

# Berk-Tek LANmark-A920 Cat 6A XTP Solid CMR-CMX Outdoor PVC



Berk-Tek LANmark Industrial Light-Duty (LD) Ethernet Cables enable the expansion and integration of Ethernet into the Industrial environment. With over 50 years of manufacturing expertise, you can be sure these Industrial Cables will perform both mechanically and electrically. With its industrial PVC jacket, cold-bend performance, and resistance to sunlight and oil, this cable is suitable for light to medium duty, static, industrial applications. This Cat 6A compliant product delivers innovative noise canceling XTP technology with exceptional alien crosstalk (AXT). This XTP design requires no bonding or grounding to allow for simple and efficient installation. It is rated CMR and CMX Outdoor, so it easily transitions from indoor to outdoor environments. It is also suitable for cable tray installations.

## DESCRIPTION

### Construction

Bare copper wire insulated with HDPE. Two primaries are twisted together to form a pair and four such pairs are cabled together with a central filler to form the basic unit. The cable core is surrounded by an aluminum/polyester discontinuous shield and contained with an industrial PVC jacket.

### Related Standards

Low Voltage - EU Directive 2014/35/EU, CE Approved

RoHS - EU Directive 2011/65/EU

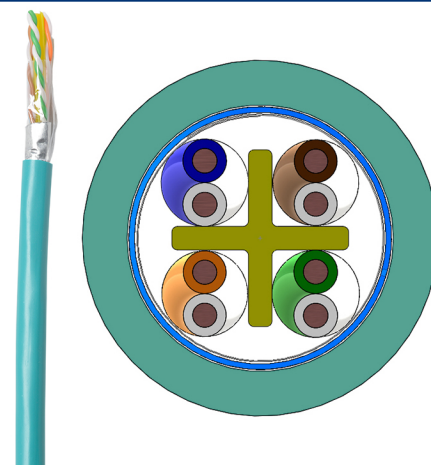
PoE+ - Type 2 (802.3at)

### Ratings

Description	Method	
Listed Type	UL1666	CMR
Listed Type	UL444	CMX Outdoor
Oil Resistance	UL1581 50.182	60°C
Sunlight Resistance	UL444 7.22	Yes (720 hrs)

### Attributes

Description	Method	
Cold Bend	UL444 7.10	-40°C
Installation Pull Tension (Max):		
Bend Radius: > 3 inch	Internal	40 lbs.
Bend Radius: > 1.25 inch	TIA 568-C.0	25 lbs.



**EtherNet/IP™**  
ODVA Compliant

### STANDARDS

**International** ISO/IEC 11801;  
ODVA EtherNet/IP Compliant

**National** ANSI/TIA-568.2-D;  
UL 444

# Berk-Tek LANmark-A920 Cat 6A XTP Solid CMR-CMX Outdoor PVC

## CHARACTERISTICS

### Construction characteristics

Conductor material	23 AWG Solid Bare Copper
Filler	HDPE Cross Filler
Insulation	HDPE
Shielding	Aluminum/Polyester Discontinuous
Core Tape	Polyester
Jacket Material	PVC

### Dimensional characteristics

Insulated conductor diameter (Nominal)	0.047 in
Average jacket thickness	0.03 in
Minimum jacket thickness at any point	0.024 in
Cable diameter (Nominal)	0.313 in
Nominal cable weight	43 lb/kft
Length per reel	1000.0 ft

### Electrical characteristics

Mutual capacitance	5.1 nF/100m max.
DC Resistance (max.)	9.38 Ohm/100m
DC resistance unbalance (max.)	5 %
Nominal velocity of propagation	66 %

### Transmission characteristics



Skew (max.)	45 ns/100m
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### Usage characteristics

Minimum Bending Radius - Install	2.58 in
Recommended installation temperature range	-20 .. 75 °C
Recommended operating temperature range	-40 .. 75 °C
Recommended storage temperature range	-40 .. 75 °C

## PRODUCT LIST

Part Number	Description	Packaging	Colour
 11102422	LANmark-A920 Cat 6A XTP Solid CMR-CMX Outdoor PVC	Reel	Teal

