

**NEW**  

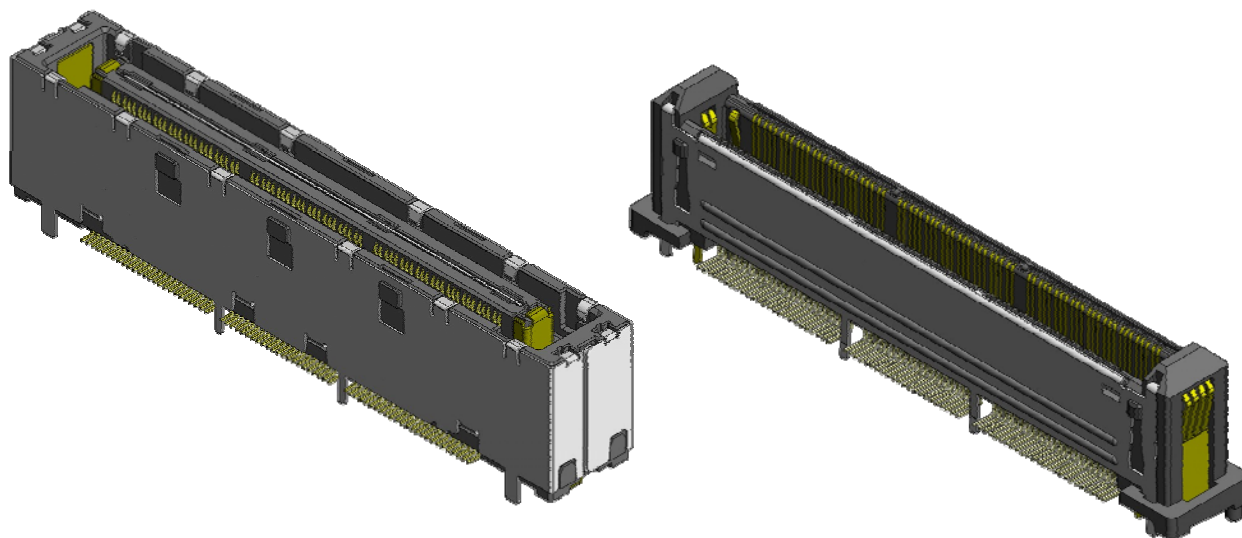

Docking Connector Compatible with PCI Express

CONNECTOR

MB-0200-1

March 2009

## WD2 Series

**RoHS Compliant**

The WD2 Series are docking connectors compatible with high-speed differential transmission such as PCI Express.

### Features

- Designed for high-speed serial transmission such as PCI Express and Display Port
- Ground bar on receptacle side for ESD (Electrostatic Discharge) countermeasure
- Available in several mating heights and angle variations
- Mating guide length in pitch direction  $\pm 1.3\text{mm}$ , cross direction  $\pm 1.2\text{mm}$
- 4 pos. (2 pair) for power in mating guide area with current capacity of 10A per pair, 20A in total

