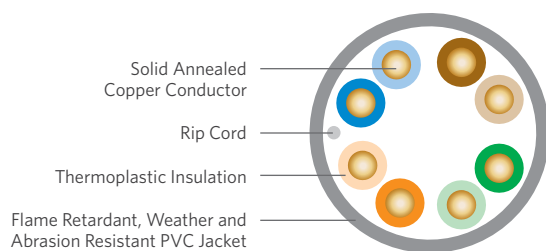


# PowerWise® 1G 4PPoE Indoor/Outdoor

CMR/CMX



## SPECIFICATIONS

Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	22 (0.64)
Insulation	Polyolefin
Insulation Colors	Pair 1: ColorTip Light Blue, Blue Pair 2: ColorTip Light Orange, Orange Pair 3: ColorTip Light Green, Green Pair 4: ColorTip Light Brown, Brown
Ripcord	Non-wicking polyester yarn
Jacket	Tough, flame retardant, weather and abrasion resistant PVC
Characteristic Impedance Ohms	100 ± 15
Nominal Velocity of Propagation %	70
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1581 UL 1666 ANSI/TIA-568-C.2 ANSI/ICEA S-90-661-2012 ANSI/TIA/EIA-570-B Article 800, NEC (NFPA 70) RoHS-compliant/RoHS 2-compliant
NRTL Programs	UL, c(UL) Listed CMR UL, c(UL) Listed CMX Outdoor

## ENVIRONMENTAL SPECIFICATIONS AND TESTS

Operation	-40°F to +167°F (-40°C to +75°C)
Installation	-40°F to +140°F (-40°C to +60°C)
ANSI/ICEA S-100-685-2009 Tested down to -67°F (-55°C)	Section 7.1: -4°F (-20°C) cold bend test Section 7.2: +14°F (-10°C) cold impact test Section 7.3: -40°F (-40°C) anvil test

## PRODUCT DESCRIPTION

PowerWise® 1G 4PPoE Indoor/Outdoor cable is specifically designed for outdoor applications. UV-blocking compounds aid in protecting the cable from light. Applications include Ethernet interconnect cable for Wi-Fi or retrofit cable installations that employ exterior runs having long-term outdoor exposure between two environmentally protected points. CMX Outdoor cables are designed to extend the run between the Network Interface Unit and the point of entry into the interior of a residence or a premise. This cable has been tested and listed as UL® 444 Outdoor compliant. This designation requires the cable to resist 300 hours of UV and heat. In addition, the CMR listing allows the cable to be used in riser spaces per UL 1666, eliminating the need to transition to fire resistant cables.

PowerWise 1G 4PPoE Indoor/Outdoor AWG 22 cables provide the best performance and overall value for 4-Pair Power over Ethernet (4PPoE) applications requiring up to 100W of power and up to 1 Gigabit Ethernet performance compared to standard CAT 5e and 6 designs. PowerWise 1G 4PPoE cables are specifically designed to mitigate temperature build-up, offer exceptional energy efficiency and ensure performance (up to 1 Gigabit Ethernet) over the lifetime of your system provided the performance benefits of a CAT 5E+ cable including a small diameter. Plenum rated conductors are also 100% FEP insulated and ensure cable performance over the life of your system.

## APPLICATIONS

- 10BASE-T through 1000BASE-T Ethernet
- Power over Ethernet (PoE) – IEEE 802.3af
- PoE+ – IEEE 802.3at Type 1 and 2
- 4PPoE – IEEE 802.3bt Type 3 and 4 draft D1.2
- ATM and token ring
- Wi-Fi – IEEE 802.11a/b/g/n

## FEATURES

- Guaranteed 0.3 dB headroom for IL, ACR and PSACR
- Tested 350 MHz
- Tested in most severe temperature conditions in bundle of 100 cables
- Tough, weather resistant PVC jacket
- Combined indoor/outdoor rating
- Moisture-resistant package
- CableID® alpha numeric code printed every 2 feet
- QuickCount® marking system in feet and meters
- ColorTip® Circuit Identification System
- BrakeBox® payout control system

## BENEFITS

- Increases life of cable by providing low temperature handling and UV resistance; cable jacket resists cracking over time
- Reduces inventory by eliminating multiple cable types
- Resists damp conditions that might weaken standard packages
- Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable
- Provides remaining length of cable on reel
- Easily identifiable conductor mates even in low light environments
- Adjustable tension control on reel prevents over spin and entangling of cable



## CAUTIONARY INFORMATION

- Do not use as a substitute for Outside Plant (OSP) cables.
- Do not use in conduit or direct burial which can flood. These cables are not designed for extended exposure to water.

