

INNOVATIVE ELECTRONICS ENGINEERING

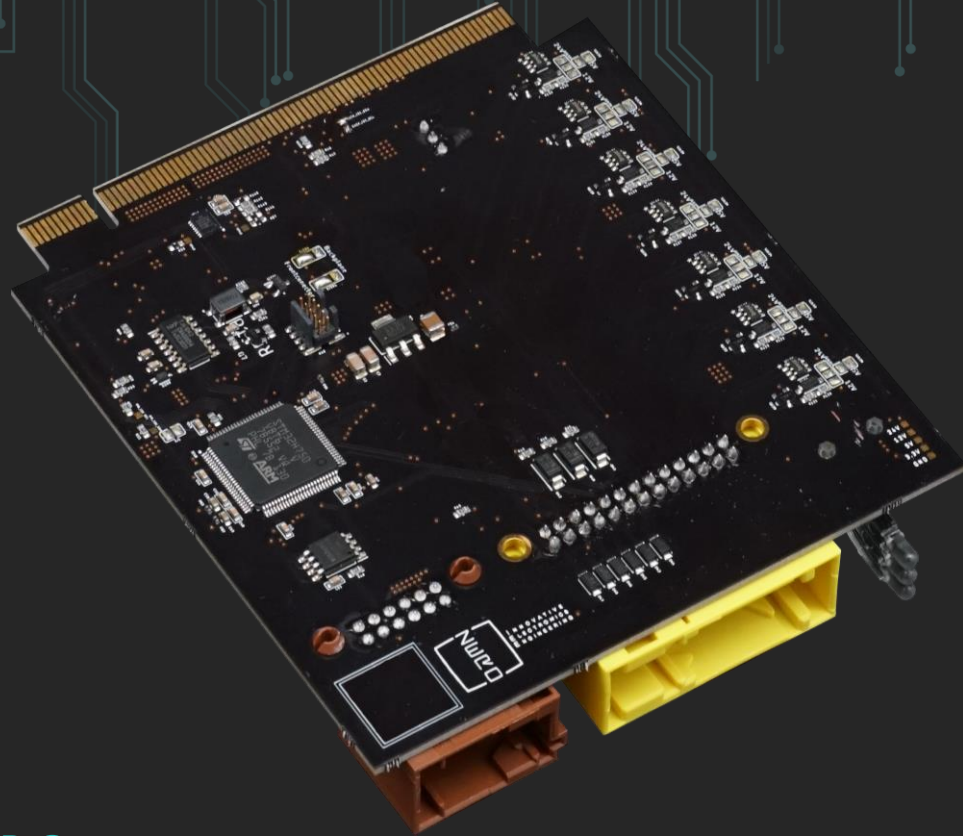
# ZERO LIGHT NODE

7-Channel PWM

ILLUMINATE EVERYTHING



INNOVATIVE ELECTRONICS ENGINEERING



ZERO

LIGHT NODE

7-Channel PWM

WIDE RANGE INPUT VOLTAGE [9-55V]

3x STATUS LED

1x CAN FD

AUTOMOTIVE-GRADE CONNECTOR

7x HIGH-SIDE PWM OUTPUT

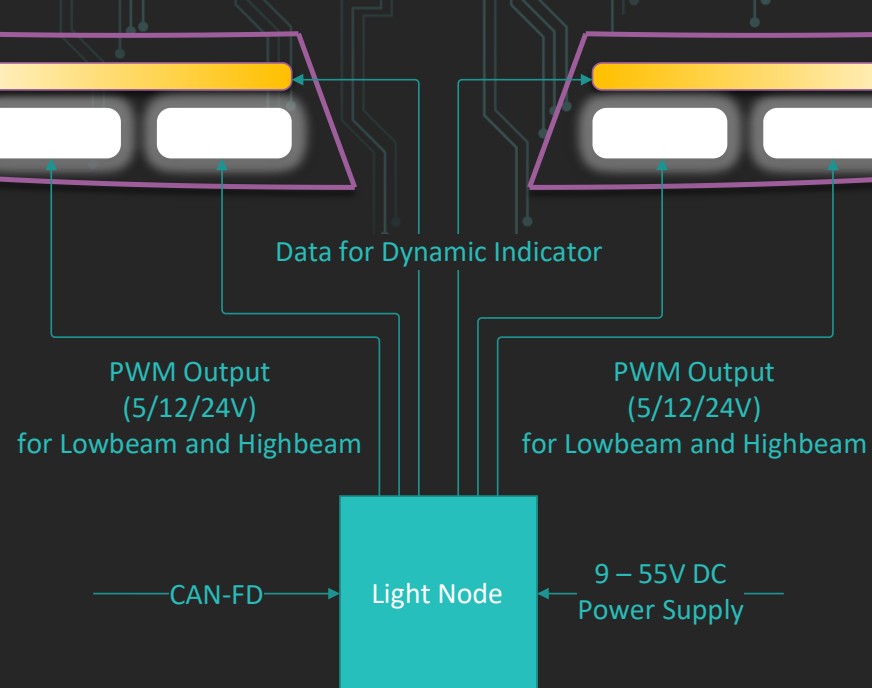
[5V / 12V / 24V selectable]

