



INDICE

Línea Plastica Pagina 2-4

Linea Pasiva Cat.6 - 6A Pagina 5-7

Linea Cableado LSZH Pagina 8-12

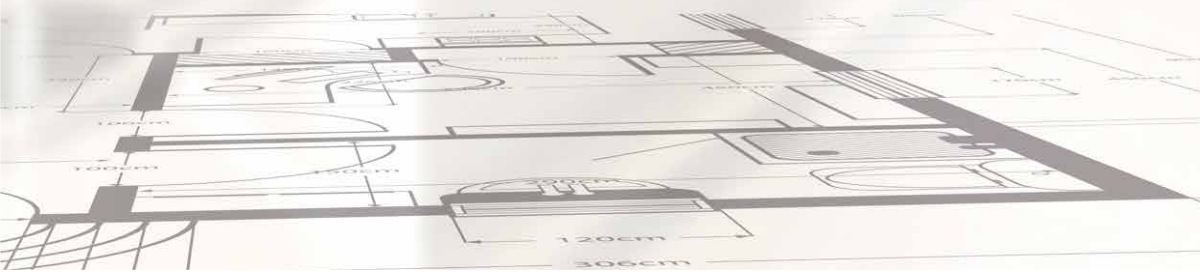
Linea Cableado FLEXIBLE Pagina 13-16

Linea Cableado BLINDADO Pagina 17-20

Linea Cableado EXTERIOR Pagina 21-24

Linea Cableado INTERIOR Pagina 25-29

Especificaciones Técnicas Cable Pagina 30



LÍNEA PLÁSTICA



AMARRES PLASTICOS (100% Nylon)



Measure

- 10cms 2,5mm - 18Lbs
- 15cms 3,5mm - 40Lbs
- 20cms 4,8mm - 50Lbs
- 25cms 4,8mm - 50Lbs
- 30cms 4,8mm - 50Lbs
- 35cms 4,8mm - 50Lbs
- 55cms 7,8mm - 120Lbs
- 70cms 7,8mm - 120Lbs



Black and white



- Bag x 100 Units

ESPIRAL PLASTICO



Measure

- 1/2 Diameter
- 5/8 Diameter
- 3/4 Diameter
- Length 1 mt
- Length 5 mts



Black and white



- Bag x 1 unit

FACE PLATE



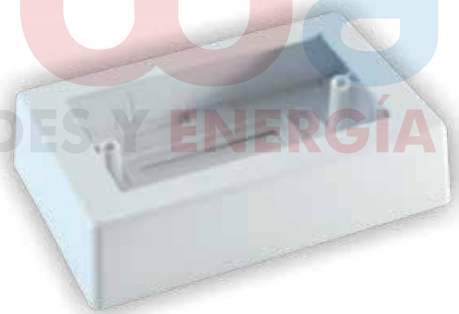
1 PUERTO
2 PUERTOS



CAJAS DE PASO



15x15cms
10x10cms
20x25cms



CAJA DE MECANISMO
Fondo Sencillo
Fondo Doble

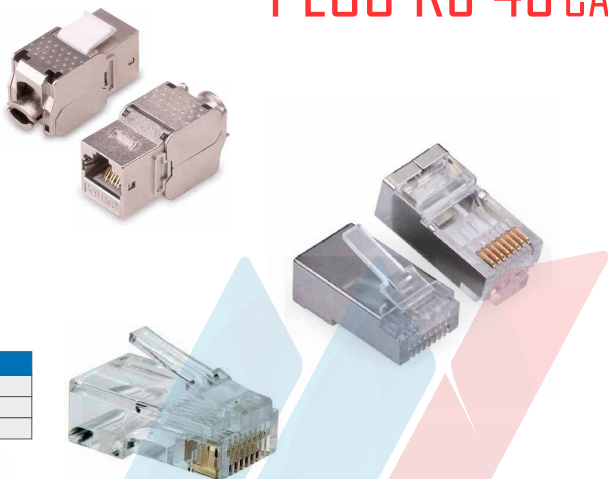
LINEA PASIVA



JACK KEYSTONE

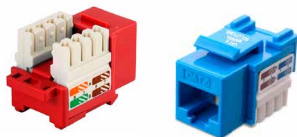
PLUG RJ 45 CAT 6A

- Meet ISO/IEC 11801, TIA/EIA568C.
- Own patent products.
- Fit for wires AWG22-26.
- IDC contacts: Maximum 200 reterminations.
- Min. life 750 insertions.
- Material: PC/ABS for cover, PC for module , phosphor bronze for IDC .
- 360° Shielding-die cast housing.

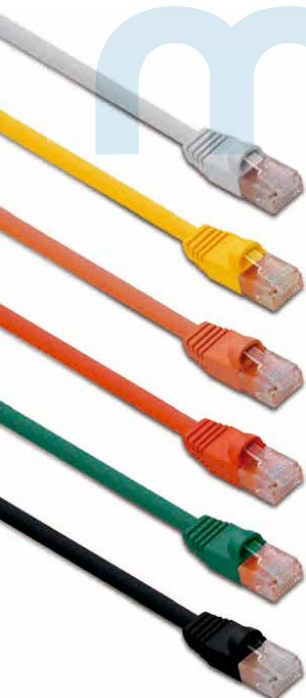


Order Information:

PART Number	Description
M262-C5	Cat5e
M262-C6	Cat6
M262-C6A	Cat6A



- Own patent products.
- For voice system.
- Gold plated contact pins.
- Fit for wire AWG22-26.



PATCH CORD 6-6A

Driver

Conductor	stranded bare copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange, White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Standard

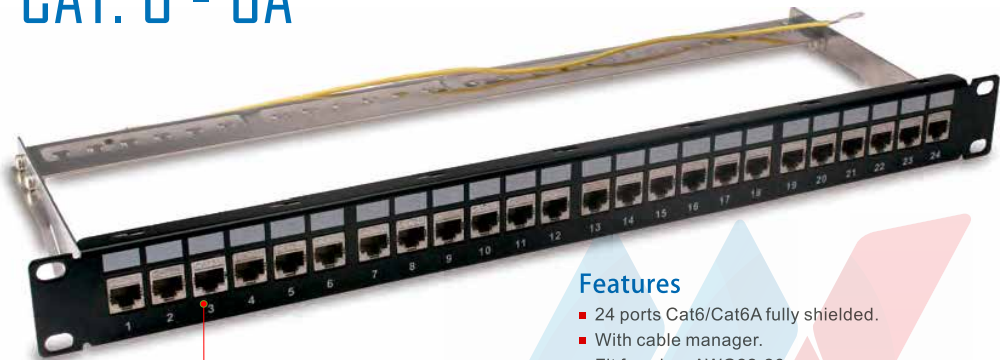
- Electrical performance guaranteed to meet or exceed ANSI/TIA-568-C.2 Category 5e and ISO/IEC specifications.
- Independently tested and verified intertek(ETL).

Available sizes

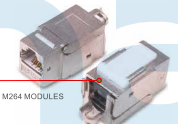
- CAT.6 1 mt
- CAT.6 1 mt
- CAT.6 3 mts
- CAT.6 3 mts

PATCH PANEL Modular 24 -48 Puertos

CAT. 6 - 6A



Each keystone could be removed or installed, easy for maintenance .



Features

- 24 ports Cat6/Cat6A fully shielded.
- With cable manager.
- Fit for wires AWG22-26.
- IDC contacts: Maximum 200 reterminations.
- Min. life 750 insertions.
- Material: PC/ABS for cover, PC for module , phosphor bronze for IDC.
- Jack Housing: zinc alloy.

Order Information:

Item No.	Description
P199-24-1	Cat6 M262-C6 Jack
P199-24-2	Cat6 M264-C6 Jack
P200-24-1	Cat6A M262-C6A Jack
P200-24-2	Cat6A M264-C6A Jack





LINEA CABLEADO ESTRUCTURADO



F/UTP Shielded CAT.6A LSZH 23AWG

Twisted Pair Installation Cable



Standard

- IEC/ISO 61156-5
- ANSI/TIA568C.2
- ISO/IEC 11801

Application

- Suitable for structured premises cabling.
- For transmission of digital and analogue voice and data signals.
- Especially suitable for all Class EA applications.
- ISDN, Ethernet 10 Base-T, Fast Ethernet 100 Base-T, Gigabit Ethernet 1000Base-T, 10G Base-T. (IEEE 802.3).
- Token Ring 4/16Mbit/s, TP-PMD/TP/DDI 125Mbit/s, ATM 155Mbit/s. (IEEE 802.5).

