

# SYSTIMAX<sup>®</sup>

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## SOLUTIONS

### SYSTIMAX<sup>®</sup> GigaSPEED<sup>®</sup> XL Solution

**The Culmination of a  
Relentless Pursuit of Excellence**



**SYSTIMAX<sup>®</sup> Structured Connectivity Solutions**

[www.systemax.com](http://www.systemax.com)

**A study reported that 79% of employees use a company network. The study found that, on average, companies lose about 2% of annual revenues because of network problems.\***

**These companies are asking questions: To give us a competitive advantage, can we reduce network downtime? Can we cut operating costs? Can our network handle new technologies to make us more efficient?**

**Too often the answer is, “Maybe” or “No.” SYSTIMAX® Solutions is proud to introduce the system that enables you to answer, “Yes” with absolute confidence.**

**We call it the SYSTIMAX® GigaSPEED® XL Solution – the culmination of a relentless pursuit of excellence.**

\*Source: Cost of Network Downtime in the U.S., September 2000, Infonetics Research, Inc.

### The SYSTIMAX GigaSPEED XL Solution: It's not just new. It's news.

<sup>1</sup>A survey by Infonetics Research confirmed something that has long been a motivating factor in our research – nearly half of all LAN/WAN problems (43%) are caused by cabling or apparatus. Network inefficiencies caused by overstressed cabling cost the average company nearly \$14 million per year in reduced productivity and lost revenues.

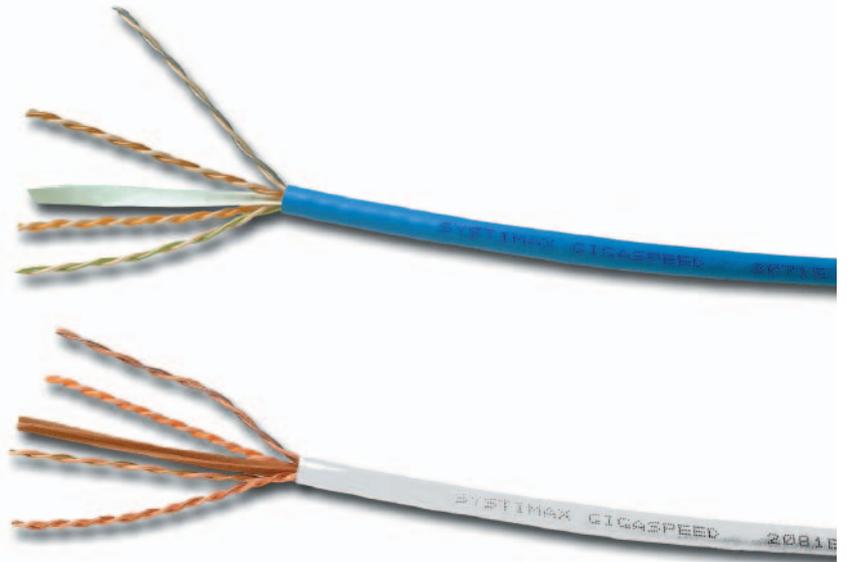
Today we are proud to introduce the solution. With 41 patents, our newest generation of SYSTIMAX GigaSPEED XL Solutions offers everything you'd expect from the world's leading copper cabling system – performance far beyond Category 6 standards, cost-effective design innovations and reliability so robust it can help make network downtime a thing of the past.

But one thing hasn't changed – the fundamental design principles that assure compatibility among all SYSTIMAX Structured Connectivity Solutions (SCS) components. That means the GigaSPEED XL Solution you install today will support your legacy applications to help keep you functioning at peak performance, even as you migrate to tomorrow's technologies that require Category 6 compatibility.

### The SYSTIMAX Labs Effect

Most vendors offer mixed cabling systems, built from the bottom up. That is, they begin with a core component (cable, usually) and add components from other vendors to create a "standards-compliant" system. Even if each component is Category 6 compliant, the channel may not be because of design differences among components.

