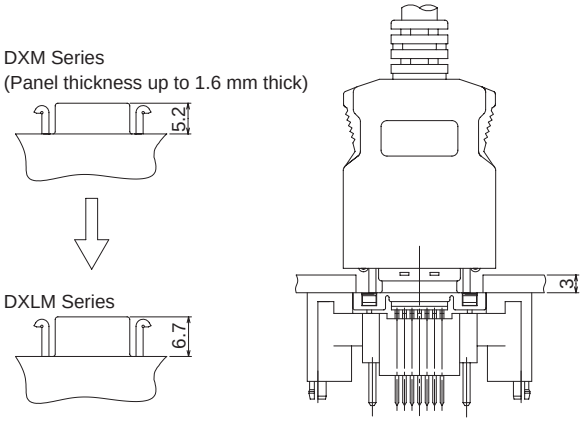
D-configuration Connectors for Digital Broadcasting Equipment

DXLM Series

Accepts panel thickness up to 3 mm



Features

1. Increased range of the mounting panel thickness

Extension of the mating and locking area by 1.5 mm has allowed the DXLM Series to be mounted on panels up to 3mm thick.

2. Effective protection against electrostatic discharge

Unique Hirose Electric design makes reliable ground connection in sequence, with metal shell first, then the board circuit.

3. Temporary board holding feature

Deflecting force of the side protrusion of the insulator's posts against the walls of holes provides superior retention to the board, preventing leaning forward during handling.

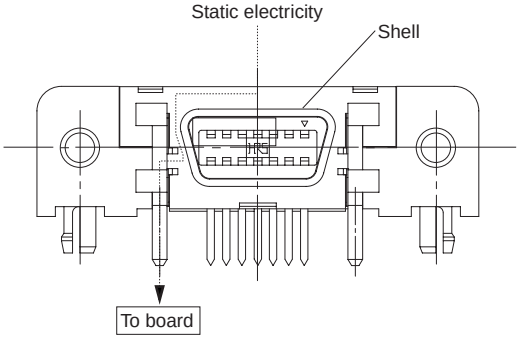
4. Superior stability and retention to the board

Solid metal grounding posts are soldered to the board. This creates extremely strong retention to the board, allowing the assembly to retain reliable connections, even when large forces are applied when miss-mating or pulling.

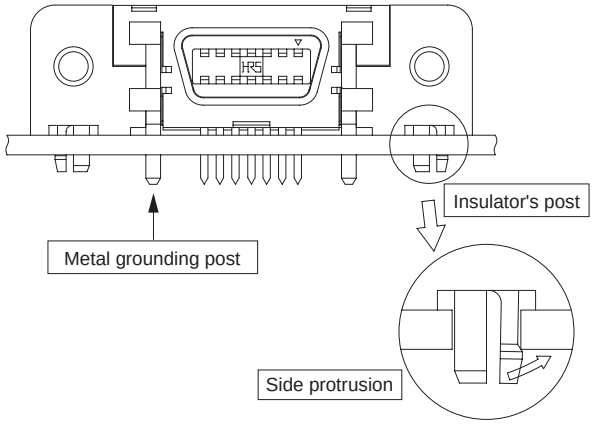
5. RC-5237, EIAJ Standard

Conforms to the requirements for D-configuration connector used in connections for digital image broadcast.

Effective protection against electrostatic discharge



Superior stability and retention to the board



Applications

TV, STB, DVD, LCD TV and other equipment supporting digital broadcasts

Product Specifications

Rating	Current rating	1 A DC	Operating temperature range -25°C to +70°C
	Voltage rating	250 V AC	