**PART NUMBERS AND PHYSICAL CHARACTERISTICS**

Part Number <sup>1</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
PW52-H46-x1	0.27 (6.9)	34 (15.4)	1,000 ft BrakeBox®	12

**JACKET COLORS**

<sup>1</sup> Replace "x" with:	Blue = 2	Gray = 3	Purple = 7
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**ELECTRICAL SPECIFICATIONS**

Frequency MHz	Insertion Loss @ 20°C Maximum dB/100 m			NEXT Minimum dB/100 m		ACR Minimum dB/100 m			PSNEXT Minimum dB/100 m	
	TIA-568-C.2	Superior Essex		TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex		TIA-568-C.2	Superior Essex
	Specified	Guaranteed	Typical	Specified	Typical	Calculated	Guaranteed	Typical	Specified	Typical
1	2	1.7	1.7	65.3	76.8	63.3	63.6	81.0	62.3	75.3
4	4.1	3.8	3.7	56.3	67.8	52.2	52.5	70.1	53.3	66.3
8	5.8	5.5	5.4	51.8	63.3	46.0	46.3	63.9	48.8	61.8
10	6.5	6.2	6.0	50.3	61.8	43.8	44.1	61.8	47.3	60.3
16	8.2	7.9	7.7	47.2	58.7	39.0	39.3	57.0	44.3	57.2
20	9.3	9.0	8.6	45.8	57.3	36.5	36.8	54.7	42.8	55.8
25	10.4	10.1	9.6	44.3	55.8	33.9	34.2	52.2	41.3	54.3
31.25	11.7	11.4	10.8	42.9	54.4	31.2	31.5	49.6	39.9	52.9
62.5	17	16.7	15.5	38.4	49.9	21.4	21.7	40.4	35.4	48.4
100	22	21.7	19.8	35.3	46.8	13.3	13.6	33.0	32.3	45.3
155			24.8		43.9			25.1		42.4
200			28.2		42.3			20.1		40.8
250			31.8		40.8			15.0		39.3
300			35		39.6			10.6		38.1
350			38.3		38.6			6.3		37.1

Frequency MHz	PSACR Minimum dB/100 m			Return Loss Minimum dB/100 m		ELFEXT Minimum dB/100 m		PSELFEXT Minimum dB/100 m	
	TIA-568-C.2	Superior Essex		TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex
	Calculated	Guaranteed	Typical	Specified	Typical	Specified	Typical	Specified	Typical
1	60.3	60.6	78.3	20.0	33.0	63.8	74.6	60.8	69.3
4	49.2	49.5	67.4	23.0	36.0	51.8	62.6	48.8	57.3
8	43.0	43.3	61.2	24.5	37.5	45.7	56.5	42.7	51.2
10	40.8	41.1	59.1	25.0	38.0	43.8	54.6	40.8	49.3
16	36.1	36.4	54.3	25.0	38.0	39.7	50.5	36.7	45.2
20	33.5	33.8	52.0	25.0	38.0	37.8	48.6	34.8	43.3
25	30.9	31.2	49.5	24.3	37.3	35.8	46.6	32.8	41.3
31.25	28.2	28.5	46.9	23.6	36.6	33.9	44.7	30.9	39.4
62.5	18.4	18.7	37.7	21.5	34.5	27.9	38.7	24.9	33.4
100	10.3	10.6	30.3	20.1	33.1	23.8	34.6	20.8	29.3
155			22.4		31.8		30.8		25.5
200			17.4		31.0		28.6		23.3
250			12.3		30.3		26.6		21.3
300			7.9		29.8		25.1		19.8
350			3.6		29.3		23.7		18.4