

**Product Model**     **3086**  
**Product Name**     **ipRocketLink G.SHDSL IAD**

### Who is the customer for the ipRocketLink G.SHDSL IADs?

The Model 3086 is a G.SHDSL Integrated Access Device that combines high-speed IP routing and access via ATM/FR/PPP, along with serial TDM data access. The model 3086 offers direct connection to a 10/100Base-T Ethernet environment, a V.35/X.21 Sync Serial interface for direct connection to a router or multiplexer, or a T1/E1 port for connection to local T1/E1 device (Switch or PBX). The Model 3086 complies with ETSI/ITU standard G.991.2 and allow full duplex, 2.3 Mbps over 2-wire. Patton is the only solution to offer 2-wire 4.6mpbs operation. The speed settings are user selectable in nx64kps increments from 192kbps.



Patton’s model 3086 IAD is geared to the connection of small to medium size enterprises in Internet applications (connection to ISP), or the connection of remote branches using DSL access and IP/FR/ATM/PPP. In most applications the model 3086 works point-to-point or in conjunction with Patton’s 3096RC ForeFront System, but the 3086 will also connect to third party compliant G.SHDSL devices. The 3086 IADs are perfect for a variety of applications including:

- Internet/Extranet Access
- IP/FR and TDM Access
- IP/FR and Voice over DSL
- Metro Intranet Access

For other DSL options consider Patton’s complete line of DSL products including:

G.SHDSL	3096RC, 3224, 3201, 3241, 3086, 3088
VDSL	1068, 1068RC
mDSL	3095 DACS, 1088, 1095, 1095RC
HDSL	3095 DACS, 1089, 1094A, 1094ARC
iDSL	3092 DACS, 1082, 1092A, 1092ARC

## What are the Key Features and Benefits of the Patton *DiamonLink* G.SHDSL routers?

<i>Key Features</i>	<i>Benefit</i>
<i>Dual User Interface Ports</i>	<b>Customers get the benefit of having both an Ethernet port and either a serial or T1/E1 port (coming soon) to be used simultaneously on the same DSL line.</b>
<i>FlexIP™ technology</i>	<b>Patton's FlexIP™ technology allows the serial (TDM) data from a router, and IP data from the 3086's Ethernet port to be transported simultaneously over a single DSL connection.</b>
<i>Standards-based G.SHDSL</i>	<b>The DSL port meets ITU-T standard G.991.2 and supports both Annex A and Annex B operation.</b>
<i>High-speed 2-wire DSL</i>	<b>Support for n x 64 kbps for n = 3 to 36 with software key upgrade to provide n = 3 to 72 over just two wires (single twisted pair).</b>
<i>Long Reach DSL</i>	<b>Using just 2 wires of ordinary twisted pair telephone wire, the ipLink G.SHDSL IADs can reach distances greater than 30,000 ft.</b>
<i>Advanced IP routing features</i>	<b>Powerful routing features like NAT/NAPT, Firewall, and DHCP make shared Internet connectivity simple, secure and easy.</b>
<i>ATM, PPP, FR, HDLC Support</i>	<b>Versatile interface options allows for simple deployment into any network. FRF.5 and FRF.8 support provides true internetworking support.</b>
<i>Auto-sensing 10 or 100Base-T and full or half-duplex Ethernet.</i>	<b>No configuration necessary, just Plug your Ethernet connections in and play.</b>
<i>10/100 Ethernet with MDI-X</i>	<b>Easily connect to any computer or LAN and eliminate special cables with the built-in crossover switch.</b>
<i>WEB/SNMP Manageable</i>	<b>Flexible management option allows the operator to configure the 3086 locally and remotely, manage each DSL link, and perform initial test loops. The network management system is built into each ipLink IAD and setup is a snap with the VT-100 console port. Then use the Internet to manage the ipLink IADs from anywhere in the world.</b>
<i>Convenient desktop modem</i>	<b>Patton packs all these features including an internal power supply in a small compact package that makes this product easy to fit in most any application.</b>
<i>Front mounted LED's</i>	<b>Front mounted LED's provide a quick look at the status of the IADs in an instant. LED's provide feedback on Power, DSL port status, WAN status and Ethernet status.</b>

## Applications

Copper wire is everywhere and now is the time to take full advantage of the bandwidth it has to offer. G.SHDSL is the ideal solution to take advantage of the copper wire because of its long reach, high bandwidth capabilities along with its noise compatibility with other technologies. Combine this with the fact that it is based on the ITU-T standard to ensure open compatibility among vendors, and add in the ability of the Patton Model 3086 to integrate both Routed Ethernet data and Serial data or T1/E1 data along the same twisted pair, and it becomes obvious that the 3086 will be the device of choice among customers.