To develop SYSTIMAX SCS, we've taken the opposite, "top-down", true systems approach. We begin by setting specific performance objectives. Proprietary system-level design techniques allow us to visualize the optimum end result by setting the highest system performance requirements and bandwidth. Sophisticated modeling tools and exhaustive design research yield the optimal system-level and component-level parameters. Finally these specifications of quality and reliability are incorporated into the production of every component.



#### Meet the industry-leading connectivity solution in the world today

Proprietary design and manufacturing techniques developed by SYSTIMAX Labs make GigaSPEED XL cabling one of the most reliable high-performance UTP media in the world. It can easily handle Gigabit Ethernet, 1.2 gigabit ATM, even 270 Mb/s Serial Digital Video and is backward compatible to keep your legacy applications running at peak efficiency.

<sup>1</sup>Source: Cost of Network Downtime in the U.S., September 2000, Infonetics Research, Inc.

To assure that these specifications of quality and reliability are built into our products, we do something else no other vendor does. Using proprietary tools and techniques, we design, test and manufacture the entire channel – cables, outlets, cords, patch panels – as a single, tightly integrated system.

We call this the SYSTIMAX Labs Effect. The result is a proven end-to-end solution precisely matched and balanced to be a network infrastructure you don't have to worry about – for 20 years.

### Why Performance Matters

Yesterday, network performance simply meant fast file transfer. Today, it's life or death for a network.

Category 6 standards push UTP media to the limit. There is zero margin for error. Vendors that claim "Cat 6 compliance" often base that claim on the fact that individual components were able to achieve this performance, on average, in lab tests, at a specific frequency.

Do you like to gamble? "Average" performance in lab tests does not take into account real-world conditions such as network congestion, less-than-perfect installation, and imbalance among components. In the real world, many systems simply will not have enough headroom to cope.

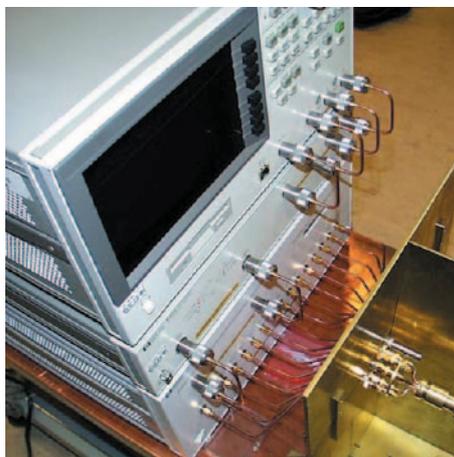
Your PCs double in power every 2-3 years, driven by bandwidth-hungry applications. Your cabling – which represents only about 5% of your network costs – will have to handle massive traffic increases for 20 years. Would you rather gamble, or make a safe choice?

### Ask the Tough Questions

In the trade magazines you'll see impressive claims from many companies. Read the ads, then evaluate them by asking a few difficult questions:

- Can the company guarantee significant channel margin over the entire frequency range, from 1 to 250 MHz? We can.
- Are performance claims valid for the entire network channel, end to end, from equipment closet to desktop? Ours are. Guaranteed.
- Does the company design, manufacture and test every component? Every channel? We do.
- The Big Question: Are advertised performance claims guaranteed in the warranty, for existing and future applications, for 20 years? Ours are.

In today's economy, these are the questions that could determine your company's future. Be skeptical of long answers. We believe that only one company can answer all of these questions in one word: Yes.

