

# Modular Jack With Integrated Magnetics – RJMG Series – 1x1

## SINGLE PORT RJ45 SOLUTION SUPPORTING 100BASE-T, 1G, 2.5G, 5G, AND 10G ETHERNET PHY

RJMG series offer a wide variety of fully RoHS compliant Magnetic Modular Jacks for RJ45. Both right angle and vertical through hole types are offered in single port with tab-up and tab-down options. This series comes with LED options and is compatible with Power over Ethernet (PoE). RJMG series is offered with both shielded and EMI options, which provides enhanced protection. Gold plating option is also available for the contact area.

- Designed to meet the IEEE802.3ab standard
- 100BASE-T, 1G, 2.5G and 10G. PoE and surge protection.
- Tab-up and tab-down, shielded and EMI options
- Standard operating temperature 0°C–75°C
- Extended operating temperature –40°C–85°C

### FEATURES

- 100BASE-T, 1G/2.5G/5G/10G
- Right angle or vertical type
- Low mode conversion
- DIP type
- Shielded and EMI options
- LED options
- Integrated magnetics
- Gold plating option of contact area



### TARGET MARKETS



### BENEFITS

- Meets wide range of cable performance requirements up to Cat 6a
- Accommodates various PCB configurations
- Improved EMI performance
- Facilitates easy PCB assembly
- Advanced EMI and ESD protection
- Customers can opt for the LED color of their choice
- Provides DC isolation
- Price and performance flexibility

# TECHNICAL INFORMATION

## MATERIAL

- Housing: High Temperature Thermoplastic, UL 94V-0, Black
- Contacts: Phosphor Bronze, Plated with 1.27um (50u") min Gold over 1.27um (50u") min Nickel on the Mating Area and 2.54um (100u") min Matte Tin over Nickel on the Contact Tails
- Shell: Copper Alloy or Stainless Steel
- LEDs: Epoxy Lens, Tin Plated Steel Tails
- PCB: FR4 Fibreglass, Lead-Free

## MECHANICAL PERFORMANCE

- Durability: Per EIA 364-09, 750 Mating Cycles
- Vibration: Per EIA 364-28 Random Condition II (10g, 10-500Hz, 6 Hours), No Discontinuity > 1us
- Shock: Per EIA 364-27 Test Condition A (11 ms, 50g, 1/2 Sine), No Discontinuity > 1us
- Insertion & Withdrawal Force: Per EIA-364-13, 20N (4.5lbf) max. (Latch Disengaged)

## ELECTRICAL PERFORMANCE

- Design to meet standard IEEE802.3ab
- 100BASE-T, 1GBT (100BASE-T/1000-BT), 2.5G, 5G, 10G, Power Over Ethernet(PoE/PoE plus) surge protection
- Standard 0~75°C and extended -40~85°C temp

## PACKAGING

- Tray/Tube/Tape and Reel available upon request

## SPECIFICATION

- Design to meet standard IEEE802.3ab

## ENVIRONMENTAL

- Temperature Life With Load: Per EIA-364-17, 1.5A, 70°C, 500 Hours
- Temperature Life Without Load: Per EIA-364-17, 105°C, 1000 Hours
- Thermal Shock: Per EIA-364-32, -55°C to +105°C, 25 Cycles
- Humidity: Per EIA 364-31, 21 Cycles, 504 Hrs, 25°C to 65°C, 90-95% RH, with -10°C Cold Shock
- Humidity: Per EIA-364-31, Steady State, 21 Days, 50°C, 90-95% RH
- Mixed Flowing Gas: Per EIA 364-65 Class IIA (Cl<sub>2</sub>, NO<sub>2</sub>, H<sub>2</sub>S and SO<sub>2</sub>), 14 Day Exposure
- Salt Spray: Per EIA 364-26, 250 Hours, 5% Salt, 35°C
- Solvent Resistance: Isopropyl Alcohol and 5% Sodium Hydroxide Solution, 24 Hrs Each
- LED Luminous Intensity: 0.5mCd min at 2mA Forward Current
- Solderability: Per EIA-364-52, 95% Coverage after Category 2 Steam Aging

## TARGET MARKETS/APPLICATIONS



Communications



Consumer



Data



Industrial & Instrumentation



Medical

## PART NUMBERS

| Description  | Part Numbers     |
|--|------------------|
| RJMG 1x1, Right Angle, DIP type, tandard tab-up type, 100BASE-T & 1000BASE-T, LED options                  | RJMG264 series   |
| RJMG 1x1, Right Angle, DIP type, low profile with Short body, tab-up,100BASE-T and 1000BASE-T, LED options | RJMG2012 series  |
| RJMG 1x1, Right Angle, DIP type, Sink type low profile, tab-up, 100BASE-T and 1000BASE-T. LED options      | RJMG2018 series  |
| RJMG 1x1, Right Angle, DIP type, long body,100BASE-T and 1000BASE-T,LED options                            | RJMG2010 series  |
| RJMG 1x1, 100BASE-T and 1000BASE-T, LED options, Vertical type   | RJMG1V series    |
| RJMG 1x1, 100BASE-T, Right Angle, SMT type, tab-down, LED options  | RJMG19W series   |
| RJMG 1x1, 2.5G, Right Angle, DIP type, tab-up, LED options   | RJMG401 series   |
| RJMG 1x1, 2.5G, Right Angle, DIP type, tab-up, LED options and PoE function                                | RJMG401 series   |
| RJMG 1x1, 5G, Right Angle, DIP type, tab-up, LED options and PoE function                                  | RJMG501 series   |
| RJMG 1x1, 10G, Right Angle, DIP type, tab-down, lower profile type   | RJMG301 series   |
| RJMG 1x1, 10G, Right Angle, DIP type, tab-down, sink type  | RJMG3018M series |

CM10RJMG1X10518EA4

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