

## 7881A Multi-Conductor - Replaced by 2412



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**General Description:**

CAT6 (250MHz), 4-Pair, U/UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 24 AWG solid bare copper conductors, polyolefin insulation, tape separator, Ripcord, PVC jacket

**Usage (Overall)**

Suitable Applications:

Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM

**Physical Characteristics (Overall)****Conductor**

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4       | 24  | Solid     | BC - Bare Copper   |

Total Number of Conductors:

8

**Insulation**

Insulation Material:

| Insulation Material |
|---------------------|
| PO - Polyolefin     |

**Outer Shield**

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded            |

**Outer Jacket**

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.221           |

Outer Jacket Ripcord:

Yes

**Overall Cable**

Overall Cabling Fillers:

Center Tape

**Pair**

Pair Color Code Chart:

| Number | Color                          |
|--------|--------------------------------|
| 1      | White/Blue Stripe and Blue     |
| 2      | White/Orange Stripe and Orange |
| 3      | White/Green Stripe and Green   |
| 4      | White/Brown Stripe and Brown   |

**Mechanical Characteristics (Overall)**

Bulk Cable Weight: 23 lbs/1000 ft.

Max. Recommended Pulling Tension: 40 lbs.

Min. Bend Radius/Minor Axis: 1 in.

Min. Bend/Installation: 2.200 in.

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

CEC/C(UL) Specification: CMR

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

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|                                       |                                    |
|---------------------------------------|------------------------------------|
| EU Directive 2002/95/EC (RoHS):       | Yes                                |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004                         |
| EU Directive 2002/96/EC (WEEE):       | Yes                                |
| EU Directive 2003/11/EC (BFR):        | Yes                                |
| CA Prop 65 (CJ for Wire & Cable):     | Yes                                |
| MII Order #39 (China RoHS):           | Yes                                |
| Other Specification:                  | Third party verified to Category 6 |

## Flame Test

|                 |              |
|-----------------|--------------|
| UL Flame Test:  | UL1666 Riser |
| CSA Flame Test: | FT4          |

## Plenum/Non-Plenum

|                |       |
|----------------|-------|
| Plenum Number: | 7882A |
|----------------|-------|

## Electrical Characteristics (Overall)

## Nom. Mutual Capacitance:

Capacitance (pF/ft)  
15

Maximum Capacitance Unbalance (pF/100 m): 330

## Nominal Velocity of Propagation:

VP (%)  
70

## Maximum Delay:

Delay (ns/100 m)  
537 @ 100MHz

## Max. Delay Skew:

Delay Skew (ns/100 m)  
45

## Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)  
8.2

## Max. Operating Voltage - UL:

Voltage  
300 V RMS

## Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)  
5

## Electrical Characteristics-Premise (Overall)

## Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min RL (dB) | Min. SRL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|---------------|
| 1           | 2.000                       | 74.3           | 72.3             | 72.3          | 70.3            | 20.000      | na            |
| 4           | 3.800                       | 65.3           | 63.3             | 61.5          | 59.5            | 23.000      | na            |
| 8           | 5.300                       | 60.8           | 58.8             | 55.4          | 53.4            | 24.500      | na            |
| 10          | 6.000                       | 59.3           | 57.3             | 53.3          | 51.3            | 25.000      | na            |
| 16          | 7.600                       | 56.2           | 54.3             | 48.7          | 46.7            | 25.000      | na            |
| 20          | 8.500                       | 54.8           | 52.8             | 46.3          | 44.3            | 25.000      | na            |
| 25          | 9.500                       | 53.3           | 51.3             | 43.8          | 41.8            | 24.300      | na            |
| 31.25       | 10.700                      | 51.9           | 49.9             | 41.2          | 39.2            | 23.600      | na            |
| 62.5        | 15.400                      | 47.4           | 45.4             | 32.0          | 30.0            | 21.500      | na            |
| 100         | 19.800                      | 44.3           | 42.3             | 24.5          | 22.5            | 20.100      | na            |
| 155         | 25.200                      | 41.5           | 39.5             | 16.3          | 14.3            | 18.800      | na            |
| 200         | 29.000                      | 39.8           | 37.8             | 10.8          | 8.8             | 18.000      | na            |
| 250         | 32.800                      | 38.3           | 36.3             | 5.5           | 3.5             | 17.300      | na            |
| 300         | 36.400                      | 37.1           | 35.1             | 0.7           |                 | 16.800      | na            |
| 350         | 39.800                      | 36.1           | 34.1             |               |                 | 16.300      | na            |
| 400         | 43.000                      | 35.3           | 33.3             |               |                 | 15.900      | na            |
| 500         | 48.900                      | 33.8           | 31.8             |               |                 | 15.200      | na            |
| 550         | 51.800                      | 33.2           | 31.2             |               |                 | 14.900      | na            |

## Premise Cable Electrical Table 2:

Freq. (MHz) Input (Unfitted) Imp. (Ohms) Fitted Impedance Min. ELFEXT (dB) Min. PSELFEXT (dB)

|       |          |          |      |      |
|-------|----------|----------|------|------|
| 1     | 100 ± 15 | 100 ± 15 | 67.8 | 64.8 |
| 4     | 100 ± 15 | 100 ± 15 | 55.8 | 52.7 |
| 8     | 100 ± 15 | 100 ± 15 | 49.7 | 46.7 |
| 10    | 100 ± 15 | 100 ± 15 | 47.8 | 44.8 |
| 16    | 100 ± 15 | 100 ± 15 | 43.7 | 40.7 |
| 20    | 100 ± 15 | 100 ± 15 | 41.8 | 38.8 |
| 25    | 100 ± 15 | 100 ± 15 | 39.8 | 36.8 |
| 31.25 | 100 ± 15 | 100 ± 15 | 37.9 | 34.9 |
| 62.5  | 100 ± 15 | 100 ± 15 | 31.9 | 28.9 |
| 100   | 100 ± 15 | 100 ± 15 | 27.8 | 24.8 |
| 155   | 100 ± 20 | 100 ± 15 | 23.9 | 20.9 |
| 200   | 100 ± 20 | 100 ± 15 | 21.8 | 18.8 |
| 250   | 100 ± 20 | 100 ± 15 | 19.8 | 16.8 |
| 300   | 100 ± 25 | 100 ± 15 | 18.3 | 15.3 |
| 350   | 100 ± 25 | 100 ± 15 | 16.9 | 13.9 |
| 400   | 100 ± 25 | 100 ± 15 | 15.8 | 12.8 |
| 500   | 100 ± 25 | 100 ± 15 | 13.8 | 10.8 |
| 550   | 100 ± 25 | 100 ± 15 |      |      |

## Notes (Overall)

**Notes:** Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2-1, Category 6. US Patents 5424491, 6570095, 6998537.

## Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------|-------|-------------|-------|-------|-----------|
|--------|-------|-------------|-------|-------|-----------|

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

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