

Introducing SpaceGAIN—only from Black Box.

Turn tight spaces into right spaces with SpaceGAIN.

Unique, space-saving cables and panels for high-density infrastructures, crowded cabinets, and the desktop.

Reduce
cabling space,
management,
and costs.

- » 90° Right-Angle Patch Cables
- » 6" Reduced-Length Patch Cables
- » 45° Angled-Port Patch Panels
- » Multimedia Patch Panels
- » Angled Patch Panels
- » 24-Port 1/2U Patch Panels
- » 48-Port, 1U, High-Density Feed-Through Patch Panels



Frank Butcofski
Point Breeze Communications
Sweet Valley, Pa 18656
570-814-0410
frank@PointBreezeCommunications.com



Without SpaceGAIN



*Did this ever happen to you?
These cables protrude so much you
can't even close the cabinet door.*



With SpaceGAIN



*Gain up to 4" of valuable cabling space and keep cabinet doors
securely locked with SpaceGAIN 90° Right-Angle Patch Cables.*

SpaceGAIN cables and panels—unique space-saving solutions for high -

Reduce cabling space, management, and costs.

Today, as more and more IT managers move to high-density configurations, space in the data center is becoming more and more valuable. This applies to the desktop, too. Increasingly, people are working with two monitors, a standard keyboard, plus a laptop on their desktop. Space—and cabling—is becoming a real issue.

SpaceGAIN is a family of patch cables and panels designed to help you create space instead of taking up space in the data cabinet and at the desktop.

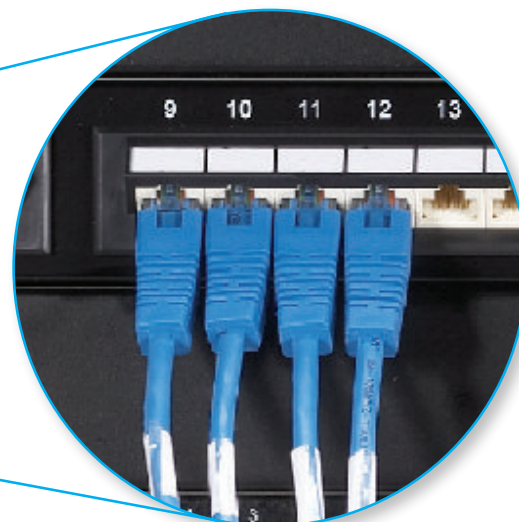
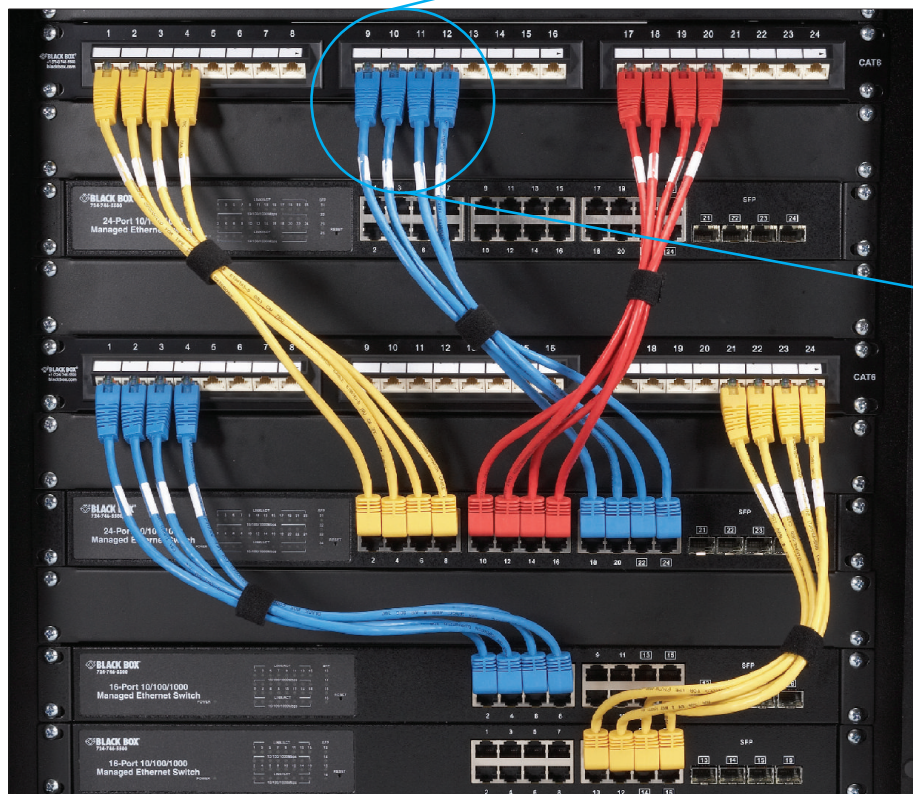
Found only at Black Box, SpaceGAIN cables and patch panels will help turn tight spaces into right spaces. You'll gain space for cabling in the closet and reduce cable management, installation time, and costs. At the desktop, you'll tame cable chaos and make much neater cabling connections. Plus, you'll be able to easily make those really tight, hard-to-fit wallplate connections behind desks and furniture.

SpaceGAIN started with some hands-on research. We worked in our data lab and actively developed and tested the SpaceGAIN products. The result is a space-saving solution produced for Black Box customers.

