



## Dual HD-SDI Terminal Board for 3D TY-FB30DHD3D

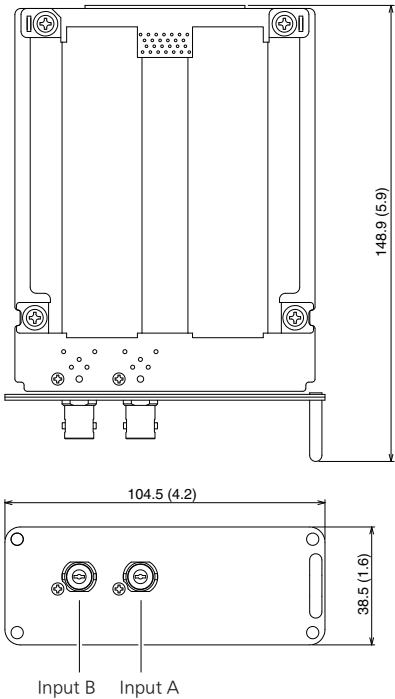
### Summary

The HD-SDI simultaneous input system allows 3D images to be transmitted in broadcasting and image production workflows. Left-eye and right-eye image signals are sent through a single coaxial cable.

### Specifications (Design and specifications are subject to change without notice.)

|                               |                                                                                                                      |                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| Input Terminal                | HD-SDI IN (A)                                                                                                        | BNC x 1 (HD-SDI/Dual Link HD-SDI A/3D SDI Lch) |
|                               | HD-SDI IN (B)                                                                                                        | BNC x 1 (Dual Link HD-SDI B/3D SDI Rch)        |
| Standard                      | HD-SDI:SMPTE292M, Dual Link HD-SDI:SMPTE372M                                                                         |                                                |
|                               | AUDIO:SMPTE299M                                                                                                      |                                                |
| Compatible 3D signal          | Simultaneous / Side by Side / Top and Bottom                                                                         |                                                |
| Dimensions (W x H x D)        | 104.5 x 38.5 x 148.9 mm (4.1" x 1.5" x 5.9")                                                                         |                                                |
| Weight                        | Approx. 250 g (0.55 lbs.)                                                                                            |                                                |
| Carton Dimensions (W x H x D) | 305.0 x 60.0 x 250.0 mm (12.0" x 2.4" x 9.8")                                                                        |                                                |
| Gross Weight                  | Approx. 650 g (1.43 lbs.)                                                                                            |                                                |
| Accessories                   | Screw × 4, Terminal function label (1 sheet), Operating instruction                                                  |                                                |
|                               |                                                                                                                      |                                                |
| Recommended cable             | 75 Ω coaxial cable 5C-FB                                                                                             |                                                |
| Maximum extended length       | 100 m (110 yd) (When using a cable with a length of less than 100 m (110 yd) and an attenuation of 20 dB at 750 MHz) |                                                |

### Dimensions



Cautions: This drawing is not a scale  
Units: mm (inches)

### Video signals supported by this board

#### HD-SDI

| Signal format                   | Sampling format<br>Number of pixel bits | fV<br>(Hz) | fH<br>(kHz) | Dot<br>clock<br>(MHz) | Number<br>of active<br>pixels | Total<br>number<br>of pixels | Number<br>of active<br>lines | Total<br>number<br>of lines |
|---------------------------------|-----------------------------------------|------------|-------------|-----------------------|-------------------------------|------------------------------|------------------------------|-----------------------------|
| 1 750 (720) / 60p : 59.94p      | YCbCr(4:2:2) / 10bit                    | 60         | 45          | 74.25                 | 1280                          | 1650                         | 720                          | 750                         |
| 2 750 (720) / 50p               |                                         | 50         | 37.5        | 74.25                 | 1280                          | 1980                         | 720                          | 750                         |
| 3 1125 (1080) / 60i : 59.94i    |                                         | 60         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 4 1125 (1080) / 50i             |                                         | 50         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 5 1125 (1080) / 30p : 29.97p    |                                         | 30         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 6 1125 (1080) / 25p             |                                         | 25         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 7 1125 (1080) / 24p : 23.985p   |                                         | 24         | 27          | 74.25                 | 1920                          | 2750                         | 1080                         | 1125                        |
| 8 1125 (1080) / 24sF : 23.985sF |                                         | 48         | 27          | 74.25                 | 1920                          | 2750                         | 1080                         | 1125                        |