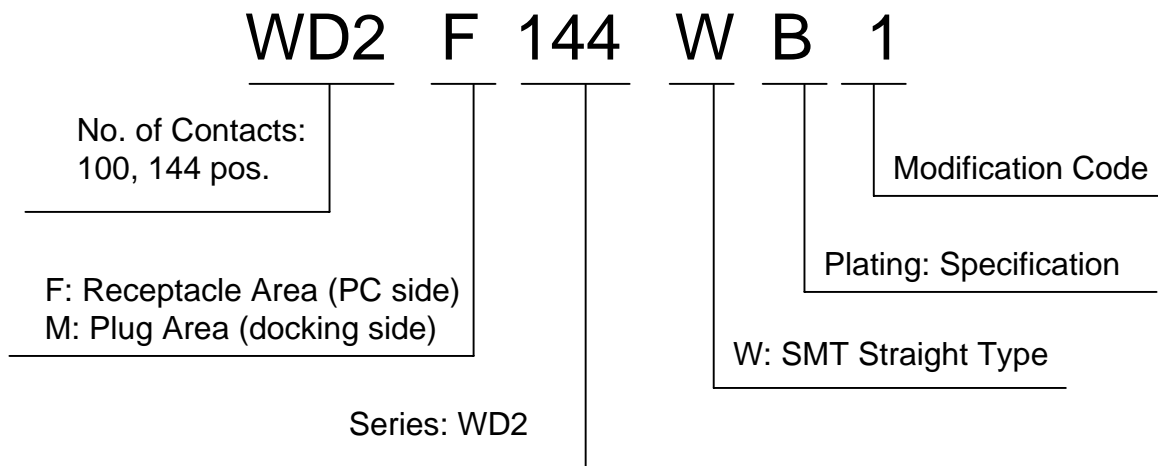
### General Specifications

- No. of Contacts: 100, 144 pos. (for signal) + 4 pos. (for power)
- Contact Resistance: 190m ohm max.
- Dielectric Withstanding Voltage: AC500Vr.m.s. per minute
- Rated Current: 0.5 per terminal (signal), 10 A per pair (power)
