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Digital Video Common MIB

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SCOPE

This document provides the branch object identifiers for each of the MIBs within the SCTE HMS DIGITAL VIDEO COMMON MIB tree. The HMS DIGITAL COMMON MIB provides standard common MIB definitions for all HMS inside plant digital devices.

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NORMATIVE REFERENCE

IETF RFC 2571 SNMP-FRAMEWORK-MIB

IETF RFC 2578 SNMPv2-SMI

IETF RFC 2579 SNMPv2-TC

IETF RFC 2580 SNMPv2-CONF

IETF RFC 4133 ENTITY-MIB

SCTE 36 2002R2007 (formerly HMS028) SCTE-ROOT

SCTE 37 2008 SCTE-HMS-ROOTS Management Information Base (MIB)

SCTE 38-11 2008 SCTE-HMS-HEADENDIDENT-MIB

SCTE 154-5 2008 HMS-HEADENDIDENT-TC-MIB

INFORMATIVE REFERENCE

None

TERMS AND DEFINITIONS

This document defines the following terms:

Management Information Base (MIB) – the specification of information in a manner that allows standard access through a network management protocol, specifically SNMP.

REQUIREMENTS

This section defines the mandatory syntax of the HE-DIGITAL-COMMON-MIB. It follows the IETF Simple Network Management Protocol (SNMP) for defining managed objects. This mib falls under the SCTE-HMS-ROOTS mib defined by the SCTE Standards HMS Subcommittee.

To avoid issues related to device security and possible user contention, this MIB is only read-only. Device manufacturers are expected to provide device provisioning and control as a separate “out of band” service via protocols of their choice.

This MIB defines the Digital Branches for heDigitalQAM and heDigitalMPEG for compile purposes. Each mib file contains the entire definition to parse to avoid having to parse in all SCTE mib files.

The HE-DIGITAL branch under SCTE-HMS-ROOTS supports definitions from the following MIBs in lexicographical order :

ENTITY-MIB

HMS-ROOTS
SCTE-HMS-ROOTS
SCTE-HMS-HEADENDIDENT-MIB
SCTE-HE-DIGITAL-COMMON-MIB
SCTE-HMS-QAM-MIB
SCTE-HMS-MPEG-MIB
SCTE-HMS-MPEG-ENCODER-MIB

The syntax is given below.

```
SCTE-HE-DIGITAL-COMMON-MIB DEFINITIONS ::= BEGIN

IMPORTS
    enterprises, MODULE-IDENTITY, OBJECT-TYPE, OBJECT-IDENTITY
        FROM SNMPv2-SMI
    DisplayString, DateAndTime
        FROM SNMPv2-TC
    MODULE-COMPLIANCE, OBJECT-GROUP
        FROM SNMPv2-CONF
    entPhysicalIndex
        FROM ENTITY-MIB
    heDigital
        FROM SCTE-HMS-HEADENDIDENT-MIB -- see SCTE 38-11 (formerly HMS114)
    HeClockSource, HeResetValue, HeTenthCentigrade
        FROM SCTE-HMS-HEADENDIDENT-TC-MIB;

heDigitalCommonMIB MODULE-IDENTITY
    LAST-UPDATED      "200807210000Z "
    ORGANIZATION      "SCTE HMS Working Group"
    CONTACT-INFO      "SCTE HMS Subcommittee, Chairman
                       mail to: standards@scte.org "

    DESCRIPTION
        "The MIB module is for representing general information
        about HeadEnd Digital equipment present(or indoor)
        and is supported by an SNMP agent. heDigital is supported in
        HMS114R11.mib (SCTE 38-11)"

    REVISION "200807210000Z"
    DESCRIPTION
        "Updated file with Comments from meeting 7/9/08
        1. Update IMPORTS clause to reference:
           SCTE-HMS-HEADENDIDENT-TC-MIB for HeTenthCentigrade
           Remove Integer32."

    REVISION "200806100000Z"
    DESCRIPTION
        "Added tree branches for MPEG and QAM so MIB would parse with
        any compiler."

    REVISION "200712180000Z"
```

```

DESCRIPTION
  "Modifications due to voting comments
   1. Reordered MIB tree to fit under the heDigital branch.
   2. Took out unused imports.
   3. added temperature.
   4. added compliance statement and made everything optional."

REVISION "200709250000Z"
DESCRIPTION
  "Took out everything except the most basic place holders for future
   additions."
 ::= { enterprises scteRoot(5591) scteHmsTree (1) insidePlantIdent (11)
heDigital(5) 2 }

heDigitalCommonMIBObjects OBJECT IDENTIFIER ::= {heDigitalCommonMIB 1 }
heDigitalQAM OBJECT IDENTIFIER ::= {heDigital 3 }
heDigitalMPEG OBJECT IDENTIFIER ::= {heDigital 4 }

-- MIB contains 3 groups
heDigitalCommonConfig OBJECT IDENTIFIER ::= { heDigitalCommonMIBObjects 1 }
heDigitalCommonStatus OBJECT IDENTIFIER ::= { heDigitalCommonMIBObjects 2 }
heDigitalCommonAlarms OBJECT IDENTIFIER ::= { heDigitalCommonMIBObjects 3 }
heDigitalCommonLog OBJECT IDENTIFIER ::= { heDigitalCommonMIBObjects 4 }

-- The Common Tables

heDigitalCommonClockTable OBJECT-TYPE
  SYNTAX SEQUENCE OF HeDigitalCommonClockEntry
  MAX-ACCESS not-accessible
  STATUS current
  DESCRIPTION
    "A table containing information about headend (or indoor)
     equipment."
  ::= { heDigitalCommonConfig 1 }

heDigitalCommonClockEntry OBJECT-TYPE
  SYNTAX HeDigitalCommonClockEntry
  MAX-ACCESS not-accessible
  STATUS current
  DESCRIPTION
    "Information about particular headend equipment."
  INDEX { entPhysicalIndex }
  ::= { heDigitalCommonClockTable 1 }

HeDigitalCommonClockEntry ::= SEQUENCE {
  heDigitalCommonTime DateAndTime,
  heDigitalCommonClockSource HeClockSource
}

heDigitalCommonTime OBJECT-TYPE
  SYNTAX DateAndTime
  MAX-ACCESS read-write

