

# PowerSUM Specifications

## SYSTIMAX PowerSUM Category 5e Guaranteed Channel Performance

### Guaranteed Performance Specifications for PowerSUM Solution

Electrical Parameter (1 – 155.5 MHz)	Guaranteed Channel Margins to Category 5E/Class D TIA 568B.2 and ISO 11801 Edition 2.0
Insertion Loss	5.0 %
NEXT	3.0 dB
PSNEXT	5.5 dB
ELFEXT	4.5 dB
PSELFEXT	5.5 dB
Return Loss	1.0 dB

Frequency (MHz)	Insertion Loss (dB)	NEXT (dB)	ACR (dB)	PSNEXT (dB)	PSACR (dB)	ELFEXT (dB)	PSELFEXT (dB)	Return Loss (dB)	Phase Delay (ns)	Delay Skew (ns)
1.0	2.1	63.0	60.9	62.5	60.4	61.8	59.8	18.0	580	30
4.0	4.2	56.6	52.4	56.2	52.0	49.8	47.8	18.0	562	30
8.0	6.0	51.6	45.6	51.2	45.2	43.8	41.8	18.0	557	30
10.0	6.7	50.0	43.3	49.6	42.9	41.8	39.8	18.0	555	30
16.0	8.6	46.6	38.0	46.2	37.6	37.8	35.7	18.0	553	30
20.0	9.7	45.0	35.4	44.6	34.9	35.8	33.8	18.0	552	30
25.0	10.9	43.4	32.5	42.9	32.1	33.9	31.9	17.0	551	30
31.3	12.2	41.8	29.5	41.3	29.1	31.9	29.9	16.0	550	30
62.5	17.7	36.6	19.0	36.1	18.4	25.9	23.9	13.1	549	30
100.0	22.8	33.1	10.3	32.6	9.8	21.8	19.8	11.0	548	30
125.0	25.8	31.5	5.7	30.9	5.1	19.9	17.9	10.1	547	30
155.5	29.1	29.8	0.7	29.2	0.1	18.0	16.0	9.1	547	30

PowerSUM

# Category 5e, PowerSUM Cable



## Non Plenum 1061

The 1061 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173, and TIA/EIA 568B.1. Further, these cables are UL verified as Category 5e.

The 4-pair 1061C cable is composed of 24 AWG solid copper conductors, insulated with high-density polyolefin. The insulated conductors are twisted into pairs and jacketed with our specially formulated material. 1061C is rated CM.

The 4-pair 1061B cable is CMR rated and also UL approved. The 4-pair 1061B cable is composed of 24 AWG solid copper conductors with high-density polyolefin insulation and jacketed with low-smoke polyvinyl chloride (PVC).

### Physical Specifications:

**Weight:** 20.8 lbs/1,000 ft (9.43 kg/304.8 m)  
**Nominal Jacket Thickness:** 0.021 in (0.53 mm)  
**Nominal Outside Diameter:** 0.21 in (5.33 mm)  
**Maximum Pulling Tension:** 25 lbs (11.34 kg)  
**Operating Temperature:** -4°F to 140°F (-20°C to 60°C)  
**Gauge:** 24 AWG

### Electrical Specifications:

**NVP (fastest pair @10 MHz):** 70%  
**Maximum DC Resistance:** 9.38 Ohms/100 m  
**Maximum DC Resistance Unbalance:** 3%  
**Maximum Mutual Capacitance at 1 kHz:** 5.6 nF/100 m  
**Standards:** ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e  
 ISO/IEC 11801: 2002 (Edition 2) Class D  
 CENELEC EN50173: 2002 (Edition 2) Category 5e  
**UL and cUL:** CMR (for 1061B)  
 CM (for 1061C)

## UL CMR Rated

Product Number	Pair Count	Color	Length	Package	Material ID
1061004BBL W1000	4	Blue	1,000 ft (305 m)	We Tote	107251696
1061004BBL R1000	4	Blue	1,000 ft (305 m)	Reel	107323636
1061004BSL W1000	4	Slate	1,000 ft (305 m)	We Tote	107091936
1061004BWH W1000	4	White	1,000 ft (305 m)	We Tote	107819575
1061004BOR W1000	4	Orange	1,000 ft (305 m)	We Tote	108173840
1061004BRD W1000	4	Red	1,000 ft (305 m)	We Tote	700022643

