

PLD-NS CAN Protocol description

Introduction

This document describes how data is received and transmitted via CAN addressed systems. This document is based on firmware version PLD-NS.

CAN frame format

The device uses CAN 2.0A with 11-bit identifiers. The baudrate is 500 kBit/s.

Identifiers

Each CAN message has an identifier (ID). A base ID can be set as a parameter (default is 0x001). User can change the base ID using microUSB connection in cases when the information about base ID is lost for example. The host ID is always 0x22.

Message format

Message length is always 8 bytes, unless declared differently in the description. Message byte and bit numbering is zero based.

Table 1. Message format example

CAN format	ID	DLC	B[0]	B[1]	B[2]	B[3]	B[4]	B[5]	B[6]	B[7]
Formal description	Base ID	Data size	CMD	Sender ID	0	0	Value byte	Value byte	Value byte	Value byte
Example	0x001	0x08	0x11	0x22	0x00	0x00	0x00	0x00	0x00	0x64

Response description

Most of the commands has two types. The SET type and GET type. GET type forms from SET type CMD byte plus 0x80.

For example if SET type CMD=0x10, then same GET type CMD+0x80 = 0x90.

If device received SET command type CMD it will send ACK response with the same CMD byte with empty value bytes.

If device received GET command type CMD+0x80, it will send ANSWER response with the same CMD+0x80 with corresponding value bytes

Command list

ALL device commands are listed in Table 2.

Table 2. Commands list

CMD	CMD description	Read/Write																						
0x12	<p>Laser diode temperature command</p> <p>Value: integer value multiplied with 10</p> <p>Example: Command to SET temperature value 25.2°C, Value = 25.2 * 10 = 252 (0xFC):</p> <table border="1"><tr><td>0x001</td><td>0x08</td><td>0x12</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xFC</td></tr></table> <p>Response ACK:</p> <table border="1"><tr><td>0x022</td><td>0x08</td><td>0x12</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td></tr></table>	0x001	0x08	0x12	0x00	0xFC	0x022	0x08	0x12	0x01	0x00	R/W												
0x001	0x08	0x12	0x00	0xFC																				
0x022	0x08	0x12	0x01	0x00																				

CMD	CMD description	Read/Write																																								
	Command to GET temperature value: <table border="1" data-bbox="379 226 1265 259"> <tr> <td>0x001</td><td>0x08</td><td>0x92</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 293 1265 327"> <tr> <td>0x022</td><td>0x08</td><td>0x92</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xFC</td> </tr> </table> Value = (0xFC) = 252 / 10 = 25.2°C;	0x001	0x08	0x92	0x00	0x022	0x08	0x92	0x01	0x00	0x00	0x00	0x00	0x00	0xFC																											
0x001	0x08	0x92	0x00																																							
0x022	0x08	0x92	0x01	0x00	0x00	0x00	0x00	0x00	0xFC																																	
0x15	Thermistor beta command Value: integer value of thermistor beta Example: Command to SET beta value of thermistor 3984 (0x0F90): <table border="1" data-bbox="379 645 1265 678"> <tr> <td>0x001</td><td>0x08</td><td>0x15</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0F</td><td>0x90</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 712 1265 745"> <tr> <td>0x022</td><td>0x08</td><td>0x15</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET beta value of thermistor: <table border="1" data-bbox="379 813 1265 846"> <tr> <td>0x001</td><td>0x08</td><td>0x95</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 880 1265 913"> <tr> <td>0x022</td><td>0x08</td><td>0x95</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0F</td><td>0x90</td> </tr> </table> Value = (0x0F90) = 3984;	0x001	0x08	0x15	0x00	0x00	0x00	0x00	0x00	0x0F	0x90	0x022	0x08	0x15	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0x95	0x00	0x022	0x08	0x95	0x01	0x00	0x00	0x00	0x00	0x0F	0x90	R/W						
0x001	0x08	0x15	0x00	0x00	0x00	0x00	0x00	0x0F	0x90																																	
0x022	0x08	0x15	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0x95	0x00																																							
0x022	0x08	0x95	0x01	0x00	0x00	0x00	0x00	0x0F	0x90																																	
0x16	Thermistor resistance command Value: integer value of thermistor resistance at 25°C Example: Command to SET thermistor resistance value 10000Ohm (0x2710): <table border="1" data-bbox="379 1317 1265 1350"> <tr> <td>0x001</td><td>0x08</td><td>0x16</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x27</td><td>0x10</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 1384 1265 1417"> <tr> <td>0x022</td><td>0x08</td><td>0x16</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET thermistor resistance value: <table border="1" data-bbox="379 1485 1265 1518"> <tr> <td>0x001</td><td>0x08</td><td>0x96</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 1552 1265 1585"> <tr> <td>0x022</td><td>0x08</td><td>0x96</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x27</td><td>0x10</td> </tr> </table> Value = (0x2710) = 10000Ohm;	0x001	0x08	0x16	0x00	0x00	0x00	0x00	0x00	0x27	0x10	0x022	0x08	0x16	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0x96	0x00	0x022	0x08	0x96	0x01	0x00	0x00	0x00	0x00	0x27	0x10	R/W						
0x001	0x08	0x16	0x00	0x00	0x00	0x00	0x00	0x27	0x10																																	
0x022	0x08	0x16	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0x96	0x00																																							
0x022	0x08	0x96	0x01	0x00	0x00	0x00	0x00	0x27	0x10																																	
0x18	Laser current command Value: integer value bytes multiplied with 100 Example: Command to SET current value 1.70A,	R/W																																								