Item	Specification	Conditions
1. Contact resistance	80 m ohms max.	100mA DC
2. Insulation resistance	500 M ohms min.	500 V DC
3. Withstanding voltage	No flashover or insulation breakdown	500 V AC / one minute
4. Mating/un-mating forces	30N max. (mating) 4.2N min. (un-mating)	With corresponding connector assembly.
5. Durability (mating/un-mating)	Contact resistance: 25 m ohms max. variation from initial value No damage, cracks, or parts dislocation	500 cycles
6. Vibration	No electrical discontinuity of 1 ms or more No damage, cracks, or parts dislocation	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours / 3 axis
7. Shock		Acceleration of 490 m/s², 6 ms duration, sine half-wave wave form, 3 cycles in each of the 3 axis
8. Humidity (Steady state)	Contact resistance: 25 m ohms max. variation from initial value Insulation resistance: 100 M ohms min.	96 hours at 40°C, humidity of 90% to 95%
9. Temperature cycle	Contact resistance: 25 m ohms max. variation from initial value Insulation resistance: 100 M ohms min.	Temperature: -25 °C --> +5 °C to +35 °C --> +70 °C --> +5 °C to +35°C Duration: 30 --> 2 to 3 --> 30 --> 2 to 3 (Minutes) 5 cycles
10. Salt Spray	Contact resistance: 25 m ohms max. variation from initial value	5% salt water solution for 48 hours

Material

Part	Material	Finish	Remarks
Contact: Receptacle	Brass	Selective gold plating	—
Contact: Plug	Phosphor bronze	Selective gold plating	—
Insulator	PBT	Color: Black	UL94V-0
Shell	Stainless steel	—	—
Cover	Non-Halogen	Color: Gray	—
Cable outer insulation	Non-Halogen	Color: Gray	—

Ordering Information

● Receptacles

DX ① 10 ② LM ① 1 ③ — 14 ④ S ⑤ E ⑥ (50) ⑩

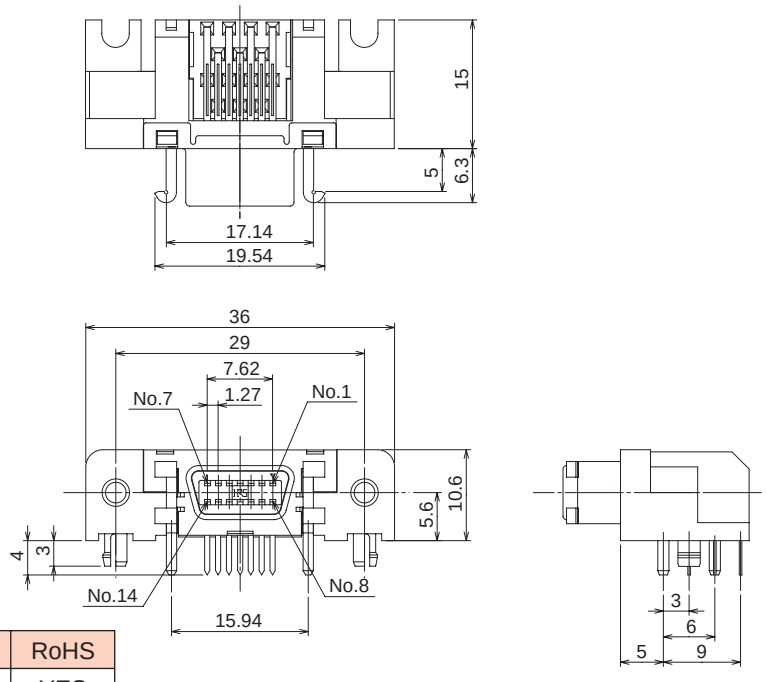
● Plugs

DX ① 40 ② LM ① — 14 ④ PP ⑦ — 150 ⑧ CV ⑨ (50) ⑩

① Series name: DXLM	⑥ Board mounting type E: Temporary insulator's post
② Termination type 10: PCB Right-angle through hole type 20: PCB Straight through hole type 40: Soldering type	⑦ Cable Harness type PP: D-configuration connector at both ends P: D-configuration connector on one end/single audio connectors on other end
③ Form type Blank: Standard item 1: Miniature type 2: Miniature panel single screw panel attachment	⑧ Overall length 150: 150 cm 300: 300 cm
④ Number of Positions: 14	⑨ Cover type CV: Standard
⑤ Configuration of mating side S: Receptalce	⑩ Plating (50) : Gold plating