- Insulation Resistance: 100M ohm min.
- Durability: 10,000 times
- Operating Temperature: -40 deg. C to 85 deg. C

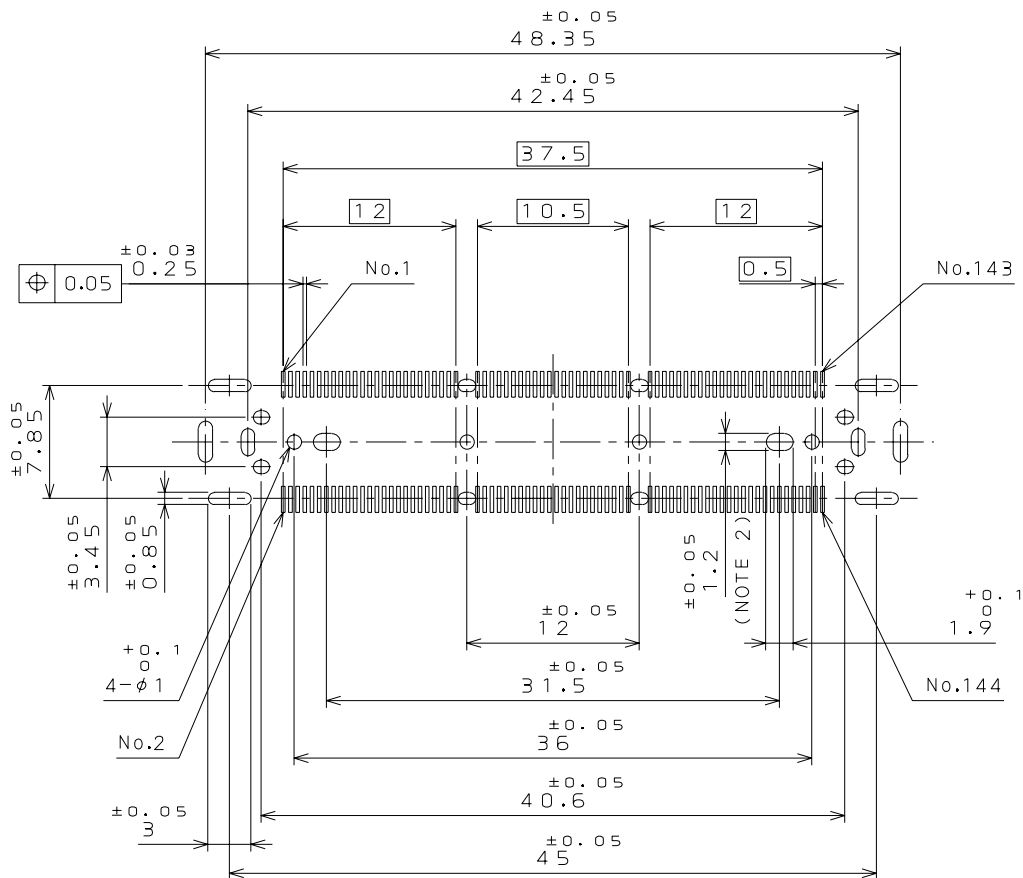
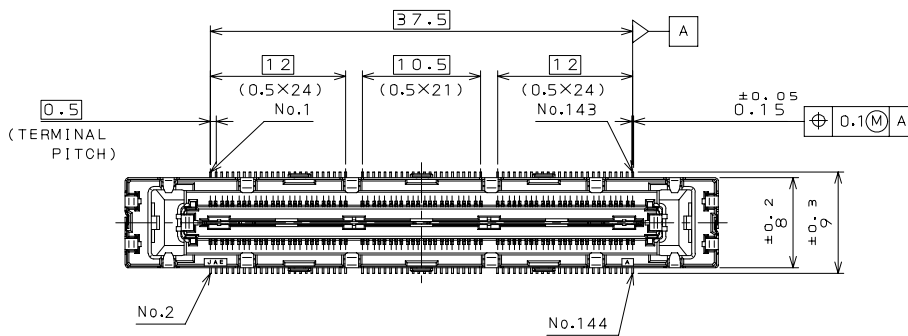
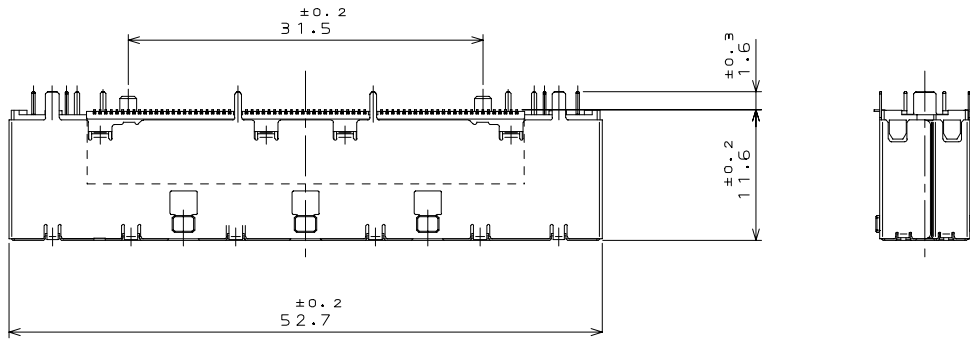
Materials and Finishes