Electrical Characteristics

- Bandwidth: 500MHz
- Transmission Speed: 10GBPS
- Shielded: Wire and aluminium
- Jacket: LSZH Low smoke zero halogen
- Impedance: 4 - 100MHz 100±15 (ohms).
- 100 - 200MHz 100±22 (ohms).
- 200 - 500MHz 100±32 (ohms).
- Max. Conductor DC Resistance 20°C: 8.4(ohms/100m).
- Resistance unbalance (%): max 2.5.
- Pair-to-Ground Capacitance Unbalance 330 (pF/100m).
- Transfer Impedance: Max 10 mohms/m @ 100MHz.
- Installation temperature: 0~50°C.
- Operation temperature: -20~60°C.

Aluminum Foil

Inner Jacket

Conductor

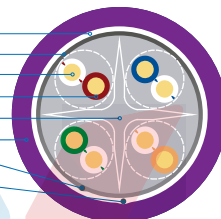
HDPE Insulation

Cross Filler

Jacket

Drain Wire

Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	blue x white, orange x white, green x white, brown x white
Individual pair shield	None
Overall shield	Aluminum foil, providing 100% coverage, foil face out.
Drain wire	Tinned copper

Order information

Item	Outer Jacket	Overall diameter(mm)
D305-P	CMX	7.6±0.3
D305-C	CM	7.6±0.3
D305-R	CMR	7.6±0.3
D305-L	LSZH	7.6±0.3
D305-E	LDPE	7.6±0.3

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2.1	570	45	74.3	72.3	67.8	64.8
4	23.0	3.8	552	45	65.3	63.3	55.8	52.8
10	25.0	6.0	545.4	45	59.3	57.3	47.8	44.8
16	25.0	7.6	543	45	56.2	54.2	43.7	40.7
20	25.0	8.5	542.1	45	54.8	52.8	41.8	38.8
31.25	25.0	10.7	540.4	45	51.9	49.9	37.9	34.9
62.5	21.5	15.4	538.6	45	47.4	45.4	31.9	28.9
100	20.1	19.8	537.6	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536.1	45	39.8	37.8	21.8	18.8
300	17.3	36.4	536.1	45	37.1	35.1	18.3	15.3
400	17.3	43.0	535.8	45	35.3	33.3	15.8	12.8
500	17.3	45.3	535.6	45	33.8	31.8	13.8	10.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: F/UTPCAT 6A-01

Date / Time: 01/15/2020 02:16:03 PM

Headroom 3.8 dB (NEXT 12-36)

Test Limit: TIA Cat 6A Perm. Link

Cable Type: Cat 6A U/UTP

NVP: 65.0%

Software Version: V6.0 Build 6

Limits Version: V7.0

Calibration Date:

Main (Module): 01/15/2020

Remote (Module): 01/15/2020

Test Summary: PASS

Model: DSX-5000

Main S/N: 2420893

Remote S/N: 2420426

Main Adapter: DSX-PLA004

Remote Adapter: DSX-PLA004

Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	490
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	15.4
Insertion Loss Margin (dB)	[Pair 45]	3.4
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8

Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-36	12-36	12-36	12-36
NEXT (dB)	4.3	3.8	4.9	3.8
Freq. (MHz)	111.5	443.0	500.0	443.0
Limit (dB)	41.1	28.4	26.7	28.4
Worst Pair	36	36	36	36
PS NEXT (dB)	5.5	4.2	5.5	4.2
Freq. (MHz)	499.0	443.0	499.0	443.0
Limit (dB)	23.8	25.6	23.8	25.6

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-45	12-45	12-45	12-45
ACR-F (dB)	11.9	11.7	14.0	13.0
Freq. (MHz)	146.5	145.0	469.0	406.0
Limit (dB)	20.9	21.0	10.8	12.0
Worst Pair	12	45	36	36
PS ACR-F (dB)	12.8	12.6	14.8	14.1
Freq. (MHz)	130.5	132.0	500.0	497.0
Limit (dB)	18.9	18.8	7.2	7.3

N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	12-36	12-36	36-45
ACR-N (dB)	9.4	9.1	19.9	20.0
Freq. (MHz)	27.5	15.6	500.0	498.0
Limit (dB)	41.7	47.9	-17.1	-16.9
Worst Pair	36	36	36	36
PS ACR-N (dB)	10.0	9.8	20.6	21.1
Freq. (MHz)	11.1	15.6	500.0	497.0
Limit (dB)	48.9	45.5	-20.0	-19.7

PASS	MAIN	SR	MAIN	SR
Worst Pair	45	45	45	45
RL (dB)	6.6	5.2	7.6	9.0
Freq. (MHz)	76.8	76.5	495.0	485.0
Limit (dB)	15.1	15.2	8.0	8.0

Compliant Network Standards:

10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	10GBASE-T	ATM-25
ATM-51	ATM-155	100VG-AnyLan
TR-4	TR-16 Active	TR-16 Passive



297 ft

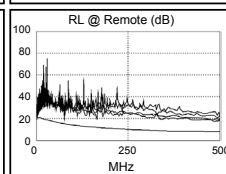
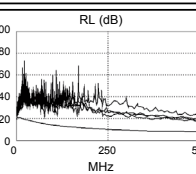
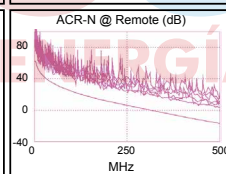
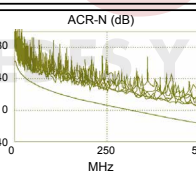
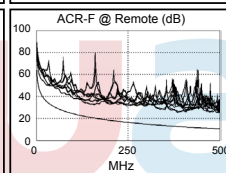
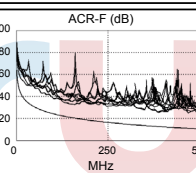
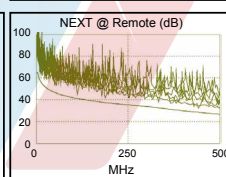
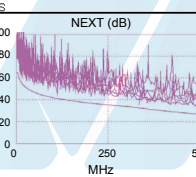
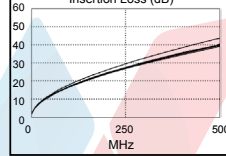


Wire Map (T568B)

PASS



Insertion Loss (dB)



U/UTP Unshielded CAT.6A LSZH 23AWG

Twisted Pair Installation Cable



Standard

- IEC/ISO 61156-5
- ANSI/TIA568C.2
- ISO/IEC 11801

Application

- Suitable for structured premises cabling.
- For transmission of digital and analogue voice and data signals.
- Especially suitable for all Class EA applications.
- ISDN, Ethernet 10 Base-T, Fast Ethernet 100 Base-T, Gigabit Ethernet 1000Base-T, 10G Base-T. (IEEE 802.3).
- Token Ring 4/16Mbit/s, TP-PMD/TP/DDI 125Mbit/s, ATM 155Mbit/s. (IEEE 802.5).

Electrical Characteristics

- Bandwidth: 500MHz
- Transmission Speed: 10GBPS
- Shielded: wire and aluminium
- Jacket: LSZH low smoke zero halogen
- Impedance: 4 - 100MHz 100±15 (ohms).
- 100 - 200MHz 100±22 (ohms).
- 200 - 500MHz 100±32 (ohms).
- Max. Conductor DC Resistance 20°C: 8.4 (ohms/100m).
- Resistance unbalance (%): max 2.5.
- Pair-to-Ground Capacitance Unbalance 330 (pF/100m).
- Transfer Impedance: Max 10 mohms/m @ 100MHz.
- Installation temperature: 0~50°C.
- Operation temperature: -20~60°C.

