



IPL-A

ADSL Router Firewall

USER GUIDE

CONTENT

The IPL-A ADSL router is manufactured by

ETIC TELECOM

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38240 MEYLAN
FRANCE**

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1 Certificate of conformity

The manufacturer, ETIC Telecom – 13 chemin du vieux chêne – 38240 Meylan – France, Hereby declares that the listed products

Type of device : ADSL Router IPL-A

Conforms to the Council Directive 1999/5/EC related to radio and telecommunication terminal equipment.

The harmonized standards to which the equipment complies are :

Standard	Title
EN301489-1	Electromagnetic compatibility and Radio spectrum Matters : Part 1 : General requirements
EN61000-6-2 Ed. 2001	Immunity : EN60100-4-2 Electrostatic Discharge EN60100-4-3 Radiated Immunity EN60100-4-4 EFT/Burst Immunity EN60100-4-5 Surge Immunity EN60100-4-6 Conducted Immunity
EN61000-6-4 Ed 2001	Emission : EN55022 radiated and conducted emission
EN60950	Security
EN50385	Human exposure to radio frequency fields exposure

Philippe DUCHESNE
Quality manager

5th January 2015

OVERVIEW

2 Products identification

The present user guide describes the products listed hereafter.

ADSL router without WiFi						
IPL-A-	400	220	230	260	261	
ADSL 2+ & RE-ADSL	•	•	•	•	•	
IP routing	•	•	•	•	•	
Firewall SPI	•	•	•	•	•	
IPSEC & OpenVPN VPNs (16 tunnels max.)	•	•	•	•	•	
25 remote users RAS PPTP / L2TP-IPSec / OpenVPN / HTTPS	•	•	•	•	•	
HTTPS portal	•	•	•	•	•	
Serial gateway (Raw TCP & UDP, Telnet, Modbus, Unitelway)	-	•	•		•	
Ethernet 10 / 100 BT	4	2	2	2	2	
RS232	-	1	2	-	-	
RS485	-	1	-	-	-	
RS422 isolated	-	-	-	1	-	
RS485 isolated	-	-	-	-	1	
USB	1	1	1	1	1	
NAT	•	•	•	•	•	
Port forwarding	•	•	•	•	•	
SNMP	•	•	•	•	•	
DNS	•	•	•	•	•	
DHCP server on the LAN interface	•	•	•	•	•	
Digital input for alarm email	1	1	1	1	1	
HTTPS / HTML / SSH configuration	•	•	•	•	•	

OVERVIEW

ADSL router with WiFi interface					
IPL-AW-	400	220	230	260	261
ADSL 2+ & RE-ADSL	•	•	•	•	•
IP routing	•	•	•	•	•
WiFi 2.4 & 5 GHz Client or Access point	•	•	•	•	•
Firewall SPI	•	•	•	•	•
IPSEC & OpenVPN VPNs (16 tunnels max.)	•	•	•	•	•
25 remote users RAS PPTP / L2TP-IPSec / OpenVPN / HTTPS	•	•	•	•	•
HTTPS portal	•	•	•	•	•
Serial gateway (Raw TCP & UDP, Telnet, Modbus, Unitelway)	–	•	•	•	•
Ethernet 10 / 100 BT	4	2	2	2	2
RS232	–	1	2	–	–
RS485	–	1	–	–	–
RS422 isolated	–	–	–	1	–
RS485 isolated	–	–	–	–	1
USB	1	1	1	1	1
NAT	•	•	•	•	•
Port forwarding	•	•	•	•	•
SNMP	•	•	•	•	•
DNS	•	•	•	•	•
DHCP server on the LAN interface	•	•	•	•	•
Digital input for alarm email	1	1	1	1	1
HTTPS / HTML / SSH configuration	•	•	•	•	•

Option	Référence
Service de connexion M2Me_Connect	M2Me pack initial

OVERVIEW

3 Data-sheet

General characteristics	
Dimensions	137 x 48 x 116 mm (h, l, p)
Electrical safety	EN 60950- UL 1950
EMC	ESD : EN61000-4-2 : Discharge 6 KV RF field : EN61000-4-3 : 10V/m < 2 GHz Fast transient : EN61000-4-4 Surge voltage : EN61000-4-5 : 4KV line / earth
RoHS	2002/95/CE (RoHS)
Supply voltage	IPL-A-400, IPL-AW-400 10 to 60 VDC IPL-A-230, IPL-AW-230 10 to 60 VDC IPL-A-260, IPL-AW-260 10 to 60 VDC IPL-A-261, IPL-AW-261 10 to 60 VDC IPL-A-220, IPL-AW-220 10 to 30 VDC
Operating T°	-20°C / + 60°C Humidity 5 – 95 %