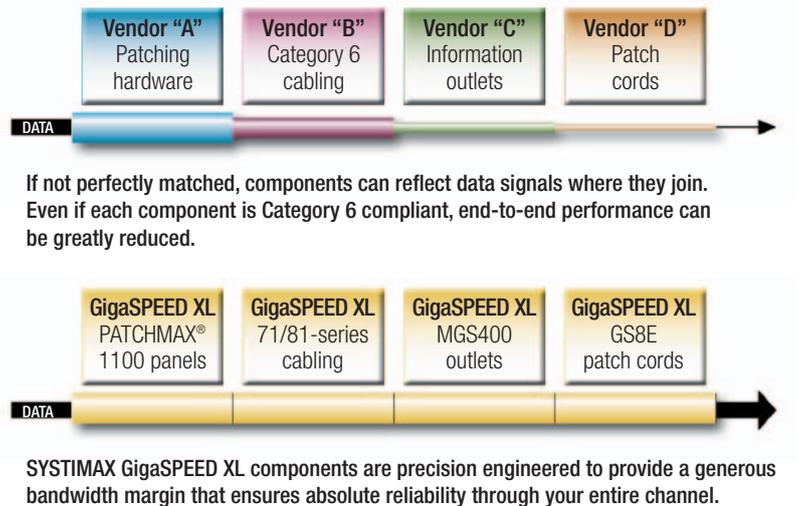


### The Tools our Competitors Envy

Most vendors measure the performance of individual components. But in real-life use, these figures have little meaning. At the ultra-critical tolerances required to run Category 6 applications, even a slight imbalance among Category 6-compliant components can cause frequent slowdowns and network failures. To build the world's most reliable cabling system, the scientists and engineers of SYSTIMAX Labs developed the most advanced network analysis tools in the world today: Modal Decomposition Modeling, Connector Field Pattern Modeling and Cable Twist Accuracy Technology. These proprietary tools and techniques allow us to match the performance characteristics of every component with a level of precision no other company can approach. We believe that this is the only way to assure full Category 6 performance throughout your complete network – closet to desktop – under all conditions. Which is why no other company warrants guaranteed worst-case channel performance claims in writing, like we do.

**The pipe may not be as fat as it appears**

Many vendors use components from several manufacturers. Even if each is Category 6 compliant, slight differences in design can cause signal reflections at the points where they join. These signal “echoes” reduce performance of the entire channel. SYSTIMAX GigaSPEED XL components are impedance-balanced to match precisely – the only way to achieve peak channel performance and reliability from end-to-end.



**A Relentless Pursuit of Excellence**

How do SYSTIMAX Solutions™ offer the best protection for your investment in cabling infrastructure? It can’t all be explained in this brochure, but here are a few important distinctions between us and our competitors:

**Manufacturing excellence:** SYSTIMAX SCS quality control methods are so stringent that ISO-9001 specifications were based on standards we developed years before. This allows us to provide every customer on every continent with the same performance and reliability in every location.

**Industry-leading support:** We believe we are the only company with the depth, the reputation and the worldwide resources to provide support when and where you need it – with global sales facilities, 4-tier technical support and a network of highly trained BusinessPartners on every continent.

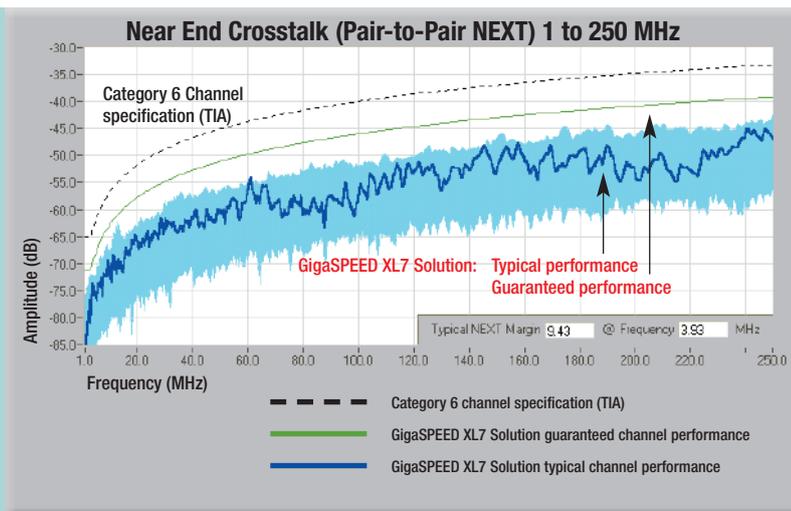
**Customer confidence:** SYSTIMAX SCS is the most widely used cabling system in the world, according to independent researchers. Today, our cabling is being installed at a rate of more than 1,000 miles per day (1,600 km), in more than 120 countries. Why? The answer is very simple. We build the best, and we serve our customers well.

**Technological leadership:** Virtually all UTP performance standards were based on our research – Category 3, 4, 5 and 6, so far. SYSTIMAX SCS scientists and engineers are active participants in every major standards-setting organization in the world, and remain at the forefront of new standards development.

