

NEW



0.5mm pitch stroke connector conforming to USB2.0 Standard

CONNECTOR

MB-0111-5

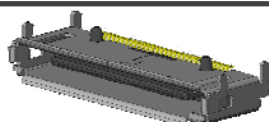
November 2006

DD1 Series

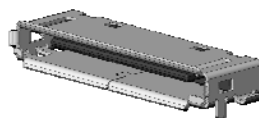
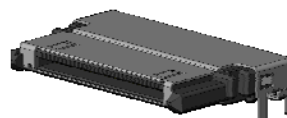
RoHS Compliant



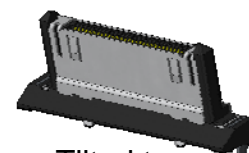
[Plug]



Reverse type

Standard type
[Receptacle]

Angle type



Tilted type

[Cradle]

The DD1 series of connectors are single-line rectangular I/O connectors with 0.5mm pitch stroke conforming to USB2.0 Standard.

Features

- Enhanced twisting resistance at mating/ unmating through equipping a guide rail
- Secure ground connection for EMI prevention
- Conforms to transmission specified in USB2.0 Standard
- PB free

Receptacle

- Occupied volume on chassis was considered at design and small package was achieved.
- Available in standard and reverse mounting type to respond to various mounting situations.
- Hot-plug structure
- Available on embossed tape for automatic mounting

Cradle

- Available in two types. Angle type, which expands cradle designing capacity, and tilted type, slanted at a 75 degree angle to the board.
- 13.8mm depth was achieved, which enables minimizing the occupied area on PCB
- Alignment guide structure: guide range of 1.0mm min. (receptacle ↔ cradle)
- Angle type available on embossed tape for automatic mounting.
Tilted type available in exclusive tray.

Plug

- Side-lock type
- Simple part structure enables simple wire termination.
- Standard cable diameter 5.0mm. Cables with other diameters can also be applied.

General Specifications

- | | |
|--|--|
| ■ No. of contacts : 30 pos. | ■ Rated current: for signal 0.5A
for power 1.0A |
| ■ Contact resistance:
50m ohm max. (initial) | ■ Rated voltage: AC 30Vr.m.s |
| ■ Dielectric withstanding voltage :
DC500V per minute | ■ Operating temperature:
-25 Deg. C to +75 Deg. C |
| ■ Insulation resistance:
1,000M ohm min. (initial) | ■ Mating cycle: 10,000 times |

Materials and Finishes

Receptacle

Components	Materials/ Finishes
Contact	Copper alloy/ Contact: Au plating over Ni Terminal: Au flash plating over Ni
Insulator	Glass filled nylon resin
Shell	Stainless steel/ Sn plating over Ni

Cradle

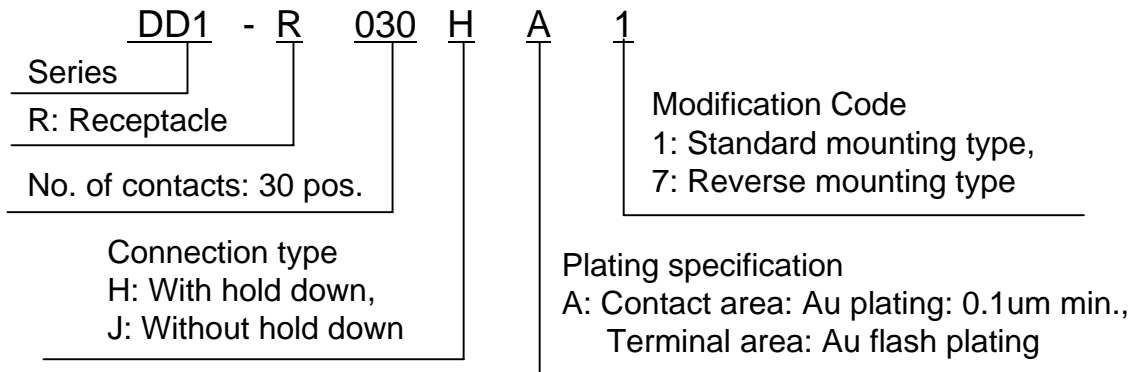
Components	Materials/ Finishes
Contact	Copper alloy/ Contact: Au plating over Ni Terminal: Au flash plating over Ni
Insulator	Glass filled nylon resin
Shell	Stainless steel/ Main frame: Ni plating Through-hole: Sn plating over Ni
Through-hole Plate	Copper alloy/ Main frame: Ni plating Through-hole: Sn plating over Ni

