

# SPECIFICATION

SPEC. NO.: DG2005017 REV: X1

DATE: 18-May-2020

PRODUCT NAME: RJ45 1×1 Tab Up W/LED & W/All Spring  
W/Surge Protection 1000 Base-T Transformer

PRODUCT NO: RJLS1A-KVT3-BL0-1R (RoHS Compliant)

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QR-FR-005A

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Product Description : RJ45 1×1 Tab Up W/LED & W/All Spring & W/ Surge Protection 1000 Base-T Transformer

## 1 SCOPE

### 1.1 Content

1.1.1 This specification covers performance, tests and quality requirements for RJ45 1×1 Tab Up W/LED & W/All Spring & Surge Protection 1000 Base-T Transformer.

## 2 APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, latest edition of the specification applies. In the event of conflict between requirements of this specification and product drawing, product drawing shall take precedence.

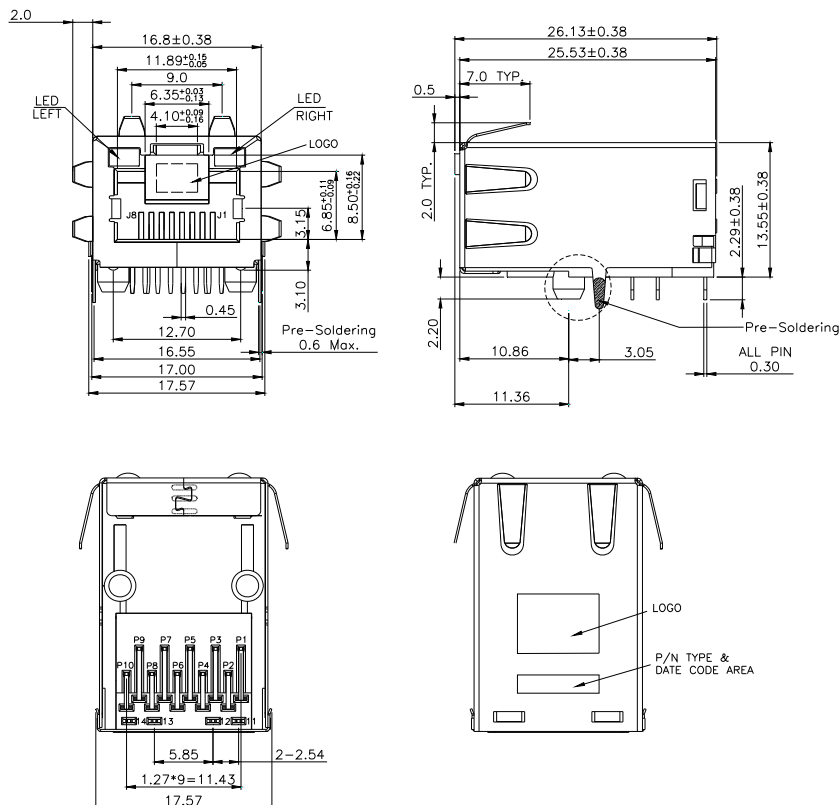
### 2.1 Commercial standards, specifications and report