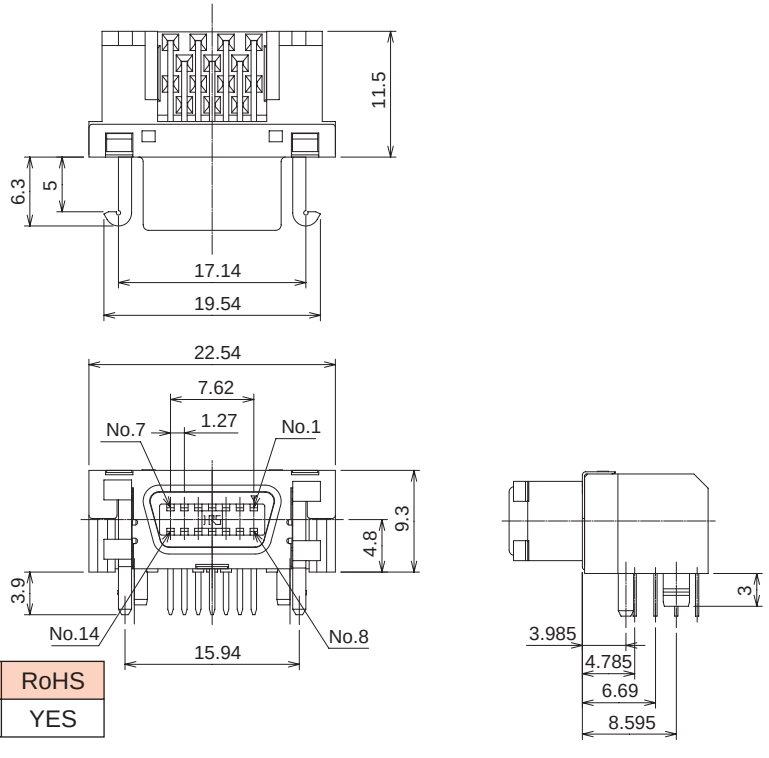
Receptacles

●PCB Right-angle through hole type



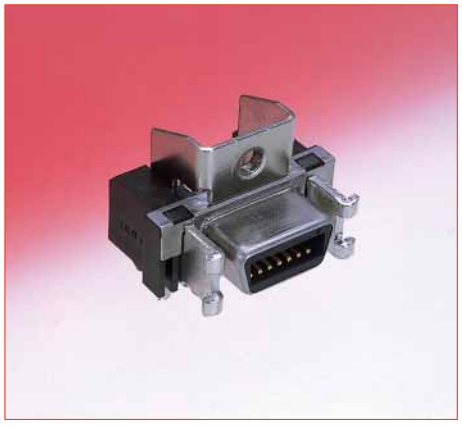
Part Number	CL No.	RoHS
DX10LM-14SE(50)	230-5256-0-50	YES

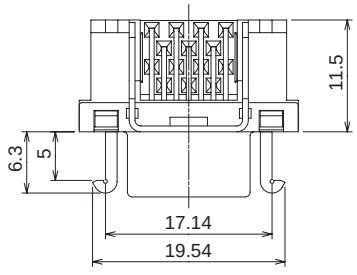
●Miniature PCB Right-angle through hole type

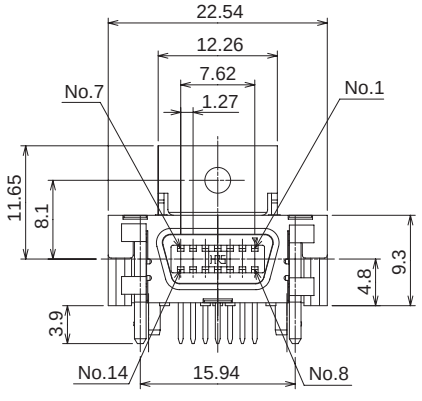


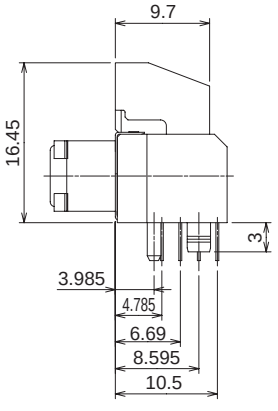
Part Number	CL No.	RoHS
DX10LM1-14SE(50)	230-5258-5-50	YES