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2.1	570	45	74.3	72.3	67.8	64.8
4	23.0	3.8	552	45	65.3	63.3	55.8	52.8
10	25.0	6.0	545.4	45	59.3	57.3	47.8	44.8
16	25.0	7.6	543	45	56.2	54.2	43.7	40.7
20	25.0	8.5	542.1	45	54.8	52.8	41.8	38.8
31.25	25.0	10.7	540.4	45	51.9	49.9	37.9	34.9
62.5	21.5	15.4	538.6	45	47.4	45.4	31.9	28.9
100	20.1	19.8	537.6	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536.1	45	39.8	37.8	21.8	18.8
300	17.3	36.4	536.1	45	37.1	35.1	18.3	15.3
400	17.3	43.0	535.8	45	35.3	33.3	15.8	12.8
500	17.3	45.3	535.6	45	33.8	31.8	13.8	10.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

Aluminum Foil

Inner Jacket

Conductor

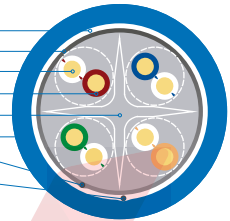
HDPE Insulation

Cross Filler

Jacket

Drain Wire

Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	blue x white, orange x white, green x white, brown x white
Individual pair shield	None
Overall shield	Aluminum foil, providing 100% coverage, foil face out.
Drain wire	Tinned copper

Order information

Item	Outer Jacket	Overall diameter(mm)
D305-P	CMX	7.6±0.3
D305-C	CM	7.6±0.3
D305-R	CMR	7.6±0.3
D305-L	LSZH	7.6±0.3
D305-E	LDPE	7.6±0.3

TEST REPORT



Cable ID: U/UTPCAT 6A-01

Date / Time: 01/15/2020 02:16:03 PM

Headroom 3.8 dB (NEXT 12-36)

Test Limit: TIA Cat 6A Perm. Link

Cable Type: Cat 6A U/UTP

NVP: 65.0%

Software Version: V6.0 Build 6

Limits Version: V7.0

Calibration Date:

Main (Module): 01/15/2020

Remote (Module): 01/15/2020

Test Summary: PASS

Model: DSX-5000

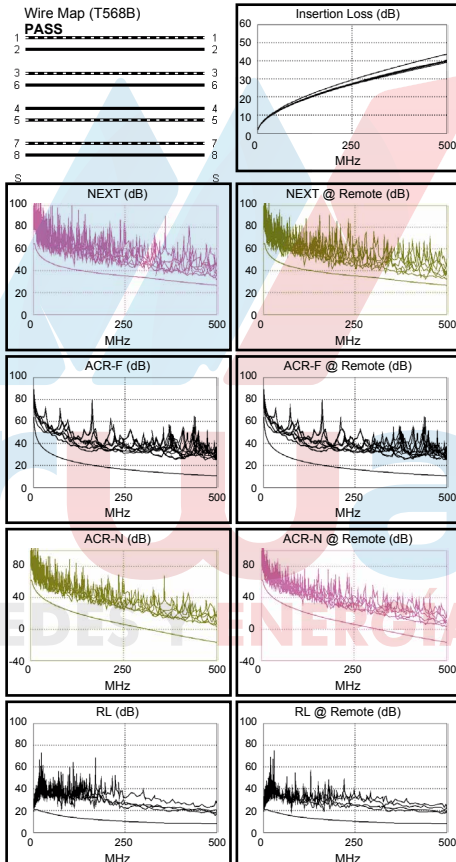
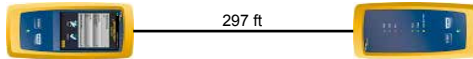
Main S/N: 2420893

Remote S/N: 2420426

Main Adapter: DSX-PLA004

Remote Adapter: DSX-PLA004

Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	490
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	15.4
Insertion Loss Margin (dB)	[Pair 45]	3.4
Frequency (MHz)	[Pair 45]	500.0
Limit (dB)	[Pair 45]	43.8



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-36	12-36	12-36	12-36
NEXT (dB)	4.3	3.8	4.9	3.8
Freq. (MHz)	111.5	443.0	500.0	443.0
Limit (dB)	41.1	28.4	26.7	28.4
Worst Pair	36	36	36	36
PS NEXT (dB)	5.5	4.2	5.5	4.2
Freq. (MHz)	499.0	443.0	499.0	443.0
Limit (dB)	23.8	25.6	23.8	25.6

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-45	12-45	12-45	12-45
ACR-F (dB)	11.9	11.7	14.0	13.0
Freq. (MHz)	146.5	145.0	469.0	406.0
Limit (dB)	20.9	21.0	10.8	12.0
Worst Pair	12	45	36	36
PS ACR-F (dB)	12.8	12.6	14.8	14.1
Freq. (MHz)	130.5	132.0	500.0	497.0
Limit (dB)	18.9	18.8	7.2	7.3

N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	12-36	12-36	36-45
ACR-N (dB)	9.4	9.1	19.9	20.0
Freq. (MHz)	27.5	15.6	500.0	498.0
Limit (dB)	41.7	47.9	-17.1	-16.9
Worst Pair	36	36	36	36
PS ACR-N (dB)	10.0	9.8	20.6	21.1
Freq. (MHz)	11.1	15.6	500.0	497.0
Limit (dB)	48.9	45.5	-20.0	-19.7

PASS	MAIN	SR	MAIN	SR
Worst Pair	45	45	45	45
RL (dB)	6.6	5.2	7.6	9.0
Freq. (MHz)	76.8	76.5	495.0	485.0
Limit (dB)	15.1	15.2	8.0	8.0

Compliant Network Standards:

10BASE-T 100BASE-TX

1000BASE-T 10GBASE-T

ATM-51

TR-4

100BASE-T4

ATM-25

100VG-AnyLan

TR-16 Passive



U/UTP Unshielded CAT.5E Flexible - Multiwire Twisted Pair Insallation Cable



Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 100MHZ
- Transmission Speed: 100mps
- Jacket: Flex
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Gruond Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

PET

Copper Conductor

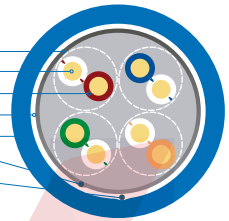
HDPE Insulation

Aluminum Foil

Jacket

Drain Wire

Rip Cord



Conductor

Conductor	7-0,19mm
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2
D165-E	LDPE	6.4±0.2

Nominal Transmission Characteristics

Frequency (MH)z	RL (min) (dB)	IL(max) (dB/100m)	DOP(max) (ns/100m)	Delay Skew (max) (ns/100m)	NEXT (min) (dB)	PSNEXT (min) (dB)	ACR-F (min) (dB/100m)	PSACR-F (min) (dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: U/UTPCAT5EMWA

Date / Time: 04/01/2020 04:35:31pm
 Headroom: 2.2 dB (NEXT 36-78)
 Test Limit: TIA Cat 5e Channel
 Cable Type: Cat 5e UTP - 7-0,19mm

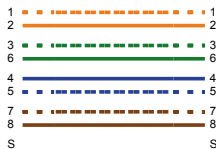
Operator: MR ZHU
 Software Version: 2.5200
 Limits Version: 1.7000
 NVP: 69.0%

Test Summary: PASS

Model: DSX-5000
 Main S/N: 9439023
 Remote S/N: 9439024
 Main Adapter: DSX-CHA001
 Remote Adapter: DSX-CHA001

Wire Map (T568B)

PASS

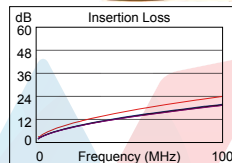


304 ft

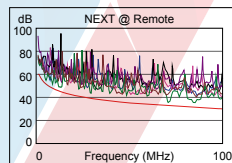
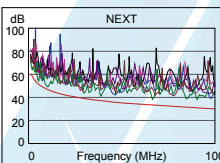


Length (ft), Limit 328 [Pair 78] 304
 Prop. Delay (ns), Limit 555 459
 Delay Skew (ns), Limit 50 11
 Resistance (ohms) [Pair 12] 16.8

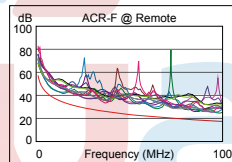
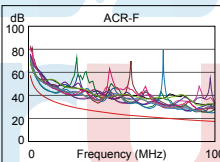
Insertion Loss Margin (dB) [Pair 12] 4.1
 Frequency (MHz) [Pair 12] 100.0
 Limit (dB) [Pair 12] 24.0



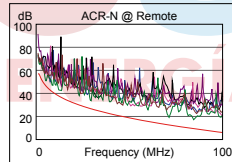
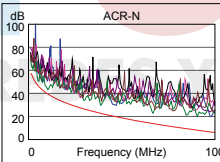
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	2.2	2.5	6.5	3.1
Freq. (MHz)	10.3	71.0	85.0	84.8
Limit (dB)	46.8	32.6	31.3	31.3
Worst Pair	36	36	36	78
PS NEXT (dB)	4.3	5.0	10.0	5.4
Freq. (MHz)	10.3	5.0	97.8	84.8
Limit (dB)	43.8	49.0	27.2	28.3



