



Serving your industry for more than a decade

Leading Manufacturer of Industrial Communication Products

RUGGED. SIMPLE. RELIABLE.

From factories to energy plants, shipyards to transportation terminals, server rooms to laboratories; CommFront provides a complete solution for data and device connectivity, conversion, protection, extension, and research.



INDUSTRIAL COMMUNICATION SOLUTIONS



From legacy serial communications to modern TCP/IP communications, data networks are widely used in automation, control, and communication systems that perform many important tasks ranging from production, communication, security, surveillance, to research.

Data networks are mission-critical and even the smallest downtime or delay can be very costly. Data networks consist of many different components and are often used over long distances in an electrically noisy environment; engineering, testing, and troubleshooting can be very time-consuming and challenging.

A reliable data network starts with choosing the right solutions and partners. CommFront engineers have the rich field experience and in-depth knowledge to understand the problems, how to solve them, and more importantly, how to prevent them - right from the design stage.

CONNECT

Connectivity is crucial for all types of data networks. Data networks evolve over time as technology improves; it is often necessary to connect legacy copper-wired serial communications to modern TCP/IP communications through more advanced media such as optical fiber. Moreover, many different types of data formats, signals, standards, media, and connectors are often mixed and used together within a single data network. Examples of different types of standards and protocols include physical-layer standards, such as RS-232, RS-485, RS-422, TTL, USB, and TCP/IP, and higher-level protocols, such as Profibus, Interbus, Modbus, BACnet, and Modbus TCP/IP. Copper wires and optical fibers are typical examples of different media, and there are dozens of different connectors used for machine-to-machine (M2M) connectivity and data communication systems. CommFront offers a wide range of robust cables, connectors, patch cords, terminal blocks, and gender changers suitable for the most demanding environments.

CONVERT

Modern data networks often face the challenge of converting legacy data formats and protocols to more technologically advanced formats. CommFront excels in this area! We offer the broadest selection of rugged, industrial-grade, standard or optically-isolated, port or externally-powered converters. These industry-proven converter products are professionally designed to interface with both commercial and industrial equipment, such as computers, PLC, RTU, SCADA, and HMI. Whether your environment is in the field, factory, or fire command center, "clean" or "noisy", these popular converter products provide safe, reliable, simple, and cost-effective solutions for your data-conversion and device-protection applications.

In "noisy" environments surrounded by ground loops, spikes, transient surges, and remote lightning, protection is essential to protect expensive equipment such as computers and data communication devices.

Data conversion is the core competency of CommFront, and we pride ourselves in our past accomplishments of tailoring solutions for our customers through either off-the-shelf solutions expertly combined to meet a need or through the creation of a customized product manufactured exclusively to meet a customer's requirements.

PROTECT

Data networks are always exposed to external noise sources, ground loops, lightning, and surges, especially when connecting different devices or merging different network busses together. CommFront has the solutions! We focus our strength on this area and provide the most versatile options for our customers. From 3-wire to 7-wire RS-232 isolators, 2-wire RS-485 to 4-wire RS-422 isolators, and USB isolators to RS-485/RS-422/Ethernet surge protectors, we have them all! Data conversion and device protection are core competencies of CommFront, and we pride ourselves in our past accomplishments of tailoring solutions for our customers, including even minor modifications such as different combinations of screws and nuts.

With our industry-proven solutions, it is not just the connected devices are protected; different data busses from different locations are reliably merged, isolated, and protected.

EXTEND

Unbalanced signals such as RS-232 and TTL have a reliable transmission distance limitation of about 15 feet; balanced signals such as Ethernet (TCP/IP) are similarly limited to about 300 feet. With our versatile converters, repeaters, and hubs, overcoming communication distance is no longer a hassle.

Because of their low-cost, availability, and easy installation, copper wires remain prevalent in the data communication industry. From converting unbalanced signals to balanced signals, deploying repeaters to boost balanced signal strength, to implementing hubs for star-configured connections, CommFront provides a full range of products and solutions that make use of widely available copper wires to extend the data distance. In cases where distance is far beyond the reach of copper wires - typically 4,000 feet, we have the solutions too! Our plug-and-play and versatile fiber optic converters, transform electrical signals into light which then travels on optical fiber. Benefits of using optical fiber include speed, bandwidth, distance and immunity to EMI/RFI, lightning, and transient surges. Our fiber optic converters allow reliable data transmission over distances ranging from 3 to 25 miles, and longer distances can be achieved by our customized products.

