

Activate™ uTP HFFR / CM Video, Ethernet, and Power

ETL Listed for guaranteed performance
Made in the USA

Part No: ACT4P21ZHM1EB

Applications

Optimized for building automation (BAS) and intelligent buildings (IBS) networked devices and non-conduit wiring in horizontal runs where zero halogen cable is required. Delivers both IP data or video signal and IEEE 802.3bt types, 1, 2, 3 and 4 PoE. Ideal for perimeter range security cameras including PTZ cameras. Supports all digital video surveillance protocols.

Construction Details:

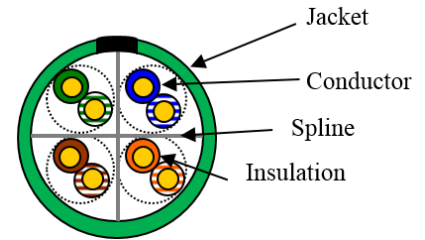
No. 21AWG solid bare copper conductor insulated with ultra low loss, high speed dielectric. Two colored mated insulated conductors twisted together to form a pair. Four pairs of varying twists are cabled with a spline separator to form the core. The core is jacketed with a zero halogen flame retardant cable jacket. Surface Print: ACTIVATE™ by REMEE 21AWG 4uTP UTILITY TWISTED PAIR HFFR c(ETL)us CM 75C MADE IN USA + Sequential Footage Marking

Color Code:

Pair	Color Code
1	Blue with White
2	Orange with White
3	Green with White
4	Brown with White

Electrical Parameters:

Mutual Capacitance:	14 pF / ft nominal
Capacitance Unbalance	1 pF / ft nominal
Velocity of Propagation	72%
Return Loss @ 100MHz	24 dB nominal
Pair D.C.R. (Loop Resistance):	9.7 ohm/100 meter
Resistance Unbalance:	0.042 ohm/100 meter
Characteristic Impedance @ 100 MHz	100 ± 15%
DCR Single Conductor:	4.85 ohm/100 meter
Delay Skew	34 ns/100m typical



Technical Details

Temperature Rating

Installation	0°C to 50°C
Operation	-20°C to 75°C

Nominal Diameter 0.300 in.

Nominal cable weight: 45 lb/1000 feet

Standards

- NEC Article 800
- UL Subject 444
- Annealed Copper Conforms to ASTM B3
- NFPA 130 compliant
- Passes Flame Propagation according to VW-1 Section 1080 of UL 1581
- Passes Flame Propagation and Smoke Release Criteria According to UL 1685
- Halogen Content Does Not Exceed 0.2% According to Test Method IEC60754-1
- UL 1685 Vertical Tray, FT1
- IEEE 802.3bt, including Type 4

Codes & Listings

- CM



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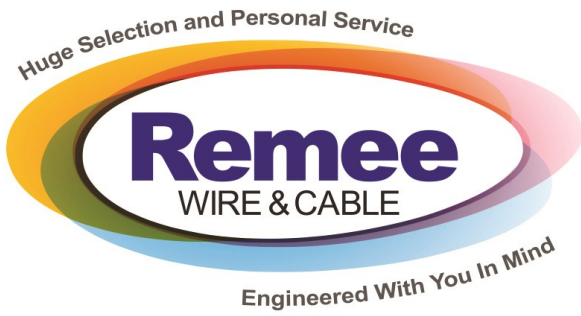


Issue Date: 10/22
Revision: 6

All warranty information can be viewed at WWW.REMEE.COM.

This product is RoHS compliant to directive 2002/95/EC .

1751 State RTE. 17A STE #1 Florida, NY 10921
Customer Service: 800-431-3864 Fax: 845-651-4160 Website: www.remee.com



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Remote Voltage

PoE Type 1: Voltage at the Powered Device (PD)* for Input Voltage and Distance (37V minimum required)						
Input Voltage	325ft	500ft	650ft	750ft	850ft	1000ft
44V	42.6	41.8	41.1	40.7	40.3	39.6
48V	46.7	46.0	45.4	45.0	44.6	44.0
52V	50.8	50.1	49.6	49.2	48.8	48.3
57V	55.9	55.3	54.8	54.5	54.1	53.6

15.4W @ PSE. 13W required @ PD. Power on 1 Pair

PoE Type 2: Voltage at the Powered Device (PD)* for Input Voltage and Distance (42.5V minimum required)						
Input Voltage	325ft	500ft	650ft	750ft	850ft	1000ft
50V	47.5	46.2	45.1	44.3	43.5	42.5
52V	49.6	48.3	47.3	46.5	45.8	44.7
55V	52.8	51.5	50.5	49.8	49.1	48.1
57V	54.8	53.7	52.7	52.0	51.3	50.3