ADSL Connection	
ADSL	ITU G992.5 (ADSL2+ et Reach Extended ADSL) Up to 2.4 Mbit/s downstream Up to 1 Mbit/s upstream
Encapsulation	PPPo Ethernet or PPPo ATM EoA : Ethernet over ATM RFC2684 Bridged IPoA : Routed IP over ATM, RFC2684 Routed

WiFi	
Type	2.4 & 5 GHz
RF connector	R-SMA female
WiFi transmission	802.11 a/b/g/n

VPN & firewall	
VPN	Client or server IPSEC or OpenVPN Encryption AES256 3DES Certificate X509 or preshared key 16 VPNs maximum of the same type (OpenVPN or IPsec)
Firewall	Stateful packet inspection (50 rules) Deny of service filter Source & destination IP address & port number filter Remote users filter
Logs	Date and time stamped logs

Remote access server (RAS)	
User list	25 users
Connection	PPTP / L2TP-IPSec / Open VPN / HTTPS Login & password Certificate X509
M2Me (option)	VPN Compliant with the M2Me_Secure VPN client Compliant with the M2Me_Connect mediation service
Alarms	1 input : emails or SM (cellular models)

Serial interfaces	
Data rate	1200 to 115200 kb/s parity N / E / O
Gateway	Raw TCP & UDP client & server - Modbus master & slave Multicast - Telnet - Unitelway
USB	1 USB host port PPP client over the usb interface

IP router	
Ethernet	10/100 BT – 2 or 4 switched ports
IP router	Static routes – RIP V2
IP address translation	Source IP @ translation (NAT) Destination IP @ translation (DNAT) Port forwarding
DHCP	LAN interface : Fixed IP @ or DHCP client or DHCP server

OVERVIEW

4 Product Overview

The IPL-A ADSL router is a security product.

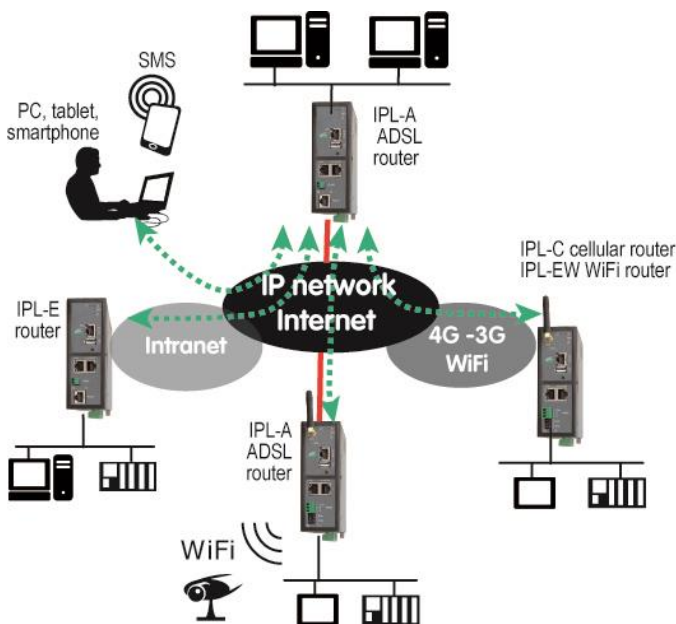
It is designed to interconnect safely automated devices over the Internet.

The IPL-A is at the same time

- **an IP router** to route IP packets and set VPNs with other routers through the Internet.
- **a remote access server (RAS)** to provide a secure access to the LAN for remote users;
- **a stateful inspection firewall** to filter the IP traffic.

4.1 Applications

That features in the same product make the IPL-A a top level solution for remote SCADA systems and remote maintenance through the Internet.



4.2 Functions

IP router

The IPL-A router provides powerful, flexible and comprehensive solutions to route IP packets from one network to other networks.

The solutions include static routes, RIP protocol and address translation (NAT, DNAT) and port forwarding.

IPSec & OpenVPN tunnels

The IPL-A features IPSec and OpenVPN tunnels to provide a high level of security and also compatibility with existing devices.

Remote access server for PCs, tablets and smartphones

The IPL-A router can also behave like a remote access server.

If he is registered in the user list, a remote user can access to particular devices of a machine network depending on his identity.

The new HTTPS portal make possible to access easily and safely to HMIs or PLCs web servers using a tablet, a PC or a smartphone.

Firewall

The firewall protects against the sophisticated attacks coming from the Internet.

It is also able to filter IP frames between the WAN interface or any VPN interface on one hand, and the LAN interface on the other hand.