This chart shows just one of many reasons why our GigaSPEED XL Solution leads the industry, worldwide. Our proprietary system-level design techniques assure guaranteed channel margin across the entire frequency range.

Our GigaSPEED XL7 Solution exceeds the Category 6 standard by 6 dB. Our GigaSPEED XL8 Solution exceeds it by 7 dB. Both are so advanced that they can support 6 connection points – with generous margin to spare over Category 6 specifications; (see table on page 5).

Please note that these are guaranteed, end-to-end channel performance figures. We welcome comparisons to competitive solutions in the market place.



### Highlights from the Best Warranty in the Industry

- All GigaSPEED XL Solutions are backed by a 20-year Extended Product Warranty that we believe to be the best in the industry.
- Our Application Assurance covers everything from voice, data and video applications to standards-based complex building management systems by some of the world's leading manufacturers.
- We will specify the performance of each application – not “average,” not “nominal,” as many companies do, but guaranteed worst-case channel performance – and we will warrant that your certified SYSTIMAX GigaSPEED XL Solution will meet or exceed those specifications for 20 years.
- GigaSPEED XL Solutions are so advanced that we can even guarantee the performance of applications that do not yet exist. Specifically, we will warrant any applications introduced by recognized industry standards-settings bodies or user forums that specify TIA/EIA 568B or ISO/IEC 11801 components and link/channel specifications for the pertinent cabling system.

### We Build Solutions. Ask us.

We have far more to explain about how our systems can help solve your immediate and future challenges. Our research has yielded many innovative solutions that cannot be detailed in this small brochure.

To learn more, please visit our Web site at [www.systemax.com](http://www.systemax.com) or contact your SYSTIMAX Solutions representative. We'll be glad to explain how we've surpassed the expectations of companies large and small, around the world. And how quickly, easily and inexpensively we can do the same for you.

### Performance of the GigaSPEED XL Solutions

4 Connector Channels:	GigaSPEED XL7		GigaSPEED XL8	
	<i>Worst Pair Margin (1-250 MHz)</i>		<i>Worst Pair Margin (1-250 MHz)</i>	
	Guaranteed	Typical	Guaranteed	Typical
<b>Insertion Loss</b>	5.0%	6.5%	8.0%	9.5%
<b>Pr-Pr NEXT</b>	6.0 dB	9.4 dB	7.0 dB	10.9 dB
<b>PSNEXT</b>	7.5 dB	10.6 dB	8.5 dB	12.0 dB
<b>Pr-Pr ELFEXT</b>	6.0 dB	11.3 dB	8.0 dB	11.5 dB
<b>PSELFEXT</b>	8.0 dB	12.7 dB	10.0 dB	13.2 dB
<b>Return Loss</b>	4.0 dB	5.7 dB	4.0 dB	6.1 dB

GigaSPEED XL Solution performance with four connector channels.

Figures valid at any frequency of certified channel comprising GigaSPEED XL cable & apparatus.

6 Connector Channels:	GigaSPEED XL7		GigaSPEED XL8	
	<i>Worst Pair Margin (1-250 MHz)</i>		<i>Worst Pair Margin (1-250 MHz)</i>	
	Guaranteed	Typical	Guaranteed	Typical
<b>Insertion Loss</b>	4.0%	5.5%	6.5%	8.0%
<b>Pr-Pr NEXT</b>	4.0 dB	7.4 dB	5.0 dB	9.4 dB
<b>PSNEXT</b>	5.5 dB	8.5 dB	6.5 dB	10.6 dB
<b>Pr-Pr ELFEXT</b>	4.0 dB	8.9 dB	6.0 dB	9.4 dB
<b>PSELFEXT</b>	6.0 dB	10.4 dB	8.0 dB	11.0 dB
<b>Return Loss</b>	2.0 dB	5.2 dB	2.0 dB	5.9 dB

GigaSPEED XL Solution performance with six connector channels.

Figures valid at any frequency of certified channel comprising GigaSPEED XL cable and apparatus.

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## SOLUTIONS

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