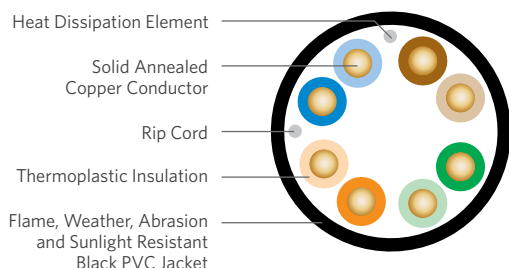


PowerWise® 1G 4PPoE Indoor/Outdoor

CMR/CMX Sunlight Resistant



4PPoE

Solution
Partner

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
Heat Dissipation Element	Coated Copper
Ripcord	Non-wicking polyester yarn
Jacket	Tough, flame retardant, weather, sunlight and abrasion resistant riser PVC
Jacket Color	Black
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-568.2-D 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 Sunlight Resistant

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



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.
- For distance and warranty information please refer to warranty and tech guide documents

PRODUCT DESCRIPTION

PowerWise® 1G 4PPoE Indoor/Outdoor Sunlight Resistant AWG 22 cable is specifically designed for extreme sunlight and temperature applications. The level of UV-blocking compounds is the same as in traditional Outside Plant (OSP) cable products with the black color preventing damage from long-term UV sunlight exposure. 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 Sunlight Resistant compliant. This designation requires the cable to resist 720 hours of harsh UV and heat, which is more than twice the exposure time of the standard 300 hours required in the CMX Outdoor test. 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 with heat dissipation element 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. PowerWise 1G 4PPoE Indoor/Outdoor 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. Cable temperature increases are reduced and power efficiency is increased as a result of 22 gauge conductors and the heat dissipation element.

PowerWise 1G 4PPoE Indoor/Outdoor cable provides the performance benefits with a small diameter. PowerWise 1G 4PPoE Indoor/Outdoor cables are the best solution to connect and power your 4PPoE and extended distance applications compared to standard category cable designs.

APPLICATIONS

- 10BASE-T through 1000BASE-T Ethernet
- Power over Ethernet (PoE) - IEEE 802.3bt Type 1 to 4
- 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
- CableID® alpha numeric code printed every 2 feet
- QuickCount® marking system in feet and meters
- ColorTip® Circuit Identification System
- Color coded box labels
- Moisture-resistant package
- Rip cord applied under jacket
- BrakeBox® payout control system
- UL 444/UL 1581 Sunlight Resistant Listed
- Combines indoor/outdoor applications into one product with the added feature of Sunlight Resistant black color jacket
- Heat dissipation element
- Ideal for extended distance over 100m

BENEFITS

- Performance assurance for exceptional overall channel performance
- Assures ample bandwidth Headroom
- AWG 22 insulated wire offers 88% power efficiency and lowest temperature increase inside a bundle, the best of its class
- 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
- Easily identifies jacket colors
- Resists damp conditions that might weaken standard packages
- Facilitates easy opening
- Adjustable tension control on reel prevents over spin and entangling of cable
- 720 hour sunlight resistant specification
- Increased life in direct, long term sunlight and reduces inventory by eliminating multiple cable types
- Mitigate the heat to same level along the whole distance of the link for improved bandwidth performances
- Guaranteed distance for different applications based on BER test performed by UL at UL facility

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
PW52-H46-E1	0.27 (6.9)	34 (15.4)	1,000 ft BrakeBox®	12

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-568.2-D	Superior Essex	TIA-568.2-D	Superior Essex	TIA-568.2-D	Superior Essex	TIA-568.2-D	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-568.2-D	Superior Essex	TIA-568.2-D	Superior Essex	TIA-568.2-D	Superior Essex	TIA-568.2-D	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		