CMD	CMD description	Read/Write																																								
	<p>Value = $1.7 \cdot 100 = 170$ (0xAA):</p> <table border="1" data-bbox="384 226 1268 257"> <tr> <td>0x001</td><td>0x08</td><td>0x18</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xAA</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="384 293 1268 324"> <tr> <td>0x022</td><td>0x08</td><td>0x18</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET current value:</p> <table border="1" data-bbox="384 398 1268 430"> <tr> <td>0x001</td><td>0x08</td><td>0x98</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Response ANSWER:</p> <table border="1" data-bbox="384 465 1268 497"> <tr> <td>0x022</td><td>0x08</td><td>0x98</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xAA</td> </tr> </table> <p>Value = (0xAA) = $170 / 100 = 1.7A$;</p>	0x001	0x08	0x18	0x00	0x00	0x00	0x00	0x00	0x00	0xAA	0x022	0x08	0x18	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0x98	0x00	0x022	0x08	0x98	0x01	0x00	0x00	0x00	0x00	0x00	0xAA							
0x001	0x08	0x18	0x00	0x00	0x00	0x00	0x00	0x00	0xAA																																	
0x022	0x08	0x18	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0x98	0x00																																							
0x022	0x08	0x98	0x01	0x00	0x00	0x00	0x00	0x00	0xAA																																	
0x19	<p>Output frequency for internal generation command</p> <p>Value: integer value in Hz Note: the frequency should be set in increments corresponding to the following ranges</p> <ul style="list-style-type: none"> ○ 1Hz increment for frequencies from range 1...1000Hz ○ 1000Hz increment for frequencies from range 1kHz ... 1MHz ○ 100000 Hz increment for frequencies from range 1MHz ... 30MHz <p>Example: Command to SET frequency value 20.1MH, Value = 20100000 (0x0132B3A0):</p> <table border="1" data-bbox="384 1059 1268 1090"> <tr> <td>0x001</td><td>0x08</td><td>0x19</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0x32</td><td>0xB3</td><td>0xA0</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="384 1126 1268 1158"> <tr> <td>0x022</td><td>0x08</td><td>0x19</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET voltage value:</p> <table border="1" data-bbox="384 1232 1268 1263"> <tr> <td>0x001</td><td>0x08</td><td>0x99</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Response ANSWER:</p> <table border="1" data-bbox="384 1299 1268 1330"> <tr> <td>0x022</td><td>0x08</td><td>0x99</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0x32</td><td>0xB3</td><td>0xA0</td> </tr> </table> <p>Value = (0x0132B3A0) = 20100000Hz;</p>	0x001	0x08	0x19	0x00	0x00	0x00	0x01	0x32	0xB3	0xA0	0x022	0x08	0x19	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0x99	0x00	0x022	0x08	0x99	0x01	0x00	0x00	0x01	0x32	0xB3	0xA0	R/W						
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0x001	0x08	0x99	0x00																																							
0x022	0x08	0x99	0x01	0x00	0x00	0x01	0x32	0xB3	0xA0																																	
0x20	<p>Laser diode voltage On/Off command</p> <p>Value:</p> <ul style="list-style-type: none"> ○ 0 – turn laser diode voltage off ○ 1 – turn laser diode voltage on <p>Example: Command to turn laser diode voltage on:</p> <table border="1" data-bbox="384 1753 1268 1785"> <tr> <td>0x001</td><td>0x08</td><td>0x20</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="384 1821 1268 1852"> <tr> <td>0x022</td><td>0x08</td><td>0x20</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET diode voltage on/off state,</p> <table border="1" data-bbox="384 2000 1268 2031"> <tr> <td>0x001</td><td>0x08</td><td>0xA0</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Response ANSWER:</p>	0x001	0x08	0x20	0x00	0x00	0x00	0x00	0x00	0x00	0x01	0x022	0x08	0x20	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA0	0x00	R/W																
0x001	0x08	0x20	0x00	0x00	0x00	0x00	0x00	0x00	0x01																																	
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0x001	0x08	0xA0	0x00																																							