Plug

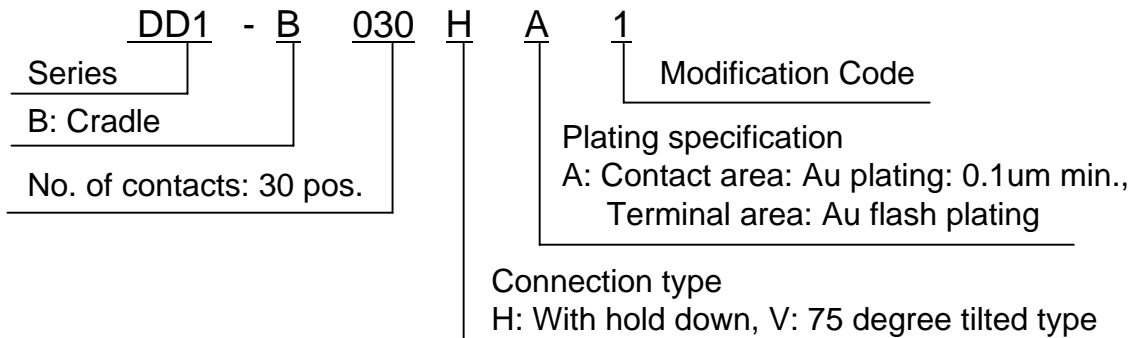
Components	Materials/ Finishes
Contact	Copper alloy/ Contact: Au plating over Ni Terminal: Au flash plating over Ni
Insulator	Glass filled nylon resin
Shell	Stainless steel/ Ni plating
Hood	Glass filled polycarbonate/ Color: Black
Lock Spring	Stainless steel/ Ni plating
Clamp Barrel	Copper alloy/ Ni plating
Bushing	PVC/ Color: Black