The SpaceGAIN family consists of:

- 90° Right-Angle Patch Cables, Unshielded and Shielded, **a Black Box Exclusive**, pages 3–6.
- 6" Reduced-Length Patch Cables, page 7.
- 45° Angled-Port Patch Panels, page 8.
- Multimedia Patch Panels, page 9.
- Angled Patch Panels, page 9.
- 24-Port ½ U Patch Panels, page 10.
- 48-Port, 1U, High-Density Feed-Through Patch Panels, **a Black Box Exclusive**, page 10.

Best of all, SpaceGAIN products are guaranteed for life.



Cables flow downward—not out—saving even more space with our award-winning SpaceGAIN 45° Angled-Port Patch Panels.

**A Black Box
Exclusive**

Gain more cabling space and make neater cabinet connections with the ingenious duo of SpaceGAIN 45° Angled-Port Patch Panels and 90° Right-Angle Patch Cables.

high-density infrastructures, crowded cabinets, and the desktop.

The inspiration behind SpaceGAIN: the data center mistake I made only once.

"SpaceGAIN cables and panels are for people like me. Once, when designing a data center, I made a mistake I'll never make again.

"When ordering new data cabinets, I carefully took into account the measurements of the new, deeper equipment to make sure it would fit. I left room for cable on the sides of the cabinet. I ordered cable managers. What I didn't do was account for four inches of cabling volume in front of the equipment.

"Once everything was installed, the cables stuck out so far, I couldn't close the cabinet doors. Boy, was my face red. I ended up ordering

custom cabinet doors that protruded six inches to accommodate the cabling. It was a very expensive mistake.

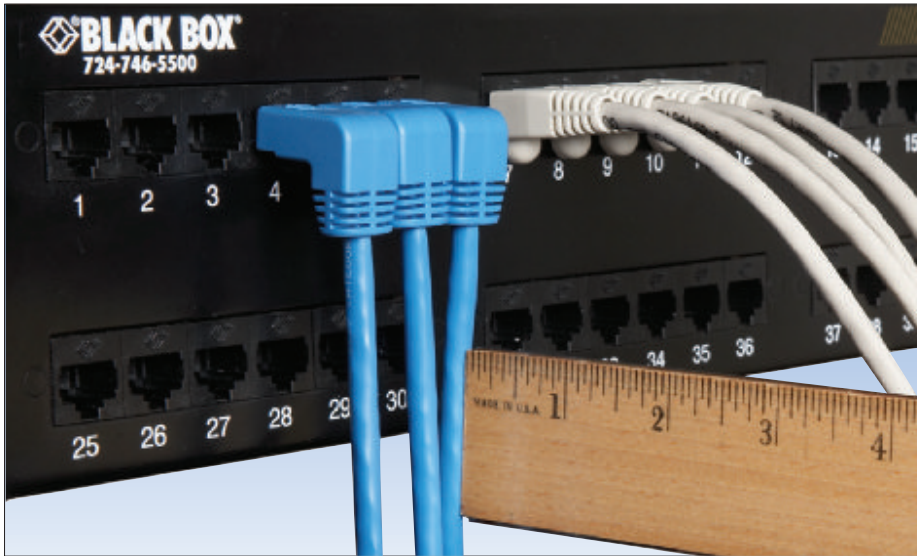
"The only good that came out of the whole unfortunate episode was the inspiration for SpaceGAIN. If I had this problem, I was sure other people did, too. I talked to product development, and the result is presented here for you.

"As an avid angler, I know SpaceGAIN gives a whole new meaning to the phrase 'angling for space'."

Andrew Schmeltzer, Cabling Product Manager

CAT5e and CAT6 90° Right-Angle Patch Cables

Tight fit? These cables have the “right angle” to save space.



A Black Box
Exclusive

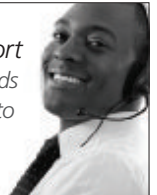
CAT5e
CAT6

Gain up to 4" of valuable space in crowded data cabinets with SpaceGAIN 90° Right-Angle Patch Cables.

Shown: SpaceGAIN 90° Right-Angle Patch Cable, Down-Down (EVNSL21E-0001-90DD)

- Save up to four inches of space in crowded cabinets.
- Make tight wallplate connections behind furniture and equipment.
- Tame cable chaos on your desktop.
- For the perfect fit, choose from a whole family of cables with up, down, left, and right angled connectors.
- Meet or exceed CAT5e or CAT6 specifications.
- Avoid excessive bends and reduce stress on the cable.
- Feature four 24 AWG unshielded twisted wires, RJ-45 connectors, molded boots, and a PVC jacket.
- Connectors have gold-plated contacts.
- ♦♦ **WARRANTY** — Lifetime

*FREE, Live, 24/7 Tech Support
Talk with an expert in 30 seconds
or less at 724-746-5500 or go to
blackbox.com.*



Retrofitting a cabinet?
Installing newer, deeper equipment?
Want to make sure your cabinet door closes?
In high-density configurations, cabinet space is becoming an increasingly scarce commodity. Gain space in your cabinets (and ensure the door will close) by using our exclusive SpaceGAIN 90° Patch Cables. You can save up to 4 inches of space in front of your patch panels and rack-mounted equipment. That's significant when every inch counts in today's high-density data centers. If you've ever retrofitted cabinets or installed extra-deep equipment, you've probably run into

the problem of not being able to close the cabinet door. SpaceGAIN solves the problem. Better yet, you'll save both time and money by eliminating cable managers.