#### Dual Link HD-SDI

| Signal format                   | Sampling format<br>Number of pixel bits              | fV<br>(Hz) | fH<br>(kHz) | Dot<br>clock<br>(MHz) | Number<br>of active<br>pixels | Total<br>number<br>of pixels | Number<br>of active<br>lines | Total<br>number<br>of lines |
|---------------------------------|------------------------------------------------------|------------|-------------|-----------------------|-------------------------------|------------------------------|------------------------------|-----------------------------|
| 1 1125 (1080) / 60i : 59.94i    | RGB(4:4:4), RGB+A(4:4:4:4)*1]<br>/ 10bit             | 60         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 2 1125 (1080) / 50i             |                                                      | 50         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 3 1125 (1080) / 30p : 29.97p    | YCbCr(4:4:4), YCbCr+A(4:4:4:4)*1]<br>/ 10bit         | 30         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 4 1125 (1080) / 25p             |                                                      | 25         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 5 1125 (1080) / 24p : 23.985p   | RGB(4:4:4), YCbCr(4:2:2),<br>YCbCr(4:4:4) / 12bit*2] | 24         | 27          | 74.25                 | 1920                          | 2750                         | 1080                         | 1125                        |
| 6 1125 (1080) / 24sF : 23.985sF |                                                      | 48         | 27          | 74.25                 | 1920                          | 2750                         | 1080                         | 1125                        |
| 7 1125 (1080) / 60p             | YCbCr(4:2:2) / 10bit                                 | 60         | 67.5        | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 8 1125 (1080) / 50p             | YCbCr(4:2:2) / 10bit                                 | 50         | 56.25       | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 9 2048×1080 / 24p : 23.985p     | RGB(4:4:4), X'Y'Z'(4:4:4) / 12bit*2]                 | 24         | 27          | 74.25                 | 2048                          | 2750                         | 1080                         | 1125                        |
| 10 2048×1080 / 24sF : 23.985sF  | RGB(4:4:4), X'Y'Z'(4:4:4) / 12bit*2]                 | 48         | 27          | 74.25                 | 2048                          | 2750                         | 1080                         | 1125                        |

\*1: A (alpha channel) is not supported. This data cannot be output.

\*2: Although 12-bit signals can be received, they are converted to 10-bit signals for display on-screen.

#### 3D Dual HD-SDI (Simultaneous)

| Signal format                 | Sampling format<br>Number of pixel bits | fV<br>(Hz) | fH<br>(kHz) | Dot<br>clock<br>(MHz) | Number<br>of active<br>pixels | Total<br>number<br>of pixels | Number<br>of active<br>lines | Total<br>number<br>of lines |
|-------------------------------|-----------------------------------------|------------|-------------|-----------------------|-------------------------------|------------------------------|------------------------------|-----------------------------|
| 1 750 (720) / 60p : 59.94p    | YCbCr(4:2:2) / 10bit                    | 60         | 45          | 74.25                 | 1280                          | 1650                         | 720                          | 750                         |
| 2 750 (720) / 50p             |                                         | 50         | 37.5        | 74.25                 | 1280                          | 1980                         | 720                          | 750                         |
| 3 1125 (1080) / 60i : 59.94i  |                                         | 60         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 4 1125 (1080) / 50i           |                                         | 50         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 5 1125 (1080) / 30p : 29.97p  |                                         | 30         | 33.75       | 74.25                 | 1920                          | 2200                         | 1080                         | 1125                        |
| 6 1125 (1080) / 25p           |                                         | 25         | 28.125      | 74.25                 | 1920                          | 2640                         | 1080                         | 1125                        |
| 7 1125 (1080) / 24p : 23.985p |                                         | 24         | 27          | 74.25                 | 1920                          | 2750                         | 1080                         | 1125                        |

#### 3D Dual HD-SDI (Side by Side/Top and Bottom)

| Signal format                               | Sampling format<br>Number of pixel bits | fV<br>(Hz) | fH<br>(kHz) | Dot<br>clock<br>(MHz) | Number<br>of active<br>pixels | Total<br>number<br>of pixels | Number<br>of active<br>lines | Total<br>number<br>of lines |
|---------------------------------------------|-----------------------------------------|------------|-------------|-----------------------|-------------------------------|------------------------------|------------------------------|-----------------------------|
| All HD-SDI/Dual Link HD-SDI support signals |                                         |            |             |                       |                               |                              |                              |                             |

### Audio signals supported by this board

Only multiplexed and stored audio connected to HD-SDI, Dual Link HD-SDI Link A, 3D Dual HD-SDI 1(L) is supported.  
(The selection of multiplexed and stored audio connected to Dual Link HD-SDI Link B and 3D Dual HD-SDI 2(R) is not supported.)

| Signal format                                                                                               | Sampling<br>frequency (kHz) | Number of<br>bits | Audio<br>channels<br>(ch) | Synchronized/<br>not synchronized with<br>video signals |
|-------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------|---------------------------|---------------------------------------------------------|
| 1125(1080)/60i:59.94i:50i:60p:50p<br>1125(1080)/30p:29.97p:25p:24p:24sF:23.985sF<br>750(720)/60p:59.94p:50p | 48                          | 20bit/24bit       | 16                        | Synchronized or<br>not synchronized                     |