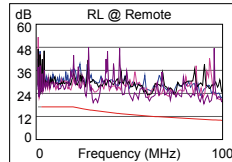
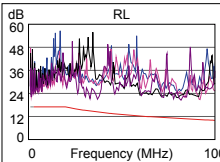
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	45-36	45-36	36-45
ACR-F (dB)	6.7	6.8	7.3	7.1
Freq. (MHz)	8.1	8.1	98.0	98.0
Limit (dB)	39.2	39.2	17.6	17.6
Worst Pair	36	36	36	36
PS ACR-F (dB)	7.5	6.5	8.1	6.5
Freq. (MHz)	87.3	93.8	100.0	93.8
Limit (dB)	15.6	15.0	14.4	15.0



	Worst Case Margin		Worst Case Value	
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	12-36	36-78
ACR-N (dB)	3.8	4.4	13.3	7.4
Freq. (MHz)	10.4	5.0	97.8	84.8
Limit (dB)	39.5	47.0	6.5	9.4
Worst Pair	36	36	36	78
PS ACR-N (dB)	5.9	6.2	14.5	9.7
Freq. (MHz)	5.3	5.0	97.8	84.8
Limit (dB)	43.5	44.0	3.5	6.4



	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	78	78	78	78
RL (dB)	6.5	4.1	9.5	8.1
Freq. (MHz)	33.0	30.5	81.5	90.0
Limit (dB)	14.8	15.2	10.9	10.5



Compliant Network Standards:

10BASE-T
 100BASE-T
 ATM-155
 TR-16 Active

100BASE-T4
 ATM-51
 TR-4



U/UTP Unshielded CAT.6 Flexible - Multiwire Twisted Pair Installation Cable



Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 250MHz
- Transmission Speed: 1Gbps
- Armor: No
- Jacket: Flex
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Conductor
HDPE Insulation
Cross Filler
Jacket
Rip Cord



Conductor

Conductor	Copper 7,20mm
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2
D165-E	LDPE	6.4±0.2

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: U/UTP CAT.6 MWA

Date / Time: 04/01/2020 08:53:51 AM

Headroom 6.0 dB (NEXT 45-78)

Test Limit: TIA Cat 6 Perm. Link

Cable Type: Cat 6 U/UTP - 7 - 0,20mm

NVP: 69.0%

Operator: Your Name

Software Version: 2.7800

Limits Version: 1.9500

Calibration Date:

Main (Tester): 04/01/2020

Remote (Tester): 04/01/2020

Test Summary: PASS

Model: DSX-5000

Main S/N: 9391107

Remote S/N: 9391108

Main Adapter: DSX-PLA002

Remote Adapter: DSX-PLA002

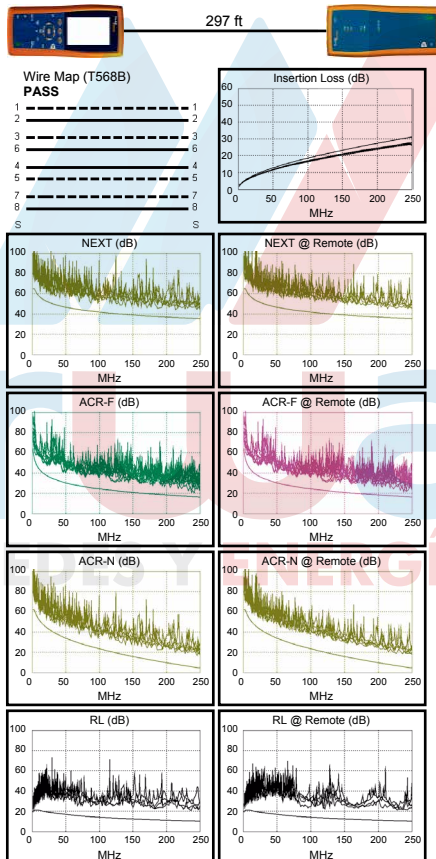
Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	463
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	13.7
Insertion Loss Margin (dB)	[Pair 36]	3.1
Frequency (MHz)	[Pair 36]	246.0
Limit (dB)	[Pair 36]	30.8

	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	45-78	12-45	36-78	12-45
NEXT (dB)	6.0	8.6	8.0	8.6
Freq. (MHz)	11.9	214.0	238.5	214.0
Limit (dB)	56.7	36.4	35.7	36.4
Worst Pair	78	45	36	45
PS NEXT (dB)	6.6	8.4	7.9	8.4
Freq. (MHz)	11.9	214.0	245.0	214.0
Limit (dB)	54.3	33.8	32.9	33.8
PASS	MAIN	SR	MAIN	SR
Worst Pair	12-36	36-12	12-36	36-12
ACR-F (dB)	3.4	4.7	3.4	4.7
Freq. (MHz)	241.0	237.5	241.0	241.0
Limit (dB)	16.5	16.7	16.5	16.5
Worst Pair	36	12	36	12
PS ACR-F (dB)	6.1	6.1	6.1	6.1
Freq. (MHz)	241.0	241.0	241.0	241.0
Limit (dB)	13.5	13.5	13.5	13.5
N/A	MAIN	SR	MAIN	SR
Worst Pair	45-78	45-78	12-36	12-45
ACR-N (dB)	6.5	9.3	11.6	13.5
Freq. (MHz)	11.9	2.6	245.0	250.0
Limit (dB)	50.6	62.0	4.7	4.2
Worst Pair	78	45	36	45
PS ACR-N (dB)	7.1	9.4	11.2	12.7
Freq. (MHz)	11.9	14.4	245.0	241.0
Limit (dB)	48.2	46.3	2.1	2.5
PASS	MAIN	SR	MAIN	SR
Worst Pair	12	12	78	78
RL (dB)	4.7	6.7	10.3	10.3
Freq. (MHz)	3.6	3.6	236.5	229.0
Limit (dB)	21.0	21.0	10.3	10.4

Compliant Network Standards:

10BASE-T
100BASE-TX
1000BASE-T
ATM-155
TR-16 Active

100BASE-T4
ATM-51
TR-4



FLUKE networks.



F/UTP Shielded CAT.5E EXTERIOR 24AWG

Twisted Pair Insallation Cable



Application

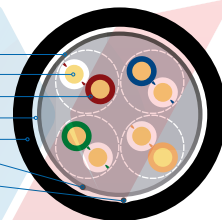
- Exceeds ANSI/TIA-568-C.2 and ISO 11801 2nd Edition Class D Category 5e channel standards.
- Exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 5e component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Foil shield reduces ingress of EMI interference to ensure cable performance at high frequency levels.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 100 MHz
- Transmission Speed: 100mps
- Shielded: Wire and aluminium
- Jacket: De Outside foil
- Impedance: 1-100MHz 100 ± 15 (Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 9.5(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

PET

Copper Conductor
HDPE Insulation
Aluminum Foil
Jacket
Drain Wire
Rip Cord



Conductor

Conductor	Solid Bare Copper 24AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange, White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	Aluminum foil, providing 100% coverage, foil face out.
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D145-P	CMX	6.3±0.2
D145-C	CM	6.3±0.2
D145-R	CMR	6.3±0.2
D145-L	LSZH	6.3±0.2
D145-E	LDPE	6.3±0.2

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2.2	570	45	65	62	61	61
4	23.0	4.2	552	45	56	53	48	48
10	25.0	6.5	545	45	50	47	41	41
16	25.0	8.4	543	45	47	44	36	36
20	25.0	9.3	542	45	45	42	34	34
31.25	23.6	11.6	540	45	42	39	31	31
62.5	21.5	17.0	538	45	38	35	25	25
100	20.1	22.0	537	45	35	32	21	21

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



LINKWARE
CABLE TEST MANAGEMENT SOFTWARE

Cable ID: F/UTPCAT5EMWA

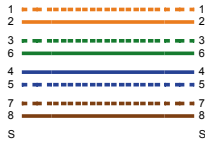
Test Summary: PASS

Date / Time: 04/01/2020 04:35:31pm
Headroom: 2.2 dB (NEXT 36-78)
Test Limit: TIA Cat 5e Channel
Cable Type: Cat 5e UTP

Operator: MR ZHU
Software Version: 2.5200
Limits Version: 1.7000
NVP: 69.0%

Model: DSX-5000
Main S/N: 9439023
Remote S/N: 9439024
Main Adapter: DSX-CHA001
Remote Adapter: DSX-CHA001