Ordering Information

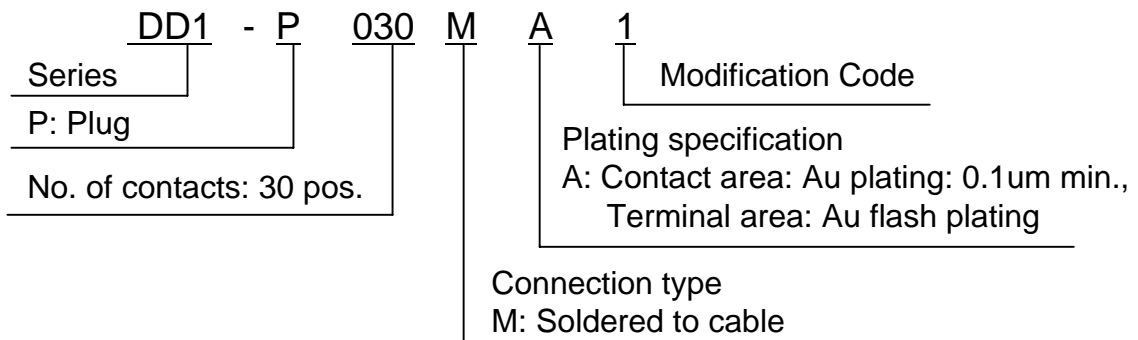
■ Receptacle



■ Cradle



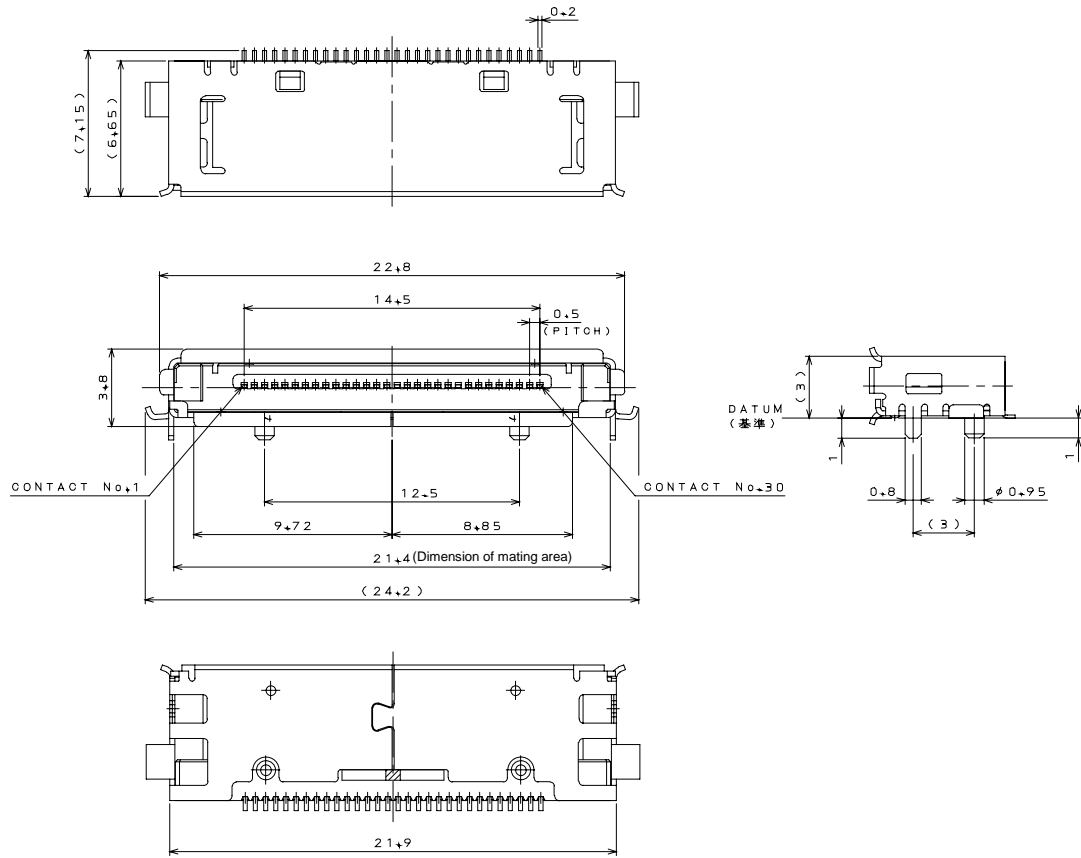
■ Plug



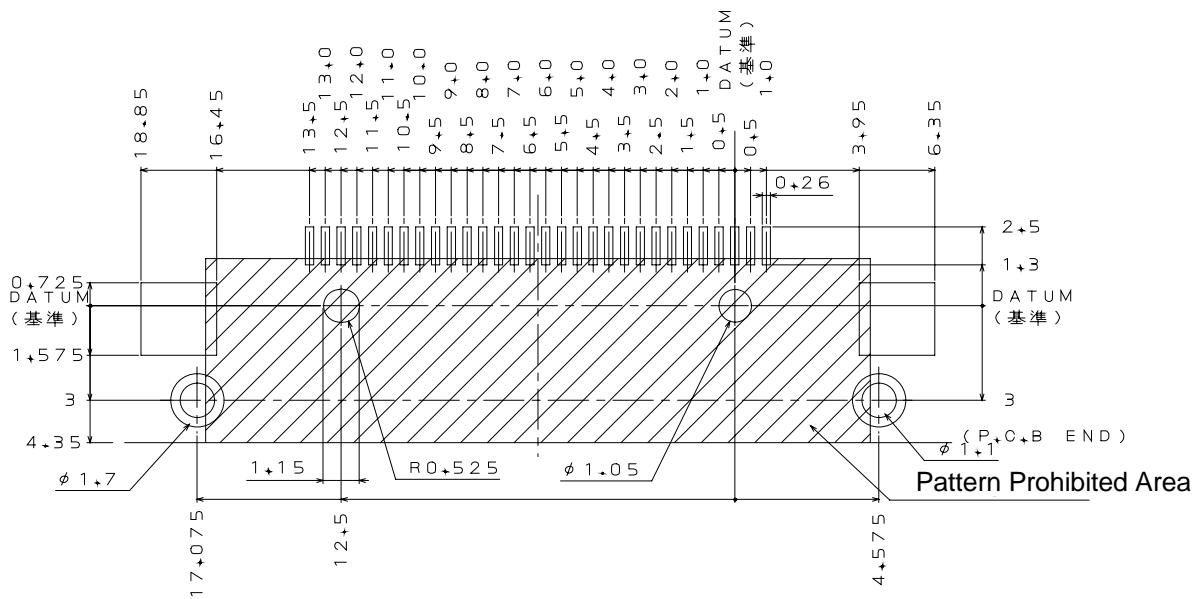
Part Number	Board anchoring method			SJ Drawing	Specification
	Hold-down	Through-hole	Boss		
DD1R030HA1	2	2	2	SJ100601	JACS-3285
DD1R030JA7	-	4	2	SJ106061	
DD1B030HA1	2	4	2	SJ100602	
DD1B030VA1	-	6	-	SJ102068	
DD1P030MA1	-	-	-	SJ100603	

