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# PSE Measurement Baseline

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# Purpose

- According to L2 ad hoc discussion, propose baseline text for PSE measurement for IEEE 802.3bt

# New TLVs for PSE measurement

## $V_{PSE}$ and $I_{port-PSE}$ TLV

Enable a PD to request the measured  $V_{PSE}$  and  $I_{port-PSE}$  from the PSE. This can be used to calculate extended power on the cable.

Bit	Function	Value/meaning
15:0	$V_{PSE}$	$V_{PSE} = 0.1 \times (\text{decimal value of bits}) V$ Valid values for these bits are decimal 1 through 570

Bit	Function	Value/meaning
15:0	$I_{PORT-PSE}$	$I_{PORT-PSE} = 0.1 \times (\text{decimal value of bits}) mA$ Valid values for these bits are decimal 1 through 9620

## Changes in 30.12.2 LLDP Local System Group managed object class

### 30.12.2.1.x aLldpXdot3LocPSEMeasuredVoltageValue

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A GET attribute that returns the PSE measured voltage value. For a PSE, it is the measured voltage value that the PSE has currently measured and sent to the remote system. PSE measured voltage value is the voltage measured at its PI. The PSE measured voltage value is encoded according to Equation (79-x), where X is the decimal value of aLldpXdot3LocPSEMeasuredVoltageValue.

### 30.12.2.1.x aLldpXdot3LocPSEMeasuredCurrentValue

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A GET attribute that returns the PSE measured current value. For a PSE, it is the measured current value that the PSE has currently measured and sent to the remote system. PSE measured current value is the voltage measured at its PI. The PSE measured current value is encoded according to Equation (79-x), where X is the decimal value of aLldpXdot3LocPSEMeasuredCurrentValue.

## Changes in 30.12.3 LLDP Remote System Group managed object class

### 30.12.3.1.x aLldpXdot3RemPSEMeasuredVoltageValue

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A GET attribute that returns the PSE measured voltage value received from the remote system by a PD. The definition and encoding of PSE measured voltage value is the same as described in aLldpXdot3LocPSEMeasuredVoltageValue (30.12.2.1.x).;

### 30.12.3.1.x aLldpXdot3RemPSEMeasuredCurrentValue

ATTRIBUTE

APPROPRIATE SYNTAX:

INTEGER

BEHAVIOUR DEFINED AS:

A GET attribute that returns the PSE measured current value received from the remote system by a PD. The definition and encoding of PSE measured current value is the same as described in aLldpXdot3LocPSEMeasuredCurrentValue (30.12.2.1.x).;

## Changes in 79.3.2.x Power Via MDI TLV

Bit	Function	Value/meaning
15:0	$V_{PSE}$	$V_{PSE} = 0.1 \times (\text{decimal value of bits}) V$ Valid values for these bits are decimal 1 through 570

Bit	Function	Value/meaning
15:0	$I_{PORT-PSE}$	$I_{PORT-PSE} = 0.1 \times (\text{decimal value of bits}) mA$ Valid values for these bits are decimal 1 through 9620

### 79.3.2.x PSE Measurements

The PSE measured voltage value field may be included to carry the PSE's measured voltage value at the port defined in Table 79–x.

The PSE measured current value field may be included to carry the PSE's measured current value at the port defined in Table 79–x.

# Thank you!