CMD	CMD description	Read/Write																																								
	<table border="1" data-bbox="387 188 1265 217"> <tr> <td>0x022</td><td>0x08</td><td>0xA0</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p data-bbox="379 224 512 253">Value = 1;</p>	0x022	0x08	0xA0	0x01	0x00	0x00	0x00	0x00	0x00	0x01																															
0x022	0x08	0xA0	0x01	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x21	<p data-bbox="379 418 735 454">TEC on/off command</p> <p data-bbox="379 506 464 535">Value:</p> <ul data-bbox="427 539 687 602" style="list-style-type: none"> ○ 0 – turn TEC off ○ 1 – turn TEC on <p data-bbox="379 645 512 674">Example:</p> <p data-bbox="379 680 759 710">Command to SET TEC on:</p> <table border="1" data-bbox="387 714 1265 743"> <tr> <td>0x001</td><td>0x08</td><td>0x21</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p data-bbox="379 750 608 779">Response ACK:</p> <table border="1" data-bbox="387 784 1265 813"> <tr> <td>0x022</td><td>0x08</td><td>0x21</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 853 887 882">Command to GET TEC on/off state:</p> <table border="1" data-bbox="387 887 1265 916"> <tr> <td>0x001</td><td>0x08</td><td>0xA1</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 922 683 952">Response ANSWER:</p> <table border="1" data-bbox="387 956 1265 985"> <tr> <td>0x022</td><td>0x08</td><td>0xA1</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p data-bbox="379 992 512 1021">Value = 1;</p>	0x001	0x08	0x21	0x00	0x00	0x00	0x00	0x00	0x00	0x01	0x022	0x08	0x21	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA1	0x00	0x022	0x08	0xA1	0x01	0x00	0x00	0x00	0x00	0x00	0x01	R/W						
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0x001	0x08	0xA1	0x00																																							
0x022	0x08	0xA1	0x01	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x22	<p data-bbox="379 1077 999 1113">On/Off laser pulse emitting command</p> <p data-bbox="379 1164 464 1193">Value:</p> <ul data-bbox="427 1198 879 1261" style="list-style-type: none"> ○ 0 – turn laser pulse emitting off ○ 1 – turn laser pulse emitting on <p data-bbox="379 1303 512 1332">Example:</p> <p data-bbox="379 1339 967 1368">Command to turn laser pulse emitting on:</p> <table border="1" data-bbox="387 1373 1265 1402"> <tr> <td>0x001</td><td>0x08</td><td>0x22</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p data-bbox="379 1408 608 1438">Response ACK:</p> <table border="1" data-bbox="387 1442 1265 1471"> <tr> <td>0x022</td><td>0x08</td><td>0x22</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1512 1099 1541">Command to GET laser pulse emitting on/off state:</p> <table border="1" data-bbox="387 1545 1265 1574"> <tr> <td>0x001</td><td>0x08</td><td>0xA2</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1581 683 1610">Response ANSWER:</p> <table border="1" data-bbox="387 1615 1265 1644"> <tr> <td>0x022</td><td>0x08</td><td>0xA2</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> <p data-bbox="379 1650 512 1680">Value = 1;</p>	0x001	0x08	0x22	0x00	0x00	0x00	0x00	0x00	0x00	0x01	0x022	0x08	0x22	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA2	0x00	0x022	0x08	0xA2	0x01	0x00	0x00	0x00	0x00	0x00	0x01	R/W						
0x001	0x08	0x22	0x00	0x00	0x00	0x00	0x00	0x00	0x01																																	
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0x022	0x08	0xA2	0x01	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x23	<p data-bbox="379 1736 914 1771">Output pulse duration command</p> <p data-bbox="379 1823 1062 1890">Value (1ns – 100ns): integer value multiplied with 10 Note: the output maximum duty cycle should be 2%</p> <p data-bbox="379 1933 512 1962">Example:</p> <p data-bbox="379 1968 959 1998">Command to SET duration value 68.1ns,</p> <p data-bbox="379 2004 863 2033">Value = 68.1 * 10 = 681 (0x02A9):</p> <table border="1" data-bbox="387 2038 1265 2067"> <tr> <td>0x001</td><td>0x08</td><td>0x23</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x02</td><td>0xA9</td> </tr> </table>	0x001	0x08	0x23	0x00	0x00	0x00	0x00	0x00	0x02	0xA9	R/W																														
0x001	0x08	0x23	0x00	0x00	0x00	0x00	0x00	0x02	0xA9																																	

