

PRODUCTS SPECIFICATION

DESCRIPTION: Gigabit Ethernet Cable (Cat5E)

CUSTOMER :


COMOSS P/N :

Date of Issue :


Version : 1.0

Designer :

Approval



Customer Signature



COMOSS ELECTRONIC CO., LTD.

4F, No.11, CHUNG-HSIN ST., SHULIN 238, TAIWAN, R.O.C.

TEL: 886-2-2688-2498 FAX: 886-2-2689-9160

Http:// www.comoss.com E-mail: Sales@comoss.com.tw

COMOSS ELECTRONIC CO., LTD.

4F, No. 11, Chung Hsin St., Shulin 23844 , Taipei, Taiwan, R.O.C.

Tel : +886-2-26882498(Rep.) Fax : +886-2-26899160

Approved :	Project No.	Rev. No.	Page
		1.0	1 of 3

Subject :
Product Specification – COMOSS Gigabit Ethernet Cable

1. GigE Cable Series Description

GigE ---- 8P8CS/1---8P8CS/1---XXX---X ----X ----X

(1) (2) (3) (4) (5) (6) (7) (8)

- (1) (3) Contact Type
 - 8P8C : 8P8C Plug
 - 8P8CS : 8P8C Plug with Jack screw
- (2)(4) Overmold Type
 - 1 : Straight
 - 2 : Side Right Angle
 - 3 : Down Right Angle
- (5) Cable Length
 - 1M : 100
 - 2M : 200
 - 3M : 300
 - 4M : 400
- (6) connector contact plating
 - 00 : gold flash
 - 01 : 6u ”
 - 02 : 15u ”
 - 03 : 30u ”
- (7) connector Shell plating
 - G : gold flash
 - N : Nickel flash
- (8) cable Cat type
 - 1 : Cat.5e With COMOSS supplier
 - 2 : Cat.5e With OKI High Flex Soft cable
 - 3 : Cat.6 With COMOSS supplier

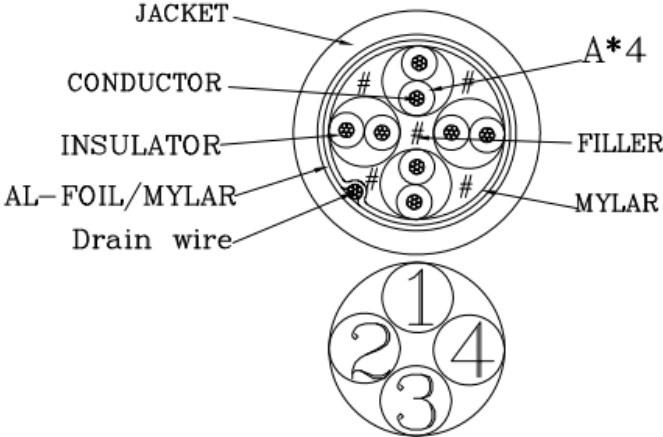
COMOSS ELECTRONIC CO., LTD.

4F, No. 11, Chung Hsin St., Shulin 23844 , Taipei, Taiwan, R.O.C.

Tel : +886-2-26882498(Rep.) Fax : +886-2-26899160

Approved :	Project No.	Rev. No.	Page
	UL style: UL2835	1.0	2 of 3

Product Specification – Gigabit Ethernet Cable (Cat5E)

	<p style="text-align: center;">COLOR CODE</p> <ol style="list-style-type: none"> 1. BROWN & BROWN / WHITE 2. BLUE & BLUE / WHITE 3. ORANGE&ORANGE / WHITE 4. GREEN&GREEN / WHITE
---	---

Construction	Physical Characters																						
<table border="1" style="width: 100%;"> <tr> <td>Conductors:</td> <td>Stranded Bare Copper</td> </tr> <tr> <td>AWG</td> <td>24</td> </tr> <tr> <td>Twisted Pair</td> <td>4 pairs (8C)</td> </tr> <tr> <td>Insulation:</td> <td>HD-PE</td> </tr> <tr> <td>Dia.</td> <td>1.02±0.02 mm</td> </tr> <tr> <td>Avg. Thickness</td> <td>0.210 mm</td> </tr> <tr> <td>Shield:</td> <td>Aluminum foil / Mylar</td> </tr> <tr> <td>Drain wire AWG:</td> <td>24</td> </tr> <tr> <td>Jacket:</td> <td>PVC</td> </tr> <tr> <td>Dia.</td> <td>6.5± 0.19 mm</td> </tr> <tr> <td>Min. Thickness</td> <td>0.38 mm</td> </tr> </table> <p>Electric Characters</p> <ol style="list-style-type: none"> 1. Voltage rating: 30V 2. Temperature rating: 60 3. Spark test : AC-500V / 0.15 sec MIN 4. Dielectric strength: AC-750V / 1sec MIN 5. Insulation resistance: <ul style="list-style-type: none"> PE: DC-500V 100Mohm MIN. At 20 	Conductors:	Stranded Bare Copper	AWG	24	Twisted Pair	4 pairs (8C)	Insulation:	HD-PE	Dia.	1.02±0.02 mm	Avg. Thickness	0.210 mm	Shield:	Aluminum foil / Mylar	Drain wire AWG:	24	Jacket:	PVC	Dia.	6.5± 0.19 mm	Min. Thickness	0.38 mm	<ol style="list-style-type: none"> 1. Flame test of cable : 1.1 VW-1,FT2 2. Tensile strength test (before aging) : <ul style="list-style-type: none"> 2.1 Sheath: >1.05kg/mm² 2.2 Insulation: >1.05kg/mm² 3. Tensile strength test (after aging) : <ul style="list-style-type: none"> 3.1 Sheath: >70% 3.2 Insulation: >70% 4. Elongation test (before aging) : <ul style="list-style-type: none"> 3.1 Sheath: >100% 3.2 Insulation: >100% 5. Elongation test (after aging) : <ul style="list-style-type: none"> 3.1 Sheath: >65% 3.2 Insulation: >65% 6. Complied with RoHS
Conductors:	Stranded Bare Copper																						
AWG	24																						
Twisted Pair	4 pairs (8C)																						
Insulation:	HD-PE																						
Dia.	1.02±0.02 mm																						
Avg. Thickness	0.210 mm																						
Shield:	Aluminum foil / Mylar																						
Drain wire AWG:	24																						
Jacket:	PVC																						
Dia.	6.5± 0.19 mm																						
Min. Thickness	0.38 mm																						