Wire Map (T568B)
PASS



304 ft

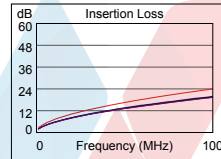


Length (ft), Limit 328
Prop. Delay (ns), Limit 555
Delay Skew (ns), Limit 50
Resistance (ohms)

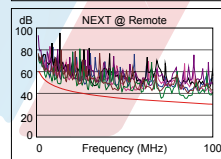
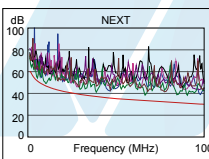
[Pair 78] 304
459
11
[Pair 12] 16.8

Insertion Loss Margin (dB)
Frequency (MHz)
Limit (dB)

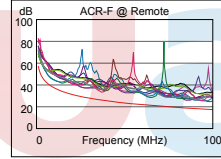
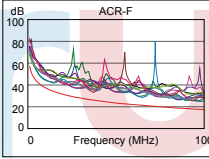
[Pair 12] 4.1
[Pair 12] 100.0
[Pair 12] 24.0



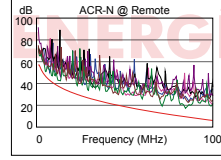
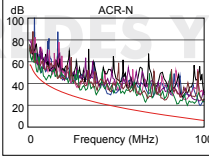
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	2.2	2.5	6.5	3.1
Freq. (MHz)	10.3	71.0	85.0	84.8
Limit (dB)	46.8	32.6	31.3	31.3
Worst Pair	36	36	36	78
PS NEXT (dB)	4.3	5.0	10.0	5.4
Freq. (MHz)	10.3	5.0	97.8	84.8
Limit (dB)	43.8	49.0	27.2	28.3



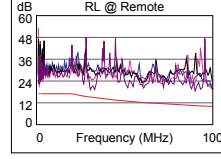
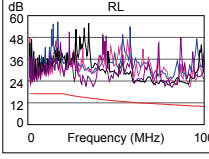
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	45-36	45-36	36-45
ACR-F (dB)	6.7	6.8	7.3	7.1
Freq. (MHz)	8.1	8.1	98.0	98.0
Limit (dB)	39.2	39.2	17.6	17.6
Worst Pair	36	36	36	36
PS ACR-F (dB)	7.5	6.5	8.1	6.5
Freq. (MHz)	87.3	93.8	100.0	93.8
Limit (dB)	15.6	15.0	14.4	15.0



	Worst Case Margin		Worst Case Value	
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	12-36	36-78
ACR-N (dB)	3.8	4.4	13.3	7.4
Freq. (MHz)	10.4	5.0	97.8	84.8
Limit (dB)	39.5	47.0	6.5	9.4
Worst Pair	36	36	36	78
PS ACR-N (dB)	5.9	6.2	14.5	9.7
Freq. (MHz)	5.3	5.0	97.8	84.8
Limit (dB)	43.5	44.0	3.5	6.4



	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	78	78	78	78
RL (dB)	6.5	4.1	9.5	8.1
Freq. (MHz)	33.0	30.5	81.5	90.0
Limit (dB)	14.8	15.2	10.9	10.5



Compliant Network Standards:

100BASE-T
1000BASE-T
ATM-155
TR-16 Active

100BASE-T4
ATM-S1
TR-4

FLUKE
networks



F/UTP Shielded CAT.6 EXTERIOR 23AWG

Twisted Pair Installation Cable



Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

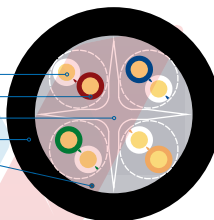
- Bandwidth: 250 MHz
- Transmission Speed: 1 Gbps
- Shielded: Drainage wire and aluminum foil
- Jacket: De Outside Foil
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

Conductor
HDPE Insulation
Cross Filler
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange, White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2

D165-E	LDPE	6.4±0.2
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TEST REPORT



Cable ID: F/UTPCAT6 MWA

Date / Time: 05/01/2020 08:53:51 AM

Headroom 6.0 dB (NEXT 45-78)

Test Limit: TIA Cat 6 Perm. Link

Cable Type: Cat 6 F/UTP

NVP: 69.0%

Operator: Your Name

Software Version: 2.7800

Limits Version: 1.9500

Calibration Date:

Main (Tester): 05/01/2020

Remote (Tester): 05/01/2020

Test Summary: PASS

Model: DSX-5000

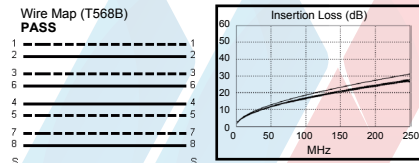
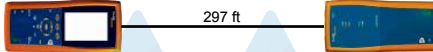
Main S/N: 9391107

Remote S/N: 9391108

Main Adapter: DSX-PLA002

Remote Adapter: DSX-PLA002

Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	463
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	13.7
Insertion Loss Margin (dB)	[Pair 36]	3.1
Frequency (MHz)	[Pair 36]	246.0
Limit (dB)	[Pair 36]	30.8



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	45-78	12-45	36-78	12-45
NEXT (dB)	6.0	8.6	8.0	8.6
Freq. (MHz)	11.9	214.0	238.5	214.0
Limit (dB)	56.7	36.4	35.7	36.4
Worst Pair	78	45	36	45
PS NEXT (dB)	6.6	8.4	7.9	8.4
Freq. (MHz)	11.9	214.0	245.0	214.0
Limit (dB)	54.3	33.8	32.9	33.8

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-36	36-12	12-36	36-12
ACR-F (dB)	3.4	4.7	3.4	4.7
Freq. (MHz)	241.0	237.5	241.0	241.0
Limit (dB)	16.5	16.7	16.5	16.5
Worst Pair	36	12	36	12
PS ACR-F (dB)	6.1	6.1	6.1	6.1
Freq. (MHz)	241.0	241.0	241.0	241.0
Limit (dB)	13.5	13.5	13.5	13.5

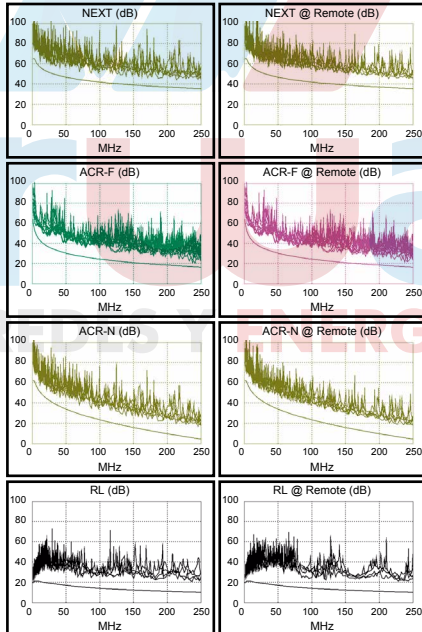
N/A	MAIN	SR	MAIN	SR
Worst Pair	45-78	45-78	12-36	12-45
ACR-N (dB)	6.5	9.3	11.6	13.5
Freq. (MHz)	11.9	2.6	245.0	250.0
Limit (dB)	50.6	62.0	4.7	4.2
Worst Pair	78	45	36	45
PS ACR-N (dB)	7.1	9.4	11.2	12.7
Freq. (MHz)	11.9	14.4	245.0	241.0
Limit (dB)	48.2	46.3	2.1	2.5

PASS	MAIN	SR	MAIN	SR
Worst Pair	12	12	78	78
RL (dB)	4.7	6.7	10.3	10.3
Freq. (MHz)	3.6	3.6	236.5	229.0
Limit (dB)	21.0	21.0	10.3	10.4

Compliant Network Standards:

10BASE-T 100BASE-TX
100BASE-T ATM-25
ATM-155 100VG-AnyLan
TR-16 Active TR-16 Passive

100BASE-T4
ATM-51
TR-4



FLUKE networks.



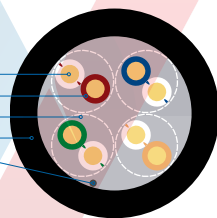
U/UTP Shielded CAT.5E EXTERIOR 24AWG Twisted Pair Installation Cable



Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 5e and ISO 11801 2nd Edition Class D channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 5e component standards.
- Third party tested to Category 5e channel compliance.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.
- Patent products: CN200920124768. 4.