### Application 1: Internet/Extranet Access

While Frame Relay (FR) remains the most economical service to connect multiple corporate locations over PVCs (Private Virtual Connections) at burst and fixed data rates, high-speed DSL is becoming the technology of choice for last mile access to FR switches. Patton's Model 3086 connects directly to a 10/100Base-T hub or switch at the customer LAN, while the network side connects to Patton's 3096RC via a 2-wire DSL Link. At the Data Link Layer, The Model 3086 encapsulates IP data from the customer LAN into FR packets and transmits over the DSL link to a Service Provider location. Inside the provider's network, VCs transport data across the WAN to their final destination. Additionally, the Model 3086 supports PPP encapsulation, FR to ATM network internetworking, or FR to ATM Service internetworking.



### Application 2: IP/FR and TDM Access

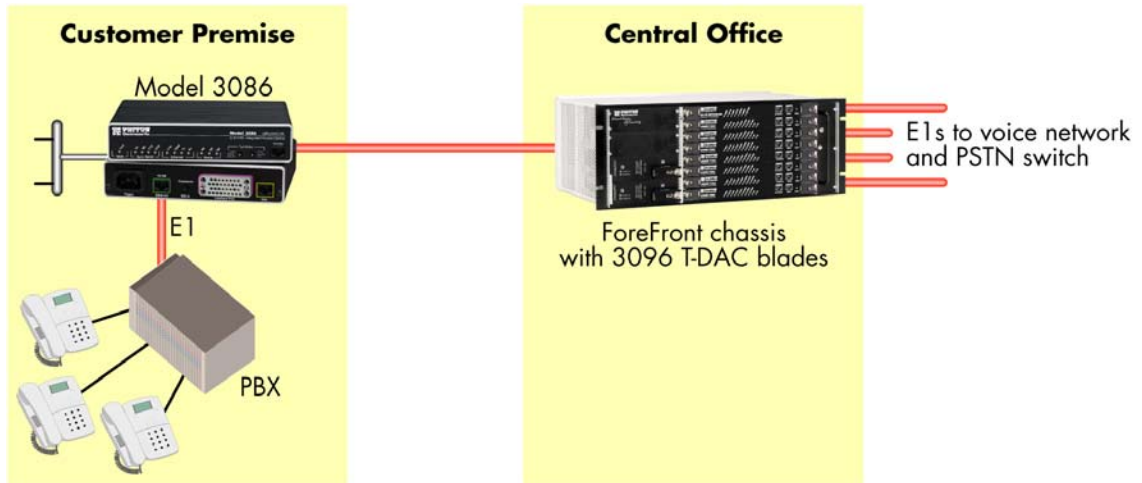
Patton's Model 3086 goes a step further – along with providing IP/FR/ATM/PP connectivity for a 10/100 Ethernet LAN, it also comes with a local serial port for connection to a router or multiplexer. Using Patton's FlexIP™ technology, serial (TDM) data from a router, and IP data from the 3086's Ethernet port is transported in "split DSL bandwidth mode". The serial port provides logical and physical segmentation and access in a multiple office campus environment



### Application 3: IP/FR and TDM Access

Patton's Model 3086 can also connect to a PBX – In addition to providing IP/FR/ATM/PPP connectivity for a 10/100 Ethernet LAN, the 3086/RIK's drop-and-insert port connects to a local PBX to provide voice and

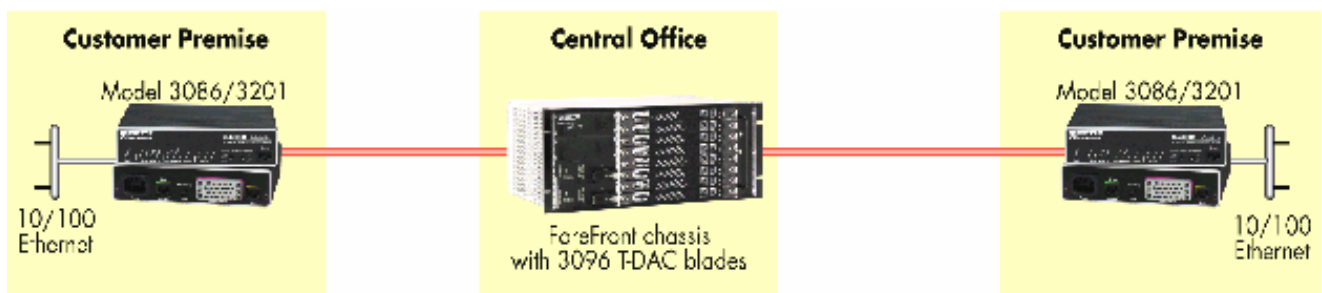
data solution in one simple to use box. Using Patton's FlexIP™ technology, IP data from an Ethernet environment, and PCM encoded voice from a PBX are carried in split-DSL- bandwidth mode to a Central Office. At a Service Provider location the Model 3096RC separates PCM voice and IP data traffic for transport over the WAN