EXPLORE

A data network does not consist only of hardware products; there are different types of software and protocols, and to make things even more complicated, many manufacturers have incorporated proprietary protocols for their devices. Integrating different devices and protocols within a data network is always the most challenging task for system integrators, firmware/software developers, and site engineers. With our powerful 232Analyzer software tools, controlling, monitoring, and debugging serial devices and high-level protocols have never been easier. The applications for our software tools range from simple loopback tests for both devices and serial data networks, to complicated protocol analysis and to sophisticated firmware and GUI software development.

The 232Analyzer is a very useful tool for serial data communication implementation, maintenance, and analysis and it supports all major Windows Operating Systems including Windows 8, Windows 7, Windows Vista, and Windows XP, both 32 and 64 bits.

CommFront offers the broadest selection of rugged, simple, and reliable data communication products ranging from legacy serial communication to modern TCP/IP communication, copper wire to optical fiber, and D-sub to USB connectivity.

CommFront products have been proven to be reliable and are widely used in critical areas that require safe, reliable and uninterrupted operation, including:

- Factory Automation
- Building Automation
- Energy Plants
- Shipyards and Marine
- Transportation
- Industrial and Commercial Buildings
- PoS, ATMs, and Banks
- PLC, RTU, HMI, and SCADA Systems
- Security and Surveillance Systems
- Instrumentation
- IT Networks
- Laboratories

RUGGED. SIMPLE. RELIABLE.



■ Industrial Serial Converters



Converting one data format to another is what we do best! Whether we are designing to eliminate electro-static discharges and ground loops, or applying terminators to reduce

echo and noises that others overlook, our experienced engineers think of it all so you do not have to. CommFront offers the broadest selection of RS-232, RS-485, RS-422, and TTL serial converters. From port powered to externally powered, standard to optically isolated, in-line to DIN-rail/wall mounting, we fulfill the needs for all types of applications – both commercial and industrial.

■ USB Serial Adapters



Replacing conventional RS-232/RS-485/RS-422 ports, USB has become the norm for controlling computer peripherals, and it has now moved out from the desktop to challenging environments

including Point of Sales, instrumentation, and other commercial and industrial applications. CommFront offers a range of robust USB serial converters equipped with the most reliable chipsets from FTDI and Silicon Labs. All of our USB serial adapters support the latest Operating Systems including Window 10, 8 and 7, Macintosh and Linux.

■ Industrial USB Isolators/Repeaters /Hubs



Our industry-proven, rugged and plug-and-play USB isolators, repeaters, and hubs provide a versatile solution for protecting, extending, and

expanding your modern USB ports. From USB extenders to USB isolators, and 4-port to 7-port USB hubs, CommFront provides a complete solution for your USB application needs.

■ Industrial Fiber Optic Converters



Extending your Ethernet and serial communication distance to up to 25 miles (longer distances can be achieved by our

customized products), these industrial-grade plug-and-play fiber optic converters support a wide range of fiber optic cables, available in both single-mode and multi-mode formats, and come with the choices of point-to-point and multi-drop configurations. The versatile DIN rail and wall/panel mounting options make the products ideal for all kinds of installations.

■ Industrial Isolators/Surge Protectors



Optical isolators and surge protectors are the most popular products in our product portfolio. From 3-wire to 7-wire RS-232 isolators, 2/4-wire RS-485/RS-422 to USB isolators, and 3-stage RS-485/RS-422 to Ethernet

surge protectors, even seemingly trivial differences like the various combinations of screws and nuts, we have them all! CommFront has all the optical isolation and surge protection devices to protect your assets from unexpected events.

■ Advanced Serial Analyzer



Most data networks are complicated, not just the hardware and network issues, but also the high-level protocols that devices use to communicate. From the simplest loopback test to complicated checksum calculation and sophisticated firmware and GUI development, the 232Analyzer is designed to tackle all these challenges. The 232Analyzer

allows you to control, monitor, and analyze serial port activities in any data format (ASCII, hexadecimal, decimal, octal, or binary), and it comes with powerful features including Programmable Buttons, Automated Responses and Macros. The 232Analyzer supports all major Windows Operating Systems including Windows 8, 7, Vista, and XP, both 32 and 64 bits.