| Component       | Material / Finish                                          |
|-----------------|------------------------------------------------------------|
| Receptacle      |                                                            |
| Signal Contact  | Copper alloy / contact area: 0.3um min. Au plating over Ni |
| Power Contact   | Copper alloy / contact area: 0.3um min. Au plating over Ni |
| Insulator       | Glass filled LCP                                           |
| Inner Insulator | Glass filled LCP                                           |
| Shell           | Copper alloy / Ni plating                                  |
| Plate           | Copper alloy / Sn plating                                  |
| Plug            |                                                            |
| Signal Contact  | Copper alloy / contact area: 0.3um min. Au plating over Ni |
| Power Contact   | Copper alloy / contact area: 0.3um min. Au plating over Ni |
| Insulator       | Glass filled LCP                                           |
| Shell           | Copper alloy / Ni plating                                  |
| Hold Pin        | Copper alloy / Sn plating                                  |
| Vacuum Area     | Glass filled PPS (removed after mounting)                  |

Ordering Information



# WD2F144WB1



APPLICABLE P.C.B. DIMENSION (REF.)

適合基板寸法 (参考)



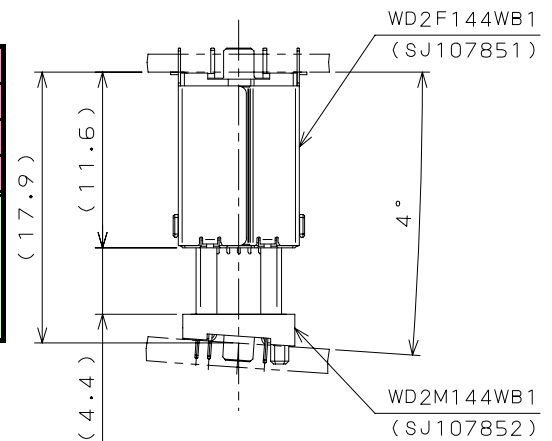
## Drawing

|                 | Part Number          | SJ Drawing | Specification |
|-----------------|----------------------|------------|---------------|
| 144 pos.        | Receptacle (PC side) |            | JACS-10491-01 |
|                 | WD2F144WB1           | SJ107851   |               |
|                 | WD2F144WB1R300       | SJ108414   |               |
|                 | WD2F144WB2           | SJ108380   |               |
|                 | WD2F144WB2R250       | SJ108381   |               |
|                 | WD2F144WB3           | SJ108382   |               |
|                 | WD2F144WB3R300       | SJ108383   |               |
|                 | WD2F144WB4           | SJ108384   |               |
|                 | WD2F144WB4R400       | SJ108385   |               |
|                 | WD2F144WB5           | SJ108376   |               |
|                 | WD2F144WB5R400       | SJ108416   |               |
|                 | Plug (docking side)  |            |               |
|                 | WD2M144WB1           | SJ107852   |               |
|                 | WD2M144WB1R300       | SJ108415   |               |
| WD2M144WB2      | SJ108374             |            |               |
| WD2M144WB2R300  | SJ108375             |            |               |
| 100 pos.        | Receptacle (PC side) |            | JACS-10491-02 |
|                 | WD2F100WB3A          | SJ108477   |               |
|                 | WD2F100WB3AR300      | SJ108478   |               |
|                 | WD2F100WB5A          | SJ108475   |               |
|                 | WD2F100WB5AR400      | SJ108476   |               |
|                 | Plug (docking side)  |            |               |
|                 | WD2M100WB1A          | SJ108473   |               |
| WD2M100WB1AR300 | SJ108474             |            |               |

Mating Combinations

| 144 pos. Variations      |                  | Receptacle (PC side) |            |            |            |            |            |
|--------------------------|------------------|----------------------|------------|------------|------------|------------|------------|
|                          |                  | Part Number          | WD2F144WB1 | WD2F144WB2 | WD2F144WB3 | WD2F144WB4 | WD2F144WB5 |
|                          |                  | Drawing No.          | SJ107851   | SJ108380   | SJ108382   | SJ108384   | SJ108376   |
|                          |                  | Connector Height     | 11.6       | 13.9       | 10.4       | 7.7        | 6.95       |
| Plug side (docking side) | Part Number      | WD2M144WB1           | 17.9       | 20.2       | 16.7       | 14         | 13.25      |
|                          | Drawing No.      | SJ107852             |            |            |            |            |            |
|                          | Connector Height | 12                   |            |            |            |            |            |
|                          | Mating angle     | 4                    |            |            |            |            |            |
|                          | Part Number      | WD2M144WB2           | 16.4       | 18.7       | 15.2       | 12.5       | 11.75      |
|                          | Drawing No.      | SJ108374             |            |            |            |            |            |
|                          | Connector Height | 10.5                 |            |            |            |            |            |
|                          | Mating angle     | 0                    |            |            |            |            |            |

| 100 pos. Variations |                  | Receptacle       |             |             |
|---------------------|------------------|------------------|-------------|-------------|
|                     |                  | Part Number      | WD2F100WB3A | WD2F100WB5A |
|                     |                  | Drawing No.      | SJ108477    | SJ108475    |
|                     |                  | Connector Height | 10.4        | 6.95        |
| Plug                | Part Number      | WD2M100WB1A      | 16.7        | 13.25       |
|                     | Drawing No.      | SJ108473         |             |             |
|                     | Connector Height | 12               |             |             |
|                     | Mating angle     | 4                |             |             |



MATED CONDITION (REF.)  
 嵌合状態図 (参考)

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