

*These legacy products are EOL. For product replacement alternative, please see Patton's Model 1040 ([http://www.patton.com/products/product\\_detail.asp?id=113](http://www.patton.com/products/product_detail.asp?id=113)) or Model 1080 ([http://www.patton.com/products/product\\_detail.asp?id=78](http://www.patton.com/products/product_detail.asp?id=78)).*

## Overview

The Model 2084 high speed RS-232 to RS-485 interface converter supports async RS-232 data rates to 115.2 kbps over 2-wires. Passing one control signal in each direction, the Model 2084 can handle up to 50 terminal drops in a multipoint polling environment. The Model 2084 has five configuration parameters, allowing the unit to be "fine tuned" to a variety of point-to-point or multipoint applications. In addition, Silicon Avalanche Diodes provide 600 watts per wire of protection against harmful data line transient surges

The Model 2085 provides high speed RS-232 to RS-485 conversion over one or two unconditioned twisted pair. Otherwise, the Model 2085 has the same features and specifications as the Model 2084.

Model 2086 includes optical isolation along with the same set of features provided with the Model 2085. The Model 2086 requires an external power supply.

## Highlights

**Rack Mountable Units, Too!** These rack cards each contain two converters, so you can fit 32 converters in a 19" rack.



## Features

- Conforms to the EIA RS-485 Standard
- Operates Asynchronously, Point-to-Point or Multipoint, over 2 or 4 Wires
- Data Rates to 115,200 bps
- Selectable RTS-CTS Delay
- Selectable High-Low Impedance
- Able to Operate with or without "Echo"
- Carrier may be Continuous or "Controlled by RTS"
- 50 drops in a multi-point environment
- No AC Power or Batteries Required
- Built-In Surge Protection - Standard
- Model 2086 features optical isolation
- **Made in the USA** — This Patton equipment is designed by Patton engineers and built in our Gaithersburg, Maryland facility. Patton's American-made manufacturing process delivers high-quality networking solutions with reliability you can trust.



Specifications

**Transmission Format:** Asynchronous  
**Data Rate:** Up to 115,200 bps  
**Range:** Up to 9 miles (14.5km)  
**RS-232 Interface:** DB-25, male or female (DCE/DTE switchable)  
**RS-485 Interface Options:** DB-25, male or female; RJ-11 or RJ-45 jack; terminal block with strain relief  
**Control Signals:** DSR turns "ON" immediately after the terminal raises DTR; DCD turns "ON" after recognizing the receive signal from the line; CTS turns "ON" after the terminal raises RTS.  
**RTS/CTS Delay:** 0 msec or 8 msec  
**Carrier:** The carrier is switch selected either continuous operation or controlled by RTS  
**Power:** Draws operating power from RS-232 data and control signals; no AC power or batteries required.  
**Temperature:** 32° to 122° F (0° to 50° C)  
**Size:** 2.66" x 2.10" x 0.73" (6.8 x 5.3 x 1.9 cm)

