
IEEE P802.11
Wireless LANs

IEEE802.11h
An IEEE802.11h MIB Definition

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Abstract

This paper outlines an ASN.1 MIB encoding for the IEEE802.11h Spectrum Management extensions. The definition is based on the MIB outlined in IEEE802.11h/D1.0, July 2001. The attributes related to hidden node detection have not been included at this stage. The MIB encoding has been successfully compiled.

1. MIB DEFINITION

```
-- *****
-- * IEEE 802.11H Spectrum and Transmit Power Management Extensions
-- * Management Information Base
-- *****

IEEE802dot11h-MIB DEFINITIONS ::= BEGIN
    IMPORTS
        MODULE-IDENTITY, OBJECT-TYPE,
        NOTIFICATION-TYPE, Integer32, Counter32 FROM SNMPv2-SMI

        DisplayString, MacAddress, RowStatus,
        TruthValue FROM SNMPv2-TC

        MODULE-COMPLIANCE, OBJECT-GROUP,
        NOTIFICATION-GROUP FROM SNMPv2-CONF

        ifIndex FROM RFC1213-MIB;

-- *****
-- * MODULE IDENTITY
-- *****

ieee802dot11h MODULE-IDENTITY
    LAST-UPDATED "0109210000Z"
    ORGANIZATION "IEEE 802.11"
    CONTACT-INFO
        "WG E-mail: stds-802-11@ieee.org

        Chair: Stuart J. Kerry
        Postal: Philips Semiconductors, Inc.
              1109 McKay Drive
              M/S 48 SJ
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        Editor: **TGh editor's name
```

```

Postal: **Company Name
        **Street Line 1
        **Street Line 2
        **City, State, ZIP, Country
Tel:    **phone
Fax:    **fax
E-mail: **email"

```

DESCRIPTION

```

"The MIB module for IEEE 802.11h Spectrum and Transmit Power
Extensions.

```

```

iso(1).member-body(2).us(840).ieee802dot11(10036).SMa(7)"

```

```

::= { 1 2 840 10036 7 }

```

```

-- *****
-- * Major Sections
-- *****
-- Spectrum Management Parameter attributes
-- DEFINED AS "The SMaParameters object class provides the necessary
-- support at an 802.11 STA to manage the spectrum and transmit power
-- management protocol extensions required for operation in the 5GHz
-- band in Europe";

```

```

SMaParameters OBJECT IDENTIFIER ::= {ieee802dot11h 1}

```

```

-- SMaParameters GROUPS

```

```

-- SMaParametersTable ::= {SMaParameters 1}

```

```

-- *****
-- * MIB attribute OBJECT-TYPE definitions follow
-- *****

```

SMaParametersTable OBJECT-TYPE

```

SYNTAX SEQUENCE OF SMaParametersEntry

```

```

MAX-ACCESS not-accessible

```

```

STATUS current

```

DESCRIPTION

```

"SMa operational parameters. In tabular form to
allow for multiple instances on an agent."

```

```

::= { SMaParameters 1 }

```

SMaParametersEntry OBJECT-TYPE

```

SYNTAX SMaParametersEntry

```

```

MAX-ACCESS not-accessible

```

```

STATUS current

```

DESCRIPTION

```

"An entry in the SMaParametersTable. It is possible
for there to be multiple IEEE802.11 interfaces supporting
the Spectrum Management Extensions on one agent, each with
its unique MAC address. The relationship between an IEEE802.11
interface and an interface in the context of the
Internet-standard MIB is one-to-one. As such, the value of
an ifIndex object instance can be directly used to identify
corresponding instances of the objects defined herein.

```

```

ifIndex - Each IEEE802.11 interface supporting the spectrum
management extensions is represented by an ifEntry. Interface
tables in this MIB module are indexed by ifIndex."

```

```

INDEX {ifIndex}
 ::= { SMaParametersTable 1 }

SMaParametersEntry ::=
  SEQUENCE {
    SMaSpectrumManagementCapabilityEnabled TruthValue,
    SMaRequiredMitigationFactorbyChannel Integer32
  }

SMaSpectrumManagementCapabilityEnabled OBJECT-TYPE
  SYNTAX TruthValue
  MAX-ACCESS read-write
  STATUS current
  DESCRIPTION
    "The SMaSpectrumManagementCapabilityEnabled boolean
    indicates whether the IEEE802.11h Spectrum Management
    protocol extensions are enabled for this interface."

 ::= { SMaParametersEntry 1 }

SMaRequiredMitigationFactorbyChannel OBJECT-TYPE
  SYNTAX Integer32
  MAX-ACCESS read-write
  STATUS current
  DESCRIPTION
    "The SMaRequiredMitigationFactorbyChannel is the minimum
    required transmit power mitigation factor in dB.
    The default value of SMaRequiredMitigationFactorbyChannel
    shall be 3dB."

 ::= { SMaParametersEntry 2 }

-- *****
-- * End of Spectrum Management MIB
-- *****
END

```

2. REFERENCES

- [1] P802.11h/D1.0, July 2001