

LJ64ZU31

Features

- **Display format:** 640 (W) × 400 (H) dots
- **Dot pitch ratio:** 1:1
- **16-level gray scale**
- **Input signal level:** LS TTL level
- **Drive method:** PWM symmetric drive
- **Structure:** Baseplate
- **Detachable DC/DC converter**
- **Net weight:** Approx. 535g (600g*)
*Including DC/DC converter

■ Absolute maximum ratings

(Ta=25°C)

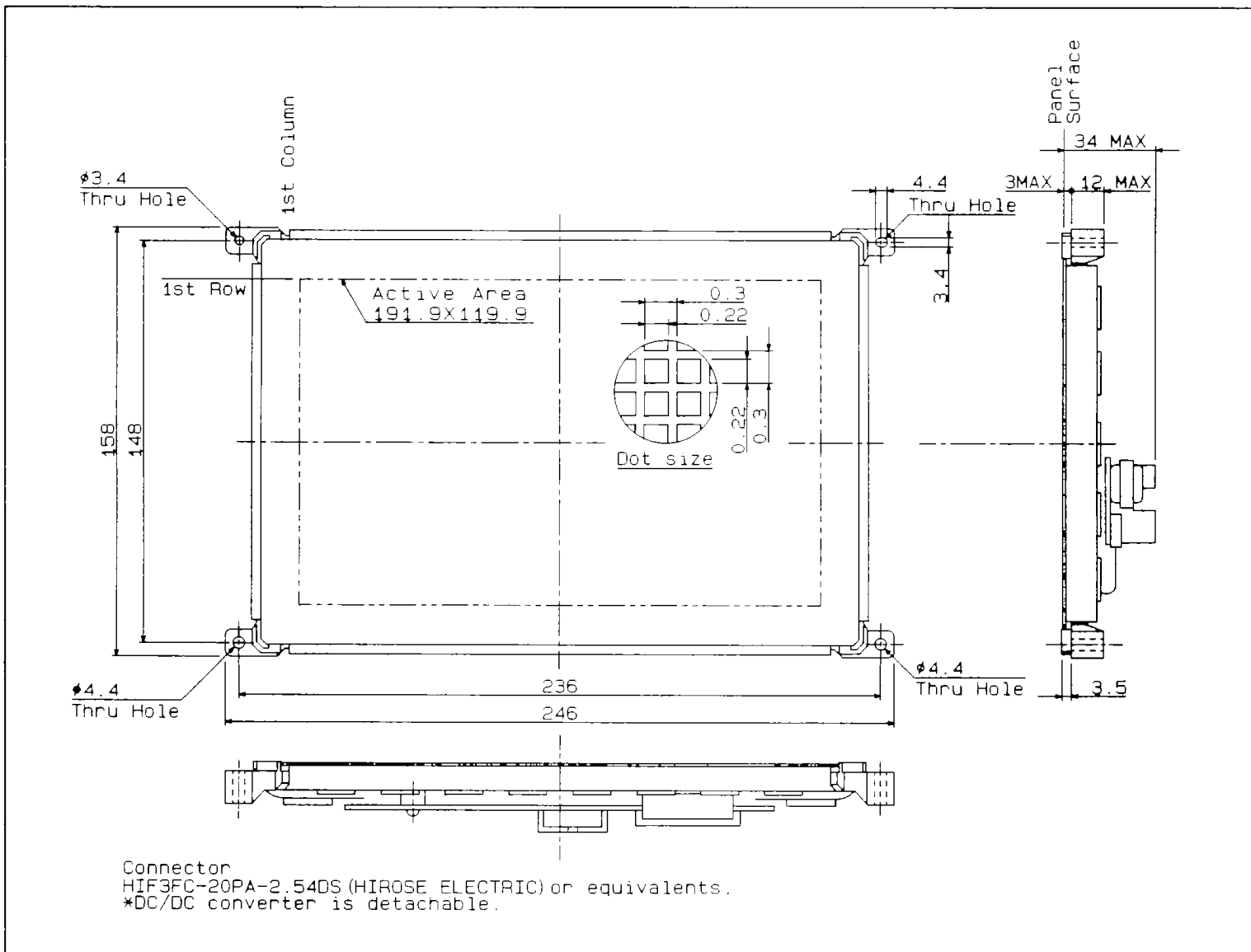
| Parameter | Symbol | Rating | Unit |
|------------------------------|------------------|------------|------|
| Interface signal (Logic "H") | V _{IH} | 5.5 | V |
| Interface signal (Logic "L") | V _{IL} | -0.5 | V |
| Supply voltage (Logic) | V _L | 7 | V |
| Supply voltage (Panel drive) | V _D | 27 | V |
| Operating temperature | T _{opr} | -5 to +55 | °C |
| Storage temperature | T _{stg} | -40 to +80 | °C |