Ordering

| #  | Model #                                                                                                          | Description                                                                             | Availability       |
|----|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------|
| 1  | 2084F                                                                                                            | RS-232 TO RS-485 INTERFACE CONVERTER (DB25F; TERMINAL BLOCK); 2-WIRE                    | Special Order      |
| 2  | 2084FRJ11                                                                                                        | RS-232 TO RS-485 INTERFACE CONVERTER (DB25F; RJ11); 2-WIRE                              | Special Order      |
| 3  | 2084FRJ45                                                                                                        | RS-232 TO RS-485 INTERFACE CONVERTER (DB25F; RJ45); 2-WIRE                              | Special Order      |
| 4  | 2084M                                                                                                            | RS-232 TO RS-485 INTERFACE CONVERTER (DB25M; TERMINAL BLOCK); 2-WIRE                    | Special Order      |
| 5  | 2084MRJ11                                                                                                        | RS-232 TO RS-485 INTERFACE CONVERTER (DB25M; RJ11); 2-WIRE                              | Special Order      |
| 6  | 2084MRJ45                                                                                                        | RS-232 TO RS-485 INTERFACE CONVERTER (DB25M; RJ45); 2-WIRE                              | Special Order      |
| 7  | 2085F                                                                                                            | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 8  | 2085F-25F                                                                                                        | RS-485 CONVTR, DB25F - DB25F                                                            | Special Order      |
| 9  | 2085F-25M                                                                                                        | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 10 | 2085FDR11                                                                                                        | RS-232 TO RS-485 CONV W/D RJ11                                                          | End of Life-Notice |
| 11 | 2085FDR45                                                                                                        | RS-232 TO RS-485 CONV W/D RJ45                                                          | End of Life-Notice |
| 12 | 2085FRJ11                                                                                                        | RS-232 TO RS-485 CONV W/RJ11                                                            | Special Order      |
| 13 | 2085FRJ45                                                                                                        | RS-232 TO RS-485 CONV W/RJ45                                                            | Special Order      |
| 14 | 2085M                                                                                                            | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 15 | 2085M-25F                                                                                                        | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 16 | 2085M-25M                                                                                                        | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 17 | 2085MRJ11                                                                                                        | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 18 | 2085MRJ45                                                                                                        | RS-232 TO RS-485 INTERF. CONV.                                                          | Special Order      |
| 19 | 2085RC11                                                                                                         | DUAL 2085 RCK CARD W/RJ11 R CD                                                          | End of Life-Notice |
| 20 | 2085RC45                                                                                                         | DUAL 2085 RCK CARD W/RJ45 R CD                                                          | End of Life-Notice |
| 21 | 2086F                                                                                                            | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; TERMINAL BLOCK); 120VAC | End of Life-Notice |
| 22 | 2086F/230<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; TERMINAL BLOCK); 230VAC | End of Life-Notice |
|    |                                                                                                                  |                                                                                         |                    |
|    |                                                                                                                  |                                                                                         |                    |
|    |                                                                                                                  |                                                                                         |                    |
|    |                                                                                                                  |                                                                                         |                    |
| 23 | 2086FRJ11<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; RJ11); 120VAC           | End of Life-Notice |
| 24 | 2086FRJ11/230<br> Accessories | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; RJ11); 230VAC           | End of Life-Notice |
| 25 | 2086FRJ45<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; RJ45); 120VAC           | End of Life-Notice |
| 26 | 2086FRJ45/230<br> Accessories | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25F; RJ45); 230VAC           | End of Life-Notice |
| 27 | 2086M<br> Accessories         | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; TERMINAL BLOCK); 120VAC | End of Life-Notice |
| 28 | 2086M/230<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; TERMINAL BLOCK); 230VAC | End of Life-Notice |
| 29 | 2086MRJ11<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; RJ11); 120VAC           | End of Life-Notice |
| 30 | 2086MRJ11/230<br> Accessories | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; RJ11); 230VAC           | End of Life-Notice |
| 31 | 2086MRJ45<br> Accessories     | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; RJ45); 120VAC           | End of Life-Notice |
| 32 | 2086MRJ45/230<br> Accessories | RS-232 TO RS-485 OPTICALLY ISOLATED INTERFACE CONVERTER (DB25M; RJ45); 120VAC           | End of Life-Notice |

| Item Number                                            | Item Description                                                                | Price                                                 |
|--------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------|
| SVC-SmartCare-BH (/support/support.asp)                | Premium Support for Business Hours                                              | Contact us (/howtobuy/) for availability and pricing. |
| SVC-SmartCare-24/7 (/support/support.asp)              | Premium Support, 24 x 7 Coverage                                                | Contact us (/howtobuy/) for availability and pricing. |
| SVC-SmartAssist-BH (/support/support-professional.asp) | Business Hour Support Services                                                  | Contact us (/howtobuy/) for availability and pricing. |
| SVC-SmartAssist-AH (/support/support-professional.asp) | After Hours Support Services                                                    | Contact us (/howtobuy/) for availability and pricing. |
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| SVC-ENHWAR2 (/support/support-warranty.asp)            | 2 Year Enhanced Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-ENHWAR3 (/support/support-warranty.asp)            | 3 Year Enhanced Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-ENHWAR4 (/support/support-warranty.asp)            | 4 Year Enhanced Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-ENHWAR5 (/support/support-warranty.asp)            | 5 Year Enhanced Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-EXTWAR2 (/support/support-warranty.asp)            | 2 Year Extended Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-EXTWAR3 (/support/support-warranty.asp)            | 3 Year Extended Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-EXTWAR4 (/support/support-warranty.asp)            | 4 Year Extended Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-EXTWAR5 (/support/support-warranty.asp)            | 5 Year Extended Warranty                                                        | Contact us (/howtobuy/) for availability and pricing. |
| SVC-NETENG-HOUR (/support/support-professional.asp)    | Network technician hour rate for pre-config services, after hours support, etc. | Contact us (/howtobuy/) for availability and pricing. |