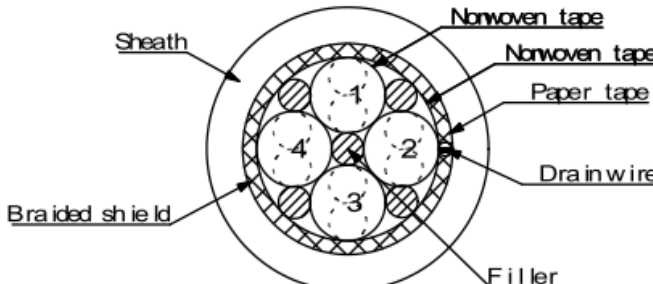
COMOSS ELECTRONIC CO., LTD.

4F, No. 11, Chung Hsin St., Shulin 23844 , Taipei, Taiwan, R.O.C.

Tel : +886-2-26882498(Rep.) Fax : +886-2-26899160

Approved :	Project No.	Rev. No.	Page
	UL style: UL20276	1.0	3 of 3

Product Specification – OKI High Flex Soft cable (Cat5E)

	Construction																				
	<table border="1"> <tr><td>Conductors:</td><td>Annealed Copper</td></tr> <tr><td>AWG</td><td>26</td></tr> <tr><td>Twisted Pair</td><td>4 pairs (8C)</td></tr> <tr><td>Insulation:</td><td>Polyolefin</td></tr> <tr><td>Dia.</td><td>Nom.0.9mm</td></tr> <tr><td>Braided Shield:</td><td>Alloy wire</td></tr> <tr><td>Drain wire</td><td>Stranded tinned copper</td></tr> <tr><td>Jacket:</td><td>Flame retardant PVC</td></tr> <tr><td>Dia.</td><td>nom. 6.8 mm</td></tr> <tr><td>Thickness</td><td>nom. 0.6 mm</td></tr> </table>	Conductors:	Annealed Copper	AWG	26	Twisted Pair	4 pairs (8C)	Insulation:	Polyolefin	Dia.	Nom.0.9mm	Braided Shield:	Alloy wire	Drain wire	Stranded tinned copper	Jacket:	Flame retardant PVC	Dia.	nom. 6.8 mm	Thickness	nom. 0.6 mm
Conductors:	Annealed Copper																				
AWG	26																				
Twisted Pair	4 pairs (8C)																				
Insulation:	Polyolefin																				
Dia.	Nom.0.9mm																				
Braided Shield:	Alloy wire																				
Drain wire	Stranded tinned copper																				
Jacket:	Flame retardant PVC																				
Dia.	nom. 6.8 mm																				
Thickness	nom. 0.6 mm																				
<p>COLOR CODE</p> <p>1 BLUE & WHITE 2. ORANGE&WHITE 3. GREEN & WHITE 4. BROWN& WHITE</p>																					

Item	Specification
Conductor resistance Ω / km	≤ 149 (at 20°C)
Withstand voltage V	AC 500 (1 minute)
Insulation resistance M Ω km	≥ 5000 (at 20°C)
Insertion Loss dB/ 40m (at 20°C)	$\leq 1.967 \sqrt{f} + 0.023f + 0.050 / \sqrt{f}$ (1MHz ~ 100MHz)
Return Loss dB	$\geq 20 + 5 \log(f)$ (1MHz ~ 10MHz)
	≥ 25 (10MHz ~ 20MHz)
	$\geq 25 - 7 \log(f/20)$ (20MHz ~ 100MHz)
Near End Cross Talk dB	$\geq 35.3 - 15 \log(f/100)$ (1MHz ~ 100MHz)
Power Sum Near End Cross Talk dB	$\geq 32.3 - 15 \log(f/100)$ (1MHz ~ 100MHz)
Far End Cross Talk dB/ 40m	$\geq 23.8 - 20 \log(f/100)$ (1MHz ~ 100MHz)
Power Sum Far End Cross Talk dB/ 40m	$\geq 20.8 - 20 \log(f/100)$ (1MHz ~ 100MHz)
Propagation Delay ns/ 40m	$\leq 534 + 36 / \sqrt{f}$ (1MHz ~ 100MHz)
Propagation Delay Skew ns/ 40m	≤ 45 (1MHz ~ 100MHz)
Test method	Conformable to ASTM D 4566
Electric performances are complied with TIA/ EIA- 568B.2 Enhanced Category 5.	

Bend performance	Bending performance	300,000 time and over.(Reference value)
	Bending condition	Bend angle: $\pm 90^\circ$,Bend radius:20 mm Weight:500 gf ,Bend Speed:35time/ min
	Sliding performance	One million time and over. (Reference value)
Sliding performance	Sliding condition	Slide radius:50 mm ,Slide Distance:350 mm Slide Speed:70time/ min
	Twisting performance	2.8 million time and over. (Reference value)
Twisting condition		Twist angle: $\pm 180^\circ$,Twist Speed: 15time/ min