

## iC-HG/HG30 iCSY HG21M

### HIGH-SPEED MODULE FOR SMD VCSEL ARRAYS

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#### ORDERING INFORMATION

| Type    | Package | Options | Order Designation  |
|---------|---------|---------|--------------------|
| iC-HG   | HG21M   | -       | iC-HG iCSY HG21M   |
| iC-HG30 | HG21M   | -       | iC-HG30 iCSY HG21M |

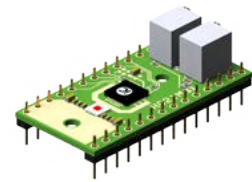


Figure 1: HG21M Package (DIL28)

#### PIN CONFIGURATION

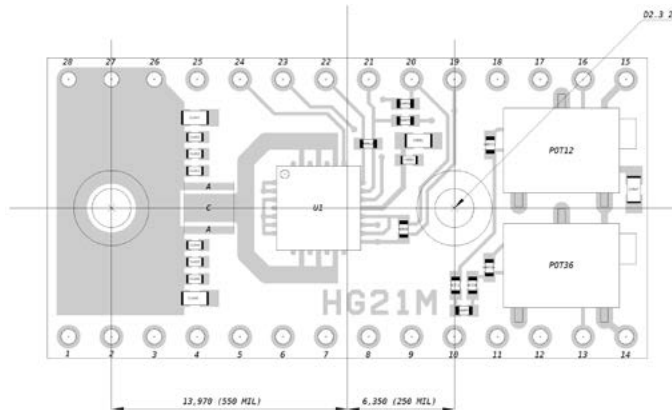


Figure 2: Top view / Dimensions in mm

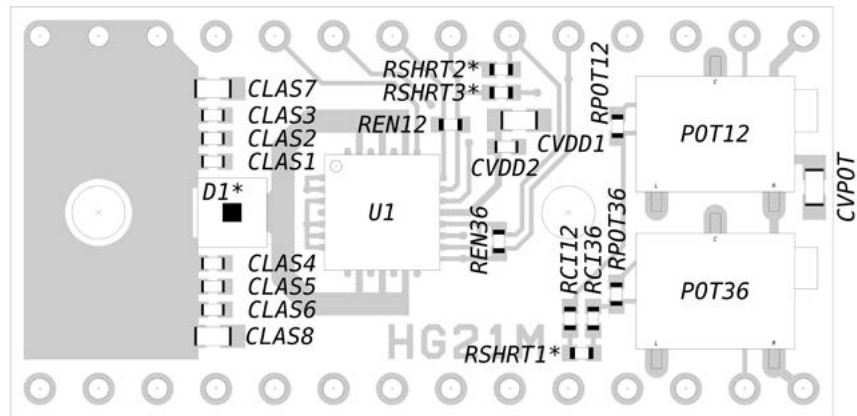
| No | Name   | Function                   | No | Name   | Function                   |
|----|--------|----------------------------|----|--------|----------------------------|
| 1  | GND    | Ground, Analog Ground      | 15 | POTVDD | Potentiometer 12 36 VDD    |
| 2  | GND    | Ground, Analog Ground      | 16 | RC12   | Current Control Voltage 12 |
| 3  | GND    | Ground, Analog Ground      | 17 | POTGND | Potentiometer 12 36 GND    |
| 4  | GND    | Ground, Analog Ground      | 18 | POTGND | Potentiometer 12 36 GND    |
| 5  | nc     | not connected              | 19 | EN46   | Input Channel 4 + 6        |
| 6  | nc     | not connected              | 20 | EN35   | Input Channel 3 + 5        |
| 7  | nc     | not connected              | 21 | EN2    | Input Channel 2            |
| 8  | nc     | not connected              | 22 | EN1    | Input Channel 1            |
| 9  | nc     | not connected              | 23 | ELVDS  | TTL/LVDS Input Selector    |
| 10 | nc     | not connected              | 24 | NER    | Error Monitor Output       |
| 11 | nc     | not connected              | 25 | VDD    | Supply Voltage             |
| 12 | nc     | not connected              | 26 | LDA    | Anode Laser Diode          |
| 13 | RC136  | Current Control Voltage 36 | 27 | LDA    | Anode Laser Diode          |
| 14 | POTVDD | Potentiometer 12 36 VDD    | 28 | LDA    | Anode Laser Diode          |

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**SMD POSITIONS**



\* Devices are not assembled

Figure 3: SMD Positions

**NOTE:** Module must be baked (min. 24 h at 100 °C) before exposing to high temperature processes (e.g. reflow soldering) to avoid delamination, PCB/VIA damages, and popcorning.

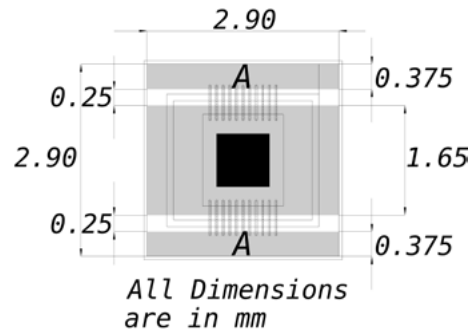


Figure 4: Details of the VCSEL pad

**ABSOLUTE MAXIMUM RATINGS**

| Item No. | Symbol | Parameter                           | Conditions | Min. | Typ. | Max. | Unit |
|----------|--------|-------------------------------------|------------|------|------|------|------|
| TG1      | Ta     | Operating Ambient Temperature Range |            | -20  |      | 85   | °C   |
| TG2      | Ts     | Storage Temperature Range           |            | -20  |      | 85   | °C   |

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### SCHEMATICS

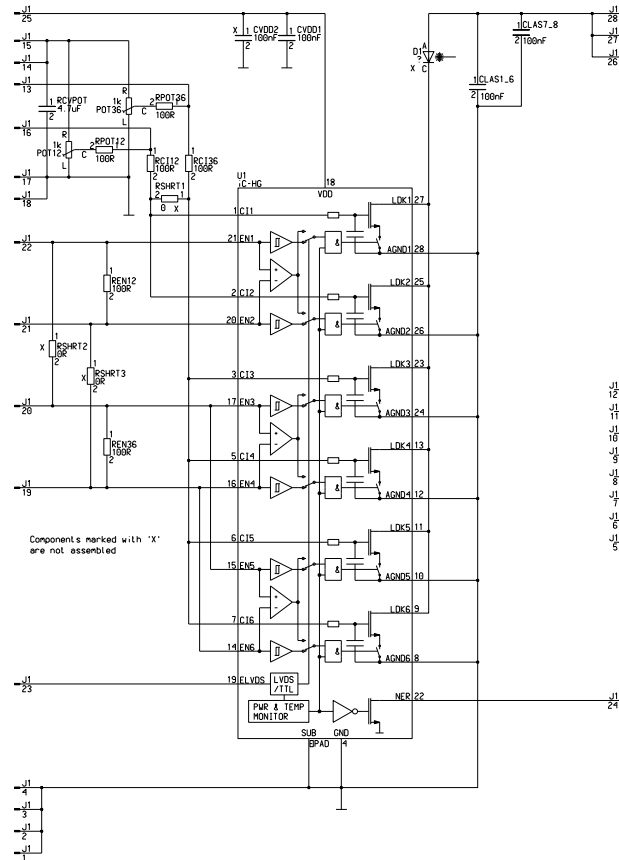


Figure 5: Circuit diagram

## iC-HG/HG30 iCSY HG21M

### HIGH-SPEED MODULE FOR SMD VCSEL ARRAYS

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