

# 12F/14F-1X Series

## RJ45 10BASE-T JACK WITH MAGNETIC MODULES

### FEATURES

- RJ-45 connector integrated with Filter
- Size same as RJ-45 connector to save PCB board space
- Reduce EMI radiation, Improve EMI performance
- Operating temperature range: 0°C to +70°C
- Storage temperature range: -40°C to +125°C



### ELECTRICAL SPECIFICATIONS @25°C-Operating temperature 0°C TO 70°C

| Part Number   | Insertion Loss (dB MAX.) | Attenuation TX/RX(dB MIN) |         |         |         | Return Loss TX & RX @100Ω±15Ω (dB MIN) |          | Cross talk (dB MIN) | CMR (dB MIN) | Mechanical | Turns Ratio TX/RX (±5%) |
|---------------|--------------------------|---------------------------|---------|---------|---------|--|----------|---------------------|--------------|------------|-------------------------|
|               |                          | 1-10MHz                   | 20 MHz  | 25 MHz  | 30 MHz  | 40 MHz                                 | 1-10 MHz |                     |              |            |                         |
| 14F-10NW2     | -1.0                     | -7/-5                     | -18/-11 | -28/-16 | -33/-26 | —                                      | -13.5    | -30                 | -30          | A          | 1CT:1.41/1CT:1          |
| 12F-10NW2     | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -13.5    | -30                 | -30          | A          | 1CT:1CT/1CT:1CT         |
| 12F-10EGYDNW2 | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -14      | -30                 | -30          | B          | 1CT:1CT/1CT:1CT         |
| 12F-10ANW2    | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -15      | -30                 | -30          | A          | 1CT:1CT/1CT:1CT         |
| 12F-10BNW2    | -1.0                     | —                         | —       | -30/-20 | —       | -15                                    | —        | -30                 | —            | A          | 1CT:1CT/1CT:1CT         |
| 12F-10CNW2    | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -13.5    | -30                 | —            | A          | 1CT:1/1CT:1             |
| 12F-10DNW2    | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -15      | -30                 | —            | A          | 1CT:1/1CT:1             |
| 12F-11NW2     | -1.15                    | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -17 Typ  | -30                 | -30          | A          | 1.414:1CT/1CT:1CT       |
| 12F-11YGD2    | -1.0                     | —                         | —       | -30/-18 | —       | -15                                    | —        | -30                 | —            | C          | 1CT:1.41CT/1CT:1CT      |
| 12F-11ANW2    | -1.0                     | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | —                                      | -17 Typ  | -30                 | -30          | A          | 1CT:1CT/1CT:1CT         |
| 12F-12NW2     | -1.15                    | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | -13.5                                  | —        | -30                 | -30          | A          | 1:2CT/1CT:1CT           |
| 12F-12ANW2    | -1.15                    | -5/-4.2                   | -18/-11 | -28/-16 | -33/-26 | -13.5                                  | —        | -30                 | -30          | A          | 1:1.414CT/1CT:1CT       |
| 12F-14NW2     | -1.0                     | —                         | —       | —       | —       | —                                      | -15      | —                   | -25          | A          | 1CT:2.5/1CT:1           |
| 12F-15BPND2   | -1.0                     | -7/-6                     | -19/-14 | -30/-20 | -32/-31 | —                                      | -17      | -30                 | —            | D          | 1CT:1CT/1CT:1CT         |
| 12F-16BPND2   | -1.0                     | —                         | —       | -30/-18 | —       | -15                                    | —        | -30                 | —            | D          | 1CT:1CT/1CT:1CT         |

### Part Number:

12F - 10E GYD NW 2 NL  
A B C D E F

A:Series  
B:Schematics  
C:Led  
D:Mechanical  
E:Gold Plating:1=3u",2=6u",3=15u",4=30u",5=50u"  
F:RoHS version

Isolation Voltage: 1500Vrms/0.5mA/2Sec  
CUT-OFF FREQUENCY(Tx/Rx):17MHz TYP.(@-3dB)

### MATERIALS

#### 1.Housing Material:

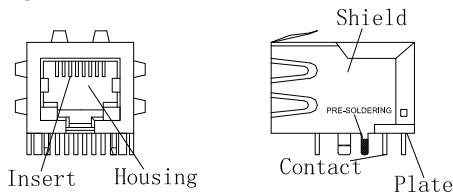
MATERIAL:NYLON +25% GF (Fr50) UL94V-0  
STANDARD COLOR:BLACK