2.1.1 MIL-STD-1344A

2.1.2 EIA-364

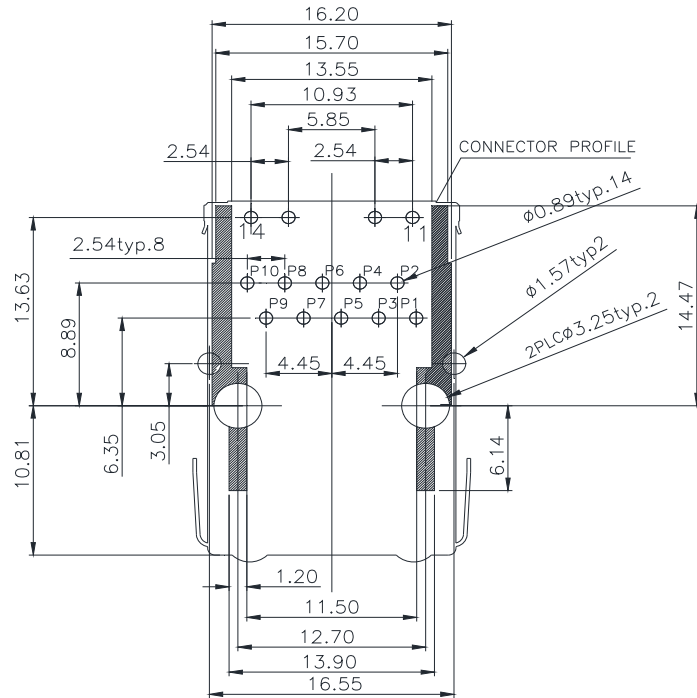
## 3 MECHANIC DIMENSIONS

### 3.1 Dimensions

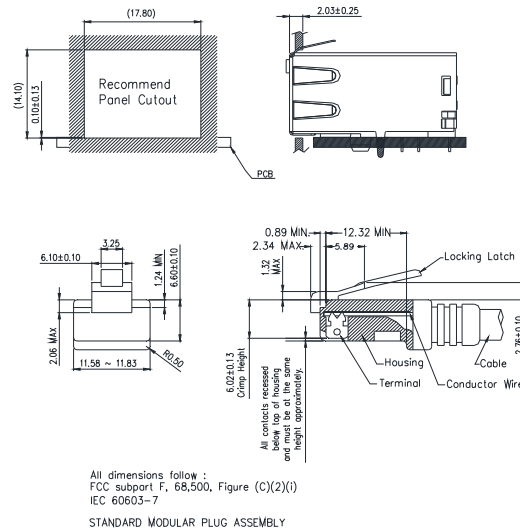


General Tolerance : .X :±0.38  
.XX :±0.25

## 3.2 Pins assignment for PCB Layout



## 4. Recommended Modular Plug



## 5 REQUIREMENTS

### 5.1 Design and Construction

5.1.1 Product shall be of design, construction and physical dimensions specified on applicable product drawing.

### 5.1 Materials and Finish

#### 5.2.1 Contact :

5.2.1.1 RJ Contact : Phosphor Bronze

Finish : ( a ) Contact Area :  $30 \mu \text{ "Au Min}$

( b ) Solder tail Area : 100 μ ” Min Matted Tin

( c ) Under plating : 50 μ ” Min Nickel over all

5.2.1.2 Joint Contact : Brass

Finish : 100 μ ” Min Matted Tin on 50 μ ” Min Nickel over all

5.2 Plastic Part :

5.2.1 Housing : High temperature Engineering plastic, PA46, Black

Flame Class : UL94V-0

5.2.2 Module : High temperature Engineering plastic, PA46, Black

Flame Class : UL94V-0

5.2.3 Shell

5.2.3.1 Front Shell : Stainless steel

5.2.3.2 Back Shell : Stainless steel

5.2.3.3 Shell of Grounding Pin : pre-soldering Sn

5.2.4 LED Lamp

Emitting color	λ p(nm)	Vf@If= 20mA	Ir@Vr=5V
Green	565-570	1.7-2.6	10 uA max
Yellow	585-590	1.7-2.6	10 uA max
Orange	600-610	1.7-2.6	10 uA max

5.3 Operating and Storage Temperature

5.3.1 Operating Temperature : 0°C TO +70°C

5.3.2 Storage Temperature : -40°C TO +85°C

5.4 Mechanical Characteristics

5.4.1 Mating force : 20N MAX

5.4.2 Unmating force(w/o tab locking): 20N MAX

5.4.3 Durability : 1000 cycles

5.5 Reliability Test:

5.5.1 Resistance to soldering heat - High Temperature Resistance:

265±5/-0°C , 3-5 seconds for 2 times.

5.5.2 Rework temperature: 350°C Max. 3~5seconds for 3 times.

5.6 Environmental Test:

5.6.1 Moisture Resistance : MSL level-1

5.6.2 Saving life: 1 year

5.6.3 Thermal shock cycle Test: Expose Sample connectors under the temperature changes between -40°C and 85°C for 25 cycles holding for 30minutes at the both extremes, in accordance with test method of SPEC.

5.6.4 Temperature life: Subject Sample connectors to temperature life at 85°C for 168 hours. EIA-364-22B, Class shell be satisfied.

Humidity test: Subject Sample connector, to relative humidity 85%RH and a

temperature of 85°C for 168 hours. It shall be subjected to standard atmospheric. Class shall be satisfied. MIL-STD-1344A.method:1002.2.

## 5.7 Performance and Test Description

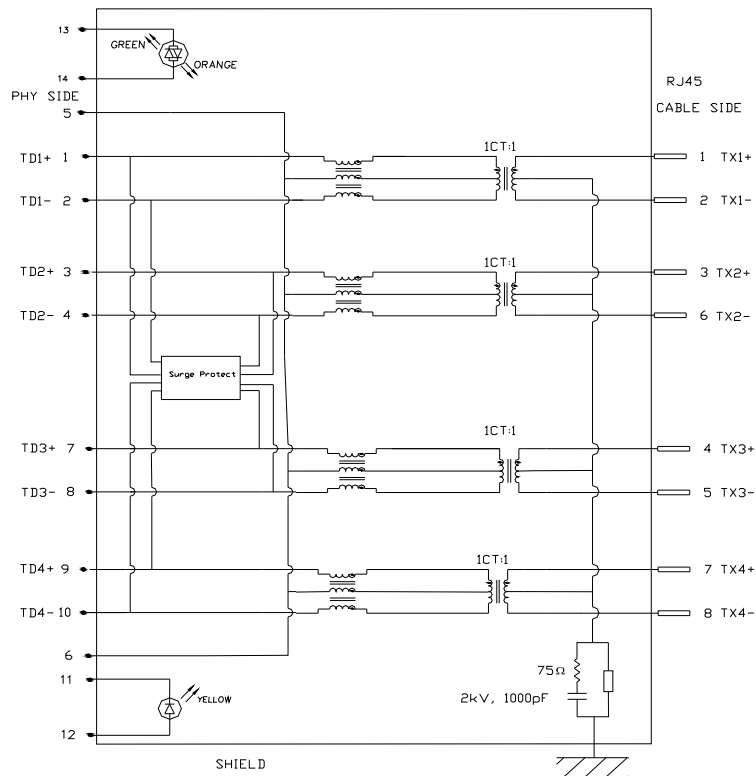
Product is designed to meet electrical, mechanical and environmental performance requirements. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

## 5.8 Packaging and Packing

All parts shall be packaged and packed to protect against physical damage, corrosion and deterioration during shipment and storage

## 6 ELECTRICAL CHARACTERISTICS

### 6.1 Schematic



6.2 Insertion loss : 1-100 MHz -1.0dB MAX.

100~125 MHz -1.2dB MAX.