```

```

STATUS      current
DESCRIPTION
    "Real time clock value for this module."
 ::= { heDigitalCommonClockEntry 1 }

heDigitalCommonClockSource OBJECT-TYPE
SYNTAX      HeClockSource
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Real time clock source for this module."
 ::= { heDigitalCommonClockEntry 2 }

heDigitalCommonResetTable OBJECT-TYPE
SYNTAX      SEQUENCE OF HeDigitalCommonResetEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "A table containing information about headend (or indoor)
    equipment."
 ::= { heDigitalCommonConfig 2 }

heDigitalCommonResetEntry OBJECT-TYPE
SYNTAX      HeDigitalCommonResetEntry
MAX-ACCESS  not-accessible
STATUS      current
DESCRIPTION
    "Software / Hardware Reset of a specific Entity."
INDEX       { entPhysicalIndex }
 ::= { heDigitalCommonResetTable 1 }

HeDigitalCommonResetEntry ::= SEQUENCE {
    heDigitalCommonSoftwareReset  HeResetValue,
    heDigitalCommonHardwareReset  HeResetValue,
    heDigitalCommonWarmReset      HeResetValue
}

heDigitalCommonSoftwareReset OBJECT-TYPE
SYNTAX      HeResetValue
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "All running Software will reset. This function will initiate
    a cold start trap depending on the device. Software reset
    functions will be vendor specific."
 ::= { heDigitalCommonResetEntry 1 }

heDigitalCommonHardwareReset OBJECT-TYPE
SYNTAX      HeResetValue
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION

```

```

        "The Hardware for this device will reset. This function will
initiate
        a cold start trap from the device."
 ::= { heDigitalCommonResetEntry 2 }

```

```

heDigitalCommonWarmReset OBJECT-TYPE
    SYNTAX      HeResetValue
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "All running Software will reset. This function will initiate
        a warm start trap on the device. Software reset
        functions will be vendor specific. No configuration parameters
        can change during a Software Warm Start."
 ::= { heDigitalCommonResetEntry 3 }

```

```

heDigitalCommonTempTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF HeDigitalCommonTempEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "A table containing information about headend (or indoor)
        equipment temperature values."
 ::= { heDigitalCommonStatus 1 }

```

```

heDigitalCommonTempEntry OBJECT-TYPE
    SYNTAX      HeDigitalCommonTempEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Information about particular headend equipment."
    INDEX       { entPhysicalIndex }
 ::= { heDigitalCommonTempTable 1 }

```

```

HeDigitalCommonTempEntry ::= SEQUENCE {
    heDigitalCommonTemperature          HeTenthCentigrade
}

```

```

heDigitalCommonTemperature OBJECT-TYPE
    SYNTAX      HeTenthCentigrade
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Temperature measured inside the headend equipment.

        This object must provide for the alarm management capabilities
        with a corresponding entry in the propertyTable of
        SCTE-HMS-PROPERTY-MIB (HMS026).

        An alarm shall be recorded as an entry in the currentAlarmTable
        of SCTE-HMS-PROPERTY-MIB (HMS026).

        A log record shall be added as an entry in the heCommonLogTable.

```

```

        An heCommonAlarmEvent notification shall be sent."
 ::= { heDigitalCommonTempEntry 1 }

-- Conformance information
heDigitalCommonConformance OBJECT IDENTIFIER ::= {heDigitalCommonMIB 2 }
heDigitalCommonCompliances OBJECT IDENTIFIER ::= { heDigitalCommonConformance
1 }

heDigitalCompliance MODULE-COMPLIANCE
    STATUS      current
    DESCRIPTION
        "These objects describe the support level for QAM."
    MODULE
        GROUP heDigitalConfigGroup
        DESCRIPTION
            "The heDigitalConfigGroup is unconditionally optional"
        GROUP heDigitalStatusGroup
        DESCRIPTION
            "The heDigitalStatusGroup is unconditionally optional"
    ::= { heDigitalCommonCompliances 1 }

-- MIB Groupings
heDigitalCommonGroups OBJECT IDENTIFIER ::= {heDigitalCommonConformance 2}

heDigitalConfigGroup OBJECT-GROUP
    OBJECTS { heDigitalCommonTime,heDigitalCommonClockSource,
heDigitalCommonSoftwareReset,
    heDigitalCommonHardwareReset, heDigitalCommonWarmReset}
    STATUS      current
    DESCRIPTION
        "Configuration that is common to network devices."
    ::= { heDigitalCommonGroups 1 }

heDigitalStatusGroup OBJECT-GROUP
    OBJECTS { heDigitalCommonTemperature }
    STATUS      current
    DESCRIPTION
        "Status that is common to network devices."
    ::= { heDigitalCommonGroups 2 }

END

```