

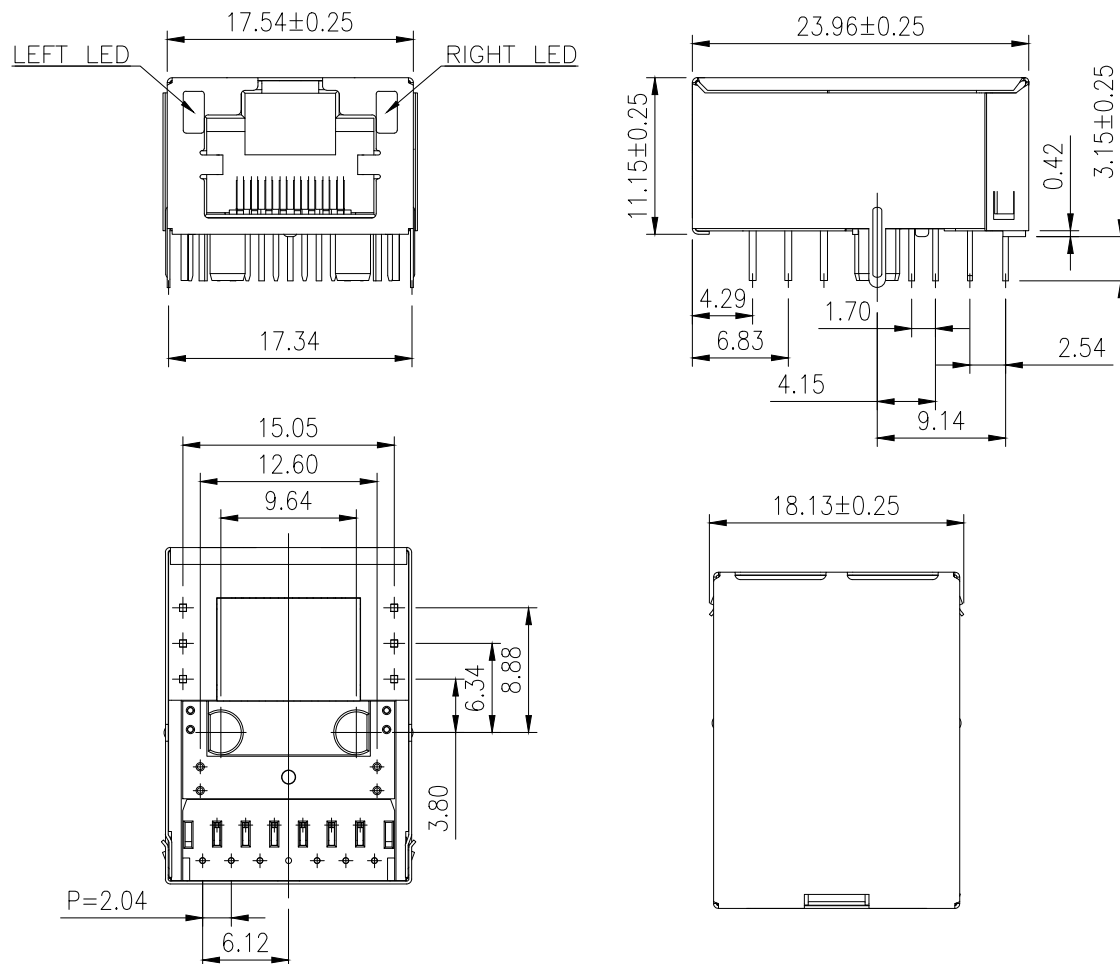
# Part Number: AE-RJU102G002

## 1\*1 Port RJ45 10G Network Connector

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- RoHS compliant.
- Housing: PA66 Black UL94V-0.
- Shielding: 0.2mm Thickness With Brass.
- Contact: Phosphor bronze. With 50μ" gold plating.
- Operating Temperature: 0°C TO +70°C.

