

LLDP Measurements update v100

Info (not part of baseline)

As comment #212 against D2.2 indicates, the measurements fields are set up with independent fields for the PSE and the PD. That increases the size of the Frame substantially, and only half of it can be used. This baseline implements the suggested remedy of #212 as well as adding a power measurement field.

79.3.8 Power via MDI Measurements TLV

Replace Figure 79–9 as follows:

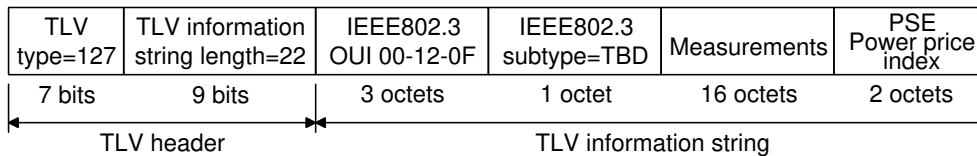


Figure 79–9 — Power Via MDI Measurements TLV format for Type 3 and Type 4

Change 79.3.8.1 as follows:

79.3.8.1 PD Measurements

The measured voltage value field carries the measured voltage value at the PI defined in Table 79–7b. The measured current value field carries the measured current value at the PI defined in Table 79–7b. **The measured power value field carries the measured power value at the PI defined in Table 79–7b.** The measured energy value field carries the measured energy consumption value at the PI defined in Table 79–7b.

Measurement values (voltage, current, **power**, or energy) shall be set to 0 in case the corresponding request bit is 0. If a device does not support a particular measurement, the corresponding measurement value shall be set to 0.

Replace Table 79–7b as follows:

Table 79–7b — Measurements

Bit	Function	Value/meaning															
127	Voltage support	1 = Device supports voltage measurement 0 = Device does not support voltage measurement															
126	Current support	1 = Device supports current measurement 0 = Device does not support current measurement															
125	Power support	1 = Device supports power measurement 0 = Device does not support power measurement															
124	Energy support	1 = Device supports energy measurement 0 = Device does not support energy measurement															
122:123	Reserved																
120:121	Measurement source	Determine where the measurement is to be taken. <table border="0"> <tr> <td>121</td> <td>120</td> <td></td> </tr> <tr> <td>0</td> <td>0</td> <td>No request</td> </tr> <tr> <td>0</td> <td>1</td> <td>Pairset Alternative A / Mode A</td> </tr> <tr> <td>1</td> <td>0</td> <td>Pairset Alternative B / Mode B</td> </tr> <tr> <td>1</td> <td>1</td> <td>Port total</td> </tr> </table>	121	120		0	0	No request	0	1	Pairset Alternative A / Mode A	1	0	Pairset Alternative B / Mode B	1	1	Port total
121	120																
0	0	No request															
0	1	Pairset Alternative A / Mode A															
1	0	Pairset Alternative B / Mode B															
1	1	Port total															
119	Voltage request	1 = Request for voltage measurement 0 = No request for voltage measurement															
118	Current request	1 = Request for current measurement 0 = No request for current measurement															
117	Power request	1 = Request for power measurement 0 = No request for power measurement															
116	Energy request	1 = Request for energy measurement 0 = No request for energy measurement															

Bit	Function	Value/meaning
115	Voltage measurement valid	1 = Voltage measurement field contains valid data 0 = Voltage measurement disabled
114	Current measurement valid	1 = Current measurement field contains valid data 0 = Current measurement disabled
113	Power measurement valid	1 = Power measurement field contains valid data 0 = Power measurement disabled
112	Energy measurement valid	1 = Energy measurement field contains valid data 0 = Energy measurement disabled
111:104	Voltage accuracy	Number of useful significant bits in the voltage measurement data field. Valid values for these bits are 1 through 16.
103:96	Current accuracy	Number of useful significant bits in the current measurement data field. Valid values for these bits are 1 through 16.
95:88	Power accuracy	Number of useful significant bits in the power measurement data field. Valid values for these bits are 1 through 16.
87:80	Energy accuracy	Number of useful significant bits in the energy measurement data field. Valid values for these bits are 1 through 32.
79:64	Voltage measurement	V_{Port_PD} expressed in units of 1 mV. Valid values for these bits are 1 through 65000.
63:48	Current measurement	I_{Port} or $I_{Port-2P}$ expressed in units of 0.1 mA. Valid values for these bits are 1 through 20000.
47:32	Power measurement	Power sourced or drawn expressed in units of 10 mW. Valid values for these bits are 1 through 10000.
31:0	Energy measurement	Total energy consumed at the port or pairset expressed in units of 0.1 kJ since power on. Valid values for these bits are 1 through $2^{32} - 1$.

Remove section 79.3.8.2 on “PSE measurements”.

Remove ‘PD’ from the TLV variable name and attribute names for PD Voltage support, PD Current support, PD Energy support, PD Measurement source, PD Voltage measurement, PD Voltage measurement, PD Current measurement and PD Energy measurement Rows in Table 79–9 and Table 79–10.

Delete the rows for PSE Voltage support, PSE Current support, PSE Energy support, PSE Measurement source, PSE Voltage measurement, PSE Voltage measurement, PSE Current measurement and PSE Energy measurement from Table 79–9 and Table 79–10.