



***Society of Cable
Telecommunications
Engineers***

**ENGINEERING COMMITTEE
Network Operations Subcommittee**

SCTE Standard

SCTE 38-4 2017

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

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1. Scope

This document is identical to SCTE 38-4 2012 except for informative components which may have been updated such as the title page, NOTICE text, headers and footers. No normative changes have been made to this document.

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 2010 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 2011, 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,

psFrequencyIn
INTEGER

}

psDeviceAddress OBJECT-TYPE

SYNTAX INTEGER (1..8)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Index into the psDeviceTable. For devices that implement ANSI/SCTE 25-3 (formally HMS022), this is the address of this device on the RS-485 path."

::= { psDeviceEntry 1 }

-- * Power Supply Configuration

psProtocolVersion OBJECT-TYPE

SYNTAX INTEGER (1..254)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Version of the SCTE HMS protocol implemented in the monitored equipment. The 'Protocol Version' implementation will comply with the defined protocol in the SCTE 25-3 (formerly HMS 022) document with the corresponding revision number.

Example: A power supply implementing all commands and responses defined in SCTE 25-3 version 1.0 (formerly HMS 022) would return a value of 10 (decimal) in this field, reflecting major revision 1, minor revision 0.

Any number returned that is less than 10 reflects a version of the SCTE 25-3 specification that had not yet been approved by SCTE.

Transponders which are capable of appropriately rendering the data as defined by this MIB without implementing an interface as defined by SCTE 25-3 may respond with one of two values: [a] the transponder may return a value of zero (0), or [b] the transponder may return a value consistent with the SCTE 25-3 version that the transponder wants to make it appear it is supporting."

::= { psDeviceEntry 2 }

psSoftwareVersion OBJECT-TYPE

SYNTAX DisplayString (SIZE(8))

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The content of this field is vendor specific. The intent is to provide a text representation of the power supply or generator system software

version. Any printable ASCII characters can be included in this field.
 NULL (0x00) characters are non-printable and are used to fill any unused
 locations following the text data"

::= { psDeviceEntry 3 }

psDeviceId OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(32))

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The content of this field is vendor specific. The intent is to provide
 manufacturer and/or product specific ASCII text information that will
 propagate to the manager's console verbatim. The following special
 characters are defined in association with this field: '\ ' Used to cause
 a new line on the console display. Example: 'ALPHA\XM2 9015'
 would appear at the monitoring station as :

ALPHA
 XM2 9015"

::= { psDeviceEntry 4 }

psBatteries OBJECT-TYPE

SYNTAX INTEGER (0..8)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current number of batteries per battery string."

::= { psDeviceEntry 5 }

psBatteryStrings OBJECT-TYPE

SYNTAX INTEGER (0..2)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current number of battery strings."

::= { psDeviceEntry 6 }

psTempSensors OBJECT-TYPE

SYNTAX INTEGER (0..2)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of Battery temperature sensors."

::= { psDeviceEntry 7 }

psOutputs OBJECT-TYPE

SYNTAX INTEGER (1..5)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of power supply outputs."
 ::= { psDeviceEntry 8 }

psBatteryCurrentSupport OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Bit Map that defines if battery current is measured in this installation.
 Bit set means this particular string supports this measurement.

Bits Addresses

0 Not used

1 1 String 1 has battery current support

2 2 String 2 has battery current support

3 3 String 3 has battery current support

4 4 String 4 has battery current support

.

.

.

n n String n has battery current support

"

::= { psDeviceEntry 9 }

psFloatCurrentSupport OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Bit Map that defines if float current is measured in this installation.
 Bit set means this particular string supports this measurement.

Bits Addresses

0 Not used

1 1 String 1 has float current support

2 2 String 2 has float current support

3 3 String 3 has float current support

4 4 String 4 has float current support

.

.

.

n n String n has float current support

"

::= { psDeviceEntry 10 }

psOutputVoltageSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if power supply supports monitoring of output voltage and psOutputVoltage:

1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.

2 = Field is supported in this installation."

::= { psDeviceEntry 11 }

psInputVoltageSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), binary(2), analog(3) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if power supply supports monitoring of input or line voltage and psInputVoltage:

1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.

2 = Field is supported - value in psInputVoltagePresence.

3 = Field is supported - analog representation. value in psInputVoltage."

::= { psDeviceEntry 12 }

psPowerSupplyTest OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if power supply supports the remote test feature:

1 = Function not supported.

2 - Function is supported."

::= { psDeviceEntry 13 }

psMajorAlarmSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if the power supply supports the major alarm indicator and psMajorAlarm:

1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.