### Mechanicals:



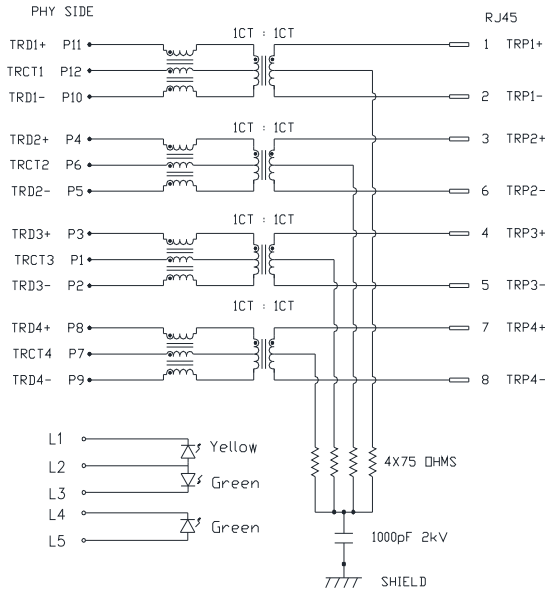
Unless otherwise specified, all dimensions tolerances is  $\pm 0.254$  /  $0.010$ .

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### Schematic

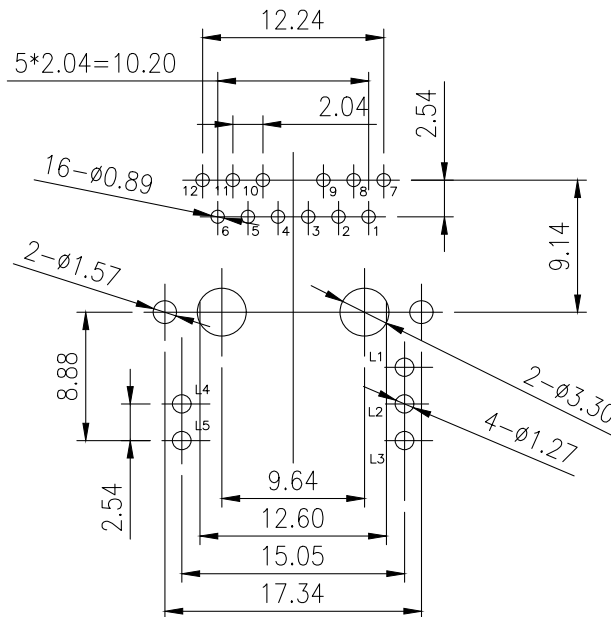


### Electrical Characteristics

PARAMETER	SPECIFICATIONS		
URNS RATIO	1.00 ± 2%		
POLARITY	PER SCHEMATIC		
INSERTION LOSS (DATA CHANNELS)	1-400MHz	400-500MHz	
	-2.5 dB MAX	-3.5 dB MAX	
RETURN LOSS (Z OUT=100 OHM ±1%)	1-40 MHz	40 MHz-400 MHz	400 MHz-500 MHz
	-18 dB MIN	-18+10LOG(f/40)dB	-8+30LOG(f/400)dB
INDUCTANCE (OCL)	120 uH MIN @ 100 KHZ, 100 mV		
CROSSTALK, ADJACENT CHANNELS	1-100 MHz	100-500 MHz	
	-30 dB MIN	-20 dB MIN	
COMMON MODE REJECTION RATIO	1-100 MHz	4100-300 MHz	300-500 MHz
	-30 dB MIN	-22 dB MIN	-17 dB MIN
COMMON TO DIFFERENTIAL MODE REJECTION (CDMR)	1-300 MHz	300-500 MHz	
	-27 dB MIN	-22 dB MIN	
HIPOT-OUTPUT ISOLATION	2250 VDC MIN @ 60 SECONDS		

NOTE: f IS FREQUENCY IN MHz.

### Recommended PCB Layout:



Suggested PCB Layout  
All dim. tolerance are ±0.05mm.

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**Reliability Test And Condition:**

Test Item	Test Condition	Cycles or Hours	Reference
<b>Vibration Test</b>	1. Amplitude: 0.75mm 2. Frequency: 5-500Hz 3. Number of sweep cycles per axis 10 4. Direction: X. Y. Z	Duration: 2 hours each direction	IEC-68-2-6
<b>Drop Test</b>	1. Height: 1m 2. Concrete platform	6 Times	IEC-68-2-32
<b>Thermal Shock Test</b>	1. Low temperature: -40℃ 2. High temperature: +85℃ 3. Soak time: 30 minutes 4. Transition time: less than 20 minutes	5 Cycles	IEC-68-2-14
<b>Solderability Test</b>	Dipped in 245±5 ℃ molten solder	Time: 3~5 seconds	IEC-68-2-20
<b>High Temperature Test</b>	1. Humidity: less than 50% RH 2. Temperature: 85±2 ℃	Duration: 96 hours	IEC-68-2-2
<b>Low Temperature Test</b>	Temperature: -40±3 ℃	Duration: 96 hours	IEC-68-2-1