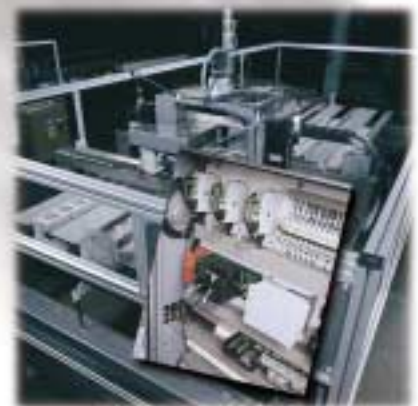




**Control &
Communication
Link**

**Device & Control
Network**

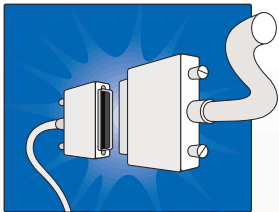
E-Link



**A Powerful, Seamless Solution For
Device & Control Networking**

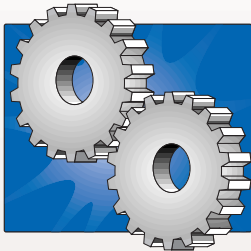
CC-Link: The Leader In Performance For

CC-Link is designed to make your decision simple. As Mitsubishi's high performance, determinate device level and control network, CC-Link offers the best of both worlds: the seamless integration of a one source solution with the flexibility of adding third party devices. CC-Link offers the four key features you seek from an automation networking solution.



It's Easy.

As a single source solution, you are assured CC-Link offers easy connectivity and integration to other Mitsubishi industrial automation products and third party devices on the network. No headaches. No hassles. Just plug and play.



It Works.

With a Mitsubishi CC-Link network solution, you are not only guaranteed easy connectivity, you're guaranteed it will work. Designed and engineered to work together, all of Mitsubishi industrial automation products share similar architecture and are built around common design principles. This design philosophy ensures the highest levels of system reliability and operation. Rest assured, all Mitsubishi third party vendors are tested and certified.



It's Safe.

An issue that often arises today with the numerous open solutions available on the market, is liability. Who is responsible when performance suffers or problems arise? Is it the PLC vendor, the drives supplier, the device manufacturer or is it someone else? When it's CC-Link we take the responsibility. No fingers to point. No Excuses.



It Performs.

We have always been renowned for the performance, capabilities and value of our control products. CC-Link takes no exception. Following in this tradition, CC-Link offers blazing speeds up to 10Mbps on economical shielded twisted pair wire, as well as remote programming and monitoring.

Networks Relative Performance Table

Network	Network Level	Architecture	Communication Media	Transmission Speed	Number Of Stations	Maximum Distance
CC-Link	Device/Control	Bus	Twisted Pair	10 Mbps	64	1200 m
DeviceNet	Device	Bus	Twisted Pair	0.5 Mbps	64	500 m
Profibus-DP	Device	Bus	Twisted Pair	12 Mbps	60	4800 m
ModBus	Device	Bus	RS-485	0.0192 Mbps	32	500 m
ControlNet	Control	Bus	Coax or Fiber	5 Mbps	99	1000 m
Interbus	Device	Loop	Twisted Pair	0.5 Mbps	256	400 m
SDS	Device	Bus	Twisted Pair	0.5 Mbps	64	500 m

Determinate Industrial Networking

Overview Of Network Solutions

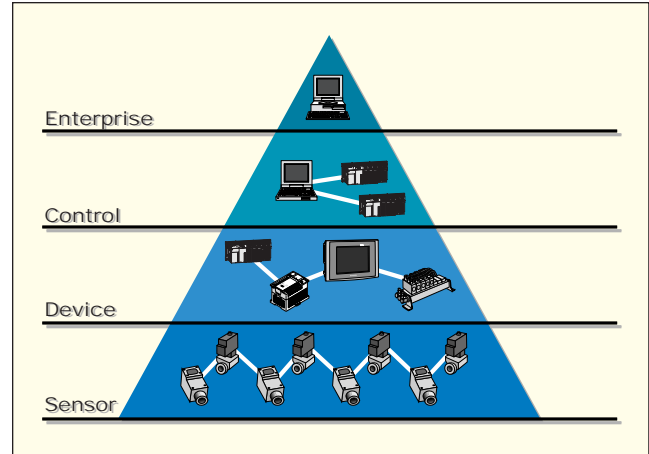
When choosing a network solution a number of criteria may come into play. Topology, bus speed, communications distance, redundancy, data transfer capabilities, the number of nodes the network can support, deterministic capabilities, cost, ease-of-use, and third party support to name just a few.

But most importantly, will it work well within your specific application? When developing our family of network products, we've taken all these factors into consideration - assuring users all the necessary features and capabilities are packaged into the network product they have selected.

From top to bottom in the network hierarchy, from open architecture protocols to seamless proprietary systems, we offer a host of powerful network solutions for users to choose from.