CMD	CMD description	Read/Write																																								
	<p>Response ACK: <table border="1" data-bbox="379 226 1265 259"> <tr> <td>0x022</td><td>0x08</td><td>0x23</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET voltage value: <table border="1" data-bbox="379 293 1265 327"> <tr> <td>0x001</td><td>0x08</td><td>0xA3</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 360 1265 394"> <tr> <td>0x022</td><td>0x08</td><td>0xA3</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x02</td><td>0xA9</td> </tr> </table> Value = (0x02A9) = 681 / 10 = 68.1ns;</p>	0x022	0x08	0x23	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA3	0x00	0x022	0x08	0xA3	0x01	0x00	0x00	0x00	0x00	0x02	0xA9																	
0x022	0x08	0x23	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xA3	0x00																																							
0x022	0x08	0xA3	0x01	0x00	0x00	0x00	0x00	0x02	0xA9																																	
0x24	<p>Emitting mode command</p> <p>Value:</p> <ul style="list-style-type: none"> ○ 0x00 – Internal generation ○ 0x01 – Pulse on demand mode ○ 0x02 – External generation mode <p>Example: Command to SET pulse on demand mode: <table border="1" data-bbox="379 813 1265 846"> <tr> <td>0x001</td><td>0x08</td><td>0x24</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 880 1265 913"> <tr> <td>0x022</td><td>0x08</td><td>0x24</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET pulse on demand mode value: <table border="1" data-bbox="379 992 1265 1025"> <tr> <td>0x001</td><td>0x08</td><td>0xA4</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 1059 1265 1093"> <tr> <td>0x022</td><td>0x08</td><td>0xA4</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> Value = (0x01) = Pulse on demand mode;</p>	0x001	0x08	0x24	0x00	0x00	0x00	0x00	0x00	0x00	0x01	0x022	0x08	0x24	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA4	0x00	0x022	0x08	0xA4	0x01	0x00	0x00	0x00	0x00	0x00	0x01	R/W						
0x001	0x08	0x24	0x00	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x022	0x08	0x24	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xA4	0x00																																							
0x022	0x08	0xA4	0x01	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x25	<p>Maximum current command</p> <p>Value: integer value multiplied with 100</p> <p>Example: Command to SET maximum current 2A, Value = 2 * 100 = 200 (0xC8): <table border="1" data-bbox="379 1440 1265 1473"> <tr> <td>0x001</td><td>0x08</td><td>0x25</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xC8</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 1507 1265 1541"> <tr> <td>0x022</td><td>0x08</td><td>0x25</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET maximum current value: <table border="1" data-bbox="379 1619 1265 1653"> <tr> <td>0x001</td><td>0x08</td><td>0xA5</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 1686 1265 1720"> <tr> <td>0x022</td><td>0x08</td><td>0xA5</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xC8</td> </tr> </table> Value = (0xC8) = 200 / 100 = 2A;</p>	0x001	0x08	0x25	0x00	0x00	0x00	0x00	0x00	0x00	0xC8	0x022	0x08	0x25	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA5	0x00	0x022	0x08	0xA5	0x01	0x00	0x00	0x00	0x00	0x00	0xC8	R/W						
0x001	0x08	0x25	0x00	0x00	0x00	0x00	0x00	0x00	0xC8																																	
0x022	0x08	0x25	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xA5	0x00																																							
0x022	0x08	0xA5	0x01	0x00	0x00	0x00	0x00	0x00	0xC8																																	
0x26	<p>Minimum current command</p> <p>Value: integer value multiplied with 10</p> <p>Example: Command to SET minimum current 0,1A, Value = 0,1 * 100 = 10 (0x0A):</p>	R/W																																								