●Miniature PCB Right-angle through hole type (Single panel screw)



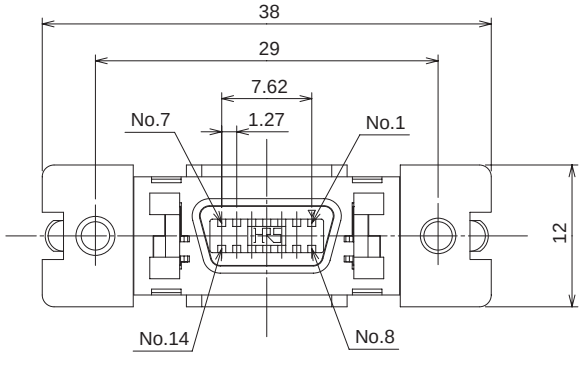


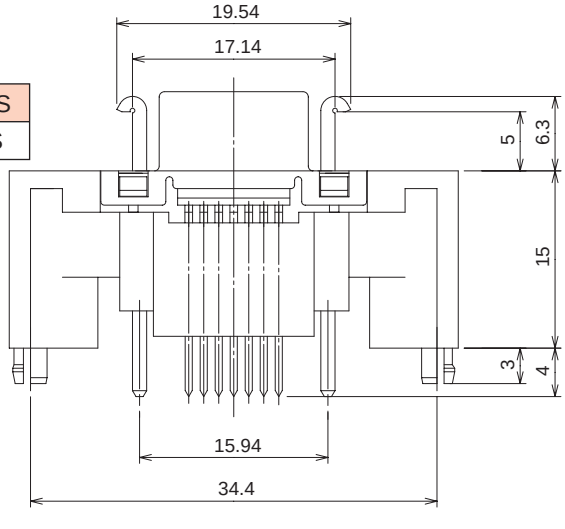




Part Number	CL No.	RoHS
DX10LM2-14SE(50)	230-5262-2-50	YES

●PCB Straight through hole type (Double panel screws)





Part Number	CL No.	RoHS
DX20LM-14SE(50)	230-5257-2-50	YES

Plug Connectors (Cable assemblies)