## UL CM Rated

Product Number	Pair Count	Color	Length	Package	Material ID
1061004CSL R1000	4	Slate	1,000 ft (305 m)	Reel	106836943
1061004CSL W1000	4	Slate	1,000 ft (305 m)	We Tote	106836950
1061004CWH R1000	4	White	1,000 ft (305 m)	Reel	107849283
1061004CWH W1000	4	White	1,000 ft (305 m)	We Tote	107147787
1061004CIV W1000	4	Ivory	1,000 ft (305 m)	We Tote	106871817
1061004CIV R1000	4	Ivory	1,000 ft (305 m)	Reel	107076192
1061004CYL W1000	4	Yellow	1,000 ft (305 m)	We Tote	107001687
1061004CYL R1000	4	Yellow	1,000 ft (305 m)	Reel	106999071
1061004CLB W1000	4	Light Blue	1,000 ft (305 m)	We Tote	106871809
1061004CLB R1000	4	Light Blue	1,000 ft (305 m)	Reel	107057853
1061004CBL R1000	4	Blue	1,000 ft (305 m)	Reel	760004705
1061004CBL W1000	4	Blue	1,000 ft (305 m)	We Tote	760004671
1061004COR R1000	4	Orange	1,000 ft (305 m)	Reel	107193435
1061004COR W1000	4	Orange	1,000 ft (305 m)	We Tote	700156177



Product Number	Pair Count	Color	Length	Package	Material ID
1061004CRD W1000	4	Red	1,000 ft (305 m)	We Tote	106926363
1061004CRD R1000	4	Red	1,000 ft (305 m)	Reel	107244055
1061004CGN W1000	4	Spring Green	1,000 ft (305 m)	We Tote	107244030
1061004CGN R1000	4	Spring Green	1,000 ft (305 m)	Reel	107244048
1061004CLL W1000	4	Lilac	1,000 ft (305 m)	We Tote	107244022
1061004CBK W1000	4	Black	1,000 ft (305 m)	We Tote	107509051
1061004C1SL R1000*	4	Slate	1,000 ft (305 m)	Reel	700207897
1061004C1SL W1000*	4	Slate	1,000 ft (305 m)	We Tote	700207871
1061004C1LB W1000*	4	Light Blue	1,000 ft (305 m)	We Tote	700207889

\*Austel

## Plenum 2061

The 2061B Plenum 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 5e. The 2061B cable is composed of 24 AWG (0.5 mm) bare solid copper conductors insulated with Fluorinated-Ethylene-Propylene (FEP). The core of twisted pairs is jacketed with a low smoke PVC. It conforms to the low flame, low smoke requirements of the NEC.

### Physical Specifications:

**Weight:** 21.9 lbs/1,000 ft (9.93 kg/304.8 m)  
**Nominal Jacket Thickness:** 0.016 in (0.406 mm)  
**Nominal Outside Diameter:** 0.192 in (4.877 mm)  
**Maximum Pulling Tension:** 25 lbs (11.34 kg)  
**Operating Temperature:** -4°F to 140°F (-20°C to 60°C)  
**Gauge:** 24 AWG

### Electrical Specifications:

**NVP (fastest pair @ 10 MHz):** 73%  
**Maximum DC Resistance:** 9.38 Ohms/100 m  
**Maximum DC Resistance Unbalance:** 3%  
**Maximum Mutual Capacitance at 1 kHz:** 5.6 nF/100 m  
**Standards:** ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e  
 ISO/IEC 11801: 2002 (Edition 2) Class D  
 CENELEC EN 50173: 2002 (Edition 2) Category 5e  
**UL and cUL:** CMP

Product Number	Pair Count	Color	Length	Package	Material ID
2061004BSL W1000	4	Slate	1,000 ft (305 m)	We Tote	108606815
2061004BSL R1000	4	Slate	1,000 ft (305 m)	Reel	107193468
2061004BWH R1000	4	White	1,000 ft (305 m)	Reel	106939317
2061004BWH W1000	4	White	1,000 ft (305 m)	We Tote	106939325
2061004BWH W1000	4	White	1,000 ft (305 m)	We Tote	760003236
2061004BYL R1000	4	Yellow	1,000 ft (305 m)	Reel	106965387
2061004BYL W1000	4	Yellow	1,000 ft (305 m)	We Tote	106965379
2061004BBL R1000	4	Blue	1,000 ft (305 m)	Reel	106946809
2061004BBL W1000	4	Blue	1,000 ft (305 m)	We Tote	106946825
2061004BOR R1000	4	Orange	1,000 ft (305 m)	Reel	106974348
2061004BOR W1000	4	Orange	1,000 ft (305 m)	We Tote	108052879
2061004BGN R1000	4	Spring Green	1,000 ft (305 m)	Reel	107272841
2061004BGN W1000	4	Spring Green	1,000 ft (305 m)	We Tote	107272809
2061004BLL R1000	4	Lilac	1,000 ft (305 m)	Reel	107273286
2061004BLL W1000	4	Lilac	1,000 ft (305 m)	We Tote	107273278
2061004BBK R1000	4	Black	1,000 ft (305 m)	Reel	107383705
2061004BBK W1000	4	Black	1,000 ft (305 m)	We Tote	107509036
2061004BRD R1000	4	Red	1,000 ft (305 m)	Reel	108924838
2061004BRD W1000	4	Red	1,000 ft (305 m)	We Tote	700013667
2061004BBR R1000	4	Brown	1,000 ft (305 m)	Reel	760027326
2061004BPK W1000	4	Pink	1,000 ft (305 m)	We Tote	760006593

