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## PowerMAX500 Cat.6 U/UTP 23AWG PVC Cable - 100Mtr

The DINTEK PowerMAX500™ Category 6 solution is guaranteed to exceed ClassE channel specifications as set down in International standards. Our PowerMAX500™ solution comprises Category 6 component compliant patch panels, keystones and patch cords. When combined with DINTEK's Category 6 UTP cable, an end-to-end channel exists that maximises data throughput and provides headroom for all future technologies operating beyond one Gigabit.

### Applications

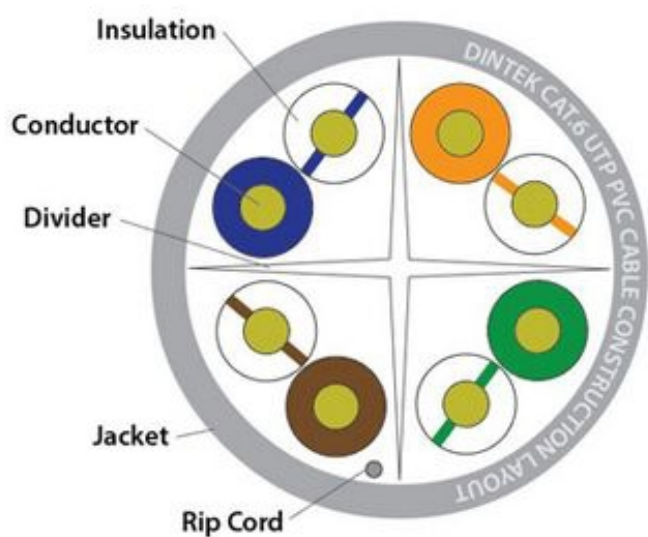
- Voice; ISDN
- 100BASE-T Ethernet (IEEE802.3)
- 155/622Mbps 1.2/2.4 Gbps ATM
- 1000Mbps Gigabit Ethernet
- 550MHz Broadband Video

### Standards Conformance

- ACMA Approved to AS/CA S008
- ISO/IEC11801 2nd edition CLASS E
- ANSI/TIA-568-2.D standard
- CENELEC EN 50173-1, CENELEC
- PoE++ & 4PPoE - IEEE 802.3bt level 3 & 4
- Flame Rated: CM

### Independently Verified Certifications

- ETL Verified to ANSI/TIA-568-2.D Category 6
- ACMA Approved to AS/CA S008



### Cable Features

- Conductor sizes for Cat.6 are set at 23AWG.
- By keeping the gauge size of the conductor larger, there is less heat generation caused and less drop of voltage over distance.
- Capable of handling the latest ver. of power over Ethernet
- Cable has been tested over 500Mhz and has shown performance testing results allowing 10Gbit Ethernet transmission up to a length of 70mtrs

### Performance Statistics

Frequency Mhz	Insertion Loss dB / 100mtrs	NEXT (dB)	Return Loss (dB)
1	1.8	78.0	37.8
4	3.0	76.0	36.5
10	5.2	70.0	31.0
16	6.8	68.0	31.0
20	7.6	64.0	31.0
31.25	9.3	62.5	30.0
62.5	13.2	60.0	30.0
100	18.1	57.0	29.0
200	26.1	52.5	27.0
250	28.9	50.0	25.1
300	31.8	46.0	23.4
400	36.5	43.0	21.9
500	41.8	42.0	20.6

### Ordering Information

Product Number	Product Name	Jacket Type	Color	Length Qty
1101-04023	PowerMAX500 Cat.6 U/UTP 23AWG PVC Cable - 100Mtr	PVC	Gray	100m/Box
1101-04041	PowerMAX500 Cat.6 U/UTP 23AWG LSZH Cable - 100Mtr	LSZH	Gray	100m/Box

## Technical Specifications

### Construction

#### Conductor

Material	Bare Copper
Wire Size	23AWG

#### Insulation

Material	PE
Thickness	Nominal: 1.011 mm
Colors	Blue/White-Blue   Orange/White-Orange   Green/White-Green   Brown/White-Brown
Unaged Elongation (%)	Min. 300%
Unaged Tensile Strength	Min. 1.683 Kgf/mm <sup>2</sup>

#### Jacket

Material	Flame Retardant PVC
Thickness	0.5±0.02 mm
Diameter	6.0±0.2 mm
Color	Gray (Assorted upon request)
	CM

### Physical Ranges

#### Insulation

Min. Tension Strength	Before Aging	Min. 1.683 Kgf/mm <sup>2</sup>
	After Aging	75% before aging (100°C X 48hrs)
Min Elongation (%)	Before Aging	300%
	After Aging	75% before aging (100°C X 48hrs)

#### Jacket

Min. Tension Strength	Before Aging	Min. 1.407 Kgf/mm <sup>2</sup>
	After Aging	75% before aging (100°C X 168hrs)
Min Elongation (%)	Before Aging	Min. 100%
	After Aging	50% before aging (100°C X 168hrs)
Cold Bend Test		-20 ± 2°C x 4hrs no. crack
Dielectric Strength		2500 V dc / 2 seconds
Min. Bending Radius		50mm
Max. Pulling Tension		25 lbs
Installation Temperature		0°C to +50°C
Operating Temperature		-20°C to +70°C

### Electrical

Conductor Resistance	Max. 7.32 Ω/100m at 20°C
DC Resistance Unbalance	Max. 2%
Pair-to-Ground Capacitance Unbalance	Max. 160 pF/100m
Dielectric Strength of Insulation	2500 V dc / 2 seconds
Insulation Resistance Test	Min. 5000 MΩ·Km
Mutual Capacitance	Max. 5600 pF/100m
Impedance 1~100MHz	100Ω ± 15%
Impedance 100~250MHz	100Ω ± 22%

DINTEK Electronic Limited

5F., No.8, Ln. 97, Wugong Rd.  
Xinzhuang Dist., New Taipei City 242  
Taiwan (R.O.C.)

P: Office: +886-2-22997898 E-mail: sales@dintek.com.tw W: www.dintek.com.tw

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