CMD	CMD description	Read/Write																																								
	<table border="1" data-bbox="384 188 1270 217"> <tr> <td>0x001</td><td>0x08</td><td>0x26</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0A</td> </tr> </table> <p data-bbox="384 226 608 255">Response ACK:</p> <table border="1" data-bbox="384 255 1270 284"> <tr> <td>0x022</td><td>0x08</td><td>0x26</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 329 983 358">Command to GET minimum voltage value:</p> <table border="1" data-bbox="384 358 1270 387"> <tr> <td>0x001</td><td>0x08</td><td>0xA6</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 396 679 425">Response ANSWER:</p> <table border="1" data-bbox="384 425 1270 454"> <tr> <td>0x022</td><td>0x08</td><td>0xA6</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0A</td> </tr> </table> <p data-bbox="384 463 820 492">Value = (0x0A) = 10 / 100 = 0,1A;</p>	0x001	0x08	0x26	0x00	0x00	0x00	0x00	0x00	0x00	0x0A	0x022	0x08	0x26	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xA6	0x00	0x022	0x08	0xA6	0x01	0x00	0x00	0x00	0x00	0x00	0x0A							
0x001	0x08	0x26	0x00	0x00	0x00	0x00	0x00	0x00	0x0A																																	
0x022	0x08	0x26	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xA6	0x00																																							
0x022	0x08	0xA6	0x01	0x00	0x00	0x00	0x00	0x00	0x0A																																	
0x34	<p data-bbox="384 557 1110 586">Gated pulses for burst generation command</p> <p data-bbox="384 642 847 672">Value: integer count of gated pulses</p> <p data-bbox="384 712 512 741">Example:</p> <p data-bbox="384 748 876 777">Command to SET 10 gated pulses:</p> <table border="1" data-bbox="384 777 1270 806"> <tr> <td>0x001</td><td>0x08</td><td>0x34</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0A</td> </tr> </table> <p data-bbox="384 815 608 844">Response ACK:</p> <table border="1" data-bbox="384 844 1270 873"> <tr> <td>0x022</td><td>0x08</td><td>0x34</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 918 919 947">Command to GET gated pulses value:</p> <table border="1" data-bbox="384 947 1270 976"> <tr> <td>0x001</td><td>0x08</td><td>0xB4</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 985 679 1014">Response ANSWER:</p> <table border="1" data-bbox="384 1014 1270 1043"> <tr> <td>0x022</td><td>0x08</td><td>0xB4</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0A</td> </tr> </table> <p data-bbox="384 1052 651 1081">Value = (0x0A) = 10;</p>	0x001	0x08	0x34	0x00	0x00	0x00	0x00	0x00	0x00	0x0A	0x022	0x08	0x34	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xB4	0x00	0x022	0x08	0xB4	0x01	0x00	0x00	0x00	0x00	0x00	0x0A	R/W						
0x001	0x08	0x34	0x00	0x00	0x00	0x00	0x00	0x00	0x0A																																	
0x022	0x08	0x34	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
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0x022	0x08	0xB4	0x01	0x00	0x00	0x00	0x00	0x00	0x0A																																	
0x35	<p data-bbox="384 1151 1142 1180">Blocked pulses for burst generation command</p> <p data-bbox="384 1236 876 1265">Value: integer count of blocked pulses</p> <p data-bbox="384 1305 512 1335">Example:</p> <p data-bbox="384 1341 995 1370">Command to SET 15 gated blocked pulses:</p> <table border="1" data-bbox="384 1370 1270 1400"> <tr> <td>0x001</td><td>0x08</td><td>0x35</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0F</td> </tr> </table> <p data-bbox="384 1408 608 1438">Response ACK:</p> <table border="1" data-bbox="384 1438 1270 1467"> <tr> <td>0x022</td><td>0x08</td><td>0x35</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 1512 1038 1541">Command to GET gated blocked pulses value:</p> <table border="1" data-bbox="384 1541 1270 1570"> <tr> <td>0x001</td><td>0x08</td><td>0xB5</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="384 1579 679 1608">Response ANSWER:</p> <table border="1" data-bbox="384 1608 1270 1637"> <tr> <td>0x022</td><td>0x08</td><td>0xB5</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x0F</td> </tr> </table> <p data-bbox="384 1646 651 1675">Value = (0x0F) = 15;</p>	0x001	0x08	0x35	0x00	0x00	0x00	0x00	0x00	0x00	0x0F	0x022	0x08	0x35	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xB5	0x00	0x022	0x08	0xB5	0x01	0x00	0x00	0x00	0x00	0x00	0x0F	R/W						
0x001	0x08	0x35	0x00	0x00	0x00	0x00	0x00	0x00	0x0F																																	
0x022	0x08	0x35	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xB5	0x00																																							
0x022	0x08	0xB5	0x01	0x00	0x00	0x00	0x00	0x00	0x0F																																	
0x36	<p data-bbox="384 1744 919 1774">Minimum temperature command</p> <p data-bbox="384 1830 876 1859">Value: integer value multiplied with 10</p> <p data-bbox="384 1899 512 1928">Example:</p> <p data-bbox="384 1935 1067 1964">Command to SET minimum temperature 20,0°C,</p> <p data-bbox="384 1973 828 2002">Value = 20,0 * 10 = 200 (0xC8):</p> <table border="1" data-bbox="384 2002 1270 2031"> <tr> <td>0x001</td><td>0x08</td><td>0x36</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xC8</td> </tr> </table> <p data-bbox="384 2040 608 2069">Response ACK:</p>	0x001	0x08	0x36	0x00	0x00	0x00	0x00	0x00	0x00	0xC8	R/W																														
0x001	0x08	0x36	0x00	0x00	0x00	0x00	0x00	0x00	0xC8																																	