VRRP redundancy

VRRP makes possible to usse two routers shaping a redundant solution.

DNS server

DNS makes it possible to assign Internet names to devices or organizations independently of their public IP address.

The IPL-A router behaves like a DNS server for the devices connected to the LAN.

DHCP server

On the LAN interface, the IPL-A router can behave like a DHCP server.

WiFi interface

The IPL-A router provides optionally a WiFi interface able to behave like a client or an access point.

Serial gateway

Optionally, the IPL-A router provides 1 or 2 serial RS232, RS485, RS422 interfaces.

Le serial gateway features the following modes :

- Raw TCP client or server
- Raw UDP
- Telnet
- Modbus master or slave
- Unitelway

OVERVIEW

4.3 Router interfaces & organisation

The IPL-A router provides two IP interfaces : The ADSL interface (WAN interface) to reach the Internet or a private service and the LAN interface to connect the machine.

WAN interface :

The IPL-A router provides three WAN interfaces :

the ADSL interface is the main WAN interface; but the Ethernet interface of the RJ45 Nr1, or the WiFi interface when it is used as a client, can be used as a WAN interface.

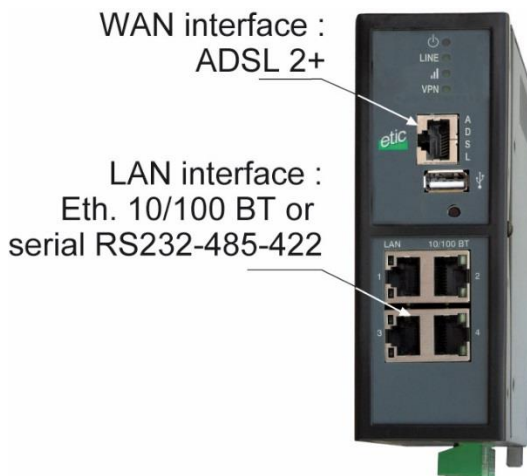
Only one interface can be selected as the WAN interface at the same time (ADSL, Ethernet port 1, WiFi).

LAN interface :

The LAN interface consists of Ethernet ports, optionally a WiFi interface when it is used as an access point and serial interfaces.

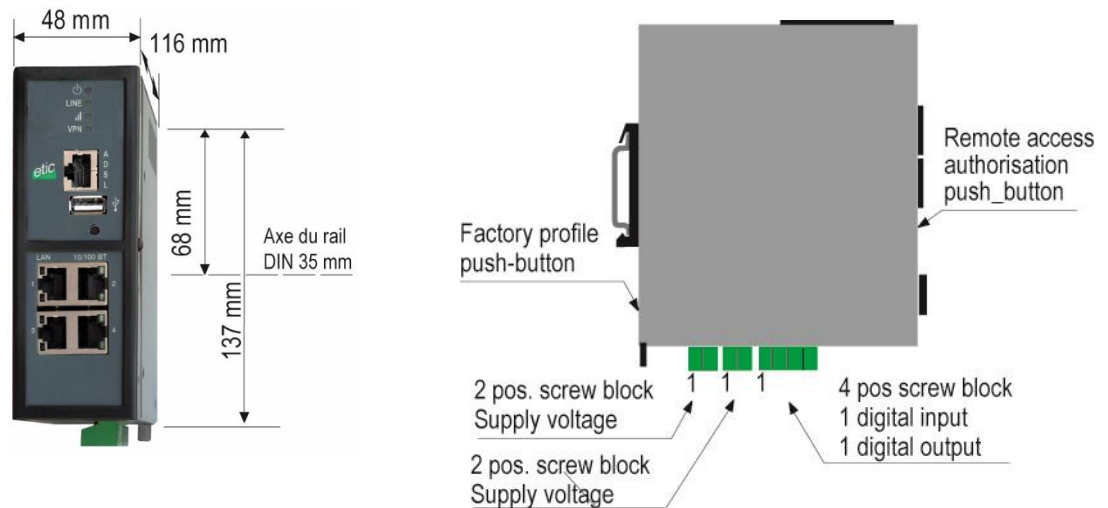
Firewall

The firewall filters the IP frames between the ADSL WAN interface or any VPN interface on one hand, and the LAN interface on the other hand.





1 Product description

1.1 Dimensions



1.2 Push-buttons

Rear panel push-button		
Pressing the rear panel PB	led 	Function
During operation	Flashing red	The default IP address 192.168.0.128 is selected The current configuration remains active
During power-up	Flashing red	The factory configuration and the default IP address 192.168.0.128 are selected. The current configuration is deleted.