2 = Field is supported in this installation."

::= { psDeviceEntry 14 }

psMinorAlarmSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if the power supply supports the minor alarm indicator and psMinorAlarm:
 1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.
 2 = Field is supported in this installation."
 ::= { psDeviceEntry 15 }

psTamperSupport OBJECT-TYPE
 SYNTAX INTEGER { none(1), supported(2) }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Defines if the enclosure door switch is installed in this location and psTamper is supported:
 1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.
 2 = Field is supported in this installation."
 ::= { psDeviceEntry 16 }

psBatteryVoltageSupport OBJECT-TYPE
 SYNTAX INTEGER { noMonitoring(1), totalString(2), both(3) }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Defines the if batteries or string voltage are available:
 1 = No battery voltage monitoring is available.
 2 = Only full string battery voltage is available.
 3 = Both individual battery and full string voltages are available."
 ::= { psDeviceEntry 17 }

psOutputPowerSupport OBJECT-TYPE
 SYNTAX INTEGER { none(1), supported(2) }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Defines if the output power measurement and psPowerOut is supported:
 1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.
 2 = Field is supported in this installation."
 ::= { psDeviceEntry 18 }

psOutputFrequencySupport OBJECT-TYPE
 SYNTAX INTEGER { none(1), supported(2) }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Defines if the output frequency measurement and psFrequencyOut is supported
 1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response."

2 = Field is supported in this installation."
 ::= { psDeviceEntry 19 }

psInputCurrentSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if the input current measurement and psRMSCurrentIn is supported

1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.

2 = Field is supported in this installation."

::= { psDeviceEntry 20 }

psInputPowerSupport OBJECT-TYPE

SYNTAX INTEGER { none(1), supported(2) }

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Defines if the input power measurement and psPowerIn is supported

1 = No support. For devices that implement ANSI/SCTE 25-3 (formally HMS022) discard associated value in Get_Power_Supply_Data response.

2 = Field is supported in this installation."

::= { psDeviceEntry 21 }

-- * Power Supply Data

psOutputVoltage OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Power supply output voltage in 1/100 Volts units.

This RMS value is common for all outputs in a multiple output system.

This item requires an entry in the properties MIB"

::= { psDeviceEntry 22 }

psInputVoltage OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Scaled representation of input 'line' or 'grid' voltage. This is an RMS value in 1/100 Volts units. This item requires an entry in the properties MIB."

::= { psDeviceEntry 23 }

psInverterStatus OBJECT-TYPE

SYNTAX INTEGER { off(1), lineFail(2), testCycle(3), testStarted(4), testFailed(5) }

ACCESS read-only

STATUS optional

DESCRIPTION

"Status of power supply inverter. Enumerated value indicates current status of inverter.

1 = OFF,

2 = ON: AC Line Fail,

3 = ON: Local Test Cycle,

4 = ON: Remote test initiated

5 = ALARM: Last Test Failed

This item requires entries in the discrete properties MIB."

::= { psDeviceEntry 24 }

psMajorAlarm OBJECT-TYPE

SYNTAX INTEGER { noAlarm(1), alarm(2) }

ACCESS read-only

STATUS optional

DESCRIPTION

"Service has been dropped or a service interruption is imminent.

Indicates that an immediate truck roll is appropriate.

Specific alarms and alarm nomenclature varies between vendors.

Vendors should disclose all conditions that contribute to this

alarm in appropriate product literature.

1 = OK,

2 = ALARM.

This item requires entries in the discrete properties MIB."

::= { psDeviceEntry 25 }

psMinorAlarm OBJECT-TYPE

SYNTAX INTEGER { noAlarm(1), alarm(2) }

ACCESS read-only

STATUS optional

DESCRIPTION

"A non-service effecting condition has occurred and should be monitored. Specific alarms and alarm nomenclature varies between vendors. Vendors should disclose all conditions that contribute to this alarm in appropriate product literature.

1 = OK,

2 = ALARM

This item requires entries in the discrete properties MIB."

::= { psDeviceEntry 26 }

psTamper OBJECT-TYPE

SYNTAX INTEGER { closed(1), open(2) }

ACCESS read-only

STATUS optional

DESCRIPTION

"Indicates status of enclosure door. This notification is NOT included in the 'Major' or 'Minor' alarm fields. Individual users / installations must determine if a door open status represents an alarm and if so, of what severity.

1 = CLOSED,

2 = OPEN

This item requires entries in the discrete properties MIB."