CMD	CMD description	Read/Write																																								
	<table border="1" data-bbox="387 188 1270 217"> <tr> <td>0x022</td><td>0x08</td><td>0x36</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 405 1050 434">Command to GET minimum temperature value:</p> <table border="1" data-bbox="387 441 1270 470"> <tr> <td>0x001</td><td>0x08</td><td>0xB6</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 477 679 506">Response ANSWER:</p> <table border="1" data-bbox="387 512 1270 542"> <tr> <td>0x022</td><td>0x08</td><td>0xB6</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0xC8</td> </tr> </table> <p data-bbox="379 548 826 577">Value = (0xC8) = 200 / 10 = 20°C;</p>	0x022	0x08	0x36	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xB6	0x00	0x022	0x08	0xB6	0x01	0x00	0x00	0x00	0x00	0x00	0xC8																	
0x022	0x08	0x36	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xB6	0x00																																							
0x022	0x08	0xB6	0x01	0x00	0x00	0x00	0x00	0x00	0xC8																																	
0x37	<p data-bbox="379 636 927 665">Maximum temperature command</p> <p data-bbox="379 719 874 748">Value: integer value multiplied with 10</p> <p data-bbox="379 790 512 819">Example:</p> <p data-bbox="379 826 1075 855">Command to SET maximum temperature 50,5°C,</p> <p data-bbox="379 862 858 891">Value = 50,5 * 10 = 505 (0x01F9):</p> <table border="1" data-bbox="387 898 1270 927"> <tr> <td>0x001</td><td>0x08</td><td>0x37</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0xF9</td> </tr> </table> <p data-bbox="379 934 608 963">Response ACK:</p> <table border="1" data-bbox="387 969 1270 999"> <tr> <td>0x022</td><td>0x08</td><td>0x37</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1041 1059 1070">Command to GET maximum temperature value:</p> <table border="1" data-bbox="387 1077 1270 1106"> <tr> <td>0x001</td><td>0x08</td><td>0xB7</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1113 679 1142">Response ANSWER:</p> <table border="1" data-bbox="387 1149 1270 1178"> <tr> <td>0x022</td><td>0x08</td><td>0xB7</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0xF9</td> </tr> </table> <p data-bbox="379 1184 879 1214">Value = (0x01F9) = 505 / 10 = 50,5°C;</p>	0x001	0x08	0x37	0x00	0x00	0x00	0x00	0x00	0x01	0xF9	0x022	0x08	0x37	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xB7	0x00	0x022	0x08	0xB7	0x01	0x00	0x00	0x00	0x00	0x01	0xF9	R/W						
0x001	0x08	0x37	0x00	0x00	0x00	0x00	0x00	0x01	0xF9																																	
0x022	0x08	0x37	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xB7	0x00																																							
0x022	0x08	0xB7	0x01	0x00	0x00	0x00	0x00	0x01	0xF9																																	
0x38	<p data-bbox="379 1263 823 1292">Nominal voltage command</p> <p data-bbox="379 1346 890 1375">Value: integer value multiplied with 100</p> <p data-bbox="379 1417 512 1447">Example:</p> <p data-bbox="379 1453 938 1482">Command to SET nominal voltage 20V,</p> <p data-bbox="379 1489 890 1518">Value = 20 * 100 = 2000 (0x07D0):</p> <table border="1" data-bbox="387 1525 1270 1554"> <tr> <td>0x001</td><td>0x08</td><td>0x38</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x07</td><td>0xD0</td> </tr> </table> <p data-bbox="379 1561 608 1590">Response ACK:</p> <table border="1" data-bbox="387 1597 1270 1626"> <tr> <td>0x022</td><td>0x08</td><td>0x38</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1668 963 1697">Command to GET nominal voltage value:</p> <table border="1" data-bbox="387 1704 1270 1733"> <tr> <td>0x001</td><td>0x08</td><td>0xB8</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p data-bbox="379 1740 679 1769">Response ANSWER:</p> <table border="1" data-bbox="387 1776 1270 1805"> <tr> <td>0x022</td><td>0x08</td><td>0xB8</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x07</td><td>0xD0</td> </tr> </table> <p data-bbox="379 1812 879 1841">Value = (0x07D0) = 2000 / 100 = 20V;</p>	0x001	0x08	0x38	0x00	0x00	0x00	0x00	0x00	0x07	0xD0	0x022	0x08	0x38	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xB8	0x00	0x022	0x08	0xB8	0x01	0x00	0x00	0x00	0x00	0x07	0xD0	R/W						
0x001	0x08	0x38	0x00	0x00	0x00	0x00	0x00	0x07	0xD0																																	
0x022	0x08	0x38	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xB8	0x00																																							
0x022	0x08	0xB8	0x01	0x00	0x00	0x00	0x00	0x07	0xD0																																	