#### 2.Insert Material:

MATERIAL:Phos-Bronze  
C5210 EH--0.35mm Thickness  
Insert -PBT+30% GF UL94V-0

- 1.PLATING(1) NICKEL
- 2.PLATING(2) 100%Sn
- 3.PLATING(3) GOLD FLASH (3u " ~50u " )

#### 3.Plate Material:PBT-4830 +30% GF UL 94V-0



#### 4.Contact pin Material:

MATERIAL: Phos-Bronze C5191--0.35mm Thickness

- 1.PLATING(1) NICKEL
- 2.PLATING(2) 100%Sn

#### 5.Shielding Material:

BRASS C2680 PLATING NICKEL

- 6.Operation Life : 750 Cycles Min.
7. MATES WITH MODULAR PLUG CONFORMING TO FCC PART 68,SUBPART E.

# DABURN

## DABURN ELECTRONICS & CABLE

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Tel: (973)328-3200 Fax: (973)328-3130 - Email: daburn@daburn.com - Website: www.daburn.com

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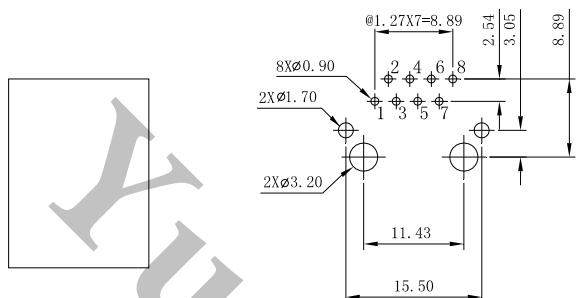
# 12F/14F-1X Series

## RJ45 10BASE-T JACK WITH MAGNETIC MODULES

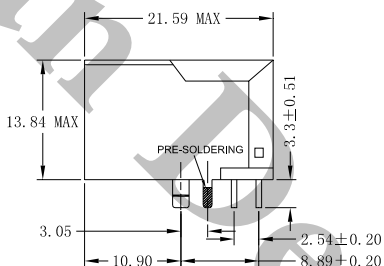
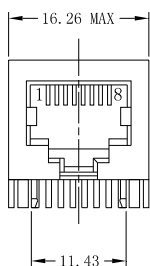


### Mechanical and Dimension

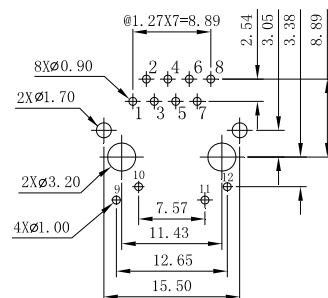
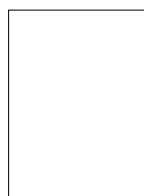
**A**



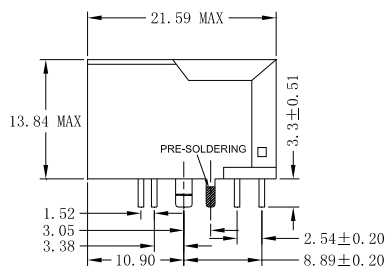
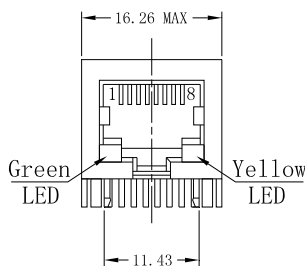
PC Board Layout  
Component Side Shown



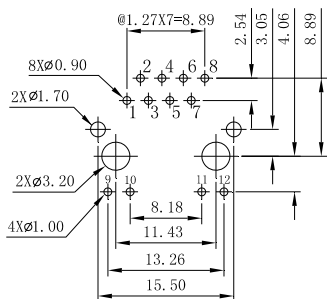
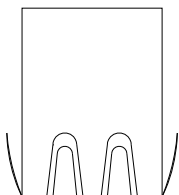
**B**



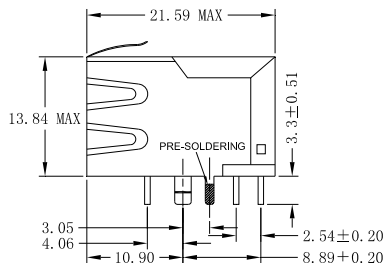
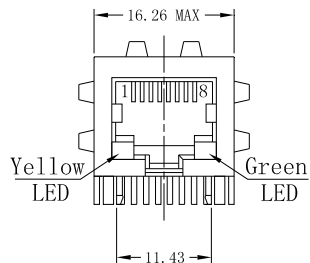
PC Board Layout  
Component Side Shown



