



Specification Sheet

Lake Cable Part #: S5E27CAT6A-PUR

Description: Five element 27 conductor composite cable with an overall PUR jacket.

- Component 1: 12AWG 2C 19STR TC SRPVC
- Component 2: 22AWG 1PR 7STR TC SRPVC UNSHIELDED
- Component 3: 26AWG 9PR 7STR TC PE UNSHIELDED
- Component 4: 26AWG 5C 7STR TC PVC
- Component 5: 23 AWG 6a Unshielded Category Cable

Component 1: 12AWG 2C 19STR TC SRPVC

1. Conductor

- 1.1.AWG Size & Stranding: 12 AWG 19 Strands
- 1.2.Material: Annealed Tinned Copper
- 1.3.Conductor Count: 2 Conductors

2. Insulation

- 2.1.Material: SRPVC
- 2.2.Wall Thickness: 0.016"
- 2.3.Diameter: 0.122" $\pm$ 0.002"
- 2.4.Color Code: Black x Red

3. Assembly

- 3.1.Pair Lay Length: 2.00" LHL Nominal (6.00 tw/ft)

4. Nominal Electrical Characteristics

- 4.1.Impedance: 51 $\Omega \pm 10\%$
- 4.2.Capacitance: 34 pF/ft. $\pm 10\%$
- 4.3.Inductance: 0.088 μ H/ft $\pm 10\%$
- 4.4.DC Resistance: 1.70 Ω /Mft. @ 20°C Maximum

Component 2: 22AWG 1PR 7STR TC SRPVC UNSHIELDED

5. Conductor

- 5.1.AWG Size & Stranding: 22 AWG 7 Strands
- 5.2.Material: Annealed Tinned Copper
- 5.3.Conductor Count: 1 Pair

6. Insulation

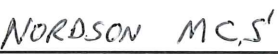
- 6.1.Material: SRPVC
- 6.2.Wall Thickness: 0.010"
- 6.3.Diameter: 0.048" $\pm$ 0.002"
- 6.4.Color Code: White x Brown

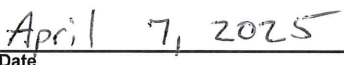
7. Assembly

- 7.1.Pair Lay Length: 1.30" LHL Nominal (9.23 tw/ft)

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



Specification Sheet

Lake Cable Part #: S5E27CAT6A-PUR

8. Nominal Electrical Characteristics

- 8.1. Impedance: $80 \Omega \pm 10\%$
- 8.2. Capacitance: $22 \text{ pF/ft.} \pm 10\%$
- 8.3. Inductance: $0.124 \mu\text{H/ft} \pm 10\%$
- 8.4. DC Resistance: $14.73 \Omega/\text{Mft.} @ 20^\circ\text{C Maximum}$

Component 3: 26AWG 9PR 7STR TC PE UNSHIELDED

9. Conductor

- 9.1. AWG Size & Stranding: 26 AWG 7 Strands
- 9.2. Material: Annealed Tinned Copper
- 9.3. Conductor Count: 9 Pair

10. Insulation

- 10.1. Material: Polyethylene
- 10.2. Wall Thickness: 0.013"
- 10.3. Diameter: $0.044" \pm 0.002"$
- 10.4. Color Code: Pink x Brown, Gray x Brown, Violet x Tan, Yellow x Green, Blue x White, Gray x Orange, Yellow x White, Tan x Brown, Blue x Gray

11. Assembly

- 11.1. Pair Lay Length: Staggered Lays on all pairs to reduce cross talk (0.350" - 0.830")

12. Nominal Electrical Characteristics

- 12.1. Impedance: $100 \Omega \pm 10\%$
- 12.2. Capacitance: $14 \text{ pF/ft.} \pm 10\%$
- 12.3. Inductance: $0.174 \mu\text{H/ft} \pm 10\%$
- 12.4. DC Resistance: $37.32 \Omega/\text{Mft.} @ 20^\circ\text{C Maximum}$

Component 4: 26AWG 5C 7STR TC PVC

13. Conductor

- 13.1. AWG Size & Stranding: 26 AWG 7 Strands
- 13.2. Material: Annealed Tinned Copper
- 13.3. Conductor Count: 5 Conductor

14. Insulation

- 14.1. Material: PVC
- 14.2. Wall Thickness: 0.010"
- 14.3. Diameter: $0.038" \pm 0.002"$
- 14.4. Color Code: Tan, Green, Violet, White, Orange

15. Nominal Electrical Characteristics

- 15.1. Impedance: $75 \Omega \pm 10\%$
- 15.2. Capacitance: $21 \text{ pF/ft.} \pm 10\%$
- 15.3. Inductance: $0.125 \mu\text{H/ft} \pm 10\%$
- 15.4. DC Resistance: $37.32 \Omega/\text{Mft.} @ 20^\circ\text{C Maximum}$



529 Thomas Drive, Bensenville, IL 60106 | TF: 888.518.8086 | FX: 630.860.5944

Specification Sheet

Lake Cable Part #: S5E27CAT6A-PUR

Component 5: 23 AWG 6a Unshielded Category Cable

16. Conductor

- 16.1. AWG Size & Stranding: 23 AWG Solid
- 16.2. Material: Annealed Bare Copper
- 16.3. Conductor Count: 4 Pair
- 16.4. Color Code: Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown
- 16.5. Jacket Color: Blue