CMD	CMD description	Read/Write																																								
0x44	<p>Coefficient P command</p> <p>Value: integer value multiplied with 10000</p> <p>Example: Command to SET coefficient P, Value = 10000,0000 * 10000 = 100000000 (0x05F5E100):</p> <table border="1" data-bbox="379 472 1270 506"> <tr> <td>0x001</td><td>0x08</td><td>0x44</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x05</td><td>0xF5</td><td>0xE1</td><td>0x00</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="379 539 1270 573"> <tr> <td>0x022</td><td>0x08</td><td>0x44</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET coefficient P value:</p> <table border="1" data-bbox="379 685 1270 719"> <tr> <td>0x001</td><td>0x08</td><td>0xC4</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Response ANSWER:</p> <table border="1" data-bbox="379 752 1270 786"> <tr> <td>0x022</td><td>0x08</td><td>0xC4</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x05</td><td>0xF5</td><td>0xE1</td><td>0x00</td> </tr> </table> <p>Value = (0x05F5E100) = 100000000 / 10000 = 10000;</p>	0x001	0x08	0x44	0x00	0x00	0x00	0x05	0xF5	0xE1	0x00	0x022	0x08	0x44	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xC4	0x00	0x022	0x08	0xC4	0x01	0x00	0x00	0x05	0xF5	0xE1	0x00	R/W						
0x001	0x08	0x44	0x00	0x00	0x00	0x05	0xF5	0xE1	0x00																																	
0x022	0x08	0x44	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xC4	0x00																																							
0x022	0x08	0xC4	0x01	0x00	0x00	0x05	0xF5	0xE1	0x00																																	
0x45	<p>Coefficient I command</p> <p>Value: integer value multiplied with 10000</p> <p>Example: Command to SET coefficient I, Value = 1000,0000*10000 = 10000000 (0x989680):</p> <table border="1" data-bbox="379 1178 1270 1211"> <tr> <td>0x001</td><td>0x08</td><td>0x45</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x98</td><td>0x96</td><td>0x80</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="379 1245 1270 1279"> <tr> <td>0x022</td><td>0x08</td><td>0x45</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET coefficient I value:</p> <table border="1" data-bbox="379 1357 1270 1391"> <tr> <td>0x001</td><td>0x08</td><td>0xC5</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Response ANSWER:</p> <table border="1" data-bbox="379 1424 1270 1458"> <tr> <td>0x022</td><td>0x08</td><td>0xC5</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x98</td><td>0x96</td><td>0x80</td> </tr> </table> <p>Value = (0x00989680) = 10000000 / 10000 = 1000;</p>	0x001	0x08	0x45	0x00	0x00	0x00	0x00	0x98	0x96	0x80	0x022	0x08	0x45	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xC5	0x00	0x022	0x08	0xC5	0x01	0x00	0x00	0x00	0x98	0x96	0x80	R/W						
0x001	0x08	0x45	0x00	0x00	0x00	0x00	0x98	0x96	0x80																																	
0x022	0x08	0x45	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xC5	0x00																																							
0x022	0x08	0xC5	0x01	0x00	0x00	0x00	0x98	0x96	0x80																																	
0x46	<p>Coefficient D command</p> <p>Value: integer value multiplied with 10000</p> <p>Example: Command to SET coefficient D, Value = 2000,0000*10000 = 20000000 (0x0131 2D00):</p> <table border="1" data-bbox="379 1850 1270 1883"> <tr> <td>0x001</td><td>0x08</td><td>0x46</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0x31</td><td>0x2D</td><td>0x00</td> </tr> </table> <p>Response ACK:</p> <table border="1" data-bbox="379 1917 1270 1951"> <tr> <td>0x022</td><td>0x08</td><td>0x46</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> <p>Command to GET coefficient D value:</p> <table border="1" data-bbox="379 2029 1270 2063"> <tr> <td>0x001</td><td>0x08</td><td>0xC6</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table>	0x001	0x08	0x46	0x00	0x00	0x00	0x01	0x31	0x2D	0x00	0x022	0x08	0x46	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xC6	0x00	R/W																
0x001	0x08	0x46	0x00	0x00	0x00	0x01	0x31	0x2D	0x00																																	
0x022	0x08	0x46	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xC6	0x00																																							