The down and up cables are ideal for data center applications. Use them for high-density patch panel connections. Tame the cable chaos on your desk with the right and left cables. Use them for quick laptop connects and disconnects. They're also ideal for tight wallplate connections behind desks and other furniture.

Connector combinations

Down and up cables

- 90° down to a 180° straight connector
- 90° down to a 90° down connector
- 90° down to a 90° up connector

Left and right cables

- (not to be used in patch panel and switch applications)
- 90° left to a 180° straight connector
 - 90° right to a 180° straight connector

The “Ups” and “Downs” of SpaceGAIN 90° Right-Angle Patch Cables.

SpaceGAIN 90° Angle CAT5e/CAT6 Patch Cables come with up, down, left, and right-angled connectors, as well as straight connectors. What you choose depends on your application.



Down-Down Cable

*The clip is on the bottom and the cable runs down.
Shown: EVNSL21E-0003-90DD*



Down-Up Cable

*The down clip faces down and the cable runs down. The up clip faces up and the cable runs up.
Shown: Shielded EVNSL23ES-0003-90DU*



Right-Straight Cable

*The clip is on the bottom and the connector faces right.
Shown: EVNSL21E-0003-90RS*



Left-Straight Cable

*The clip is on the bottom and the connector faces left.
Shown: EVNSL27E-0003-90LS*

Up and down.

Choose the up and down cables to save space when making patch panel, switch, or other equipment connections in your cabinets and racks. They're also great for connections on the back of equipment sitting at the edge of desks or counters.

The up-down cables come in a variety of configurations: down-down, up-down, down-straight, and up-straight.

Right and left.

To save space at the desktop, choose our left and right cables, which are ideal for laptop or docking station connections. They're also extremely useful for making tight wallplate connections behind furniture. These cables come in right-straight and left-straight configurations.

For complete 90° angle selection information, see **pages 5–6**.

The move to high-density infrastructures: survey results.

With high-density infrastructures and larger, deeper networking equipment becoming the norm, space in the data center is at a premium.

In surveys* of IT professionals around the globe, 85% said they were moving to high-density deployments. Respondents indicated they required higher density to reduce costs and simplify operations.

The top reasons were:

- 50%: Save cabinet/rack space.
- 47%: Lower costs.
- 45%: Lower energy consumption.
- 39%: Save floor space.
- 38%: Cable management.

SpaceGAIN can help you do all the above.

If you're moving to a higher-density infrastructure, planning a new data center, or are retrofitting existing cabinets, consider SpaceGAIN

cables and panels. They will give you the assurance that you'll have enough room to accommodate high-density cabling without excessive cabling volume. That's extremely important when it comes to proper cabinet and data center planning. More cable volume means less space for cool air. More cool air means better energy efficiency and lower energy costs—a plus in going green.

In addition, SpaceGAIN cables and panels can enhance system maintenance and management. By routing cables directly into patch panels and other equipment, you eliminate cable management equipment, costs, and a lot of time in installation and maintenance to work around them.

* “Innovating in a Time of Change: Investment and Technical Trends in the Data Center.” *CommScope*

More SpaceGAIN 90° Right-Angle Patch Cables. Turn the page for more applications, specs, and prices.

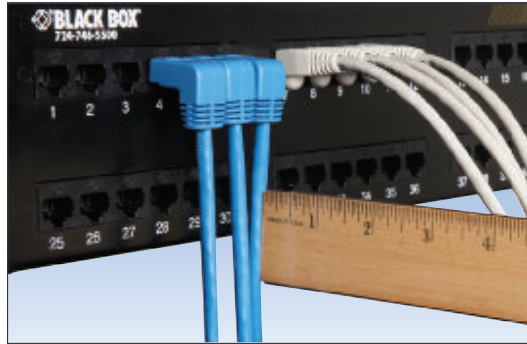


Make tight spaces right spaces with SpaceGAIN.

Save space in crowded cabinets.

In the data center.

SpaceGAIN cables give you an ingenious new way to save space in high-density configurations. Streamline panel and switch connections and gain up to 4 inches of valuable space in crowded cabinets. You'll never have to worry about closing cabinet doors again.



Down cable: cable clip faces down and the cable angles down. Shown: EVNSL21E-0001-90DD

Save space at the desktop.

In the office.

SpaceGAIN cables make the perfect desktop companion, especially if you use both a full-size monitor and a laptop. SpaceGAIN cables will keep those chaotic cable connections under control. They're also great for countertop, display, and point-of-sale connections.



Right cable: Cable clip faces down and the cable exits to the right. Shown: EVNSL21E-0003-90RS



Right cable: Cable clip faces up and the cable exits to the left. Shown: EVNSL21E-0003-90RS



Down cable: Cable clip faces down and the cable angles down. Shown: EVNSL24E-0003-90DS

Save space behind furniture.

At the wallplate.

Ever try to push furniture against the wall, but couldn't because of cables sticking out? Now you can without worrying about damaging the connector or accidentally dislodging the cable. SpaceGAIN cables are perfect for those tight wallplate connections.



Up cable: Cable clip faces down and the cable angles up. Shown: EVNSL24E-0003-90DU



Down cable: Cable clip faces down and the cable angles down. Shown: EVNSL23E-0003-90DS



Left cable: Cable clip faces down and the cable angles left. Shown: EVNSL21E-0003-90LS



Right cable: Cable clip faces down and the cable angles right. Shown: EVNSL21E-0003-90RS

 Learn more at blackbox.com/go/Videos

Video: SpaceGAIN Cables and Panels

See SpaceGAIN cables in action.