■ Corresponding connector:

HIF3BA-20D-2.54R (HIROSE) or equivalents

Outline Dimensions

(Unit:mm)



Electro-optical Characteristics

(Ta=25°C)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|------------------------------|-------------------|---|------|------|------|------|
| Supply voltage (Logic) | V _L | — | 4.75 | 5.0 | 5.25 | V |
| Supply current (Logic) | I _L | V _L =5V | 100 | — | 300 | mA |
| Supply voltage (Panel drive) | V _D | — | 22.8 | 24.0 | 25.2 | V |
| Supply current (Panel drive) | I _D | V _D =24V | 400 | — | 1000 | mA |
| Power consumption | P _T | V _L =5V, V _D =24V | — | 18 | — | W |
| Luminance | B _{ON} | All dots lit | 23 | 30 | — | fL |
| Off luminance | B _{OFF} | All dots turned off | — | — | 1.0 | fL |
| Lumiance distribution | ΔB _{DIS} | All dots lit | — | — | 35 | % |

Interface Signals

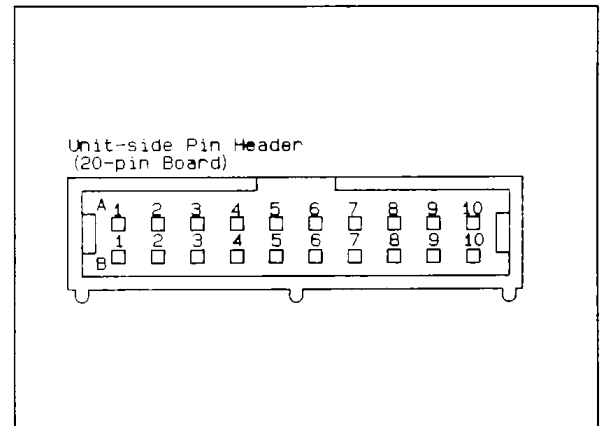
| Pin No. | Symbol | Description |
|---------|----------------|-------------------------|
| A-1 | D1 | Data signal |
| B-1 | D0 | |
| A-2 | D3 | |
| B-2 | D2 | |
| A-3 | N.C | — |
| B-3 | N.C | — |
| A-4 | CKD | Data transfer clock |
| B-4 | GND | Ground |
| A-5 | H.D | Horizontal sync. signal |
| B-5 | GND | Ground |
| A-6 | V.D | Vertical sync. signal |
| B-6 | GND | Ground |
| A-7 | GND | Ground |
| B-7 | GND | Ground |
| A-8 | V _D | +24V |
| B-8 | V _D | +24V |
| A-9 | V _L | +5V |
| B-9 | V _L | +5V |
| A-10 | N.C | — |
| B-10 | N.C | — |

Interface Timing Ratings

(Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|----------------|--------|----------|---------|------|
| Clock frequency | 1/t1 | 13.5 | — | 22.0 | MHz |
| Clock duty | t1(H)/t1 × 100 | 45 | — | 55 | % |
| Data setup time | t2 | 10 | — | — | nsec |
| Data hold time | t3 | 10 | — | — | nsec |
| H.D hold time | t4 | 10 | — | — | nsec |
| H.D setup time | t5 | 10 | — | — | nsec |
| Horizontal sync. signal cycle time | t6 | 40 | — | 49 | μsec |
| Horizontal sync. signal valid time (Valid time of display data) | t7 | — | 640 × t1 | — | μsec |
| Horizontal sync. signal blanking time (Invalid time of display data) | t8 | 1 | — | — | μsec |
| Frame frequency | 1/t9 | 50 | 60 | 62 | Hz |
| Vertical sync. signal valid time | t10 | 16 | 400 × t6 | — | μsec |
| Vertical sync. signal blanking time | t11 | 1 | — | 19 - 16 | μsec |
| Vertical sync. signal rise wait time | t12 | 4 × 40 | — | — | μsec |
| Vertical sync. rise timing | t13 | 40 | — | t7+35 | μsec |

Connector



Interface Timing Chart