Copper Conductor
HDPE Insulation
Pair
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 24AWG
Insulation	HDPE
Total number of insulated conductors	2x8, twisted in 2x4 pairs
Color code	White-Blue/Blue, White-Orange/Orange, White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Electrical Characteristics

- Bandwidth: 100MHZ
- Transmission Speed: 100MPS
- Jacket: De Outside foil
- Impedance: 1-100MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 9.5(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Order information

Item	Outer Jacket	Overall diameter(mm)
D205-P	CMX	(5.2+5.2)+/-0.3
D205-C	CM	(5.2+5.2)+/-0.3
D205-R	CMR	(5.2+5.2)+/-0.3
D205-L	LSZH	(5.2+5.2)+/-0.3
D205-E	LDPE	(5.2+5.2)+/-0.3

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2.2	570	45	65	62	61	61
4	23.0	4.2	552	45	56	53	48	48
10	25.0	6.5	545	45	50	47	41	41
16	25.0	8.4	543	45	47	44	36	36
20	25.0	9.3	542	45	45	42	34	34
31.25	23.6	11.6	540	45	42	39	31	31
62.5	21.5	17.0	538	45	38	35	25	25
100	20.1	22.0	537	45	35	32	21	21

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: U/UTPCAT5EMWA

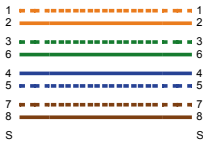
Date / Time: 04/02/2020 04:35:31pm
Headroom: 2.2 dB (NEXT 36-78)
Test Limit: TIA Cat 5e Channel
Cable Type: Cat 5e UTP

Operator: MR ZHU
Software Version: 2.5200
Limits Version: 1.7000
NVP: 69.0%

Test Summary: PASS

Model: DSX-5000
Main S/N: 9439023
Remote S/N: 9439024
Main Adapter: DSX-CHA001
Remote Adapter: DSX-CHA001

Wire Map (T568B) PASS



304 ft

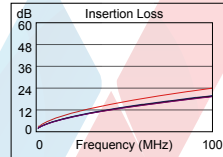


Length (ft), Limit 328
Prop. Delay (ns), Limit 555
Delay Skew (ns), Limit 50
Resistance (ohms)

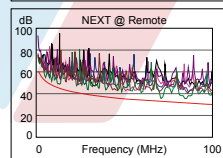
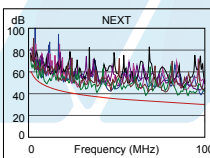
[Pair 78] 304
459
11
[Pair 12] 16.8

Insertion Loss Margin (dB)
Frequency (MHz)
Limit (dB)

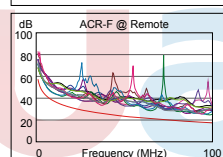
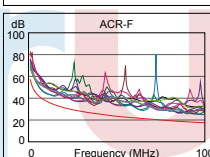
[Pair 12] 4.1
[Pair 12] 100.0
[Pair 12] 24.0



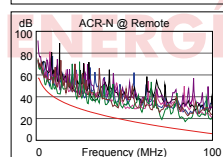
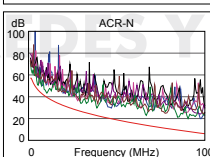
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	2.2	2.5	6.5	3.1
Freq. (MHz)	10.3	71.0	85.0	84.8
Limit (dB)	46.8	32.6	31.3	31.3
Worst Pair	36	36	36	78
PS NEXT (dB)	4.3	5.0	10.0	5.4
Freq. (MHz)	10.3	5.0	97.8	84.8
Limit (dB)	43.8	49.0	27.2	28.3



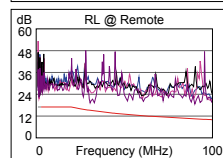
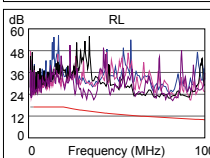
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	45-36	45-36	36-45
ACR-F (dB)	6.7	6.8	7.3	7.1
Freq. (MHz)	8.1	8.1	98.0	98.0
Limit (dB)	39.2	39.2	17.6	17.6
Worst Pair	36	36	36	36
PS ACR-F (dB)	7.5	6.5	8.1	6.5
Freq. (MHz)	87.3	93.8	100.0	93.8
Limit (dB)	15.6	15.0	14.4	15.0



	Worst Case Margin		Worst Case Value	
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	12-36	36-78
ACR-N (dB)	3.8	4.4	13.3	7.4
Freq. (MHz)	10.4	5.0	97.8	84.8
Limit (dB)	39.5	47.0	6.5	9.4
Worst Pair	36	36	36	78
PS ACR-N (dB)	5.9	6.2	14.5	9.7
Freq. (MHz)	5.3	5.0	97.8	84.8
Limit (dB)	43.5	44.0	3.5	6.4



	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	78	78	78	78
RL (dB)	6.5	4.1	9.5	8.1
Freq. (MHz)	33.0	30.5	81.5	90.0
Limit (dB)	14.8	15.2	10.9	10.5



Compliant Network Standards:
100BASE-T
1000BASE-T
ATM-155
TR-16 Active

100BASE-TX
ATM-25
100VG-AnyLan
TR-16 Passive

FLUKE networks.



U/UTP Unshielded CAT.6 EXTERIOR 23AWG

Twisted Pair Insallation Cable



Application

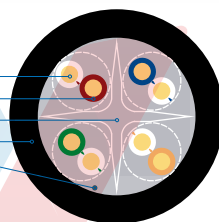
- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 250 MHz
- Transmission Speed: 1Gbps
- Jacket: De outside foil
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Conductor

Conductor
HDPE Insulation
Cross Filler
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2
D165-E	LDPE	6.4±0.2

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: U/UTPCAT6MWA

Date / Time: 04/01/2020 08:53:51 AM

Headroom 6.0 dB (NEXT 45-78)

Test Limit: TIA Cat 6 Perm. Link

Cable Type: Cat 6 U/UTP

NVP: 69.0%

Operator: Your Name

Software Version: 2.7800

Limits Version: 1.9500

Calibration Date:

Main (Tester): 04/01/2020

Remote (Tester): 04/01/2020

Test Summary: PASS

Model: DSX-5000

Main S/N: 9391107

Remote S/N: 9391108

Main Adapter: DSX-PLA002

Remote Adapter: DSX-PLA002

Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	463
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	13.7
Insertion Loss Margin (dB)	[Pair 36]	3.1
Frequency (MHz)	[Pair 36]	246.0
Limit (dB)	[Pair 36]	30.8

	Worst Case Margin	Worst Case Value
PASS	MAIN SR	MAIN SR
Worst Pair	45-78 12-45	36-78 12-45
NEXT (dB)	6.0 8.6	8.0 8.6
Freq. (MHz)	11.9 214.0	238.5 214.0
Limit (dB)	56.7 36.4	35.7 36.4
Worst Pair	78 45	36 45
PS NEXT (dB)	6.6 8.4	7.9 8.4
Freq. (MHz)	11.9 214.0	245.0 214.0
Limit (dB)	54.3 33.8	32.9 33.8

	MAIN SR	MAIN SR
PASS	MAIN SR	MAIN SR
Worst Pair	12-36 36-12	12-36 36-12
ACR-F (dB)	3.4 4.7	3.4 4.7
Freq. (MHz)	241.0 237.5	241.0 241.0
Limit (dB)	16.5 16.7	16.5 16.5
Worst Pair	36 12	36 12
PS ACR-F (dB)	6.1 6.1	6.1 6.1
Freq. (MHz)	241.0 241.0	241.0 241.0
Limit (dB)	13.5 13.5	13.5 13.5

	MAIN SR	MAIN SR
N/A	MAIN SR	MAIN SR
Worst Pair	45-78 45-78	12-36 12-45
ACR-N (dB)	6.5 9.3	11.6 13.5
Freq. (MHz)	11.9 2.6	245.0 250.0
Limit (dB)	50.6 62.0	4.7 4.2
Worst Pair	78 45	36 45
PS ACR-N (dB)	7.1 9.4	11.2 12.7
Freq. (MHz)	11.9 14.4	245.0 241.0
Limit (dB)	48.2 46.3	2.1 2.5

	MAIN SR	MAIN SR
PASS	MAIN SR	MAIN SR
Worst Pair	12 12	78 78
RL (dB)	4.7 6.7	10.3 10.3
Freq. (MHz)	3.6 3.6	236.5 229.0
Limit (dB)	21.0 21.0	10.3 10.4

Compliant Network Standards:

10BASE-T 100BASE-TX

100BASE-T ATM-25

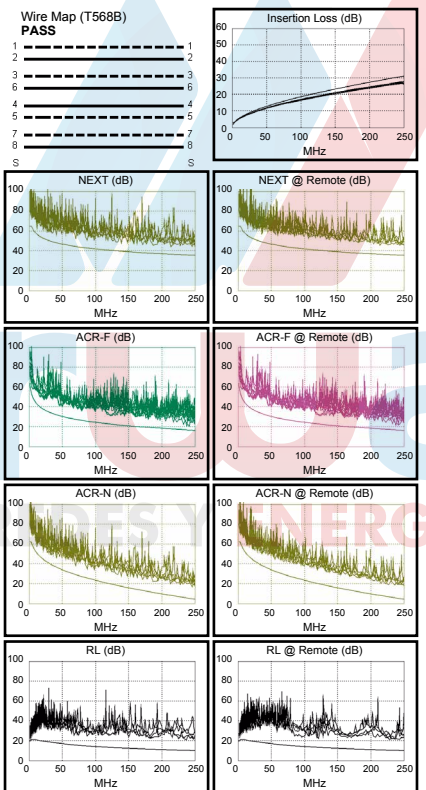
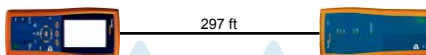
ATM-155 100VG-AnyLan

TR-16 Active TR-16 Passive

100BASE-T4

ATM-51

TR-4



FLUKE networks.