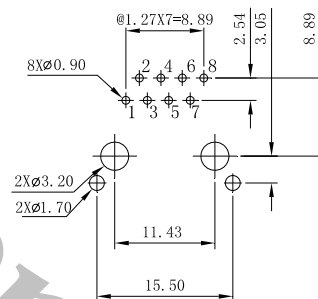
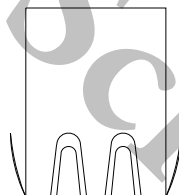
**C**



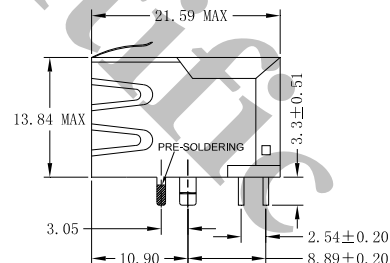
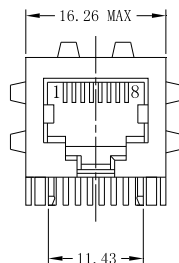
PC Board Layout  
Component Side Shown



**D**



PC Board Layout  
Component Side Shown



**UNIT : mm Unless otherwise specified, all tolerances are ±0.25**



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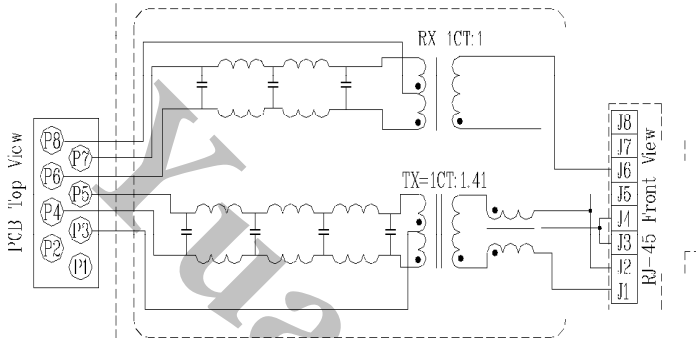
# 12F/14F-1X Series