::= { psDeviceEntry 27 }

psTotalStringVoltage OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Scaled representation of the full battery string in 1/100 Volts units.

This item requires an entry in the properties MIB."

::= { psDeviceEntry 28 }

psEquipmentControl OBJECT-TYPE

SYNTAX INTEGER { stopTest(1), startTest(2) }

ACCESS read-write

STATUS optional

DESCRIPTION

"Inverter test control. During AC Fail (psInverterStatus = 2) the result of changing this value is unspecified and vendor specific.

1 = Discontinue inverter operation,

2 = Begin inverter operation"

::= { psDeviceEntry 29 }

psPowerOut OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Representation of power supply output power in 1 W.
This item requires an entry in the properties MIB."

::= { psDeviceEntry 30 }

psFrequencyOut OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Scaled representation of the power supply output frequency in 1/100 Hz.
This item requires an entry in the properties MIB."

::= { psDeviceEntry 31 }

psRMSCurrentIn OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Scaled representation of the power supply RMS input current in 1/100 A.
This item requires an entry in the properties MIB."

::= { psDeviceEntry 32 }

psPowerIn OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-only

STATUS optional

DESCRIPTION

"Representation of the power supply input power in 1 W.
This item requires an entry in the properties MIB."

::= { psDeviceEntry 33 }

psInputVoltagePresence OBJECT-TYPE

SYNTAX INTEGER { lost(1), ok(2) }

ACCESS read-only

STATUS optional

DESCRIPTION

"Digital value indicating that line voltage is present and within
tolerance or not.

1 = lost

2 = ok.

This item requires entries in the discrete properties MIB."

::= { psDeviceEntry 34 }

psFrequencyIn OBJECT-TYPE

```

SYNTAX INTEGER { fiftyHz(1), sixtyHz(2) }
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Operational frequency for input voltage"

 ::= { psDeviceEntry 35 }

-- * String data

psStringTable OBJECT-TYPE
    SYNTAX SEQUENCE OF PsStringEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Table containing strings data"
    ::= { psIdent 3 }

psStringEntry OBJECT-TYPE
    SYNTAX PsStringEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "List of information about each string. Indexed by device and string number"
    INDEX { psStringDeviceAddress, psString }
    ::= { psStringTable 1 }

PsStringEntry ::=
    SEQUENCE
    {
        psStringDeviceAddress
            INTEGER,

        psString
            INTEGER,

        psStringChargeCurrent
            INTEGER,

        psStringDischargeCurrent
            INTEGER,

        psStringFloat
            INTEGER
    }

psStringDeviceAddress OBJECT-TYPE

```

SYNTAX INTEGER (1..8)
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Index into the psStringTable. Corresponds to psDeviceAddress in psDeviceTable."
 ::= { psStringEntry 1 }

psString OBJECT-TYPE
 SYNTAX INTEGER (1..2)
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Index into the psStringTable."
 ::= { psStringEntry 2 }

psStringChargeCurrent OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 ACCESS read-only
 STATUS optional
 DESCRIPTION
 "Scaled representation of battery string charge current.
 This is an RMS value in 1/100 Amps. When batteries being discharged,
 this value will = 0.
 This item requires an entry in the properties MIB."
 ::= { psStringEntry 3 }

psStringDischargeCurrent OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 ACCESS read-only
 STATUS optional
 DESCRIPTION
 "Scaled representation of battery string discharge current. This is
 an RMS value in 1/100 Amps.If multiple strings are installed but only
 one measurement sensor is used, this value represents the total battery
 discharge current. When batteries are being charged, this value will = 0.
 This item requires an entry in the properties MIB."
 ::= { psStringEntry 4 }

psStringFloat OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 ACCESS read-only
 STATUS optional
 DESCRIPTION
 "Scaled representation of battery 'float' charge current in 1/100 Amps.
 This field will be '0' under conditions other than during
 actual float charging. When this field is non-zero (reporting