U/UTP Unshielded CAT.5E INTERIOR 24AWG

Twisted Pair Insallation Cable



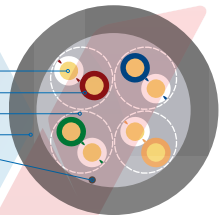
Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 5e and ISO 11801 2nd Edition Class D channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 5e component standards.
- Third party tested to Category 5e channel compliance.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.
- Patent products:CN200920124768. 4.

Electrical Characteristics

- Bandwid:100MHZ
- Transmission Speed: 100MPS
- Jacket: PVC
- Impedance:1-100MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 9.5(Ohms/100m).
- Pair-to-Gruond Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Copper Conductor
HDPE Insulation
Pair
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 24AWG
Insulation	HDPE
Total number of insulated conductors	2x8, twisted in 2x4 pairs
Color code	White-Blue/Blue,White-Orange/Orange White-Green/Green,White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D205-P	CMX	(5.2+5.2)+/-0.3
D205-C	CM	(5.2+5.2)+/-0.3
D205-R	CMR	(5.2+5.2)+/-0.3
D205-L	LSZH	(5.2+5.2)+/-0.3
D205-E	LDPE	(5.2+5.2)+/-0.3

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MH)z	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2.2	570	45	65	62	61	61
4	23.0	4.2	552	45	56	53	48	48
10	25.0	6.5	545	45	50	47	41	41
16	25.0	8.4	543	45	47	44	36	36
20	25.0	9.3	542	45	45	42	34	34
31.25	23.6	11.6	540	45	42	39	31	31
62.5	21.5	17.0	538	45	38	35	25	25
100	20.1	22.0	537	45	35	32	21	21

Note: The above transmission performance for the 100M, 20 ± 2 °C under the conditions tested.

TEST REPORT



Cable ID: U/UTPCAT5EMWA

Test Summary: PASS

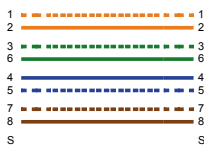
Date / Time: 04/02/2020 04:35:31pm
 Headroom: 2.2 dB (NEXT 36-78)
 Test Limit: TIA Cat 5e Channel
 Cable Type: Cat 5e UTP

Operator: MR ZHU
 Software Version: 2.5200
 Limits Version: 1.7000
 NVP: 69.0%

Model: DSX-5000
 Main S/N: 9439023
 Remote S/N: 9439024
 Main Adapter: DSX-CHA001
 Remote Adapter: DSX-CHA001

Wire Map (T568B)

PASS

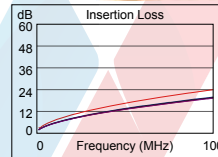


304 ft

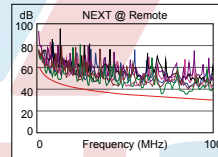
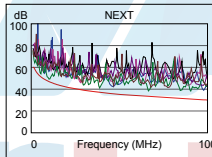


Length (ft), Limit 328 [Pair 78] 304
 Prop. Delay (ns), Limit 555 459
 Delay Skew (ns), Limit 50 11
 Resistance (ohms) [Pair 12] 16.8

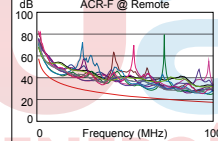
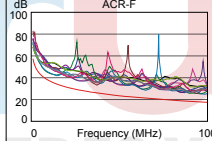
Insertion Loss Margin (dB) [Pair 12] 4.1
 Frequency (MHz) [Pair 12] 100.0
 Limit (dB) [Pair 12] 24.0



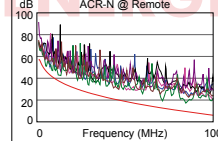
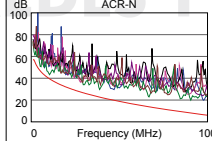
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-78
NEXT (dB)	2.2	2.5	6.5	3.1
Freq. (MHz)	10.3	71.0	85.0	84.8
Limit (dB)	46.8	32.6	31.3	31.3
Worst Pair	36	36	36	78
PS NEXT (dB)	4.3	5.0	10.0	5.4
Freq. (MHz)	10.3	5.0	97.8	84.8
Limit (dB)	43.8	49.0	27.2	28.3



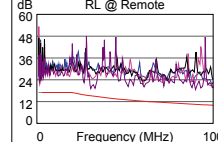
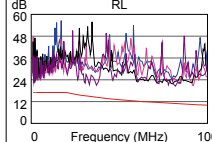
	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	45-36	45-36	36-45
ACR-F (dB)	6.7	6.8	7.3	7.1
Freq. (MHz)	8.1	8.1	98.0	98.0
Limit (dB)	39.2	39.2	17.6	17.6
Worst Pair	36	36	36	36
PS ACR-F (dB)	7.5	6.5	8.1	6.5
Freq. (MHz)	87.3	93.8	100.0	93.8
Limit (dB)	15.6	15.0	14.4	15.0



	Worst Case Margin		Worst Case Value	
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	12-36	36-78
ACR-N (dB)	3.8	4.4	13.3	7.4
Freq. (MHz)	10.4	5.0	97.8	84.8
Limit (dB)	39.5	47.0	6.5	9.4
Worst Pair	36	36	36	78
PS ACR-N (dB)	5.9	6.2	14.5	9.7
Freq. (MHz)	5.3	5.0	97.8	84.8
Limit (dB)	43.5	44.0	3.5	6.4



	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	78	78	78	78
RL (dB)	6.5	4.1	9.5	8.1
Freq. (MHz)	33.0	30.5	81.5	90.0
Limit (dB)	14.8	15.2	10.9	10.5



Compliant Network Standards:
 10BASE-T
 100BASE-T
 ATM-155
 TR-16 Active

100BASE-TX
 ATM-25
 100VG-AnyLan
 TR-16 Passive

FLUKE
 networks



U/UTP Unshielded CAT.6 INTERIOR 23AWG Twisted Pair Insallation Cable



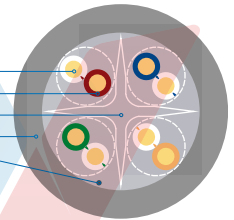
Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 250 MHz
- Transmission Speed: 1Gbps
- Jacket: PVC
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MΩ*Km.
- Dielectric strength: DC 2500V 2S.

Conductor
HDPE Insulation
Cross Filler
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2
D165-E	LDPE	6.4±0.2

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

F/UTP Shielded CAT.6 EXTERIOR LSZH 24AWG Twisted Pair Insallation Cable



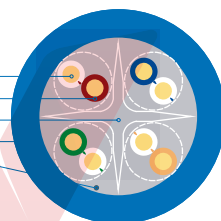
Application

- Meets or exceeds requirements of ANSI/TIA-568-C.2 Category 6 and ISO 11801 2nd Edition Class E channel standards.
- Meets or exceeds requirements of ANSI/TIA-568-C.2 and IEC 61156-5 Category 6 component standards.
- Meets requirements of IEEE 802.3af and IEEE 802.3at for PoE applications.
- Third party tested to comply with ANSI/TIA/EIA-568-C.2.
- Descending length cable markings enable easy identification of remaining cable which reduces installation time and cable scrap.
- Color Availability: Additional cable colors available.