CMD	CMD description	Read/Write																																								
	Response ANSWER: <table border="1" data-bbox="379 226 1273 255"> <tr> <td>0x022</td><td>0x08</td><td>0xC6</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x01</td><td>0x31</td><td>0x2D</td><td>0x00</td> </tr> </table> Value = (0x0131 2D00) = 20000000 / 10000 = 2000;	0x022	0x08	0xC6	0x01	0x00	0x00	0x01	0x31	0x2D	0x00																															
0x022	0x08	0xC6	0x01	0x00	0x00	0x01	0x31	0x2D	0x00																																	
0x50	Device type command Value: PLD-NS device type = 0x17 Example: Command to GET device type: <table border="1" data-bbox="379 645 1273 674"> <tr> <td>0x001</td><td>0x08</td><td>0xD0</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 714 1273 743"> <tr> <td>0x022</td><td>0x08</td><td>0xD0</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x17</td> </tr> </table> Value = (0x17) = PLD-NS;	0x001	0x08	0xD0	0x00	0x022	0x08	0xD0	0x01	0x00	0x00	0x00	0x00	0x00	0x17	R																										
0x001	0x08	0xD0	0x00																																							
0x022	0x08	0xD0	0x01	0x00	0x00	0x00	0x00	0x00	0x17																																	
0x51	CAN identifier command Value: base ID Example: Command to SET base ID using BROADCAST ID, Value = 1: <table border="1" data-bbox="379 1099 1273 1128"> <tr> <td>0x001</td><td>0x08</td><td>0x51</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 1169 1273 1198"> <tr> <td>0x022</td><td>0x08</td><td>0x51</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Command to GET base ID using BROADCAST ID: <table border="1" data-bbox="379 1274 1273 1303"> <tr> <td>0x001</td><td>0x08</td><td>0xD1</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ANSWER: <table border="1" data-bbox="379 1344 1273 1373"> <tr> <td>0x022</td><td>0x08</td><td>0xD1</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x01</td> </tr> </table> Base ID = 0x01;	0x001	0x08	0x51	0x00	0x00	0x00	0x00	0x00	0x00	0x01	0x022	0x08	0x51	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x001	0x08	0xD1	0x00	0x022	0x08	0xD1	0x01	0x00	0x00	0x00	0x00	0x00	0x01	R/W						
0x001	0x08	0x51	0x00	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x022	0x08	0x51	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	
0x001	0x08	0xD1	0x00																																							
0x022	0x08	0xD1	0x01	0x00	0x00	0x00	0x00	0x00	0x01																																	
0x52	Save parameters command Example: Command to save parameters in FLASH memory: <table border="1" data-bbox="379 1624 1273 1653"> <tr> <td>0x001</td><td>0x08</td><td>0x52</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table> Response ACK: <table border="1" data-bbox="379 1693 1273 1722"> <tr> <td>0x022</td><td>0x08</td><td>0x52</td><td>0x01</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td><td>0x00</td> </tr> </table>	0x001	0x08	0x52	0x00	0x022	0x08	0x52	0x01	0x00	0x00	0x00	0x00	0x00	0x00	W																										
0x001	0x08	0x52	0x00																																							
0x022	0x08	0x52	0x01	0x00	0x00	0x00	0x00	0x00	0x00																																	