TECH SPECS

CAT6 Unshielded:

ACR (Minimum) — -1.1 dB/100 m
 Attenuation — 23.8 dB/100 m (328.1 ft.) @ 100 MHz;
 39.4 dB/100 m (328.1 ft.) @ 250 MHz
 ELFEXT — 27.8 dB/100 m (328.1 ft.) @ 100 MHz;
 19.8 dB/100 m (328.1 ft.) @ 250 MHz
 Frequency — Up to 250 MHz
 NEXT — 42.3 dB/100 m (328.1 ft.) @ 100 MHz;
 36.3 dB/100 m (328.1 ft.) @ 250 MHz
 Propagation Delay — 536 dB/100 m (328.1 ft.)
 @ 250 MHz
 PS-ELFEXT — 24.8 dB/100 m (328.1 ft.) @ 100 MHz;
 16.8 dB/100 m (328.1 ft.) @ 250 MHz
 PS-NEXT — 42.3 dB/100 m (328.1 ft.) @ 100 MHz;
 36.3 dB/100 m (328.1 ft.) @ 250 MHz
 Return Loss — 19.0 dB/100 m (328.1 ft.) @ 100 MHz;
 15.6 dB/100 m (328.1 ft.) @ 250 MHz

CAT5e Unshielded:

Attenuation — 26.4 dB/100 m (328.1 ft.) @ 100 MHz
 ELFEXT — 26.4 dB/100 m (328.1 ft.) @ 100 MHz
 Frequency — Up to 100 MHz
 NEXT — 35.3 dB/100 m (328.1 ft.) @ 100 MHz
 Propagation Delay — 538 dB/100 m (328.1 ft.)
 @ 100 MHz
 PS-ELFEXT — 20.8 dB/100 m (328.1 ft.) @ 100 MHz
 PS-NEXT — 32.3 dB/100 m (328.1 ft.) @ 100 MHz
 Resistance — 45 ohms/1000 ft.
 Return Loss — 19.0 dB/100 m (328.1 ft.) @ 100 MHz
 Structural Return Loss — 16.0 dB/100 m (328.1 ft.)
 @ 100 MHz

CAT6 and CAT5e Unshielded:

Delay Skew — 45 ns/100 m
 Impedance — 100 ± 15 ohms
 Mutual Capacitance — 15 pF/ft.

TECH SPECS

CAT6 Shielded:

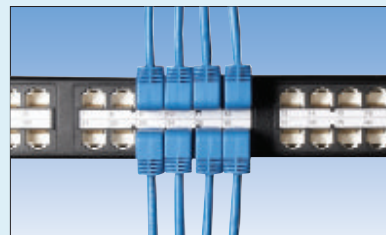
Attenuation (Minimum) —
 29.9 dB/100 m @ 100 MHz;
 49.5 dB/100 m @ 250 MHz
 Capacitance Unbalance (Pair to Ground) —
 330 pF/100 m maximum
 Conductor — 26 AWG, stranded, bare copper
 Frequency — Up to 250 MHz
 Impedance — 100 ± 15 ohms @ 250 MHz
 Insulation — Foam-skin PE, 0.01" (0.27 mm)
 NEXT (Minimum) — 44.3 dB/100 m @ 100 MHz;
 38.3 dB/100 m @ 250 MHz
 PS-NEXT (Minimum) — 42.3 dB/100 m @ 100 MHz; 36.3
 dB/100 m @ 250 MHz
 Outer Diameter (Nominal) — 0.23" (0.58 cm)
 Jacket — PVC (CM)
 Shield — Aluminum/Mylar® tape, tinned copper braid
 Standards — UL® E196163-Y; IEC 60332-1-2; ISO/IEC 11801
 ed 2; EN 50288-2 2; TIA/EIA-568-B.2 CAT6

CAT5e Shielded:

Attenuation — 33.0 dB/100 m @ 100 MHz
 Capacitance Unbalance (Pair to Ground) —
 330 pF/100 m maximum
 Conductor — 26 AWG, stranded, bare copper
 Frequency — Up to 100 MHz
 Impedance — 100 ± 15 ohms @ 100 MHz
 Insulation — HDPE, 0.008" (0.22 mm)
 NEXT — 35.0 dB/100 m @ 100 MHz
 PS-NEXT — 32.0 dB/100 m @ 100 MHz
 Outer Diameter (Nominal) — 0.22" (0.56 cm)
 Jacket — PVC (CM)
 Shield — Mylar® tape, aluminum/Mylar tape
 Standards — UL® IEC 60332-1-2; ISO/IEC 11801 ed 2;
 EN 50288-2 2; TIA/EIA-568-B.2 CAT5e

RoHS — All: Yes

Save even more space with this
 exclusive SpaceGAIN combo!



The high-density SpaceGAIN solution. Use
 our 90° Down Patch Cables and High-
 Density Feed-Through Patch Panels (p. 10).

Retrofitting a cabinet? Installing newer,
 deeper equipment? Want to make sure your
 cabinet door closes?

In high-density configurations, cabinet
 space is becoming an increasingly scarce
 commodity. Gain space in your cabinets
 (and ensure the door will close) by using our
 exclusive SpaceGAIN 90° Right-Angle Patch
 Cables with our 48-Port, 1U, High-Density
 Feed-Through Patch Panel (page 10).