Electrical Characteristics

- Bandwidth: 250 MHZ
- Transmission Speed: 1Gbps
- Jacket: PVC
- Impedance: 1-250MHz 100±15(Ohms).
- Rated Temperature: 75°C.
- DC Resistance Unbalance(%): Max 2.5.
- DC Resistance 20°C: 8.4(Ohms/100m).
- Pair-to-Ground Capacitance Unbalance: 330(pF/100M).
- Insulation Resistance: >5000MQ*Km.
- Dielectric strength: DC 2500V 2S.

Conductor
HDPE Insulation
Cross Filler
Jacket
Rip Cord



Conductor

Conductor	Solid Bare Copper 23AWG
Insulation	HDPE
Total number of insulated conductors	8, twisted in 4 pairs
Color code	White-Blue/Blue, White-Orange/Orange White-Green/Green, White-Brown/Brown
Individual pair shield	None
Overall shield	None
Drain wire	None

Order information

Item	Outer Jacket	Overall diameter(mm)
D165-P	CMX	6.4±0.2
D165-C	CM	6.4±0.2
D165-R	CMR	6.4±0.2
D165-L	LSZH	6.4±0.2
D165-E	LDPE	6.4±0.2

Nominal Transmission Characteristics

Frequency	RL (min)	IL(max)	DOP(max)	Delay Skew (max)	NEXT (min)	PSNEXT (min)	ACR-F (min)	PSACR-F (min)
(MHz)	(dB)	(dB/100m)	(ns/100m)	(ns/100m)	(dB)	(dB)	(dB/100m)	(dB/100m)
1	20.0	2	570	45	74	72	67.8	64.8
4	23.0	3.8	552	45	65	63	55.7	52.7
10	25.0	6.0	545	45	59	57	47.8	44.8
16	25.0	7.6	543	45	56	54	43.7	40.7
20	25.0	8.5	542	45	55	53	41.7	38.7
31.25	23.6	10.7	540	45	52	50	37.9	34.9
62.5	21.5	15.4	538	45	47	45	31.8	28.8
100	20.1	19.8	537	45	44.3	42.3	27.8	24.8
200	18.0	29.0	536	45	39.7	37.7	21.7	18.7
250	17.3	32.8	535	45	38	36	19.8	16.8

Note: The above transmission performance for the 100M, 20 ± 2°C under the conditions tested.

TEST REPORT



Cable ID: U/UTPCAT6MWA

Date / Time: 04/01/2020 08:53:51 AM

Headroom 6.0 dB (NEXT 45-78)

Test Limit: TIA Cat 6 Perm. Link

Cable Type: Cat 6 U/UTP

NVP: 69.0%

Operator: Your Name

Software Version: 2.7800

Limits Version: 1.9500

Calibration Date:

Main (Tester): 04/01/2020

Remote (Tester): 04/01/2020

Test Summary: PASS

Model: DSX-5000

Main S/N: 9391107

Remote S/N: 9391108

Main Adapter: DSX-PLA002

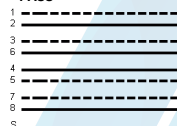
Remote Adapter: DSX-PLA002

Length (ft), Limit 295	[Pair 78]	297
Prop. Delay (ns), Limit 498	[Pair 45]	463
Delay Skew (ns), Limit 44	[Pair 45]	26
Resistance (ohms)	[Pair 45]	13.7
Insertion Loss Margin (dB)	[Pair 36]	3.1
Frequency (MHz)	[Pair 36]	246.0
Limit (dB)	[Pair 36]	30.8



Wire Map (T568B)

PASS



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	45-78	12-45	36-78	12-45
NEXT (dB)	6.0	8.6	8.0	8.6
Freq. (MHz)	11.9	214.0	238.5	214.0
Limit (dB)	56.7	36.4	35.7	36.4
Worst Pair	78	45	36	45
PS NEXT (dB)	6.6	8.4	7.9	8.4
Freq. (MHz)	11.9	214.0	245.0	214.0
Limit (dB)	54.3	33.8	32.9	33.8

PASS	MAIN	SR	MAIN	SR
Worst Pair	12-36	36-12	12-36	36-12
ACR-F (dB)	3.4	4.7	3.4	4.7
Freq. (MHz)	241.0	237.5	241.0	241.0
Limit (dB)	16.5	16.7	16.5	16.5
Worst Pair	36	12	36	12
PS ACR-F (dB)	6.1	6.1	6.1	6.1
Freq. (MHz)	241.0	241.0	241.0	241.0
Limit (dB)	13.5	13.5	13.5	13.5

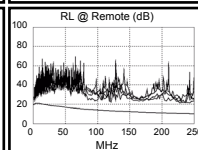
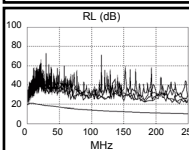
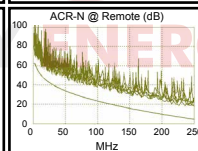
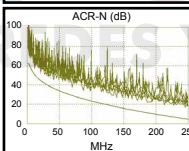
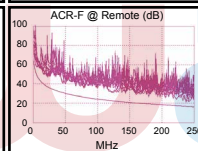
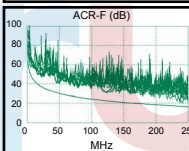
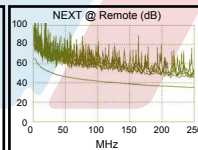
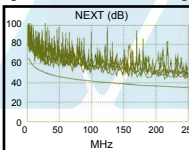
N/A	MAIN	SR	MAIN	SR
Worst Pair	45-78	45-78	12-36	12-45
ACR-N (dB)	6.5	9.3	11.6	13.5
Freq. (MHz)	11.9	2.6	245.0	250.0
Limit (dB)	50.6	62.0	4.7	4.2
Worst Pair	78	45	36	45
PS ACR-N (dB)	7.1	9.4	11.2	12.7
Freq. (MHz)	11.9	14.4	245.0	241.0
Limit (dB)	48.2	46.3	2.1	2.5

PASS	MAIN	SR	MAIN	SR
Worst Pair	12	12	78	78
RL (dB)	4.7	6.7	10.3	10.3
Freq. (MHz)	3.6	3.6	236.5	229.0
Limit (dB)	21.0	21.0	10.3	10.4

Compliant Network Standards:

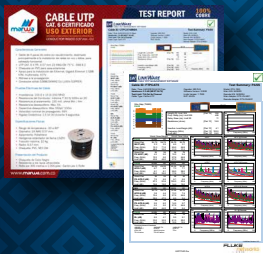
10BASE-T 100BASE-TX
100BASE-T ATM-25
ATM-155 100VG-AnyLan
TR-16 Active TR-16 Passive

100BASE-T4
ATM-51
TR-4



FLUKE networks.





Especificaciones técnicas de Cable

A continuación se incluye un resumen de las características más importantes de nuestra línea de cables

Categoría	Cat. 5E	Cat. 5E	Cat. 6	Cat. 6	Cat. 6A
MPN	AB355NXT01 - Gris AB355NXT02 - Azul AB355NXT03 - Rojo	AB355NXT07 - Negro	AB356NXT01 - Gris AB356NXT02 - Azul AB356NXT03 - Rojo	PCGUCC6FTBK - Negro	NBA-UTP6ABL - Azul
Configuración	UTP	UTP	UTP	F/UTP	S/UTP
Tipo de Conductor	Alambre de cobre sólido pulido				
Calibre del Conductor	24 AWG		23 AWG		
Aplicación	Interno	Intemperie	Interno	Intemperie	Interno
Aislamiento	HDPE (CMI-75E)				PE (dieléctrico 3 Capas)
Blindaje	Sin Blindaje	Sin Blindaje	Sin Blindaje	Hilo Drenaje y lámina de aluminio	Pantalla de alambre cobre estañado y lámina de aluminio
Revestimiento	CM (CM-80S)	CMX (CMI-80O)	CM (CMI-80S)	CMX (CMI-80O)	LSZH
N° de Pares	4				
N° de Hilos	8				
Impedancia	100Ω +/- 15%				
Diámetro externo	5,2mm +/- 0,3mm	5,2mm +/- 0,3mm	6,3mm +/- 0,3mm	7,3mm +/- 0,3mm	7,2mm +/- 0,2mm
Ancho de banda	100MHz		250MHz		500MHz
Velocidad de Transmisión	100mps		1Gbps		10Gbps
Certificaciones	UL, ETL	UL	UL, ETL	UL	ETL





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