## Related Products

Model 1000CU2, 1000CU4 & 1000CU8 (/products/product\_detail.asp?id=372)  
Model 1000R16 (/products/product\_detail.asp?id=371)

2, 4, & 8-Slot ClusterBoxes™  
16-Slot Mini-Rack

## Backgrounders

FiberPlex Capabilities Guide (/backgrounders/FiberPlex\_Capabilities\_Statement.pdf)

October 6, 2017

## Certifications

Declaration of Conformity - Data Communication Devices Models: As per the attached sheet (/certifications/00109D1-001M.pdf)  
Declaration of Conformity - Data Communication Devices: Short Range Modems, Interface Converters, Multiplexer Models (/certifications/02301D1-001H.pdf)

November 11, 2015

February 12, 2015

## Data Sheets

End of Life Notice - Models 2084 and 2085 (/datasheet/EOL-Notice-2084\_2085\_201909.pdf)  
Patton Product Life Cycle Color Codes (/datasheet/Life-Cycle-Availability-Codes.pdf)

September 11, 2019  
April 24, 2015

## Product & Solution Guides

Enterprise Networking Products Guide (/guides/07MENTNET-PG-lo.pdf)

November 10, 2010

## User Manuals & Configuration Guides

Model 2084 Manual (/manuals/2084.pdf)

January 26, 1999

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### Unified Communications

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- > VoIP IADs (/voip-iad/#products)
- > SIP eSBCs (/session-border-controller/#products)
- > VoIP Appliances (/ip-pbx/#products)
- > SS7 Media Gateways (/ss7-gateway/#products)

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- > Virtual Access Router (/virtual-access-router/#products)
- > VPN Server (/vpn-server/#products)
- > IPv6 to IPv4 Network Gateway (/network-gateway/#products)
- > Intelligent Edge Orchestration (/intelligent-edge-orchestration/#products)
- > NFV & SDN (/nfv/#products)

### Network Access

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- > PoE Products (/poe/#products)
- > xDSL Products (/xdsl/#products)
- > Routers (/router/#products)
- > Dial-Up Access (/dial-up/#products)

### Connectivity

- > Line Drivers / Short Range Modems (/products/network-connectivity/#11)
- > Fiber Serial DataCom (RS-232/422/530/188C) (/products/network-connectivity/#27)
- > Ethernet Over Fiber (/products/network-connectivity/#23)
- > Multiplexers & Sharing Devices (/products/network-connectivity/#12)
- > Fiber Telecom (T1/E1/PRI, Analog and ISDN) (/products/network-connectivity/#28)
- > Pro AV Live and Media Broadcast Fiber Systems (/products/network-connectivity/#29)
- > SFP (Small Form Pluggable) Modules and Kits (/products/network-connectivity/#30)
- > Fiber Alarming, Notification, Relay and Control (/products/network-connectivity/#24)
- > Other Network Extenders (/products/network-connectivity/#13)
- > Defense/Security Fiber Communications (/products/network-connectivity/#22)
- > Baluns (/products/network-connectivity/#3)
- > Surge Protectors & Opto-Isolators (/products/network-connectivity/#15)
- > DataTaps, Testers, Adapters, Rack Kits (/products/network-connectivity/#7)
- > Interface Converters (/products/network-connectivity/#10)
- > Fiber Rack and Enclosure Systems (/products/network-connectivity/#25)
- > Fiber Repeaters and Wavelength Division Multiplexers (WDM) (/products/network-connectivity/#26)
- > Waveguide RF Filters (/products/network-connectivity/#31)

### Sunset Products

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## Special Projects Group (SPG) (/products/special)

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