To fit 48 ports in only 1U, the patch panel
 connectors face up on the top row and down
 on the bottom row as indicated by the tab
 area. To achieve the tight, neat configuration
 as shown to the above, use 90° Down Cables
 for both rows.

NEW
 Shielded
 Cable!

Item	Code	List Price
SpaceGAIN Unshielded 90° Right-Angle Patch Cables Down-Up Series, 24 AWG, Stranded		
CAT5e (UTP) 100-MHz		
1-ft. (0.3-m)	EVNSLXXE-0001-90YY	\$5.65
3-ft. (0.9-m)	EVNSLXXE-0003-90YY	\$6.59
6-ft. (1.8-m)	EVNSLXXE-0006-90YY	\$7.95
10-ft. (3.0-m)	EVNSLXXE-0010-90YY	\$10.09
15-ft. (4.5-m)	EVNSLXXE-0015-90YY	\$12.79
CAT6 (UTP) 250-MHz		
1-ft. (0.3-m)	EVNSLXXX-0001-90YY	\$6.35
3-ft. (0.9-m)	EVNSLXXX-0003-90YY	\$7.69
6-ft. (1.8-m)	EVNSLXXX-0006-90YY	\$9.95
10-ft. (3.0-m)	EVNSLXXX-0010-90YY	\$12.95
15-ft. (4.5-m)	EVNSLXXX-0015-90YY	\$16.95

To order, replace the "X"s with the number
 assigned to each color.

CAT5e: Blue = 21 Red = 23 Yellow = 24
 Black = 27
 CAT6: Blue = 216 Red = 236 Yellow = 246
 Black = 276

Then replace the "YY" with the letters
 assigned to each connector.

90° Down-180° Straight = DS
 90° Down-90° Up = DU
 90° Down-90° Down = DD

Example: EVNSL21E-0001-90DS signifies
 a CAT5e blue, 1-foot, 90° down connector
 to a straight connector cable.

Item	Code	List Price
SpaceGAIN Unshielded 90° Right-Angle Patch Cables Left-Right Series, 24 AWG, Stranded		
CAT5e (UTP) 100-MHz		
3-ft. (0.9-m)	EVNSLXXE-0003-90YY	\$6.40
6-ft. (1.8-m)	EVNSLXXE-0006-90YY	\$7.90
10-ft. (3.0-m)	EVNSLXXE-0010-90YY	\$9.40
CAT6 (UTP) 250-MHz		
3-ft. (0.9-m)	EVNSLXXX-0003-90YY	\$7.69
6-ft. (1.8-m)	EVNSLXXX-0006-90YY	\$9.95
10-ft. (3.0-m)	EVNSLXXX-0010-90YY	\$12.95

To order, replace the "X"s with the number
 assigned to each color.

CAT5e: Blue = 21 Black = 27
 CAT6: Blue = 216 Black = 276

Then replace the "YY" with the letters
 assigned to each connector.

90° Right-180° Straight = RS
 90° Left-180° Straight = LS

Example: EVNSL21E-0003-90RS signifies
 a CAT5e blue, 3-foot, 90° right connector
 to a straight connector cable.

Item	Code	List Price
SpaceGAIN Shielded 90° Right-Angle Patch Cables Down-Up Series, 26 AWG, Stranded		
CAT5e (F/UTP) 100-MHz		
1-ft. (0.3-m)	EVNSLXXES-0001-90YY	\$5.85
3-ft. (0.9-m)	EVNSLXXES-0003-90YY	\$6.75
6-ft. (1.8-m)	EVNSLXXES-0006-90YY	\$8.15
10-ft. (3.0-m)	EVNSLXXES-0010-90YY	\$10.25
15-ft. (4.5-m)	EVNSLXXES-0015-90YY	\$12.95
CAT6 (SSTP, PIMF) 250-MHz		
1-ft. (0.3-m)	EVNSLXXXS-0001-90YY	\$6.55
3-ft. (0.9-m)	EVNSLXXXS-0003-90YY	\$7.95
6-ft. (1.8-m)	EVNSLXXXS-0006-90YY	\$10.05
10-ft. (3.0-m)	EVNSLXXXS-0010-90YY	\$11.05
15-ft. (4.5-m)	EVNSLXXXS-0015-90YY	\$17.55

To order, replace the "X"s with the number
 assigned to each color.

CAT5e: Blue = 21 Green = 22 Red = 23
 Yellow = 24 Black = 27
 CAT6: Blue = 216 Green = 212 Red = 213
 Yellow = 214 Black = 217

Then replace the "YY" with the letters
 assigned to each connector.