Return loss :1-30 MHz -18dB MIN. load 100 OHM

30-60 MHz -16dB MIN. load 100 OHM

60-80 MHz -12dB MIN. load 100 OHM

80-100 MHz -10dB MIN. load 100 OHM

6.3 Common Mode Rejection

@ 1-100 MHz -30dB MIN.

6.4 Cross Talk

@ 1-100 MHz -30dB MIN.

6.5 Primary Inductance @ 100KHz, 0.1V, 8mA DC BIAS

P(1-2), P(3-4), P(7-8), P(9-10) : 350uH MIN.

6.6 Hi-Pot TEST

PRIMARY TO SECONDARY: 2250 VDC

6.7 ESD Protection

IEC 61000-4-2 (ESD) 15KV(Air), 8KV(Contact)

6.8 Surge Protection

6.8.1 IEC 61000-4-5 (Lightning)(10/700 us)

Line to line: 2KV Line to GND: 6KV

## 7 ORDER INFORMATION

R J L S1 A - K VT 3 - B L 0 - 1 R  
 A B C D E F G H I

A: W/Front Shell & Back Shell; W/All Spring

B: LED Polarity Code

A—LED Positive

C: LED Code

K—Left LED: Green/Orange Right LED: Yellow

D: Schematic Code

VT—VT Circuit

E: Contact Plating

3—30 μ” Au Min

F: 8P10C Input Pin Dim: 2.29mm

G:

OPTION CODE	RJ PHY PIN	LED Joint PIN		LED PIN DIM	Board Lock Pitch	Board Lock Type	Shell Leg
		Left	Right				
L	10 PIN	2 PIN	2 PIN	5.85mm	12.70mm	Circle	Rear

H: Packing Type

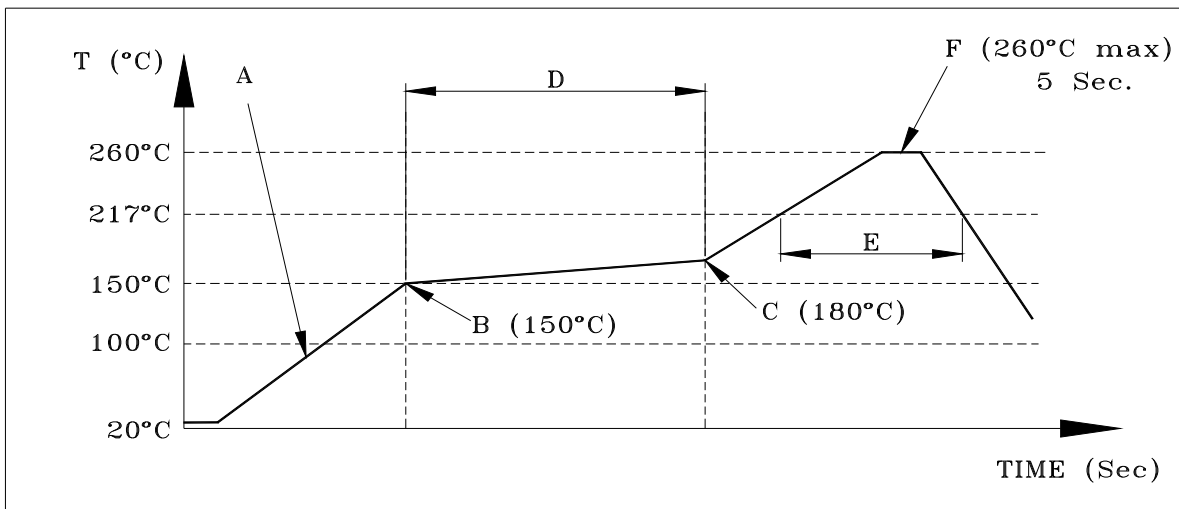
1—T&R

I: R—RoHS Compliant

## 8 Profile of IR-Reflow

Temperature condition of reflow soldering

Contents	Soldering Condition
A: Increasing speed	3°C/sec (max)
B: Pre-heat starting Temp	150°C
C: Pre-heat ending Temp	180°C
D: Pre-heat interval	120 sec or over
E: Over 217°C time	60~150 sec
F: Peak Temperature	260°C max



### SUGGESTED IR-REFLOW CURVE

\* Peak temperature : 250±10°C



单击下面可查看定价，库存，交付和生命周期等信息

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