Receptacle: DD1R030HA1

SJ Drawing No.: SJ100601



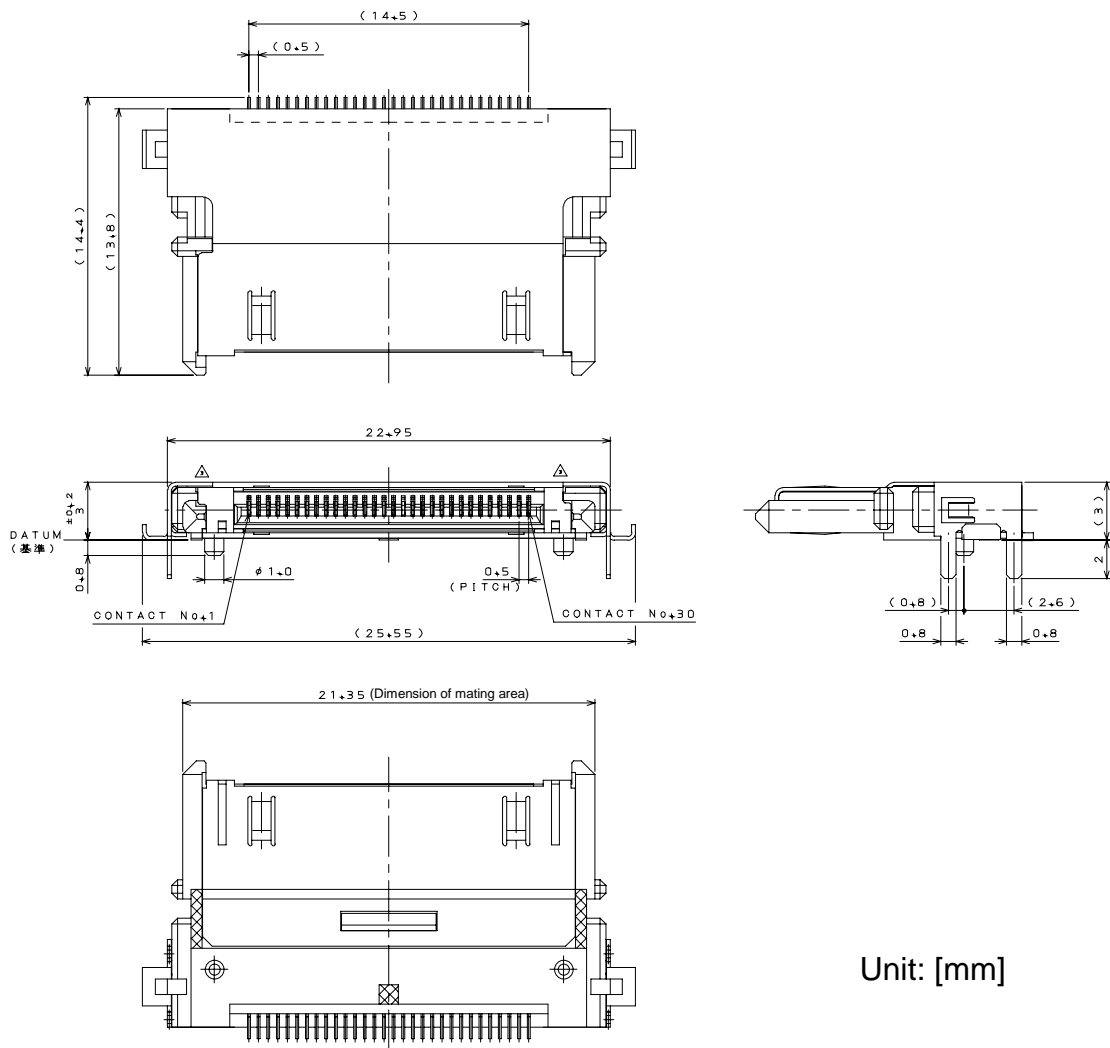
Unit: [mm]