90° Down-180° Straight = DS
 90° Down-90° Up = DU
 90° Down-90° Down = DD

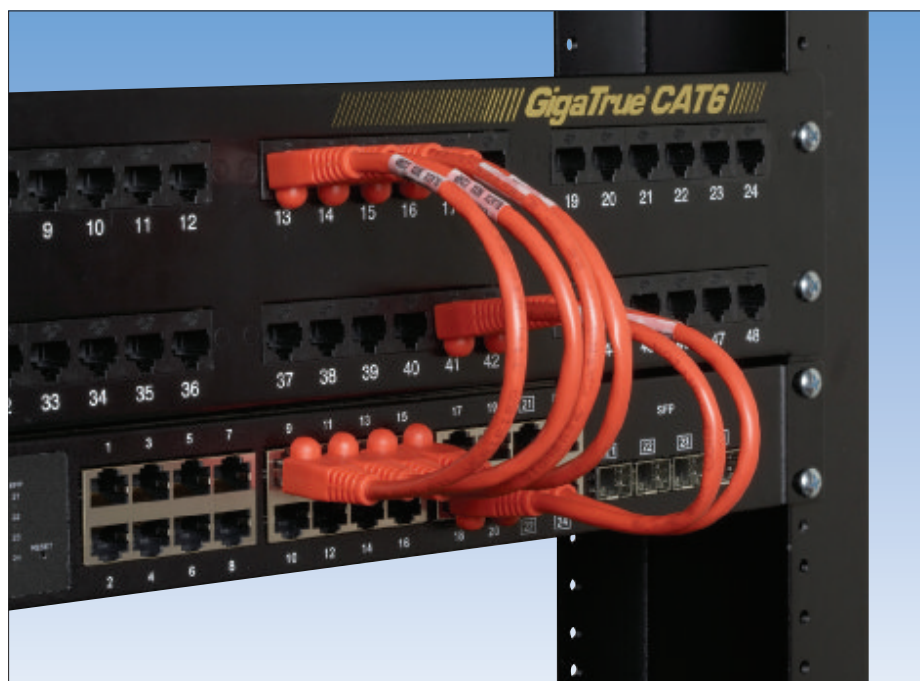
Example: EVNSL21ES-0001-90DS signifies
 a shielded CAT5e blue, 1-foot, 90° down
 connector to a straight connector cable.

SpaceGAIN CAT5e and CAT6 Reduced-Length Patch Cables

Save money by eliminating the need for horizontal cable management.



No need for horizontal cable management.



Shown: CAT6 Reduced-Length Cable (EVNSL643-006IN) connecting our GigaTrue® CAT6 48-Port Patch Panel (JPM612A-R6), blackbox.com with the 24-Port Managed Back Office Switch (LGB2003A-R2), blackbox.com

CAT5e **CAT6**



Cable is 6" long; 9" overall including connectors.

- Eliminate the time and money needed to buy and install horizontal cable managers.
- Cable is 6" long with 3" of connectors, for a 9" overall length.
- Great for connecting a patch panel to a patch panel, or a patch panel to a network switch.
- Use these reduced-length patch cables for super-easy connections in relay racks and cabinets.
- CAT5e cable is rated at 350 MHz.
- CAT6 cable is rated at 550 MHz.
- All feature stranded, 24 AWG conductors, 4 pairs, and a PVC jacket.
- Available in six colors to help you further organize your cabinet.
- ♦♦ **WARRANTY** — Lifetime

Choose from six colors!



TECH SPECS

Bend Radius (Min.) — 1.0" (2.54 cm)
 Conductors — 8 (4 pair)
 Conductor Gauge — 24 AWG, stranded copper
 Jacket — PVC
 Standards — CAT5e, CAT6: TIA/EIA 568C.2
 Tensile Strength (Max.) — 25 lb. pulling tension
 Temperature Rating — 167° F (75° C)
 Wiring — T568B
 Size — 9" (22.9 cm) including connectors

Item Code List Price

SpaceGAIN CAT5e 350-MHz Reduced-Length Patch Cables
 6-in. (15.2 cm) EVNSLXX-06IN **\$3.95**
 To order, replace the "XX" with the number assigned to each color.
 Gray = 80 Green = 82 Yellow = 84
 Blue = 81 Red = 83 Black = 87

SpaceGAIN CAT6 550-MHz Reduced-Length Patch Cables
 6-in. (15.2 cm) EVNSLXXX-06IN **\$6.45**
 To order, replace the "XXX" with the number assigned to each color.
 Gray = 640 Green = 642 Yellow = 644
 Blue = 641 Red = 643 Black = 647

SpaceGAIN 45° Angled-Port Patch Panels

Go with the flow—save space, time, and money.

CAT5e

CAT6



45° angled ports allow for patch cables to flow freely, saving cabinet space and reducing stress on the cable.

You'll also save time and money by eliminating horizontal cable managers in front of the panel.

Shown: JPM648-45ANG



JPM648-45ANG-UU

- Close quarters? These patch panels feature 45° angled connector modules to conserve space.
- Save the time and cost of installing horizontal cable managers.
- Choose from up and down ports.
- Feature angled RJ-45 connectors on one side and straight Krone/110 dual IDC connectors on the other.
- Ideal for retrofitting data cabinets.
- Reduce cable stress and bend radius.
- Rolled-metal construction provides strength for repeated punches.
- ♦♦ **WARRANTY** — Lifetime

Save space and time in the data center with these 45° Angled-Port Patch Panels. The connectors tilt either down or up at a 45° angle, making patching easier.

Because the cables flow smoothly and don't protrude, you can save two or more inches in front of every panel. You'll especially appreciate those extra inches when retrofitting cabinets with newer, deeper equipment. If you've run into situations where cabinet doors don't close or need to be removed to accommodate cable, you'll never go back to straight panels again!

Plus, because there is a natural cable flow, you can eliminate horizontal cable managers, saving a bundle of time and money. You also get the bonus of not having to worry about bend radius and strain relief.



