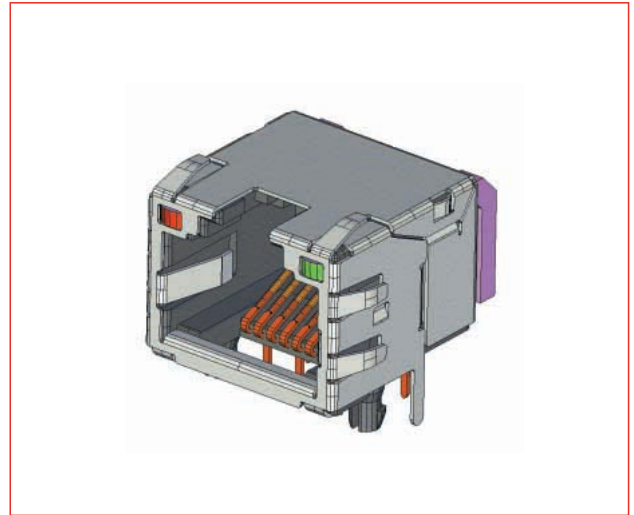
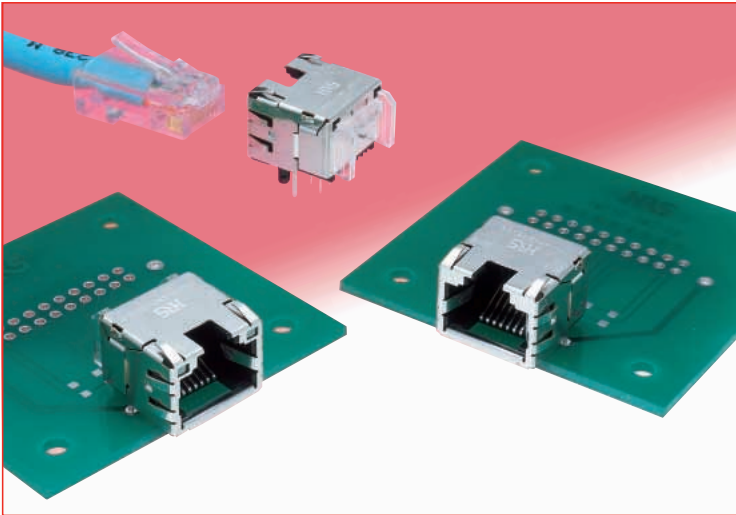


# Subminiature, LAN Modular Jack Connectors

## TM11R-5M2 Series



### ■ Features

#### 1. Fast Ethernet Support

Conforms to the TIA/EIA-568-A data wiring standard and meets requirements of CAT5 transmission performance for 1,2-3,6 conductor pairs. As such, these products fully support Fast Ethernet (100BASE-TX) transmission.

#### 2. Subminiature Design Contributes to Saving Space in the Equipment

Having built-in optical indicators, with height of only 11.5mm, width of 15mm and depth of 17.5mm the connectors can be used in extremely limited spaces.

#### 3. Built-in Optical Indicators

Optical indicators are integral part of the connectors help saving space on customer's board. Compared with LED type indicators, they do not emit any electrical noise.

#### 4. EMI protection

Metal shield covers the outer surfaces of the connectors assuring complete protection against electromagnetic interference.

Built-in multiple shield and ground contacts assure reliable connection with the mounting panel as well as with the mating connectors.