17. Nominal Electrical Characteristics

- 17.1. Impedance: $100 \Omega \pm 10\%$
- 17.2. Capacitance: $15 \text{ pF/ft.} \pm 10\%$
- 17.3. Inductance: $0.143 \mu\text{H/ft} \pm 10\%$

FREQ	INSERTION LOSS	NEXT	PS NEXT	ACR	FREQ	PSACR	ACRF	PSACRF	RETURN LOSS								
(MHz)	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE	(MHz)	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE	TIA-568.2-D, THRU CABLE								
1	2.31	1.7	72.5	97.5	70.5	91.3	70.21	95.8	1	68.2	89.5	70.21	96.4	68.21	90.7	20.6	34.5
4	3.7	3.5	65.7	90.2	63.7	83.1	62.0	86.7	4	60.0	79.6	62.0	88.2	63.694	80.7	22.9	31.1
8	5.2	4.9	60.9	84.8	58.9	78.5	55.7	79.8	8	53.7	73.6	55.7	79.2	58.913	73.0	24.5	31.9
10	6.0	5.5	59.1	79.3	57.1	74.0	53.1	73.8	10	51.1	68.4	53.1	75.0	57.144	69.7	25.0	32.8
16	7.5	7.0	56.3	80.1	54.3	74.4	48.8	73.1	16	46.8	67.4	48.8	72.9	54.269	65.8	25.0	32.8
20	8.4	7.9	54.8	83.2	52.8	73.2	46.4	75.3	20	44.4	65.3	46.4	72.2	52.789	65.1	25.0	34.9
25	9.4	8.9	53.4	77.9	51.4	72.5	44.0	69.0	25	42.0	63.2	44.0	67.1	51.368	60.8	24.3	33.4
31.25	10.4	10.0	52.0	78.9	50.0	70.8	41.6	69.0	31.25	39.6	60.9	41.6	64.9	50.027	57.8	23.6	31.5
62.5	15.0	14.4	47.4	71.0	45.4	65.2	32.4	56.7	62.5	30.4	50.8	32.4	58.9	45.393	50.7	21.6	34.2
100	19.1	18.4	44.3	64.5	42.3	58.0	25.2	46.2	100	23.2	39.6	25.2	52.1	42.329	44.4	20.1	32.0
200	27.6	26.7	39.8	61.2	37.8	53.9	12.2	34.6	200	10.2	27.2	12.2	37.0	37.777	29.3	18.0	27.6
250	31.1	30.0	38.3	58.6	36.3	52.9	7.3	28.7	250	5.3	22.9	7.3	34.1	36.338	27.6	17.3	25.0
300	34.3	33.0	37.1	60.4	35.1	54.5	2.9	27.5	300	0.9	21.5	2.9	28.7	35.141	23.2	16.8	22.5
400	40.0	38.8	35.3	58.5	33.3	51.2	-4.8	19.7	400	-6.8	12.4	-4.8	19.9	33.27	11.0	15.9	20.0
500	45.2	44.0	33.8	58.0	31.8	50.9	-11.4	14.1	500	-13.4	6.9	-11.4	11.7	31.818	5.7	15.2	20.6
550		46.2		52.8		45.0		6.6	550		1.2		10.7		4.6		19.9

Overall Cable Assembly: Components 1 - 5

18. Cable Assembly:

- 18.1. Lay Length: 8.00" LHL (1.5 Tw/ft), Nominal
- 18.2. Binder: Clear Mylar - 100% Coverage
- 18.3. Shield: Aluminum/Mylar - 100% Coverage (Foil Out)
- 18.4. Drain Wire: 24 AWG 7 strand Tin Copper
- 18.5. Braid Shield: 36 AWG Tin Copper 90% Coverage

19. Overall Jacket

- 19.1. Material: Semi Pressure Extruded PUR
- 19.2. Wall Thickness: 0.035"
- 19.3. Diameter: 0.530" ± 0.040 "
- 19.4. Color: Black
- 19.5. Ripcord: Yes
- 19.6. Weight: 198 Lbs/Mft.

20. Markings

- 20.1. Type: Cable permanently identified via inkjet print
- 20.2. Legend: N/A
- 20.3. Footage Markers: N/A



529 Thomas Drive, Bensenville, IL 60106 | TF: 888.518.8086 | FX: 630.860.5944

Specification Sheet

Lake Cable Part #: S5E27CAT6A-PUR

21. Standards

- 21.1. No Agency Approvals
 - 21.2. Operating Temperature: -40C to 90C
 - 21.3. Operating Voltage: 300V RMS
 - 21.4. Cable meets RoHS 2002/95/EC Directive, RoHS 2 2011/65/EU Directive, RoHS 3 2015/863/EU Directive
 - 21.5. Cable is REACH compliant per Regulation (EC) No 1907/2006 (233) Updated January 17, 2023
 - 21.6. Operating Voltage: 300V RMS
 - 21.7. Made in the USA
 - 21.8. ⚠️ WARNING: This product may contain chemicals, such as Vinyl Chloride, known to the state of California to cause cancer. For more information, go to www.P65Warnings.ca.gov. Wash hands after handling
- ALL SPECIFIED PARAMETERS WITHOUT A TOLERANCE ARE NOMINAL AND SUBJECT TO VERIFICATION. LAKE CABLE IS NOT RESPONSIBLE FOR UNKNOWN PERFORMANCE ATTRIBUTES THAT WERE NOT MADE KNOWN TO LAKE CABLE AT THE TIME OF DESIGN.**