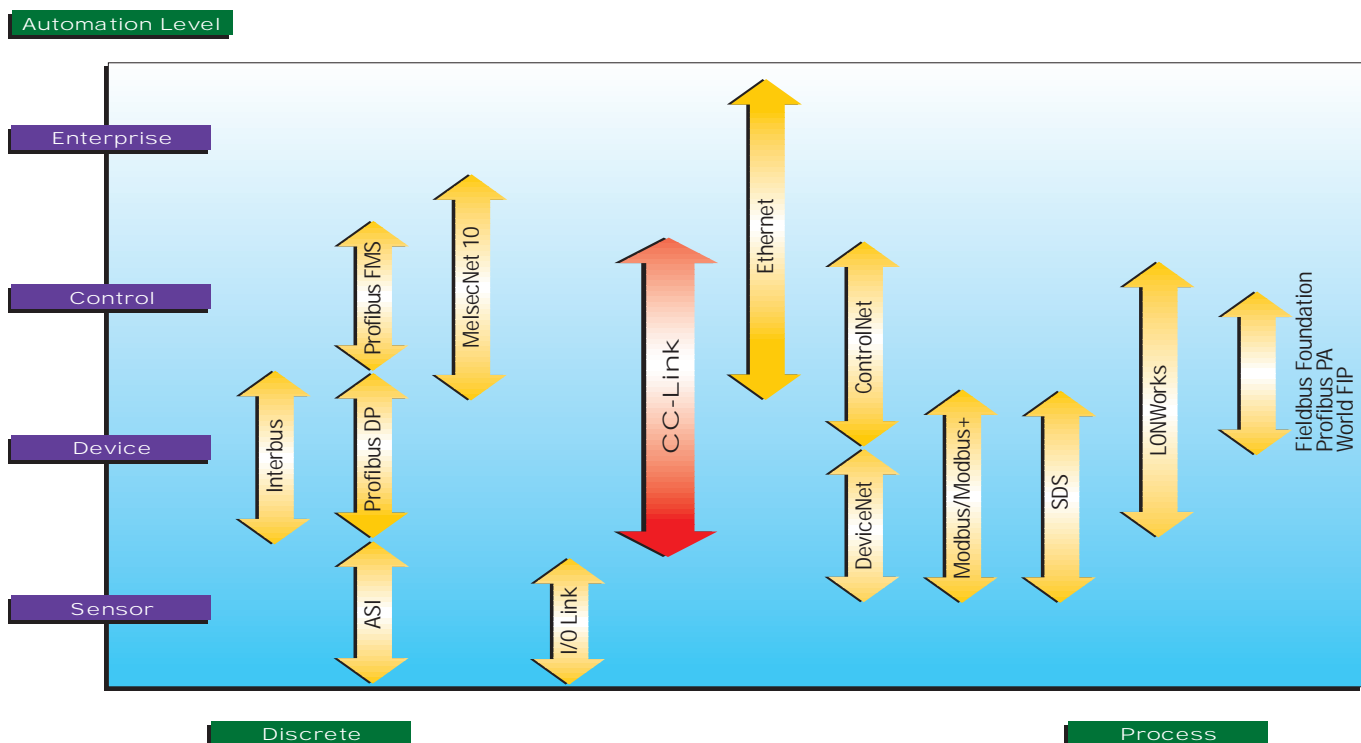
The one common denominator with all Mitsubishi network products is unmatched performance.

While bus speed is a critical factor in measuring performance, there are several other reasons why