#### 5. Environmental considerations

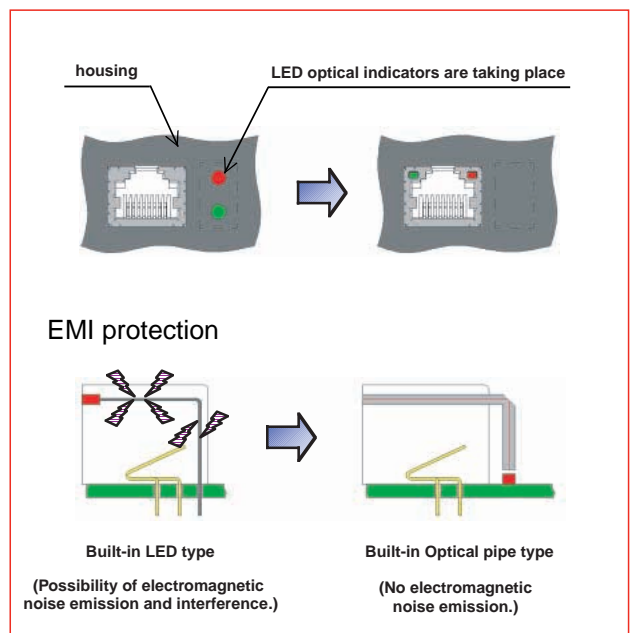
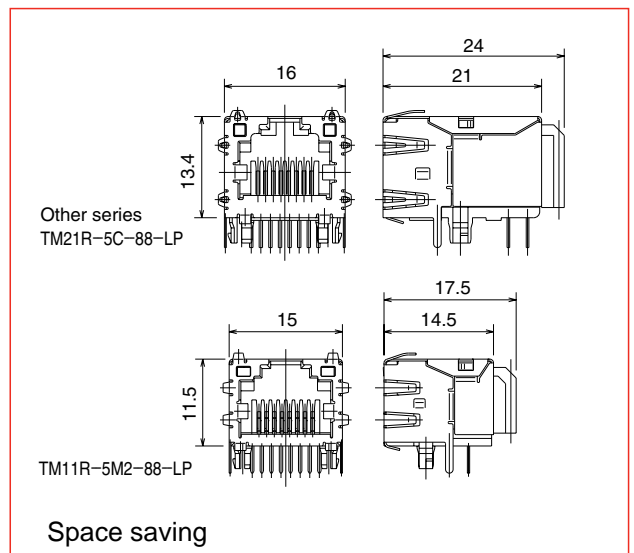
Plating is lead-free in order to protect environment.

#### 6. FCC Standards

Meets requirements of FCC Title 47, Part 68, Subpart F.

### ■ Applications

Telecom Hubs, Routers, Bridges and ATM Transmission Equipment, Ethernet Switches and Networking Equipment, Test and Measurement Equipment, Medical Diagnostic Equipment.



## ■Product Specifications

Rating	Current rating 1A	Operating temperature range : -25℃ to +80℃ (Note)
	Voltage rating 125 V AC	

Item	Specification	Conditions
1. Insulation resistance	100 M ohms min.	100 V DC
2. Dielectric Withstanding Voltage (between adjacent contacts)	No flashover or insulation breakdown	500 V AC applied for one minute
3. Withstanding voltage (between contact and shield)	No flashover or insulation breakdown	1500 V AC / one minute
4. Contact resistance	230 m ohms max.	100mA
5. Vibration	No electrical discontinuity of 5 μ sec. or more. Contact resistance: 250m ohms max.	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours / 3 axis
6. Shock	No electrical discontinuity of 5 μ sec. or more. Contact resistance: 250m ohms max.	Acceleration of 490 m/s <sup>2</sup> , 11 ms duration, sine half-wave waveform, 3 cycles in each of the 3 axis
7. Durability (mating/un-mating)	Contact resistance: 250m ohms max.	200 cycles
8. Temperature cycle	Contact resistance: 250 m ohms max. Insulation resistance: 100 M ohms min.	Temperature: -55℃→+15℃ to +35℃→+85℃→+15℃ to +35℃ Duration: 30→2 to 3→30→2 to 3(Minutes) 5 cycles
9. Humidity	Contact resistance: 250 m ohms max. Insulation resistance: 1 M ohms min. (High humidity) Insulation resistance: 10 M ohms min. (Dry state)	500 hours at temperature of 40℃ and humidity of 90% to 95%
10. Salt Spray	Contact resistance: 250 m ohms max.	Exposed to density 5% salt water for 48 hours

Note :Includes temperature rise caused by current flow.

## ■Materials

Part	Material	Finish	Remarks
Insulator	PBT	Color: Black	UL94V-0
Contact	Copper alloy	Contact area: Gold plating Termination area: Tin alloy plating	—
Optical pipe	Polycarbonate	Color: Transparent	UL94V-0
Shield	Copper alloy	Tin plating	—