■ Industrial Repeaters and Hubs



Regardless of balanced or unbalanced signals, single-loop or multi-loop, overcoming communication distance while maintaining system reliability is no longer a hassle, even over conventional copper wires. With our

plug-and-play RS-232, RS-485, RS-422 repeaters and hubs, extending your serial communication distance another 4,000 feet or merging multiple RS-485 busses from different locations is never again a "mission impossible".

■ Cables, Patch Cords and Connectors



CommFront offers a range of machine-made, robust cables, patch cords and connectors for your data communication needs including conventional RS-232, RS-485, RS-422, and modern USB and Ethernet formats.

We offer cables and connectors in the following formats: DB9, DB25, USB type A, USB type B, mini USB, terminal blocks, RJ11, RJ45, and ST, SC, and FC for fiber optic products.

Any supplier can sell you a product, but only CommFront is equipped with the rich field experience, in-depth knowledge, proven track record, and strict ISO quality management system to ensure your total satisfaction.

THE KEYS TO OUR EXCELLENCE

- Industrial Ruggedness
- Certification by World-Class Labs
- Designed & Manufactured to ISO Standards
- Lead-Free RoHS Compliance
- Applied Reliability Engineering
- Proven Track Record
- 5-year Replacement Warranty
- 30-day Money-Back Guarantee
- Free Worldwide Shipping
- Intensive and Fast Support



SAFETY ASSURANCE



CommFront products are strictly certified by SGS/TUV – the world's leading inspection, testing, and certification companies. SGS and TUV are the Nationally Recognized Testing

Laboratories [NRTLs] in North America (approved by Occupational Safety & Health Administration [OSHA]) and the Notified Bodies in the European Union, the most meticulous and recognized certifying labs in the industry. This makes our products worry and hassle free for safety and compatibility, as well as for interfacing with mission-critical and expensive equipment.

QUALITY ASSURANCE



CommFront products are designed and manufactured to ISO 9001 standards. Our quality control system is strictly certified by SGS (Cert No. SG12/04213). We are proud to provide

our credentials to help our customers make a well-informed decision when choosing a long-term business partner.

WARRANTY & GUARANTEE



CommFront products have been proven to be reliable. We back our high-quality products with a 5-year replacement warranty and a 30-day risk-free money-back guarantee.

OUR CLIENTS

Throughout the year, CommFront has gained a sterling reputation in the industry, and its clients include many industry leaders. Below are some of our satisfied customers from around the world, just to name a few:

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| ■ ABB | ■ General Electric | ■ Lockheed Martin | ■ Raytheon Corp. | ■ Toyota |
| ■ Advanced Control Systems | ■ Harris Corp. | ■ Microsoft | ■ Rockwell Collins | ■ Thales Comm. |
| ■ Allied Electronics | ■ Hewlett Packard | ■ Mitre Corp. | ■ Samsung | ■ Tyco Electronics |
| ■ Applied Materials | ■ Honeywell Corp. | ■ MIT Laboratory | ■ Schneider Electric | ■ University of Nebraska |
| ■ AT&T | ■ IBM Corp. | ■ Motorola | ■ Seagate | ■ University of Wisconsin |
| ■ BAE Systems | ■ Intel Corp. | ■ NASA | ■ Siemens Corp. | ■ UL Laboratory |
| ■ Boeing | ■ ITT Corp. | ■ Nissan | ■ Singapore Technologies | ■ US Robotics |
| ■ Cisco | ■ Johnson Controls | ■ Northrop Grumman | ■ Sirius Satellite | ■ Vaddio |
| ■ Emerson Power | ■ L-3 Communications | ■ Panasonic | ■ Spectra Energy | ■ Volvo |
| ■ Fluke | ■ LG | ■ Qualcomm | ■ Toshiba | ■ Volkswagen |

WORLDWIDE DISTRIBUTION CHANNELS

United States (North America)

LG Solutions, Inc.
2607 Northrup Dr
Rockville, MD 20850
Phone : +1-888-417-9258
Fax : +1-413-618-5668

Germany (Europe)

Hard- + Software Distribution e.K.
Raiffeisenstrasse 4
25451 Quickborn
Phone : +49-4106-6109-0
Fax : +49-4106-6109-40

Singapore (Asia)

CommFront Communications Pte Ltd
No.1 Yishun Industrial Street 1
#05-31 A'Posh BizHub 768160
Phone : +65-6268-9596
Fax : +65-6491-5729

South Africa (Africa)

AutomationBuyer
Unit 5, Pogson Park, Pogson Road
Sydenham, Port Elizabeth
South Africa 6001
Phone : +27 41-451-2712