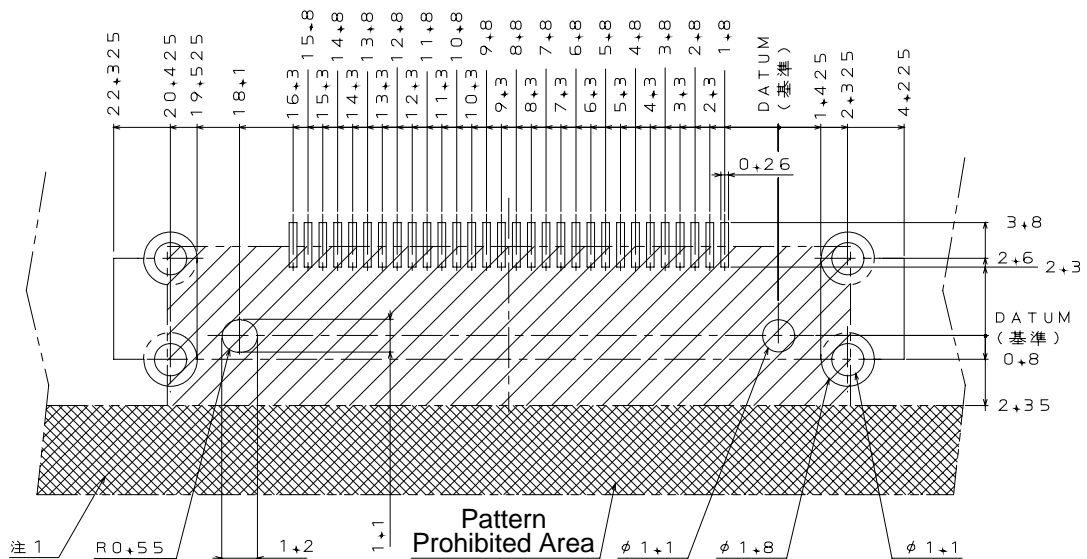
Applicable board dimension
(for reference)

Cradle: DD1B030HA1

SJ Drawing No.: SJ100602



Unit: [mm]



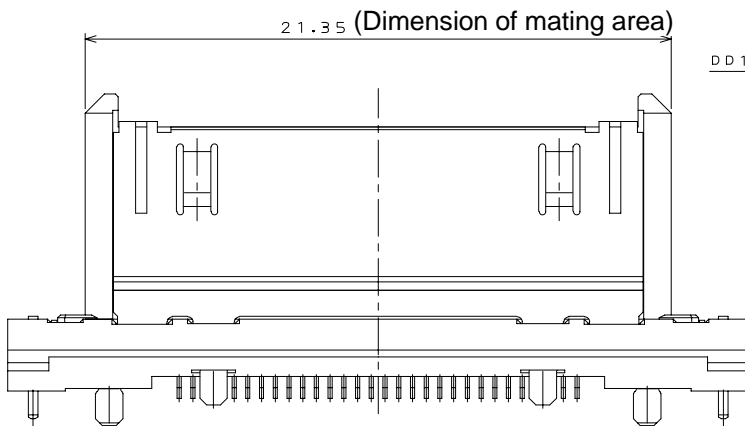
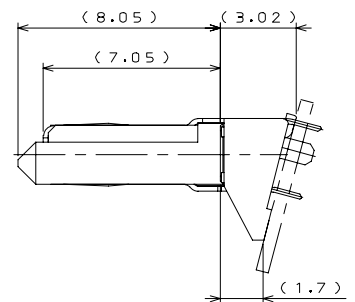
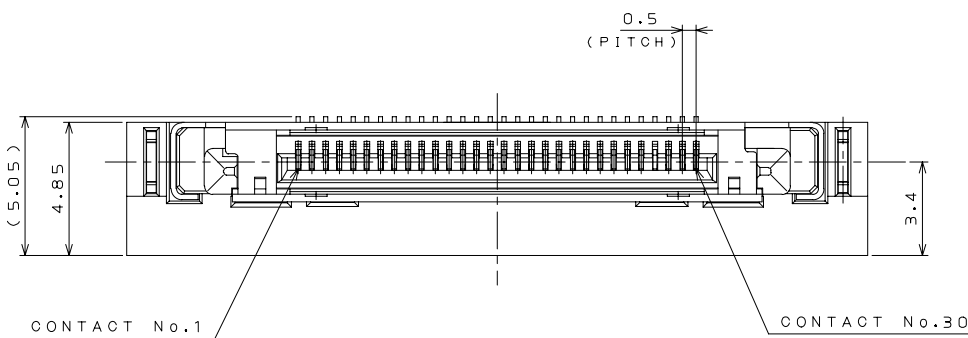
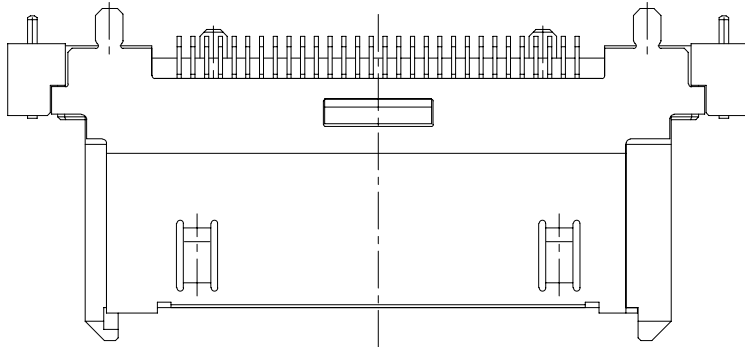
Applicable board dimension (for reference)