## ■Ordering information

### ●Jacks

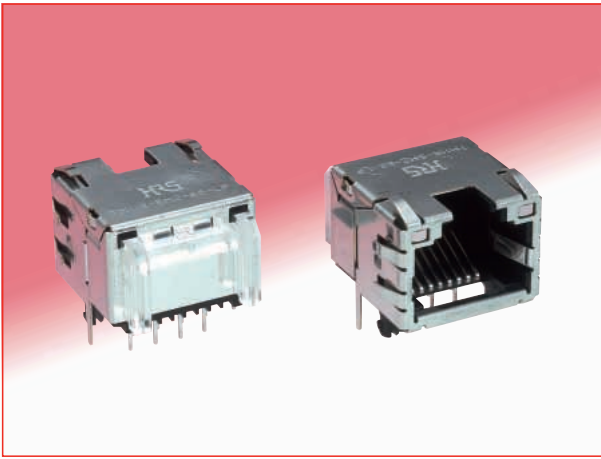
**TM11 R - 5M2 - 8 8 - LP**

① ② ③ ④ ⑤ ⑥

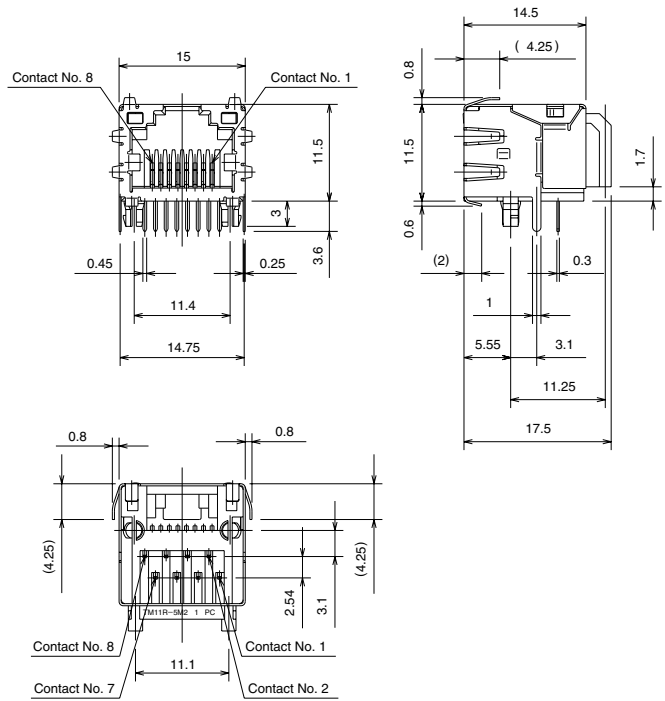
① Series name	TM11 Series
② Connector type	R: Jack
③ Jack type	5M2: PCB Right-angle through hole type
④ Jack opening code	8: 8 contacts
⑤ Number of inserted contacts	8: 8 contact
⑥ Optical pipe	LP: With optical pipe inserted Blank: Without optical pipe

## ■Modular Jack Connectors Supporting CAT5e (for 1,2-3,6 pair)

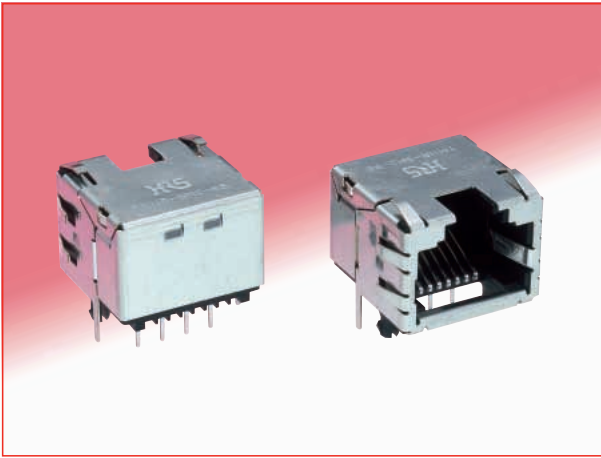
### ●Single Port With Built-in Optical Pipe



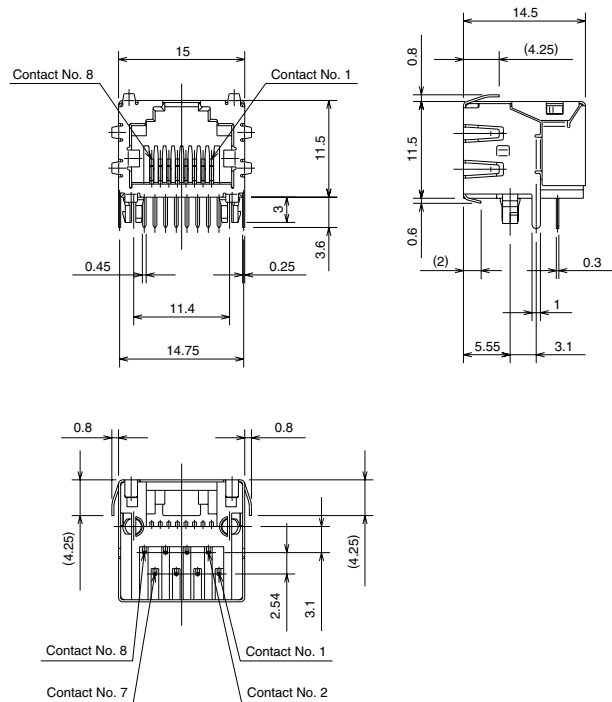
Part Number	CL No.	RoHS
TM11R-5M2-88-LP	222-2905-0	YES