float current), other battery current values (charge and discharge) should be discarded. If multiple strings are installed but only one measurement sensor is used, this field represents the total float current.
This item requires an entry in the properties MIB."

```
::= { psStringEntry 5 }
```

```
-- * Battery Data
```

```
psBatteryTable OBJECT-TYPE
    SYNTAX SEQUENCE OF PsBatteryEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Table containing batteries voltages"
    ::= { psIdent 4 }
```

```
psBatteryEntry OBJECT-TYPE
    SYNTAX PsBatteryEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "List of information about each battery.Indexed by device number and string"
    INDEX { psBatteryDeviceAddress, psBatteryString, psBattery }
    ::= { psBatteryTable 1 }
```

```
PsBatteryEntry ::=
    SEQUENCE
    {
        psBatteryDeviceAddress
            INTEGER,

        psBatteryString
            INTEGER,

        psBattery
            INTEGER,

        psBatteryVoltage
            INTEGER
    }
```

```
psBatteryDeviceAddress OBJECT-TYPE
    SYNTAX INTEGER ( 1..8 )
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
```

```

    "Index into the psBatteryTable. Corresponds to psDeviceAddress in psDeviceTable."
    ::= { psBatteryEntry 1 }

psBatteryString OBJECT-TYPE
    SYNTAX INTEGER ( 1..2 )
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Index into the psBatteryTable. Corresponds to psString in psStringTable."
    ::= { psBatteryEntry 2 }

psBattery OBJECT-TYPE
    SYNTAX INTEGER ( 1..8 )
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Index into the psBatteryTable."
    ::= { psBatteryEntry 3 }

psBatteryVoltage OBJECT-TYPE
    SYNTAX INTEGER ( 0..65535 )
    ACCESS read-only
    STATUS optional
    DESCRIPTION
        "Scaled representation of an individual battery voltage in 1/100 Volts.
        String 'A' is used if only one battery string is active.
        This item requires an entry in the properties MIB."
    ::= { psBatteryEntry 4 }

-- * Output Data

psOutputTable OBJECT-TYPE
    SYNTAX SEQUENCE OF PsOutputEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Table containing output currents"
    ::= { psIdent 5 }

psOutputEntry OBJECT-TYPE
    SYNTAX PsOutputEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "List of information about each Output port. Indexed by device and port number"
    INDEX { psOutputDeviceAddress, psOutput }
    ::= { psOutputTable 1 }

```

```

PsOutputEntry ::=
SEQUENCE
{
    psOutputDeviceAddress
        INTEGER,

    psOutput
        INTEGER,

    psOutputCurrent
        INTEGER
}

psOutputDeviceAddress OBJECT-TYPE
SYNTAX INTEGER ( 1..8 )
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Index into the psOutputTable. Corresponds to psDeviceAddress in psDeviceTable."
::= { psOutputEntry 1 }

psOutput OBJECT-TYPE
SYNTAX INTEGER ( 1..5 )
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Index into the psOutputTable. Output number"
::= { psOutputEntry 2 }

psOutputCurrent OBJECT-TYPE
SYNTAX INTEGER ( 0..65535 )
ACCESS read-only
STATUS optional
DESCRIPTION
    "Scaled representation of power supply RMS output current in 1/100 Amps.

    If psOutputTable contains only one entry for a given power supply, this
    value is the total power supply output current (the power supply may
    have one or more outputs). If psOutputTable contains multiple entries
    for a power supply, the power supply has more than one output and each
    entry represents the current on a unique and separate output.
    This item requires an entry in the properties MIB."
::= { psOutputEntry 3 }

psTemperatureSensorTable OBJECT-TYPE
SYNTAX SEQUENCE OF PsTemperatureSensorEntry
ACCESS not-accessible
STATUS mandatory

```

DESCRIPTION

"Table containing temperature sensors information"

::= { psIdent 6 }

psTemperatureSensorEntry OBJECT-TYPE

SYNTAX PsTemperatureSensorEntry

ACCESS not-accessible

STATUS mandatory

DESCRIPTION

"List of information about each Temperature sensor. Indexed by device and Sensor number"

INDEX { psTempDeviceAddress, psTemperatureSensor }

::= { psTemperatureSensorTable 1 }

PsTemperatureSensorEntry ::=

SEQUENCE

{

psTempDeviceAddress
INTEGER,

psTemperatureSensor
INTEGER,

psTemperature
INTEGER

}

psTempDeviceAddress OBJECT-TYPE

SYNTAX INTEGER (1..8)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Index into the psTemperatureSensorTable. Corresponds to psDeviceAddress in psDeviceTable."

::= { psTemperatureSensorEntry 1 }

psTemperatureSensor OBJECT-TYPE

SYNTAX INTEGER (1..2)

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Index into the psTemperatureSensorTable. Temperature sensor number"

::= { psTemperatureSensorEntry 2 }

psTemperature OBJECT-TYPE

SYNTAX INTEGER (-40..80)

ACCESS read-only

STATUS optional

DESCRIPTION

"Scaled representation of temperature.

in degrees C with a range of -40 to + 80 degrees C.

This item requires an entry in the properties MIB."
::= { psTemperatureSensorEntry 3 }

END