

Part No: ACT4P21PM1OW

Applications

Optimized for building automation (BAS) and intelligent buildings (IBS) networked devices and non-conduit plenum wiring. Delivers both IP data or video signal and IEEE 802.3 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 low smoke flame retardant PVC. Surface Print: ACTIVATE™ by REMEE 21AWG 4uTP UTILITY TWISTED PAIR c(ETL)us CMP 75C FT6 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

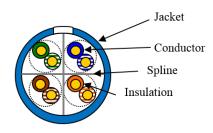
Pair D.C.R. (Loop Resistance): 9.7 ohm/100 meter
Resistance Unbalance: 0.042 ohm/100 meter

Characteristic Impedance @ 100 MHz 100 ± 15%

DCR Single Conductor: 4.85 ohm/100 meter
Delay Skew 34 ns/100m typical

ActivateTM uTP CMP Video, Ethernet, and Power

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Technical Details

Temperature Rating

	Installation	0°C to 50°C
	Operation	-2°C to 75°C
Nominal Diameter		0.300 in.
Nominal cable weight:		45 lb/1000 feet

Standards

- NEC Article 800
- UL Subject 444
- NFPA 262, CSA FT6
- CSA 22.2
- IEEE 802.3bt, including Type 4

Codes & Listings

- CMP rating FT6
- C(ETL)US





Issue Date: 10/22 Revision: 5

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

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

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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			stance	(37V minimum re	quired)	
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)istance	(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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Remote Voltage

PoE Type 3: Voltage at the Powered Device (PD)* for Input Voltage and Distance			stance	(42.5V minimum r	equired)	
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 r	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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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
100 Mb/s	700 ft
1 Gb/s	656 ft

Data transmission distance is dependent on equipment, signal frequency, system installation, and data or video format. Actual results vary.

Connectors:

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

RJ45 Styles

- Simply45 S45-1755P

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





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^{*} Remote voltage tables are theoretical values calculated based on Ohms Law.



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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.

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on confirmation of your order; this item may be non-cancelable and non-returnable.	
Signature:	
Company:	•

Date:

Your signature constitutes that you have read and agreed to this specification sheet and up-





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