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Hybrid Fiber/Coax Outside Plant Status Monitoring
SCTE-HMS-PS-MIB
Management Information Base (MIB) Definition

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140 Philips Road
Exton, PA 19341

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1. Scope

This document defines information commonly available from HFC power supplies. Its structure permits multiple power supplies to be monitored by a single transponder.

2. Copyright

The MIB definition found in this document may be incorporated directly in products without further permission from the copyright owner, SCTE.

3. Normative References

The following documents contain provisions, which, through reference in this text, constitute provisions of this standard. At the time of subcommittee approval, the editions indicated were valid. All standards are subject to revision, and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

- 3.1 IETF RFC 1155, Structure and identification of management information for TCP/IP-based internets
- 3.2 ANSI/SCTE 37 2003 (formerly HMS 072), Hybrid Fiber/Coax Outside Plant Status Monitoring SCTE-HMS-ROOTS Management Information Base (MIB) Definition

4. Informative References

The following document may provide valuable information to the reader but are not required when complying with this standard.

- 4.1 ANSI/SCTE 25-3 2005, Hybrid Fiber Coax Outside Plant Status Monitoring – Power Supply to Transponder Interface Bus (PSTIB) Specification v1.1

5. 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.

6. Requirements

This section defines the mandatory syntax of the SCTE-HMS-PS-MIB. It follows the IETF Simple Network Management Protocol (SNMP) for defining the managed objects.

The syntax is given below.

```
-- *****
-- *
-- * Module Name:  HMS027R13.MIB
-- *
-- * SCTE Status:  ADOPTED FEBRUARY 15, 2002
-- *
-- * Description:  This MIB contains information commonly available from HFC power supplies.
-- *               Its structure permits multiple power supplies to be monitored by a single transponder.
-- *               See SCTE 25-3 (formerly HMS 022) for additional information.
-- *
-- *               This MIB is not restricted to only power supplies with serial interfaces.
-- *
-- * Revisions from previous release:
-- * Edited OID descriptions only.  For many of the OIDs ending with the word "support", enhanced the description to indicate
-- * exactly what other OID is supported.  Clarified the description for psEquipmentControl and psOutputCurrent.
-- * Expanded the definition of psProtocolVersion to allow for the case where
-- * there is no Transponder Interface Bus as defined by 25-3.
-- *
-- * Note:
-- *
-- * Objects which are not present must not have the properties present either.  This applies to:
-- *
-- * a) Any object(s) not supported by a supply (e.g., if psOutputPowerSupport.1 indicates 'none', then
-- *    a GetRequest for psPowerOut.1 should return the SNMP error NoSuchName, and properties for
-- *    the psPowerOut object should not be accessible.
-- *
-- * b) All objects for a supply that is not present (e.g., if power supply 2 does not exist, then objects
-- *    indexed by power supply address 2 should not exist, nor should the properties.)
-- *
-- *****

SCTE-HMS-PS-MIB DEFINITIONS ::= BEGIN

IMPORTS
    OBJECT-TYPE FROM RFC-1212
    DisplayString FROM RFC1213-MIB
    psIdent FROM SCTE-HMS-ROOTS
    ;

-- /*****
-- * The Power Supply Group *
-- *****/

psMonitored OBJECT-TYPE
    SYNTAX INTEGER ( 0..8 )
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
```

"Number of power supply connected to this NE."
 ::= { psIdent 1 }

-- * NOTE: The following description is standard SNMP, and is meant as clarification.
 -- *
 -- * If psMonitored is 0, the NOSUCHNAME error must be returned for any Get/Set against objects in the
 -- * tables listed below. Likewise, the NOSUCHNAME error must be returned for any Get/Set using a psDeviceAddress
 -- * index for a non-existent power supply. This is also the case if the device at the address specified
 -- * is not a power supply.
 -- *
 -- * For example, if 2 power supplies are available, with addresses 3 and 4, then a Get/Set using
 -- * address 2 MUST return NOSUCHNAME. Returning an actual value with no error under these conditions is
 -- * misleading and incorrect.
 -- *
 -- * psDeviceTable
 -- * psStringTable
 -- * psBatteryTable
 -- * psOutputTable
 -- *
 -- * These rules apply to other tables as well.

psDeviceTable OBJECT-TYPE
 SYNTAX SEQUENCE OF PsDeviceEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "Table containing information about the individual
 power supplies being monitored"
 ::= { psIdent 2 }

psDeviceEntry OBJECT-TYPE
 SYNTAX PsDeviceEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "List of information about each power supply being monitored."
 INDEX { psDeviceAddress }
 ::= { psDeviceTable 1 }

PsDeviceEntry ::=
 SEQUENCE
 {
 psDeviceAddress
 INTEGER,
 -- * Power Supply Configuration
 psProtocolVersion
 INTEGER,

psSoftwareVersion
DisplayString,

psDeviceId
OCTET STRING,

psBatteries
INTEGER,

psBatteryStrings
INTEGER,

psTempSensors
INTEGER,

psOutputs
INTEGER,

psBatteryCurrentSupport
INTEGER,

psFloatCurrentSupport
INTEGER,

psOutputVoltageSupport
INTEGER,

psInputVoltageSupport
INTEGER,

psPowerSupplyTest
INTEGER,

psMajorAlarmSupport
INTEGER,

psMinorAlarmSupport
INTEGER,

psTamperSupport
INTEGER,

psBatteryVoltageSupport
INTEGER,

psOutputPowerSupport
INTEGER,

psOutputFrequencySupport
INTEGER,

psInputCurrentSupport
INTEGER,

psInputPowerSupport
INTEGER,

-- * Power Supply Data

psOutputVoltage
INTEGER,

psInputVoltage
INTEGER,

psInverterStatus
INTEGER,

psMajorAlarm
INTEGER,

psMinorAlarm
INTEGER,

psTamper
INTEGER,

psTotalStringVoltage
INTEGER,

psEquipmentControl
INTEGER,

psPowerOut
INTEGER,

psFrequencyOut
INTEGER,

psRMSCurrentIn
INTEGER,

psPowerIn
INTEGER,

psInputVoltagePresence
INTEGER,