JPM5E24-45ANG



JPM5E48-45ANG

Cabling
Business
Award of
Excellence

TECH SPECS

Connectors — (24) or (48) RJ-45 to (24) or (48) Krone/IDC 110
Wiring — T568A or T568B, 22 to 26 AWG, solid or stranded
RoHS — Yes
Size — 24-port models:
 1.75"H (1U) x 19"W x 1.1"D (4.4 x 48.3 x 2.8 cm);
 48-port models:
 3.45"H (2U) x 19"W x 1.1"D (8.8 x 48.3 x 2.8 cm)
Weight — 24-port models: 1.12 lb. (0.5 kg);
 48-port models: 2 lb. (0.9 kg)

Item	Code	List Price
SpaceGAIN 45° Angled-Port Patch Panels		
CAT6		
Down 24-Port	JPM624-45ANG	\$149.95
48-Port	JPM648-45ANG	\$285.95
Up 24-Port	JPM624-45ANG-U	\$149.95
48-Port	JPM648-45ANG-UU	\$285.95
Down/Up 48-Port	JPM648-45ANG-DU	\$285.95
CAT5e		
Down 24-Port	JPM5E24-45ANG	\$109.95
48-Port	JPM5E48-45ANG	\$179.95
Up 24-Port	JPM5E24-45ANG-U	\$109.95
48-Port	JPM5E48-45ANG-UU	\$179.95
Down/Up 48-Port	JPM5E48-45ANG-DU	\$179.95

SpaceGAIN Multimedia Patch Panels

Crowded cabinets? Save space with these multimedia patch panels.



- Set up multiple applications in these high-density, multimedia panels.
- Only 1U for the best use of rack space.
- Mix and match jacks depending on your applications: UTP, STP, fiber, and video.
- Change out jacks for different applications such as 1000BASE-TX or digital voice systems.
- 16-gauge rolled steel construction.



48-Port 1U, Angled Multimedia Panel (JPM481U-ANG)



24-Port 45° Angled-Port Side-Exit Multimedia Panel (JPM1024-ANG)

24-Port 45° Angled-Port Side-Exit

- Connector ports angle to the side.
- Save time and money by eliminating horizontal cable managers.
- Great for strain relief and bend radius.
- Features removable rear cable bar.
- Has industry-standard keystone openings, which enables flush fitting of jacks.
- Works with:
 - GigaTrue® CAT6 Jacks
 - GigaBase® CAT5e Jacks
 - GigaStation2 Snap Fittings
 - Giga2-Style CAT3 Jacks
 - Giga2-Style USOC RJ-11 Jacks

48-Port Angled or Flat

- 48 ports in only 1U—perfect for high-density applications where space is at a premium.
- Choose from a flat or angled panel.
- Staggered design simplifies jack installation.
- Rear snap-in design simplifies installation and allows for quick additions or changes.
- Works with:
 - GigaTrue® CAT6 Jacks
 - GigaBase® CAT5e Jacks
 - GigaStation Snap Fittings
 - Giga-Style CAT3 Jacks
 - Giga-Style USOC RJ-11 Jacks

- ♦♦ **WARRANTY** — Lifetime

RoHS — Yes

Item	Code	List Price
SpaceGAIN™ Multimedia Patch Panels, 1U		
24-Port 45° Angled-Port Side-Exit	JPM1024-ANG	\$79.95
48-Port Angled	JPM481U-ANG	\$119.95
48-Port Flat	JPM481U	\$119.95

SpaceGAIN CAT5e and CAT6 Angled Patch Panels

Free up valuable space—angled design eliminates the need for horizontal cable managers.



JPM5E48-ANG



JPM624-ANG: rear view



JPM624-ANG



CAT5e **CAT6**

- 128° forward angle eliminates cable managers.
- Route cables directly into the ports.
- Free up valuable rack space.
- Ideal for high-density applications.
- Meet or exceed all CAT5e/6 standards and PoE/PoE+ operation.
- Rolled-edge, 16-gauge steel construction provides superior strength to eliminate flexing during termination.
- ♦♦ **WARRANTY** — Lifetime

TECH SPECS

Connectors — Front: (24) or (48) RJ-45;
Rear: (24) or (48) 110 punchdown contacts
Construction — 16-gauge cold, rolled steel
Nose Contact Material — Beryllium copper with precious metal plating and nickel under-plating
Wiring — T568A or B, 22 to 26 AWG, solid or stranded
RoHS — Yes
Size — 24-Port: 1.75"H (1U) x 19"W x 5"D (4.4 x 48.3 x 12.7 cm);
48-Port: 3.5"H (2U) x 19"W x 5"D (8.8 x 48.3 x 12.7 cm)
Weight — 24-Port: 1.4 lb. (0.6 kg);
48-Port: 2.5 lb. (1.1 kg)

Item	Code	List Price
SpaceGAIN Angled Patch Panels		
CAT5e		
24-Port 1U	JPM5E24-ANG	\$179.95
48-Port 2U	JPM5E48-ANG	\$324.95
CAT6		
24-Port 1U	JPM624-ANG	\$199.95
48-Port 2U	JPM648-ANG	\$379.95

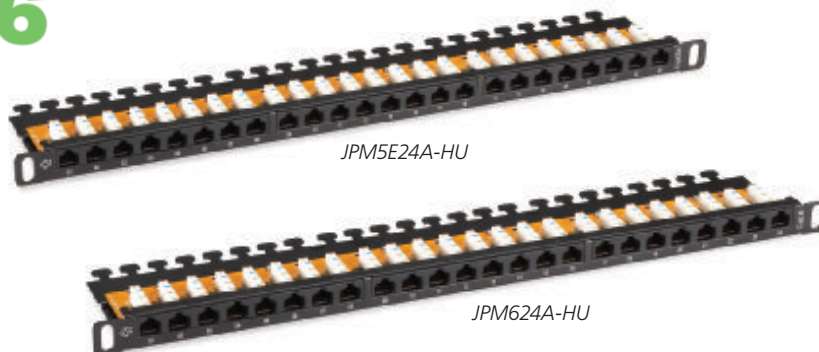
SpaceGAIN 24-Port ½U Multimedia Patch Panels

Save rack space—get 24 ports in only a half U.