## Low Smoke Zero Halogen (LSZH) 3061

The 3061A LSZH 4-pair cable meets or exceeds Category 5e/Class D attenuation and NEXT requirements in ISO/IEC 11801, CENELEC EN50173 and TIA/EIA 568B. Further, these cables are UL verified as Category 5e. The 3061A LSZH cable is composed of 0.511 mm (24 AWG) bare solid copper conductors insulated with high density polyolefin. The insulated conductors are tightly twisted into pairs and jacketed with the low smoke non-halogen compound.

### Physical Specifications:

**Weight:** 22 lbs/1,000 ft (9.98 kg/304.8 m)  
**Nominal Jacket Thickness:** 0.021 in (0.533 mm)  
**Nominal Outside Diameter:** 0.205 in (5.207 mm)  
**Maximum Pulling Tension:** 25 lbs (11.34 kg)  
**Operating Temperature:** -4°F to 140°F (-20°C to 60°C)  
**Gauge:** 24 AWG

### Electrical Specifications:

**NVP (fastest pair @ 10 MHz):** 70%  
**Maximum DC Resistance:** 9.38 Ohms/100 m  
**Maximum DC Resistance Unbalance:** 3%  
**Maximum Mutual Capacitance at 1 kHz:** 5.6 nF/100 m  
**Standards:** ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e  
 ISO/IEC 11801: 2002 (Edition 2) Class D  
 CENELEC EN50173: 2002 (Edition 2) Category 5e  
 IEC 754 part 2, Non-halogen based on pH and conductivity measurements  
 IEC 1034 part 2, Smoke emission  
 IEC 332 part 3, Flammability and flame retardant  
 NES 713: Toxicity index

Product Number	Pair Count	Color	Length	Package	Material ID
3061004AWH W1000	4	White	1,000 ft (305 m)	We Tote	107573545
3061004AWH R1000	4	White	1,000 ft (305 m)	Reel	107573537
3061004AWH R4400	4	White	4,400 ft (1,341 m)	Reel	107860538
3061004AWH CUSTL	4	White	Custom Length	Reel	107573560



## Limited Combustible 4061

The 4061 cable is UL verified Category 5e and UL listed type CMP 50 for use in air return handling spaces and compliant with the UL limited combustibility requirement. The cable is made with an all FEP construction which is not subject to performance changes due to environmental conditions.

### Physical Specifications:

**Weight:** 25.3 lbs/1,000 ft (11.48 kg/304.8 m)  
**Insulation Thickness:** 0.0065 in (0.17 mm)  
**Nominal Jacket Thickness:** 0.010 in (0.25 mm)  
**Nominal Outside Diameter:** 0.18 in (4.58 mm)  
**Maximum Pulling Tension:** 25 lbs (11.34 kg)  
**Operating Temperature:** -4°F to 140°F (-20°C to 60°C)  
**Gauge:** 23 AWG

### Electrical Specifications:

**NVP (fastest pair @ 10 MHz):** 71%  
**Maximum DC Resistance:** 7.61 Ohms/100 m  
**Maximum DC Resistance Unbalance:** 3%  
**Mutual Capacitance at 1 kHz:** 5.6 nF/100 m  
**Standards:** ANSI/TIA/EIA 568B.1 and ANSI/TIA/EIA 568B.2 Category 5e  
 ISO/IEC 11801: 2002 (Edition 2) Class D  
 CENELEC EN50173: 2002 (Edition 2) Category 5e  
**UL and cUL:** CMP-50

Product Number	Pair Count	Color	Length	Package	Material ID
4061004ABL R1000	4	Blue	1,000 ft (305 m)	Reel	108671272
4061004AWH R1000	4	White	1,000 ft (305 m)	Reel	108671280