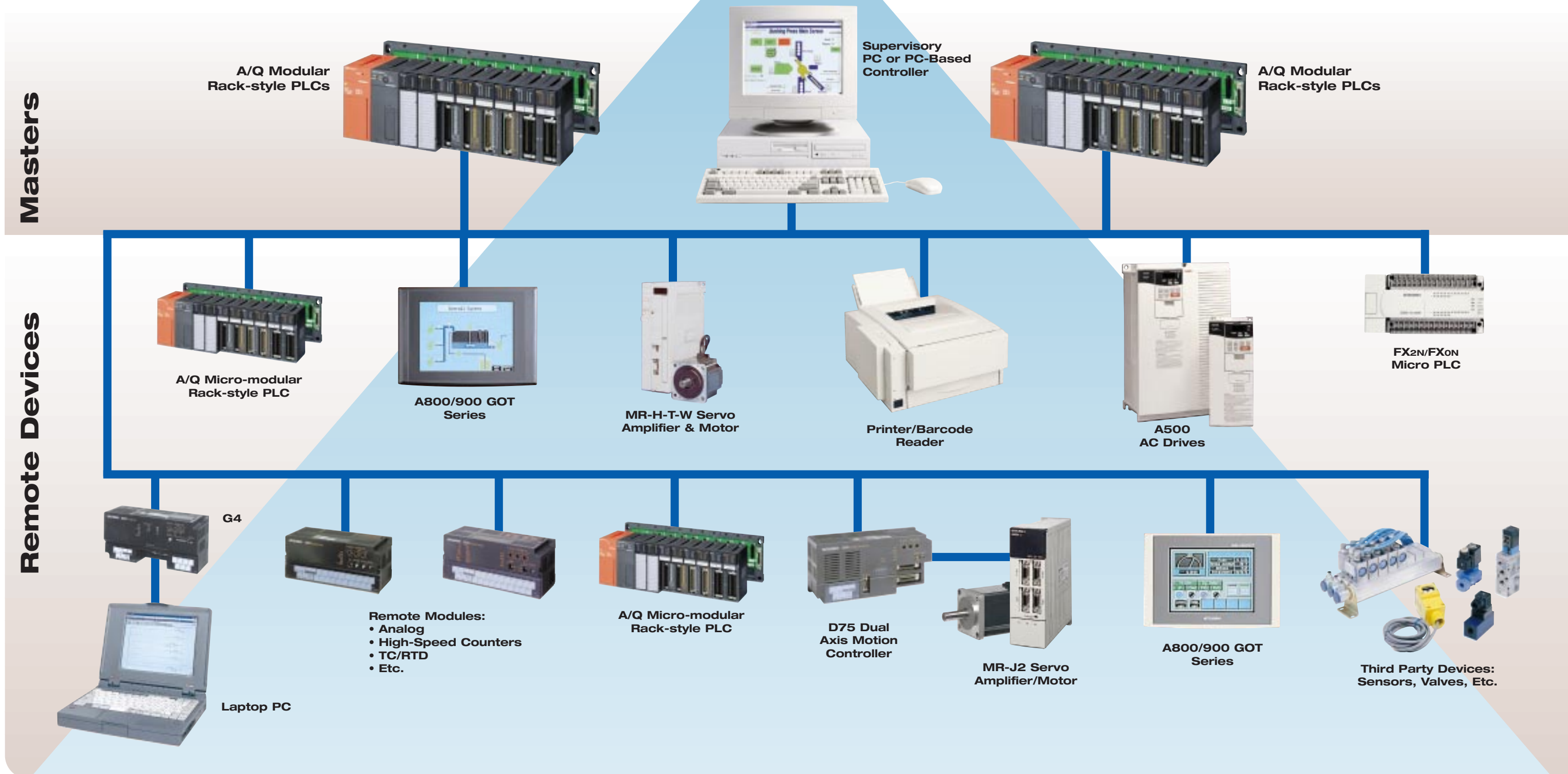
you should choose a Mitsubishi network solution. You can count on easy connectivity, seamless integration, synergistic performance, and above all else - maximum levels of uptime and productivity without sacrificing performance. Whether you have an entire factory floor or just an individual process to network, you'll find Mitsubishi's expansive range of network options to be the superior choice.

Network Hierarchy



The Awesome Capability And Flexibility Of A CC-Link Network

Network System Configuration Control & Communication Link



CC-Link is Mitsubishi's newest device & control level communication system for networking.

CC-Link supports our current family of A and Q Series rack style systems, including discrete, analog, motion and a host of other remote modules. It also supports FX2N SuperMicro and FX0N Micro PLCs. You have the choice of using either an A or Q Series PLC, or a PC as the master controller in the network. It also supports our A500 Series AC Variable Frequency Drives, MR-J2 Servo Amplifiers, GOT Operator Interfaces and is open to various third party vendor products.

Using a bus architecture for data communication, CC-Link is a high performance, determinate device network. Touting communication speeds up to 10Mbps, CC-Link is faster than DeviceNet and Profibus network protocol devices. It can control up to 2,048 I/O points and has a large data capacity of up to 512K.

CC-Link Key Features & Benefits

■ Bus Architecture

Allows flexible configuration options

■ Twisted Pair Media

Easy to install and maintain

■ Communication Distances up to 1200 meters

Allows flexibility to optimize for distance vs. speed limitations

Maximum Transmission Distance	Communication Speed	156bps	625bps	2.5bps	5Mbps		10Mbps		
	Total Distance	1200m	600m	200m	150m	110m	100m	80m	50m
		3937.2ft.	1968.6ft.	656.2ft.	492.1ft.	360.9ft.	328.1ft.	262.4ft.	164.0ft.

■ Maximum of 64 Stations Per Master

Several masters can be used to increase I/O capacity

■ Blazing Throughput

Performance	Link Scan Time (When 10Mbs)	3.9mS/64 stations (when all of them are remote I/O stations) 3.0mS/42 stations (when all of them are remote device stations) 3.7mS/26 stations (when all of them are intelligent devices)

■ On Line Device Replacement

Defective devices can be replaced without stopping the entire network

■ Easy Data Handling

Information for intelligent devices that handle data, such as inverters and HMIs, updates automatically

■ Powerful Diagnostics

- Maximizes up-time
- Reduces start-up/troubleshooting/repair cycles
- Can be configured without setup software

■ Advanced Capabilities

- Monitor programs from HMI
- Remote programming from PC

■ Connection To Over 85 Third Party Devices

■ RAS Functions

- Automatic recovery
- Slave station disconnect
- Switching master station when master station is faulting