3x DIGITAL OUTPUT [for LED STRIPS]

3x DIGITAL INPUT

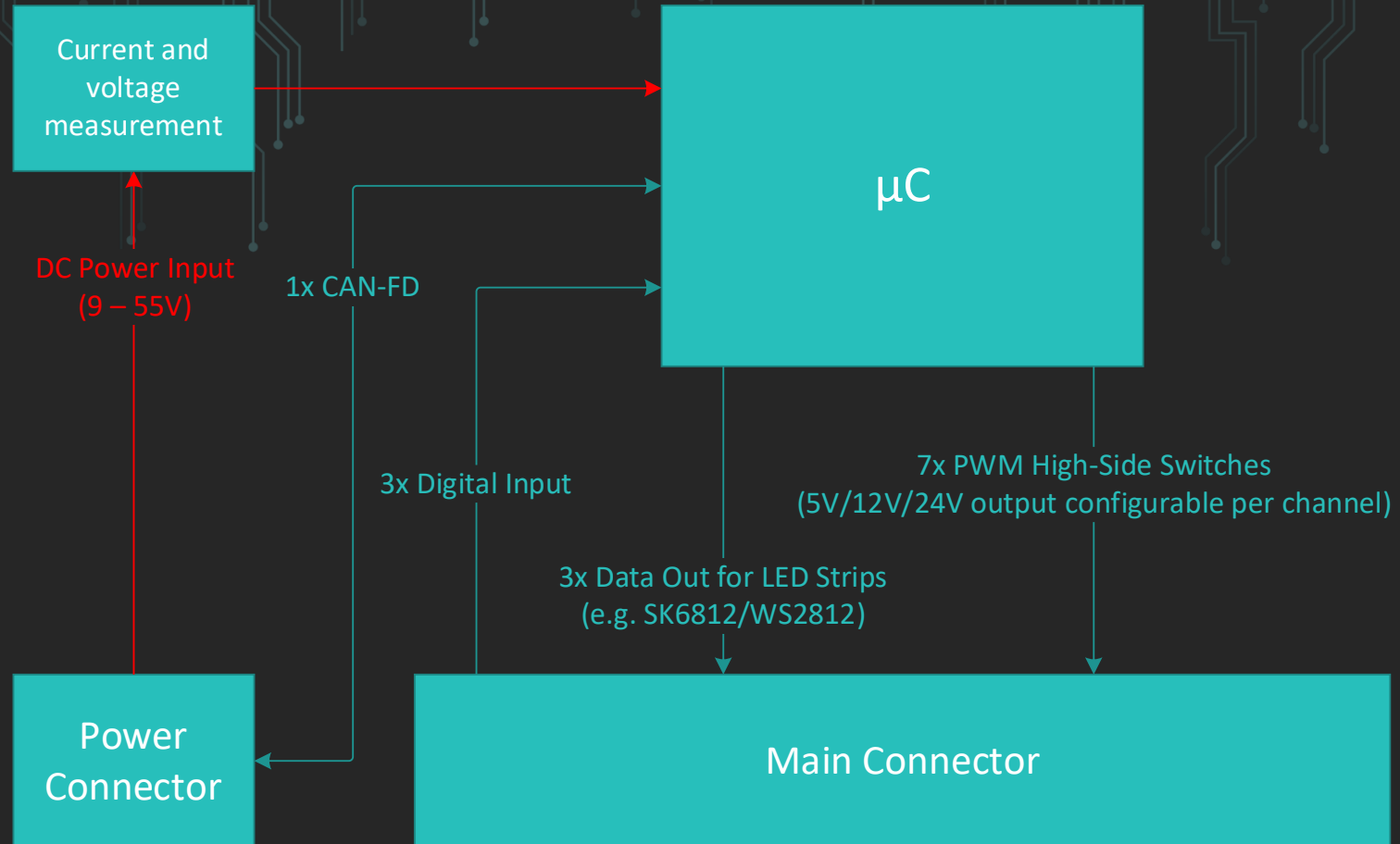


# Light Node Use Cases



- Control various lighting elements
  - RGB(W) LED strips
  - 5V / 12V / 24V LED elements
- Ambient lighting
- Head and rear lamps
- Indicators
- Set up animations (e.g. dynamic indicator or fading/moving ambient lights)
- Animation synchronization
- Add our DMX-2-CAN converter to easily find your perfect lighting scenario
- ... and many more!