Note 1: This drawing shows a disposable backup board to keep connector and board in position during mounting.

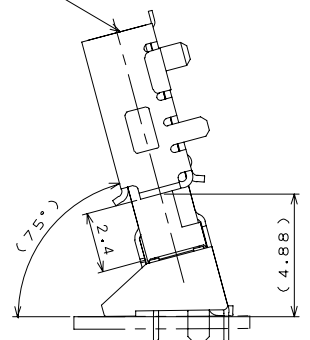
Cradle: DD1B030VA1

SJ Drawing No.: SJ102068

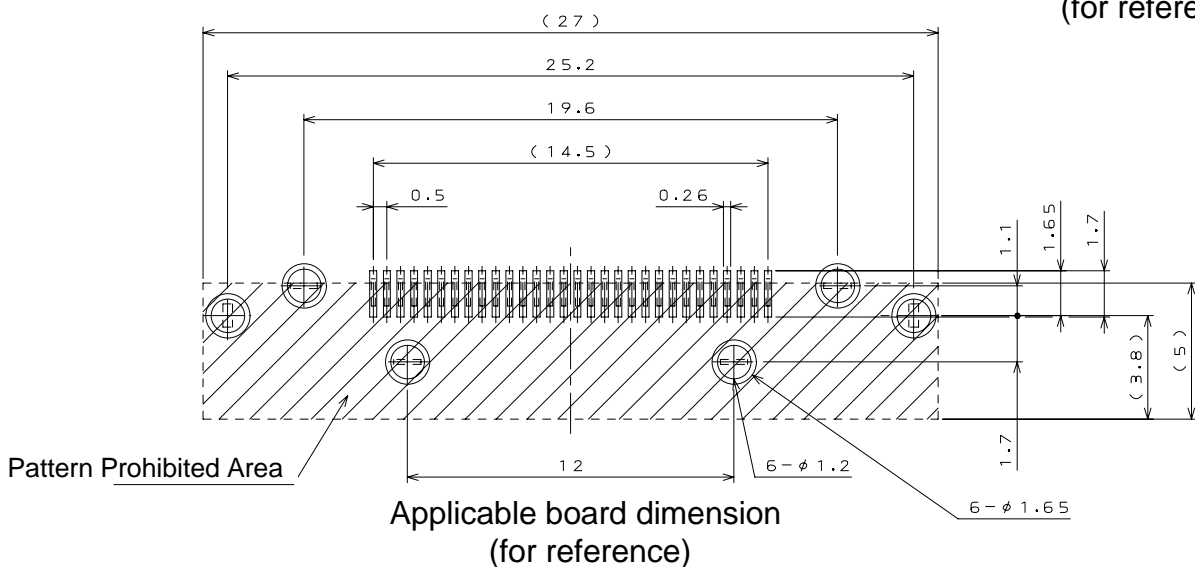
Unit: [mm]



DD1R030HA1 (SJ100601)



