

## DC-AC INVERTER UNIT

**PS-M06D05S5-NJ4L-113(S)** (6,5 W DUAL OUTPUTS)

(PRELIMINARY INFORMATION)

**DESCRIPTION :**

This low profile DC to AC Inverter is developed for dual lamps.



**APPLICABLE LCD:**

- 6.4 to 12 inches double lamp type
- Lamp Voltage 540 Vrms
- Lamp Current 6.5 mArms
- Lamp Start Up Voltage 1.200 Vrms (Vin : 5 Vdc)

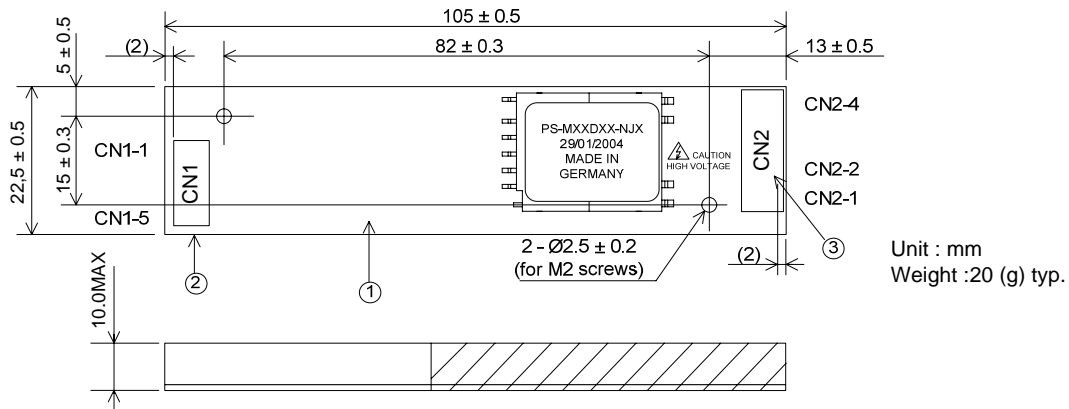
**FEATURES :**

- Remote ON/OFF
- Ext. PWM-Dimming Function
- RoHS compliant (S)

**TEMPERATURE & HUMIDITY :**

- Operating Temperature Range 0°C ~ +45°C
- Storage Temperature Range -20°C ~ +85°C
- Humidity 95 %RH max

**DIMENSIONS :** L x W x H **105 x 23 x 10 mm**



Note: Please use plastic screw in case of a non-insulating mounting base!

**Components**

| No. | Part Description | Qty. | Material                | Note         |
|-----|------------------|------|-------------------------|--------------|
| 1   | PCB              | 1    | UL94V-0 (FR-4 or CEM-3) | t=1.6mm      |
| 2   | Connector CN1    | 1    | S5B-PH-SM3              | JST or equal |
| 3   | Connector CN2    | 1    | SM04(4.0)B-BHS          | JST or equal |

**Input side CN1:**

| Pin No. | Symbols  | Ratings             |
|---------|----------|---------------------|
| CN 1-1  | Vin      | 5 Vdc               |
| CN 1-2  | GND      |                     |
| CN 1-3  | Ext. PWM | 0 ~ 5 Vdc (L activ) |
| CN 1-4  | N.C.     |                     |
| CN 1-5  | Vrmt     | 0 / 5 Vdc (H activ) |

**Output side CN2:**

| Pin No.  | Symbols | Ratings              |
|----------|---------|----------------------|
| CN 2-1+2 | Vhigh   | 540 Vrms (6.5 mArms) |
| CN 2-3   | N.C.    | -                    |
| CN 2-4   | Vlow    | 0 Vdc                |

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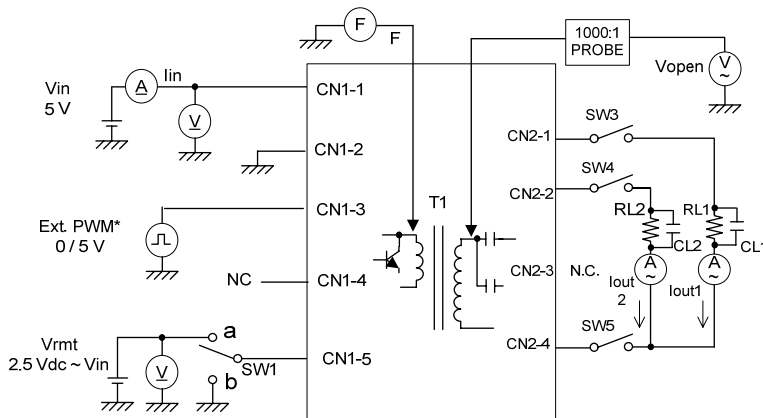
(PRELIMINARY INFORMATION)

### ELECTRICAL CHARACTERISTICS :

| Parameters           | Symbols | Conditions |          |         | Specification |       |      | Unit  | Note      |
|----------------------|---------|------------|----------|---------|---------------|-------|------|-------|-----------|
|                      |         | Vin (V)    | Vrmt (V) | Tu (°C) | Min.          | Typ.  | Max. |       |           |
| Output Current       | Iout    | 5±0.05     | 5±0.25   | 0 ~ +45 | 6.0           | 6.5   | 7.0  | mArms | Duty 100% |
| Output Current       | Iout    | 5±0.5      | 5±0.25   | 0 ~ +45 | 5.5           | 6.5   | 7.5  | mArms |           |
| Input Current        | Iin     | 5±0.5      | 5±0.25   | 0 ~ +45 | -             | 1.8   | 2.2  | Adc   |           |
| Frequency            | F       | 5±0.5      | 5±0.25   | 0 ~ +45 | 50            | 60    | 70   | kHz   |           |
| Open Circuit Voltage | Vopen   | 4.75       | 5±0.25   | 0 ~ +45 | 1.100         | 1.200 | -    | Vrms  |           |

- Note 1 : Please keep minimum of 2mm clearance (all directions) between inverter high voltage area as marked on mechanical drawing and any conductors.
- Note 2: Remote ON/OFF (CN1-5) has priority and can not be used in combination with External PWM Dimming (CN1-3). When 'Ext. PWM' (CN1-3) is used 'Vrmt' (CN1-5) should not be connected.
- Note 3: The external PWM frequency should be in a range of 100 ~ 500 Hz. For other frequency please request. The optimum is 250 Hz. Here you will normally not get a interference to the vertical sync. frequency.
- Note 4: All tests done with Optrex T-51866D121J-FW-A-AA.

### TEST CIRCUIT :



|      |                   |
|------|-------------------|
| SW 1 | Operation of unit |
| a    | Operation         |
| b    | Non operation     |

\*) Only active when Vrmt is 0 Vdc or floating