

Micro-CAPP™

COMMUNICATIONS AND PROTOCOL PROCESSORS

The Micro-CAPP ® product family is a versatile micro-controller based product used for handling timing and buffering of serial ASYNC data. There are two hardware platforms to choose from. The Micro-CAPP FDX is a full duplex product whereas the Micro-CAPP RTS is a half duplex product. The connector layout in both products allows for simple insertion into a serial data cable. One connector is configured as a DCE and the other as a DTE. The platforms are flash based and very flexible so custom applications can often be easily accommodated.

MICRO-CAPP FDX

The FDX contains two RISC processors that provide incredible flexibility and power. The primary function is as a serial data interface with each port independently configurable by the user. Data from one port is passed to the other port through dual high speed FIFO buffers. This allows the user to add DOX radio control (RTS/CTS or PTT and PreTransmit) to a full duplex data stream and is designed to be protocol transparent. All operational modes and parameters can be set with an easy-to-use Windows ® program, you will never need to open the case. Buffer Mode is the basic operational mode of the Micro -CAPP. In this mode, any data that is sent into one port is transferred and sent out the other. Port speed and timing can be set independently on each port via the easy-to-use set-up software. Parrot Mode causes the Micro-CAPP FDX to operate as a protocol independent Store and Forward Repeater. Data received on the "Radio" port that meets your timing and size conditions will be buffered and re-transmitted out the "Radio" port. Optionally, data can also be sent out the "Host" port by selecting the "Allow TX from Local Device" option. This results in the ability to not only digitally repeat data but to also drop it locally on site —a feature not found with other store and forward repeaters.

MICRO-CAPP RTS

Highly accurate protocol independent RS-232 data buffer that adds RTS/CTS control to a serial data stream. Small low cost unit that can solve your wireless modem timing problems that can occur with Windows SCADA host software drivers or with terminal servers. Outbound data to a wireless modem can be buffered to allow the addition of RTS/CTS handshake control. Inbound data is passed through untouched with absolutely no delay. Easy DIP switch configuration, no software required.



MICRO-CAPP APPLICATIONS:

- Highly Accurate RTS/CTS control. No need for special Communications drivers anymore.
- Rate Translation —match a legacy RTU with your faster radio network
- Use to Pace Data into a slower peripheral that does not support handshaking
- Use as a Digital Delay for your lab performance testing
- Terminal Server to Radio Interface
- Turn a standard transparent radio into a Store and Forward Repeater

FDX SOFTWARE:

- Easy to use Windows set-up program
- Uses standard laptop com port
- On-line Help System
- Interactive timing diagram shows your settings
- Fast configuration download
- Free updates available via the internet

Hardware:

Micro-CAPP FDX	Micro-CAPP RTS
Dual Flash Based RISC Processors	Single Flash Based RISC Processor
Dual High speed FIFO's up to 64K bytes	128 byte FIFO
Rugged Aluminum Enclosure	Small case that can be inserted in-line in a cable
10 to 30 Vdc operation	10 to 30 Vdc operation

Features:

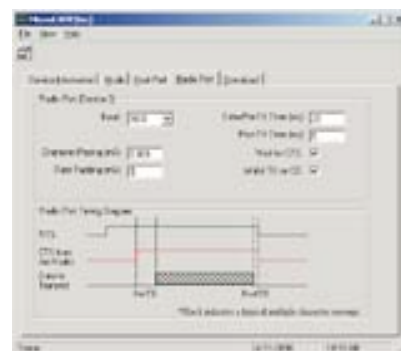
	Micro-CAPP FDX	Micro-CAPP RTS
Highly accurate RTS/CTS radio control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Enables "Data Only" serial devices to use a wireless modem	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Handles binary data (protocol independent)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Flash Processor, field upgradeable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CDMA Capable (Hold off Data TX if CD is On)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Custom Application Development Available	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Windows Software for Configuration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Externally Accessible DIP Switch Configuration	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Baud Rate Translation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Store and Forward Repeater Option (Parrot)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Micro-CAPP FDX Specifications:

	Host Port	Radio Port
Baud Rate	1200, 2400, 4800, 9600, 19,200	1200, 2400, 4800, 9600, 19,200
Data Format	8 or 9 bit	8 or 9 bit
Character Pacing	0 to 65 ms in 0.001 ms increments	0 to 65 ms in 0.001 ms increments
Rate Padding	0 to 65 ms in 1 ms increments	0 to 65 ms in 1 ms increments
Pre-Transmit	N/A	0 to 65 ms in 1 ms increments
Post-Transmit	N/A	0 to 65 ms in 1 ms increments
CTS Control	Ignore, Force, On, Drop when buffer ½ full	Ignore or Wait for CTS
Port Connector	Standard DB-9 (Socket)	Standard DB-9 (Pin)
I/O Compatibility	EIA RS-232	EIA RS-232

Micro-CAPP RTS Specifications:

Baud Rate	2400, 4800, 9600, 19,200
Data Format	8 or 9 bit
Handshake Control	Turn on RTS when data detected, Wait for CTS
Carrier Contention	Ignore CD or Buffer Data when CD Present
Port Connectors	Standard DB-9s
I/O Compatibility	EIA RS-232



Micro-CAPP User Interface

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