERED AS
    \{ iso(1) member-body(2) us(840) iee802dot11(xxxx) PHY(3) attribute(7) Current_Pattern (2424) \};
Current_Index ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This attribute represents the current index value the PHY LME is using to determine the
Current_Channel_Nbr.";
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(500) PHY(3) attribute(7) Current_Index (2424) };

Synthesizer_Locked ATTRIBUTE
WITH APPROPRIATE SYNTAX
integer;
BEHAVIOR DEFINED AS
"This is an indication that the PMD's synthesizer is locked to the current channel specified in the
Current_Channel_Nbr. 00h represents unlocked while FFh represents locked.";
REGISTERED AS
{ iso(1) member-body(2) us(840) ieee802dot11(500) PHY(3) attribute(7) Synthesizer_Locked (2424) };}