# Light Node Block Diagram



# Light Node Datasheet

|            |                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interfaces | <ul style="list-style-type: none"><li>▪ Automotive-grade connectors at the front<ul style="list-style-type: none"><li>▪ 1x CAN-FD</li><li>▪ 7x High-Side PWM Output</li><li>▪ 3x Digital Input</li><li>▪ 3x Digital Output (for LED strips)</li></ul></li></ul>                                                                                                                                   |
| Features   | <ul style="list-style-type: none"><li>▪ RGB(W) LED strips</li><li>▪ Single color LED elements<ul style="list-style-type: none"><li>▪ 5V / 4,0A</li><li>▪ 12V / 6,5A</li><li>▪ 24V / 4,0A</li></ul></li></ul>                                                                                                                                                                                      |
| Dimension  | <ul style="list-style-type: none"><li>▪ 124 x 105 x 44 mm (w x d x h)</li></ul>                                                                                                                                                                                                                                                                                                                   |
| Weight     | <ul style="list-style-type: none"><li>▪ 571g</li></ul>                                                                                                                                                                                                                                                                                                                                            |
| Power      | <ul style="list-style-type: none"><li>▪ Input voltage: 9 - 55V DC</li><li>▪ Idle power consumption: 118 mA @ 12V DC (1,42W)</li></ul>                                                                                                                                                                                                                                                             |
| Other      | <ul style="list-style-type: none"><li>▪ Mounting: DIN rail (TH35) and screw straps</li><li>▪ Updates<ul style="list-style-type: none"><li>▪ The Light Node can be updated by the user</li><li>▪ Updates are installed via CAN / openBLT</li></ul></li><li>▪ LEDs<ul style="list-style-type: none"><li>▪ 1x power indicator</li><li>▪ 1x status</li><li>▪ 1x user programmable</li></ul></li></ul> |
| Add-Ons    | <ul style="list-style-type: none"><li>▪ DMX interface</li></ul>                                                                                                                                                                                                                                                                                                                                   |

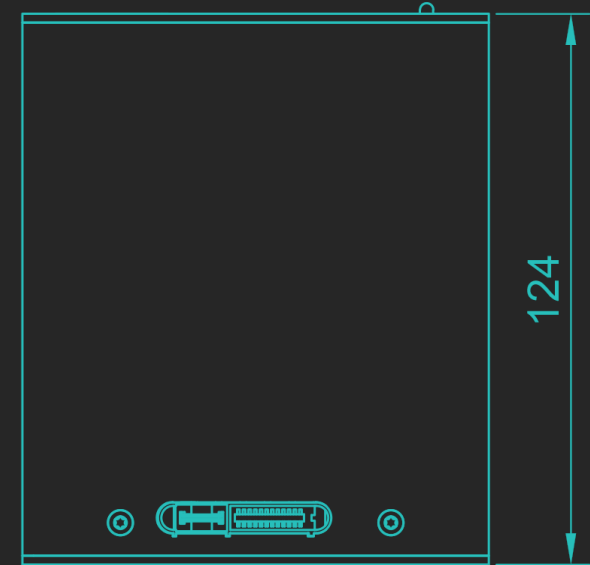
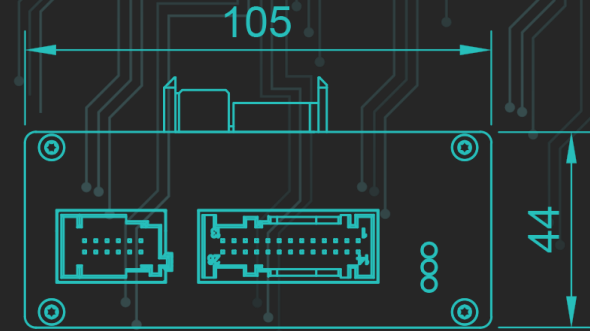
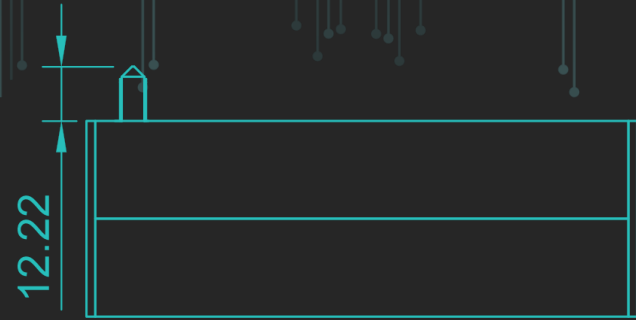
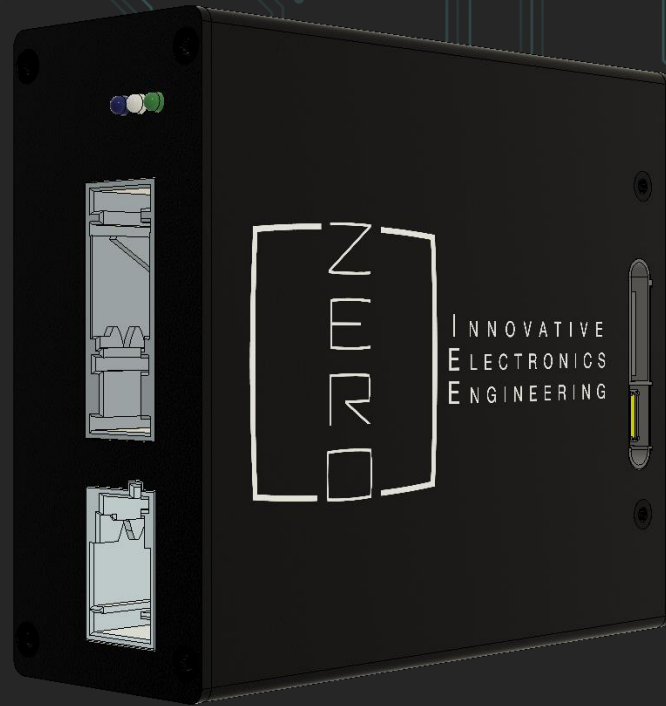