●D-configuration connector to D-configuration connector

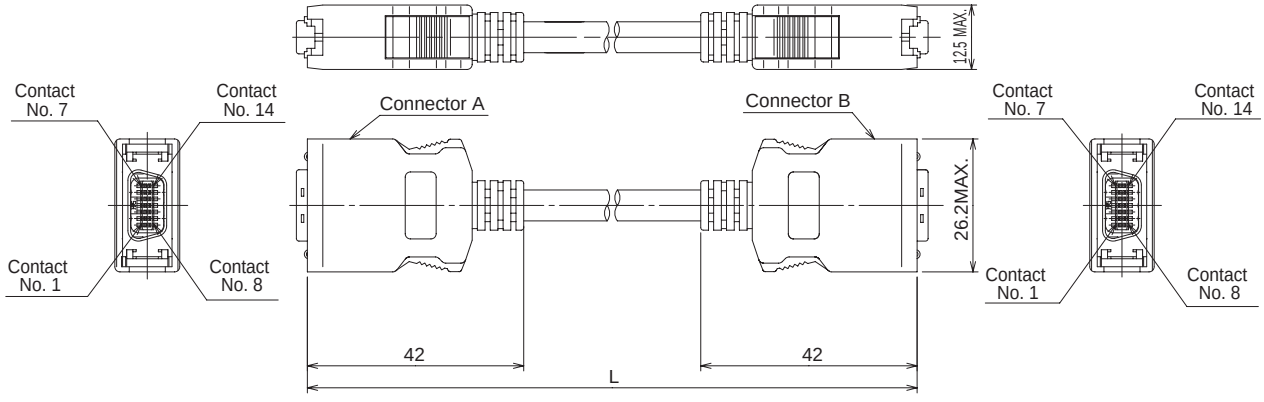
Wiring Table

Connector A Contact No.	Connector B Contact No.	Pin assignment
1	1	Y
2	2	Y-GND
3	3	Pb
4	4	Pb-GND
5	5	Pr
6	6	Pr-GND
7	7	Auxiliary line 1
8	8	Line 1
9	9	Line 2
10	10	Auxiliary line 2
11	11	Line 3
12	12	Switch GND
13	13	Auxiliary line 3
14	14	Switch

Shorted

Unit: cm

Part Number	CL No.	L	RoHS
DX40LM-14PP-150CV(50)	230-5260-7-50	150	YES
DX40LM-14PP-300CV(50)	230-5268-9-50	300	



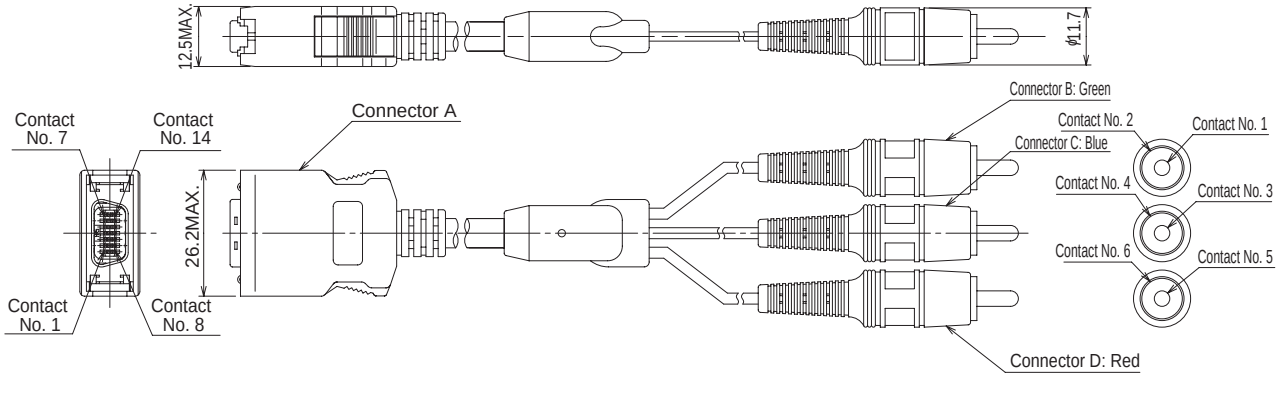
Wiring Table

Connector A Contact No.	Connector B: Green Contact No.	Connector C: Blue Contact No.	Connector D: Red Contact No.	Pin assignment
1	1	—	—	Y
2	2	—	—	Y-GND
3	—	3	—	Pb
4	—	4	—	Pb-GND
5	—	—	5	Pr
6	—	—	6	Pr-GND
7	—	—	—	—
8	—	—	—	—
9	—	—	—	—
10	—	—	—	—
11	—	—	—	—
12	—	—	—	—
13	—	—	—	—
14	—	—	—	—