RJ45 10BASE-T JACK WITH MAGNETIC MODULES

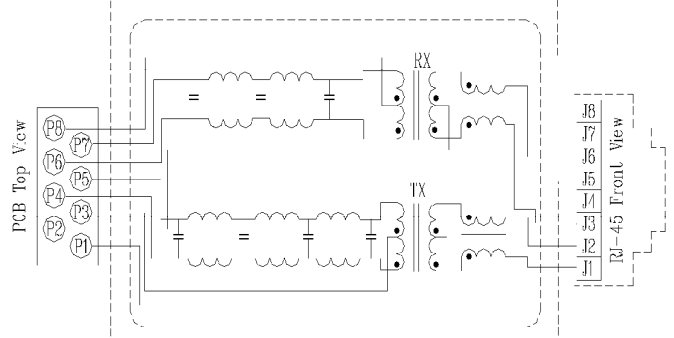


## SCHEMATICS

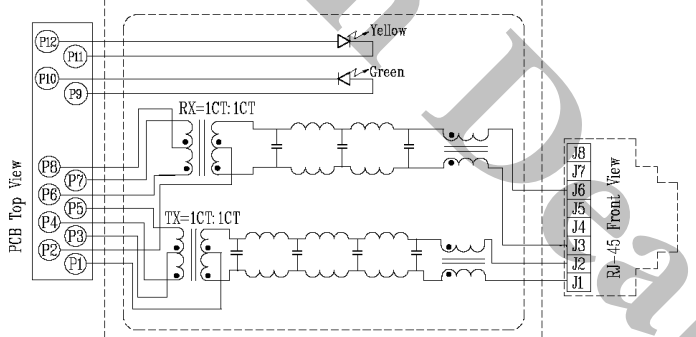
14F-10



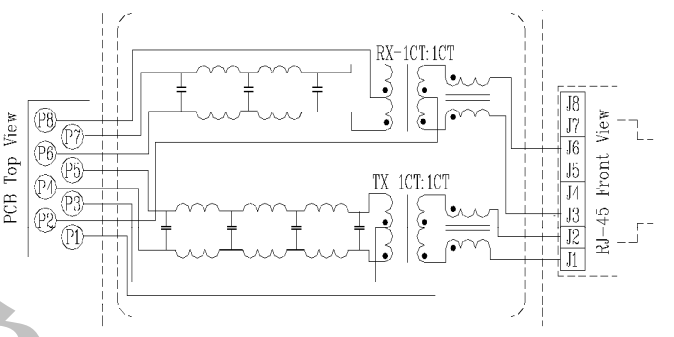
12F-10



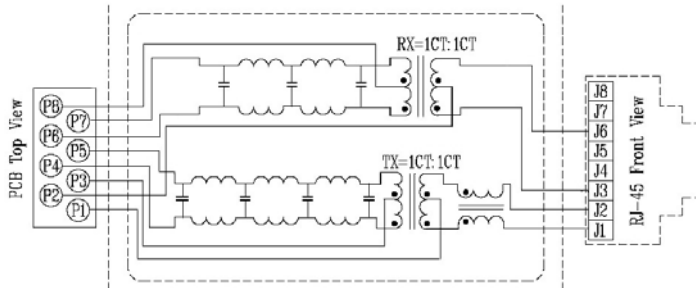
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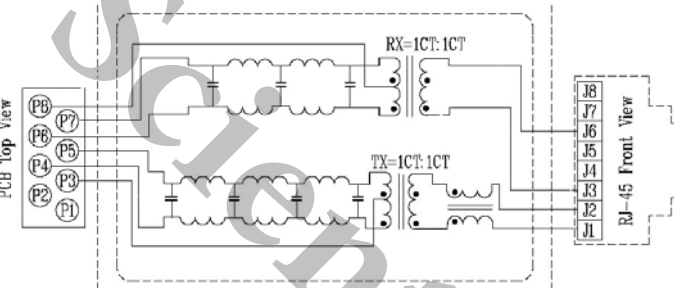
12F-10A



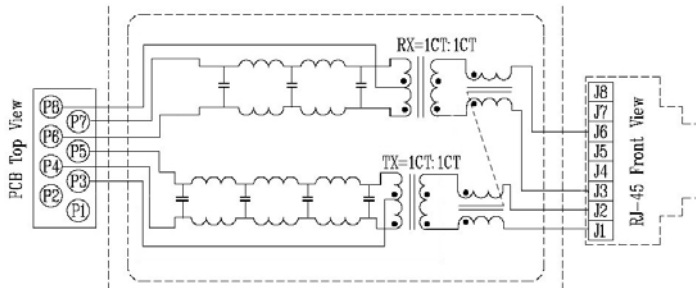
12F-10B



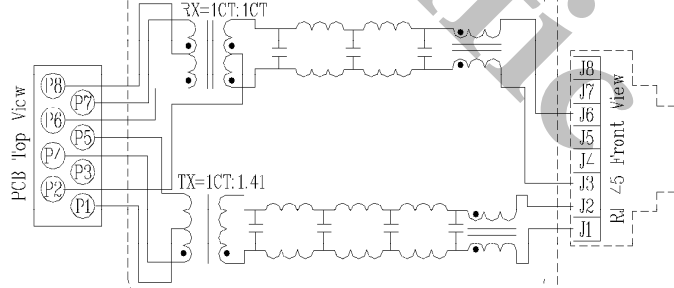
12F-10C



12F-10D



12F-11



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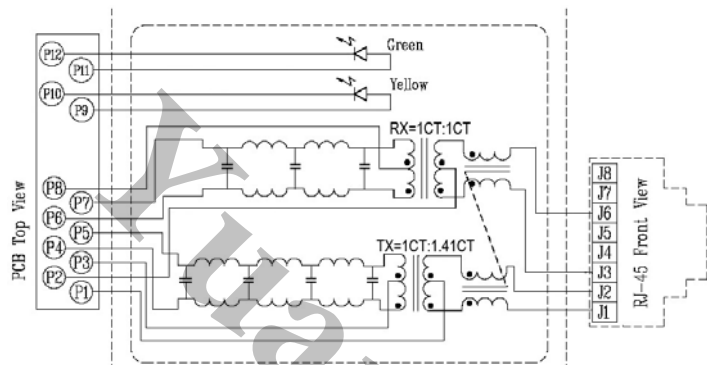
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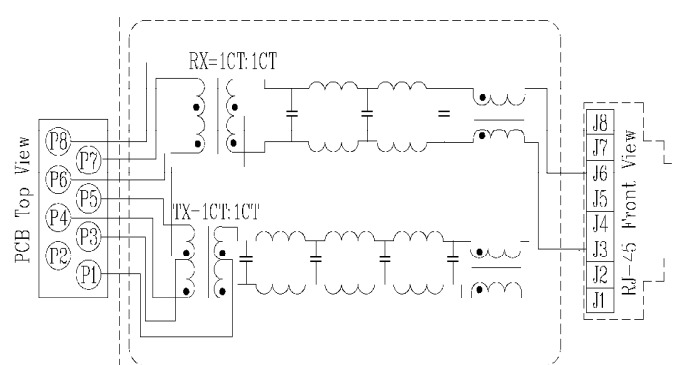
## RJ45 10BASE-T JACK WITH MAGNETIC MODULES