### ●Single Port Without Optical Pipe



Part Number	CL No.	RoHS
TM11R-5M2-88	222-2906-2	YES

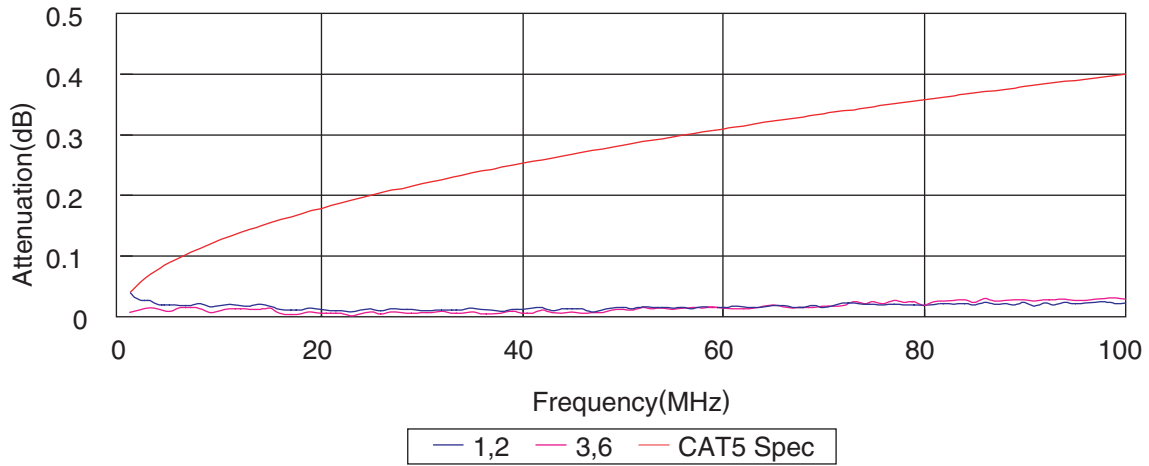




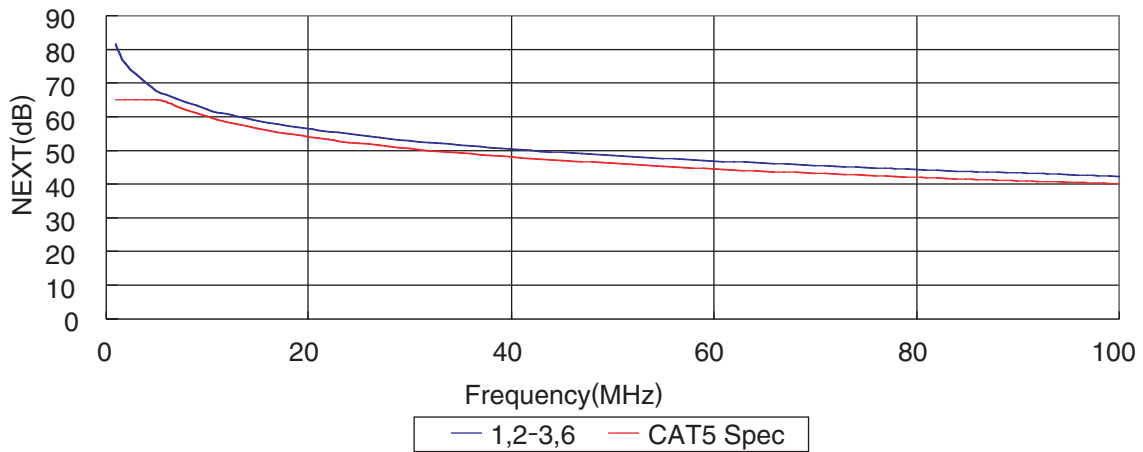
## ◆ CAT5 Transmission Characteristics Data

For fully mated receptacle (TM11R-5M2-88-LP) and plug (TM21P-88P).

### ● Signal Attenuation



### ● Near-End Crosstalk (NEXT)



### ● Return Loss