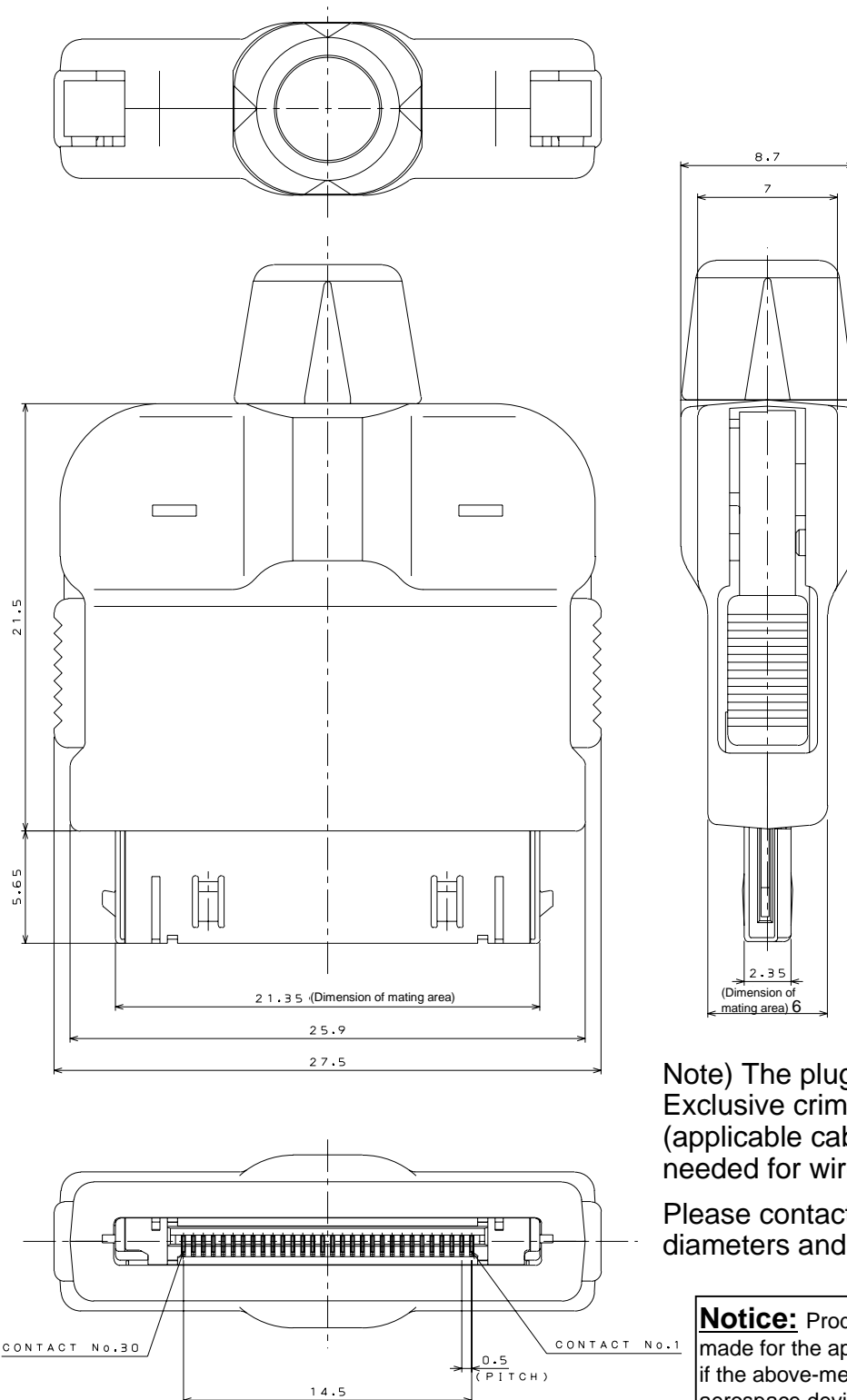
Drawing when mated
(for reference)



Plug: DD1P030MA1

SJ Drawing No.: SJ100603

Unit: [mm]



Note) The plug is shipped in plug only. Exclusive crimp tool CT150-6-RH07 (applicable cable diameter 5.0 mm) is needed for wire connection and assembly.

Please contact us for other cable diameters and further information.

Notice: Products shown in this leaflet are made for the applications listed below. However, if the above-mentioned products are to be used in aerospace devices, marine cable-connection devices, atomic power control systems, medical equipment for life-support systems, or any other specific application requiring extremely high reliability, please contact JAE for further information.
 Recommended applications: computers, office machines, measuring devices, telecommunication devices (terminals, mobile devices), AV devices, household applications, FA devices, etc.

Japan Aviation Electronics Industry, Limited

Product Marketing Division
 Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539
 Phone: +81-3-3780-2787 FAX: +81-3-3780-2946