### SCHEMATICS

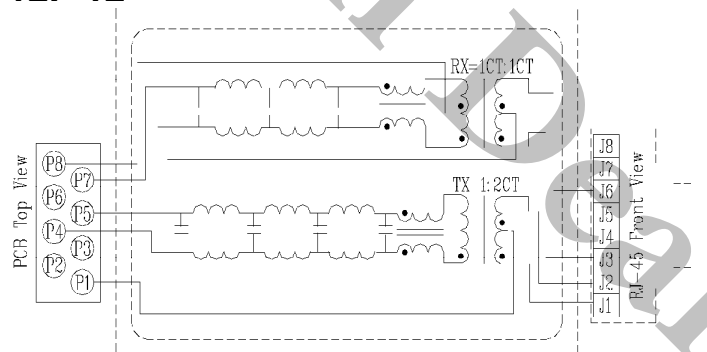
**12F-11YGD**



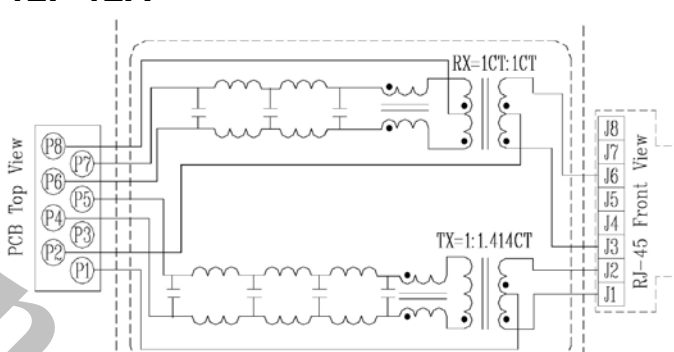
**12F-11A**



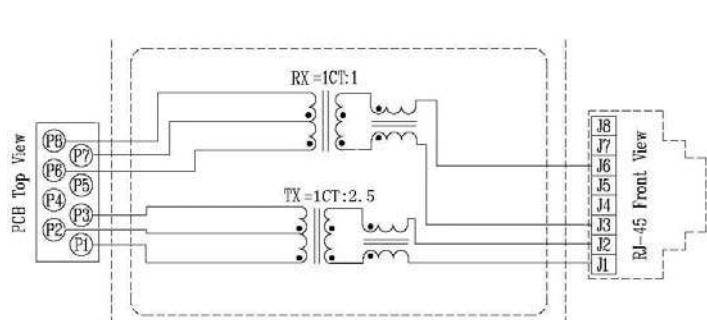
**12F-12**



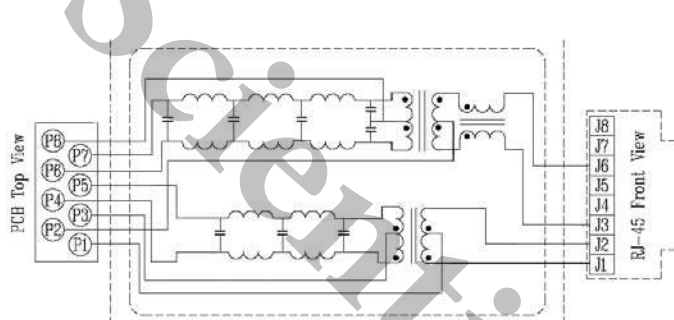
**12F-12A**



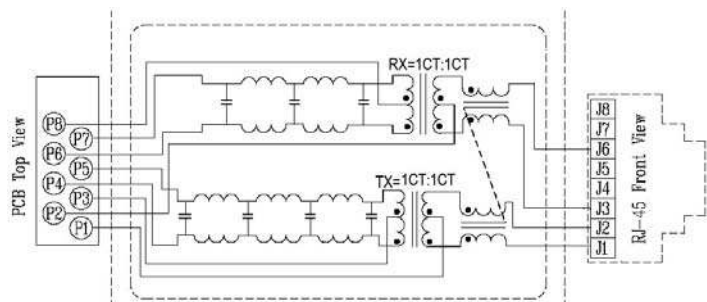
**12F-14**



**12F-15**



**12F-16**



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