## Application 4: Metro Intranet Access

Patton's Model 3086 symmetrical G.SHDSL modulation scheme, allows deployment in back-to-back configurations for Metro Intranet Access with the following benefits.

- Low cost creation of VPN and Intranet Access
- Can be connected locally or via TDM networks
- Secure networking and more efficient Traffic Engineering



### Included parts:

The Model 3086 comes with the following items:

- One ipLink G.SHDSL modem with software
- An RJ-45-to-RJ-45 cable for use with the console and Ethernet ports
- A DB9-RJ45 (EIA-561) adapter for connecting a PC's serial port to the DACS console port

- Power supply as specified
- CD-ROM containing: Users manual

**Note:** Country specific power cords are also specified separately.

- **Standard power supplies are internal 100 – 240 VAC UI, external UI or 120/230 VAC.**
- **Country specific power cords are ordered separately.**
  - **NOTE: the 3086 uses the new style 2-pronged power cord. This power cord is identified as a -2 on the end of the standard Patton power cord. For Example: a standard three pronged (IEC320) Euro Power cord would have the catalog number of 0805EUR. The NEW 2-pronged power cord is an 0805EUR-2.**
- **THIS IS ONLY USED FOR THE INTERNAL VERSIONS OF THE POWER SUPPLY. ALL EXTERNALS STILL USE THE STANDARD IEC320 STYLE POWER CORD.**

### Shipping/Export Information

**ECCN export number:** 8517.50.1000

**Country of origin:** United States of America, NAFTA

**Total weight boxed:** 3.1 lbs. (1.4 kg)

**Individual unit:** 1.15 lbs. (0.52 kg)

### MTBF/Repair Information

**MTBF:** 3286/RIC/UI: 58,000 hours

3086/RID/UI: 66,000 hours

3086/RIK/UI: 63,000 hours

Calculation based on MIL-HDBK-217F, Notice 2 - "Parts Count Reliability Prediction"

**Mean time to repair:** < 2 weeks

**Warranty:** 1-year parts and labor.

**Out of warranty repair rate:** contact Tech Support for details: +1 (301) 975-1007 or [support@patton.com](mailto:support@patton.com)

### Physical Specifications

**Dimensions:** 7.25W x 1.5H x 6.5D in. (18.4W x 3.8H x 16.5D cm.)

**Color:** Case: black.

Lexan front overlay: black with white lettering.

Lexan rear overlay: black with white lettering.

**Case material:** Plastic, Fire retardant

## Environmental

**Operating Temp:** 32 to 122°F (0 to 50°C)

**Storage Temp:** -13 to 185°F (-25 to +85°C)

**Relative Humidity:** 5 to 95% RH, non-condensing

**Altitude:** 0–15000 feet (3,048 meters)

**Ventilation requirements:** None.

## Approvals

Safety	Emissions	Telecommunications
Patton Internal Safety and UL/CSA testing per: UL1950 (MET), Canadian cMET ESD EN61000-4-2 EN60950 – CB scheme	RTTE 99/5/EC FCC Part 15 Sub Part B, Class A	FCC Part 68 CE Mark RTTE 99/5/EC Canadian CS-03 CTR12 (RIK versions only) CTR13 (RIK versions only)

### Australia Specific:

- TS-001
- TS016 (E1 Telecom) – 3086/K only.
- AZ/NZS 3260 Safety
- AZ/NZS 35-48 EMC

## Power Supply

Internal: UI (100-240VAC, 50-60Hz), 2-pronged AC power connector  
 DC (36-60VDC) 3 position - Clamp type terminal Block

External: UI (100-240VAC, 50-60Hz)  
 2.5mm barrel type Conn. Output: 5 VDC, 2A (Center pin is +)  
 DC (36-60VDC) 3 position - Clamp type terminal Block Output:  
 5 VDC, 2A (Center pin is +)