30W @ PSE. 25.5W required @ PD. Power on 1 Pair



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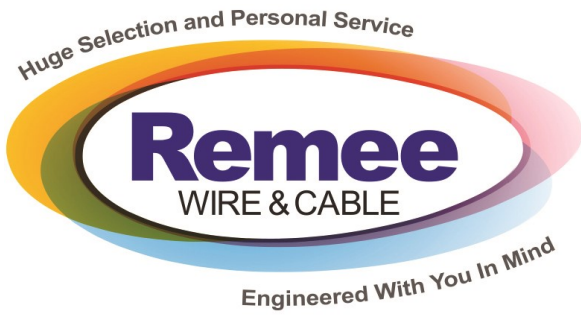


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Remote Voltage

PoE Type 3: Voltage at the Powered Device (PD)* for Input Voltage and Distance (42.5V minimum required)						
Input Voltage	325ft	500ft	650ft	750ft	850ft	1000ft
50V	47.5	46.2	45.1	44.3	43.5	42.5
52V	49.6	48.3	47.3	46.5	45.8	44.7
55V	52.8	51.5	50.5	49.8	49.1	48.1
57V	54.8	53.7	52.7	52.0	51.3	50.3

60W @ PSE. 51W required @ PD. Power on 2 Pairs

PoE Type 4: Voltage at the Powered Device (PD)* for Input Voltage and Distance (41.1V minimum required)						
Input Voltage	325ft	500ft	650ft	750ft	850ft	1000ft
50V	46.6	44.7	43.1	42.1	41.1	39.4
52V	48.7	46.9	45.4	44.4	43.4	41.8
55V	51.9	50.2	48.7	47.8	46.8	45.4
57V	54.0	52.4	51.0	50.0	49.1	47.7

100W @ PSE. 71W required @ PD. Power on 2 Pairs



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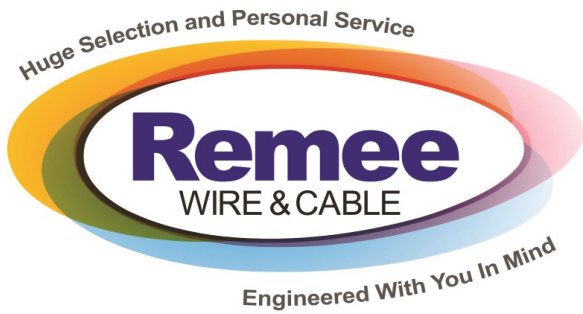


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Compliant Network & Video Standards:

10BASE-T	ATM-51
100BASE-TX	ATM-155
100BASE-T4	M-JPEG
100VG-AnyLan	MPEG-4
1000BASE-T	MPEG-TS
2.5GBASE-T	Motion JPEG 2000
5GBASE-T	Dirac
ATM-25	PGF

Digital Cliff Guidance: Max. Distance for Data Rate

10 Mb/s	1,000 ft	Data transmission distance is dependent on equipment, signal frequency, system installation, and data or video format. Actual results vary.
100 Mb/s	700 ft	
1 Gb/s	656 ft	

Connectors:

Remeë ACTIVATE™ works well with many M12 and RJ45 style connectors for UTP cables including:

- RJ45 Styles
- Simply45 S45-1755P

* Remote voltage tables are theoretical values calculated based on Ohms Law. Equipment may limit the distance between the PSE and PD using other criteria such as voltage, amperage, and/or circuit loop resistance. Such limitations may be in observation of IEEE 802 criteria as interpreted by the equipment manufacturer or by their specifications.

Current Amps (A) = Watts (W) / Volts (V) and Voltage Drop (Vd) = Current (A) x Resistance (Ω.)

Activate Resistance is 9.7Ω/100m loop resistance/pair; or 4.9Ω/100m conductor.

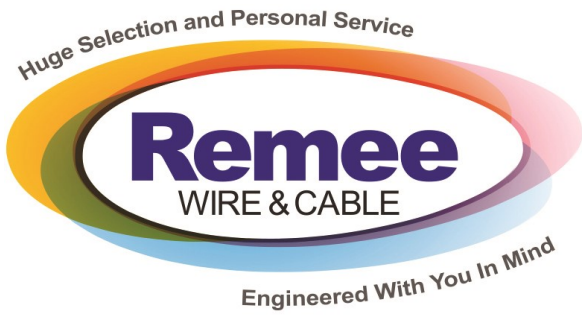


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Preparation For Shipment

The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.

Note: While Remeo Products Corp. has made every reasonable effort to ensure the accuracy of the information in this document. Remeo Products Corp. reserves the right to make any adjustments to the information contained herein at any time without notice. Remeo Products Corp. expressly disclaims all implied warranties regarding the information contained herein, including but not limited to, any implied warranties of merchantability or fitness for particular purpose. The dimensions in this document are for reference purposes only and are subject to change without notice.

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order; this item may be non-cancelable and non-returnable.

Signature: _____
Company: _____
Date: _____



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