 = Make to order,  = In stock

## LANMARK-A920 - PARAMETRIC DATA: ELECTRICAL

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

FQ	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)		PSANEXT (dB)		LCL/TCL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	20.00	20.00	74.30	75.30	72.30	72.30	67.80	71.80	67.00	67.00	50.00
4	23.00	23.00	65.30	66.30	63.30	63.30	55.80	59.80	67.00	67.00	44.0
10	25.00	25.00	59.30	60.30	57.30	57.30	47.80	51.80	67.00	67.00	40.00
16	25.00	25.00	56.20	57.30	54.20	54.30	43.70	47.70	67.00	67.00	38.00
20	25.00	25.00	54.80	55.80	52.80	52.80	41.80	45.80	67.00	67.00	37.00
31.25	23.60	23.60	51.90	52.90	49.90	49.90	37.90	41.90	67.00	67.00	35.10
62.5	21.50	21.50	47.40	48.40	45.40	45.40	31.90	35.90	65.60	67.00	32.00
100	20.10	20.10	44.30	45.30	42.30	42.30	27.80	31.80	62.50	66.50	30.00
250	17.30	17.30	38.30	39.30	36.30	36.30	19.80	23.80	56.50	60.50	26.00
350	16.30	16.30	36.10	37.20	34.10	34.20	16.90	20.90	—	58.30	24.60
400	15.90	15.90	35.30	36.30	33.30	33.30	15.80	19.80	53.50	57.50	23.40
500	15.20	15.20	33.80	34.80	31.80	31.80	13.80	17.80	52.00	56.00	23.00
600	—	14.70*	—	33.60*	—	30.60*	—	16.20*	—	54.80*	22.20*
750	—	14.00*	—	32.20*	—	29.20*	—	14.30*	—	53.40*	21.20*

FQ	IL (dB/100 m)		ACR (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)		PSAACRF (dB)		EL TCTL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	2.10	2.10	72.20	73.20	70.20	70.20	64.80	64.80	67.00	67.00	35.00
4	3.80	3.80	61.50	62.50	59.50	59.50	52.80	52.70	66.20	67.00	23.00
10	5.90	5.90	53.40	54.40	51.40	51.40	44.80	44.80	58.20	62.20	15.00
16	7.50	7.50	48.80	49.80	46.80	46.80	40.70	40.70	54.10	58.10	10.90
20	8.40	8.40	46.40	47.40	44.40	44.40	38.80	38.80	52.20	56.20	9.00
31.25	10.50	10.50	41.40	42.40	39.40	39.40	34.90	34.90	48.30	52.30	—
62.50	15.00	15.00	32.40	33.40	30.40	30.40	28.90	28.80	42.30	46.30	—
100	19.10	19.10	25.20	26.20	23.20	23.20	24.80	24.80	38.20	42.20	—
250	31.10	31.10	7.30	8.20	5.30	5.30	16.80	16.80	30.20	34.20	—
350	37.20	37.20	-1.10	0.00	-3.10	—	13.90	13.90	—	31.30	—
400	40.10	40.10	-4.80	-3.80	-6.80	—	12.80	12.70	26.20	30.20	—
500	45.30	45.30	-11.40	-10.50	-13.4	—	10.80	10.80	24.20	28.20	—
600	—	50.10*	—	-16.40*	—	—	—	9.20*	—	26.60*	—
750	—	56.70*	—	-24.50*	—	—	—	7.30*	—	24.70*	—

\*Values provided for reference only.

## LANMARK-A920 - TECHNICAL INFORMATION

### Transmission Characteristics

#### Description

ISO/IEC 11801	100 m	Category 6A
ANSI/TIA-568.2-D	100 m	Category 6A
Coupling Attenuation	IEC 61156-5	Type I
Transfer Impedance	IEC 61156-5	Grade 2
ODVA EtherNet/IP™ Compliant		Category 5e

#### Color Code

Pair-1	White	Blue
Pair-2	White	Orange
Pair-3	White	Green
Pair-4	White	Brown

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