CAT5e **CAT6**

- Really tight quarters? Stack two panels and fit 48 ports in one U.
- Ideal for retrofitting data cabinets and high-density data centers.
- Feature RJ-45 connectors on the front and 110 blocks on the rear.
- To save space, the rear 110 blocks protrude horizontally.
- Termination is different from standard patch panels. Cable terminates to the 110 blocks in a 90-degree, top-down manner.
- To terminate, slide the panel forward. Allow for 10–12 inches of cable slack behind the panel for MAC work.
- Include rear cable management.
- ♦♦ **WARRANTY** — Lifetime



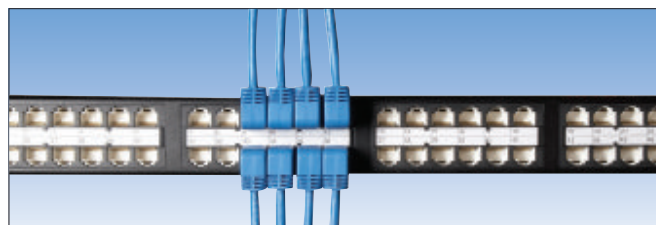
TECH SPECS

Connectors — Front: (24) RJ-45 F;
Rear: (24) 110 punchdown
Construction — Steel
Standards — CAT5e and CAT6: TIA/EIA-568-C.2
Size — 0.9"H (0.5U) x 19"W x 3.8"D
(1.75 x 48.3 x 9.4 cm)
Weight — 1.7 lb. (0.8 kg)

Item	Code	List Price
SpaceGAIN 24-Port ½U Patch Panels		
CAT5e	JPM5E24A-HU	\$125.95
CAT6	JPM624A-HU	\$149.95

SpaceGAIN CAT5e and CAT6 High-Density Feed-Through Patch Panels

Fit 48 ports into only 1U of rack space and no punchdowns needed!



Save even more space with this SpaceGAIN combo! Use the High-Density Feed-Through Patch Panels with our 90° Down Patch Cables (EVNSL21E-0001-90DD) (pp. 20–23).



JPM810A-HD: front view

- Feature 48 easy-to-use RJ-45 to RJ-45 feed-through ports—all in 1U.
- Save space in crowded data cabinets.
- Patch without punching down the wires to the ports.
- Use this sturdy panel for high-density applications in all 19" relay racks or communications cabinets.
- Cable management bar helps support cables in the rear of the panel.
- Meet or exceed CAT5e and CAT6 performance requirements.
- ♦♦ **WARRANTY** — Lifetime

CAT5e **CAT6**

TECH SPECS

Connectors — (48) RJ-45 front; (48) RJ-45 rear
Standards — CAT5e and CAT6: TIA/EIA-568-C.2
Wiring — T568A or T568B
Size — 1.75"H (1U) x 19"W x 6"D
(4.4 x 48.3 x 15.3 cm)
Weight — Shielded: 3.8 lb. (1.7 kg);
Unshielded: 2.4 lb. (1.1 kg)

Item	Code	List Price
SpaceGAIN High-Density Feed-Through Patch Panels		
CAT5e		
Shielded	1U JPM806A-HD	\$484.95
Unshielded	1U JPM810A-HD	\$396.95
CAT6		
Shielded	1U JPM816A-HD	\$519.95
Unshielded	1U JPM820A-HD	\$437.95

A Black Box Exclusive

When it comes to cable, come to Black Box Network Services for the best value anywhere.

- » The best prices.
- » The best selection.
- » The best service.



CAT5e/6 Bulk Cable

Save **BIG** with our everyday low prices on 1000 feet of solid bulk cable.

GigaBase® CAT5e PVC: **only \$104.95.**

GigaTrue® CAT6 PVC: **only \$149.95.**

Multicolor Fiber Optic Patch Cable

Match your company, team, or school colors or use for special color-coded applications. Choose 62.5-, 50-, 10-GbE 50-micron, and single-mode cable in 12 colors and 13 lengths.

Custom Cable

When you need it made to order, count on Black Box. Want dyed, striped, or UV cable? No problem. Special octopus configurations? Just ask. Cable bundles? We'll wrap them up.

Plus, most cables are guaranteed for life!

To order, call us at **724-746-5500** or visit **blackbox.com**.

© Copyright 2011. Black Box Corporation. All rights reserved. Black Box® and the Double Diamond logo are registered trademarks, and SpaceGAIN is a trademark of BB Technologies, Inc. Any third-party trademarks appearing in this publication are acknowledged to be the property of their respective owners.

BR00022-SpaceGAIN_v2

Follow us on:

