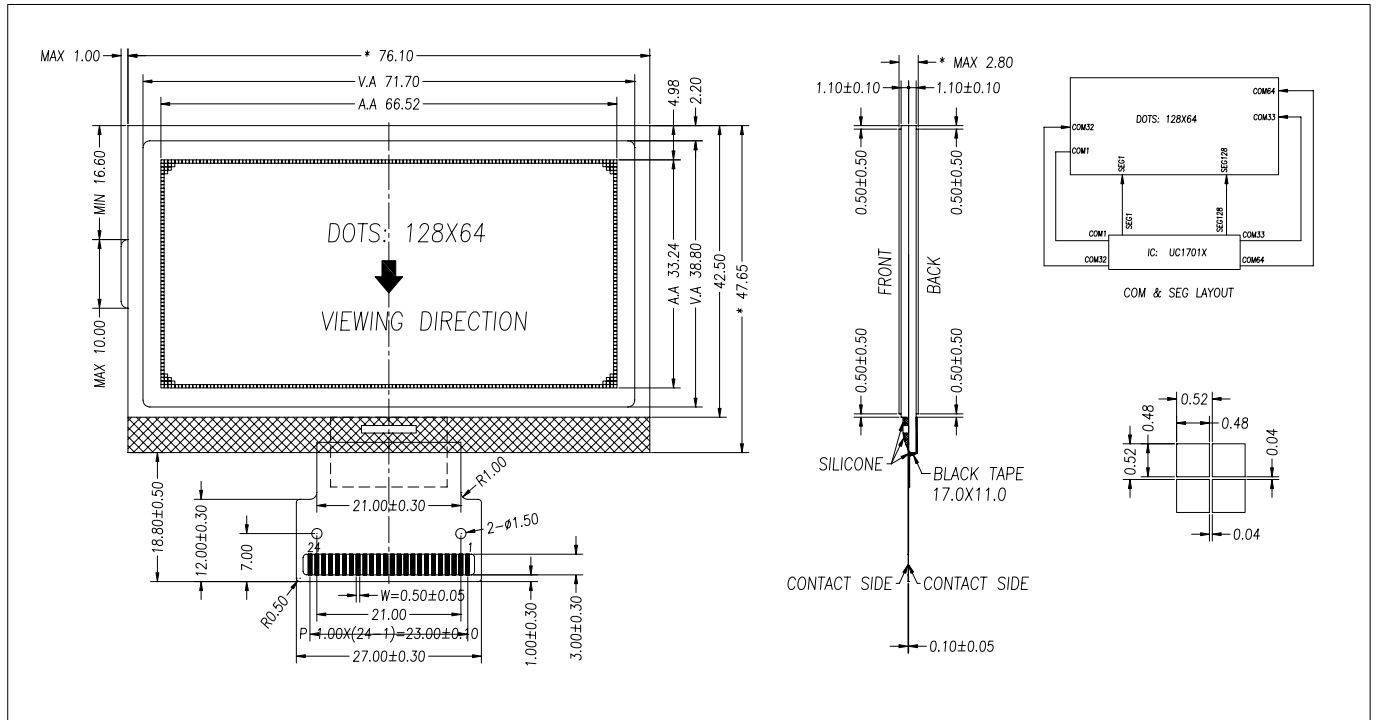


# HGO128647-P-F

# 1/65DUTY 1/9BIAS



## PIN CONNECTIONS

| Pin | Symbol              | Level | Function                                                                                                                                                                           |
|-----|---------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | NC                  | -     | No connection                                                                                                                                                                      |
| 2   | CS0                 | L     | Chip select, active "L"                                                                                                                                                            |
| 3   | RST                 | L     | Reset signal ,active "L"                                                                                                                                                           |
| 4   | CD                  | H/L   | H: Display data<br>L: Control data                                                                                                                                                 |
| 5   | WR0                 | H/L   | Read/write operation control                                                                                                                                                       |
| 6   | WR1                 |       |                                                                                                                                                                                    |
| 7   | D0                  | H/L   | Data bus line                                                                                                                                                                      |
| 14  | D7                  |       |                                                                                                                                                                                    |
| 15  | V <sub>DD</sub>     | 3.3V  | Power supply for logic                                                                                                                                                             |
| 16  | V <sub>SS</sub>     | 0V    | GND                                                                                                                                                                                |
| 17  | V <sub>B0+</sub>    | -     | LCD bias voltages . These are the voltage sources to provide SEG driving currents. These voltages are generated internally. Connect capacitors of CBX value between VBX+ and VBX-. |
| 18  | V <sub>B0-</sub>    |       |                                                                                                                                                                                    |
| 19  | V <sub>B1+</sub>    |       |                                                                                                                                                                                    |
| 20  | V <sub>B1-</sub>    |       |                                                                                                                                                                                    |
| 21  | V <sub>LCDIN</sub>  | -     | Main LCD power supply                                                                                                                                                              |
| 22  | V <sub>LCDOUT</sub> |       |                                                                                                                                                                                    |
| 23  | BM0                 | H/L   | Interface select: 8-bit<br>6800/8080 or 4-wire SPI                                                                                                                                 |
| 24  | BM1                 |       |                                                                                                                                                                                    |

## MECHANICAL DATA

| Item                    | Nominal Dimensions | Unit |
|-------------------------|--------------------|------|
| Module Size (W x H x T) | 77.10X66.45X2.8    | mm   |
| Viewing Area (W x H)    | 71.7 X38.8         | mm   |
| Dot Pitch (W x H)       | 0.52X0.52          | mm   |
| Dot Size (W x H)        | 0.48X0.48          | mm   |

## ABSOLUTE MAXIMUM RATINGS

| Item                   | Symbol                           | Min. | Max.                 | Unit |
|------------------------|----------------------------------|------|----------------------|------|
| Supply Voltage (Logic) | V <sub>DD</sub> -V <sub>SS</sub> | -0.3 | 4.0                  | V    |
| Supply Voltage (LCD)   | V <sub>0</sub>                   | -0.3 | 13.2                 | V    |
| Input Voltage          | V <sub>I</sub>                   | -0.3 | V <sub>DD</sub> +0.3 | V    |
| Operating Temp.        | T <sub>OPR</sub>                 | -20  | 70                   | °C   |
| Storage Temp.          | T <sub>STG</sub>                 | -30  | 80                   | °C   |

## ELECTRICAL CHARACTERISTICS (V<sub>DD</sub>=5.0V, T<sub>a</sub>=25°C)

| Item                | Sym.            | Min.               | Typ. | Max.               | Unit |
|---------------------|-----------------|--------------------|------|--------------------|------|
| Input High Voltage  | V <sub>IH</sub> | 0.8V <sub>DD</sub> | 3.3  | -                  | V    |
| Input Low Voltage   | V <sub>IL</sub> | -                  | -    | 0.2V <sub>DD</sub> | V    |
| Output High Voltage | V <sub>OH</sub> | 0.8V <sub>DD</sub> | -    | -                  | V    |
| Output Low Voltage  | V <sub>OL</sub> | -                  | -    | 0.2V <sub>DD</sub> | V    |
| Supply Current      | I <sub>DD</sub> | -                  | -    | -                  | uA   |
| LCD Driving Voltage | V <sub>0</sub>  | -                  | 10.0 | -                  | V    |

NOTES: 1. Built-in UC1701x controller

2. COG、FSTN