# Light Node Pinout

|                         |                                                                                   |          |
|-------------------------|-----------------------------------------------------------------------------------|----------|
| <b>Jack / Socket</b>    | Specification: 12pos MQS .63 header 90deg<br>Part Number: 1379030-3               |          |
| <b>Plug / Connector</b> | Specification: COV+LEV MQS 12W 90DEG BRO<br>Part Number: 1379096-1 with 1379219-1 |          |
| <b>Crimp</b>            | Specification: MQS0,63 SN REC CB UNSEAL. 0,25-0,35 2P<br>Part Number: 5-1534116-1 |          |
| <b>Pins</b>             | 1                                                                                 | GND      |
|                         | 2                                                                                 | GND      |
|                         | 3                                                                                 | GND      |
|                         | 4                                                                                 | nc       |
|                         | 5                                                                                 | nc       |
|                         | 6                                                                                 | CAN_Low  |
|                         | 7                                                                                 | VBAT     |
|                         | 8                                                                                 | VBAT     |
|                         | 9                                                                                 | VBAT     |
|                         | 10                                                                                | nc       |
|                         | 11                                                                                | nc       |
|                         | 12                                                                                | CAN_High |

|                  |                                                                                   |            |    |            |
|------------------|-----------------------------------------------------------------------------------|------------|----|------------|
| Jack / Socket    | Specification: 26pos MQS .63 header 90deg<br>Part Number: 185890-1                |            |    |            |
| Plug / Connector | Specification: 26W MQS COVER ASSY YELLOW<br>Part Number: 185879-1 mit 185875-1    |            |    |            |
| Crimp            | Specification: MQS0,63 SN REC CB UNSEAL. 0,25-0,35 2P<br>Part Number: 5-1534116-1 |            |    |            |
| Pins             | 1                                                                                 | GND        | 14 | PWM_1      |
|                  | 2                                                                                 | GND        | 15 | PWM_2      |
|                  | 3                                                                                 | GND        | 16 | PWM_3      |
|                  | 4                                                                                 | GND        | 17 | PWM_4      |
|                  | 5                                                                                 | GND        | 18 | PWM_5      |
|                  | 6                                                                                 | GND        | 19 | PWM_6      |
|                  | 7                                                                                 | GND        | 20 | PWM_7      |
|                  | 8                                                                                 | IN_1       | 21 | IN_2       |
|                  | 9                                                                                 | GND        | 22 | IN_3       |
|                  | 10                                                                                | DATA_OUT_1 | 23 | +5V        |
|                  | 11                                                                                | GND        | 24 | DATA_OUT_1 |
|                  | 12                                                                                | GND        | 25 | +5V        |
|                  | 13                                                                                | DATA_OUT_3 | 26 | +5V        |

# Light Node Drawing





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Thank you for your interest in the AMPS Light Node! For further information, please visit our website or contact us.

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