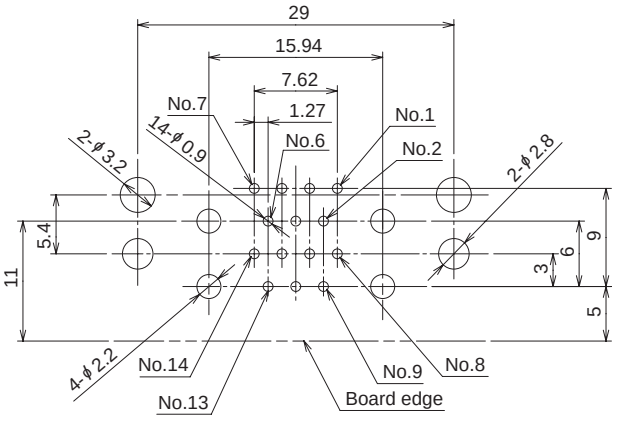
Shorted

Unit: cm

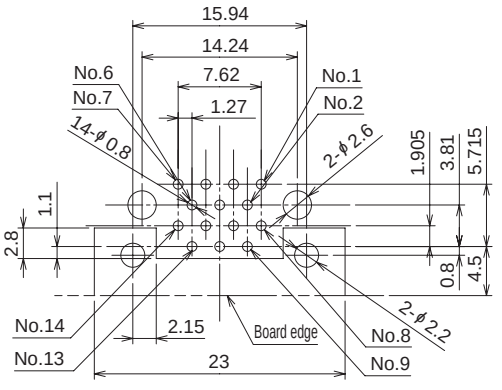
Part Number	CL No.	L	RoHS
DX40LM-14P-150CV(50)	230-5261-0-50	150	YES
DX40LM-14P-300CV(50)	230-5269-1-50	300	



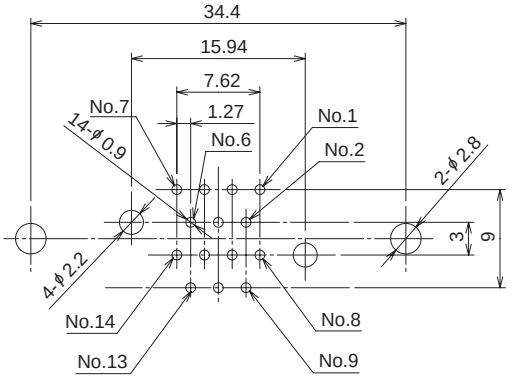
◆Board Mounting Pattern



DX10LM−14SE(50)

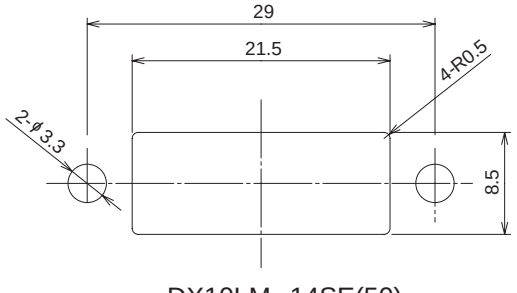


DX10LM1−14SE(50)
DX10LM2−14SE(50)

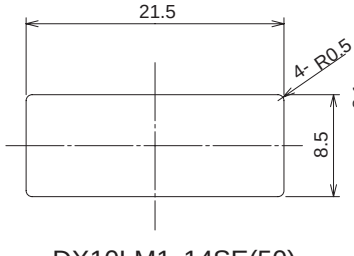


DX20LM−14SE(50)

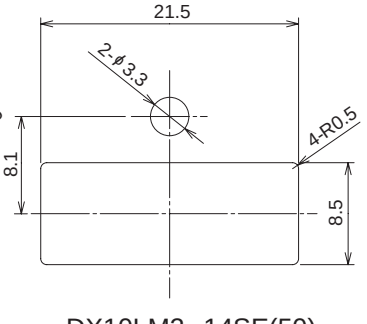
◆Panel Cutout (Panel thickness 3 mm Max.)



DX10LM −14SE(50)
DX20LM −14SE(50)



DX10LM1−14SE(50)



DX10LM2 −14SE(50)

Note: Use screw M3 x 10 (class 1 or 2).
Panel screw fastening torque:
For assemblies DX10LM-14SE(50), DX20LM-14SE(50) and DX10LM1-14SE: 0.5 to 0.7 N･m.
For assembly DX10LM2-14SE(50): 0.6 to 0.8 N･m.