Front panel push-button		
Pressing the front panel PB	led 	Function
During 5 seconds	3 flashes	The hotline of ETICTELECOM is authorised to connect remotely to the router administration server within a 1 hour delay.
During 10 seconds	5 flashes	A remote user is authorised to connect remotely to the router administration server within a 10 mn delay without entering the login r password

1.3 Connectors

INSTALLATION

Supply voltage connector		
Position	Signal	Description
1	Power 1 +	Supply voltage
2	Power 1 -	0V

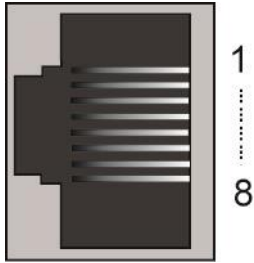
Digital inputs & outputs		
Position	Signal	Description
1	0V	0 V
2	In	Digital input
4	F -	Digital output -

ADSL RJ45 connector		
Remark : An RJ11 cable can be connected to the RJ45 ADSL connector		
Position	Signal	Description
1	N.C.	-
2	N.C.	-
3	N.C.	-
4	TIP	Ligne ADSL
5	RING	Ligne ADSL
6	N.C.	-
7	N.C.	-
8	N.C.	-

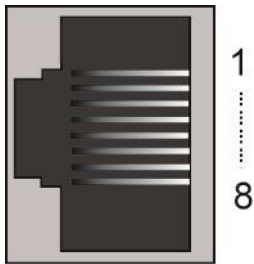
RJ45 Ethernet)		
Position	Signal	Description
1	Tx +	Emission polarity +
2	Tx -	Emission polarity -
3	Rx +	Reception polarity +
4	N.C	-
5	N.C	-
6	Rx -	Reception polarity -
7	N.C.	-
8	N.C.	-

WiFi Antenna connector		
Network	Type	Description
WiFi	RP-SMA female	

INSTALLATION

J45 RS232 DCE interface				
Position	Signal		Description	RJ45
1	DTR - 108	OUT	Data terminal ready	
2	TD - 103	OUT	Data Emission	
3	RD - 104	IN	Data Reception	
4	DSR - 107	IN	Data set ready	
5	SG - 102	-	Ground	
6	Inutilisé	OUT	-	
7	CTS - 106	IN	Clear to send	
8	RTS - 105	OUT	Request to send	

Out = Signal provided by the router.

RJ45 RS232 DTE interface				
Position	Signal		Description	RJ45
1	CD - 109	OUT	Carrier detect	
2	RD - 104	OUT	Data Reception	
3	TD - 103	IN	Data Emission	
4	DTR - 108	IN	Data terminal ready	
5	SG - 102	-	Ground	
6	DSR - 107	OUT	Data set ready	
7	RTS - 105	IN	Request to send	
8	CTS - 106	OUT	Clear to send	

Out = Signal provided by the router.

2 positions RS485 screw block		
Position	Signal	Fonction
1	A	RS485 polarity A
2	B	RS485 polarity B

5 positions RS422 screw block IPL-A-260 IPL-AW-260			
Position	Signal		Function
1	TX+	Sortie	RS422 transmission polarity +
2	TX-	Sortie	RS422 transmission polarity -
3	Com		Common voltage
4	RX+	Entrée	RS422 Reception polarity +
5	RX-		RS422 Reception polarity -

INSTALLATION

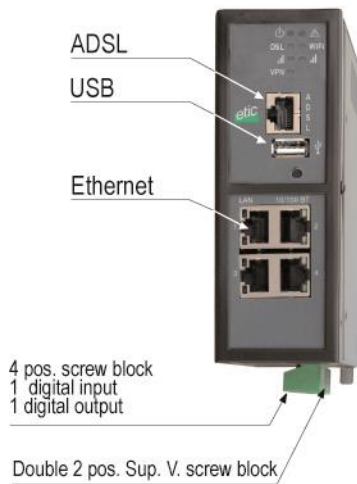
RS422 DIP switches IPL-A-260 IPL-AW-260		
SW 1	SW 2	
ON	ON	The two 470 Ohm polarisation R. <u>are enabled</u> on the reception RS422 signal
OFF	OFF	The two 470 Ohm polarisation R. <u>are disabled</u> on the reception RS422 signal
SW3	SW4	
ON	ON	The 120 Ohm termination R. is enabled on the reception RS422 signal
OFF	OFF	The 120 Ohm termination R. is disabled on the reception RS422 signal

2 positions RS485 screw block IPL-A-261 IPL-AW-261		
Position	Signal	Signal
1	Com	Common
2	B (+)	RS485 polarity B
3	A (-)	RS485 polarity A

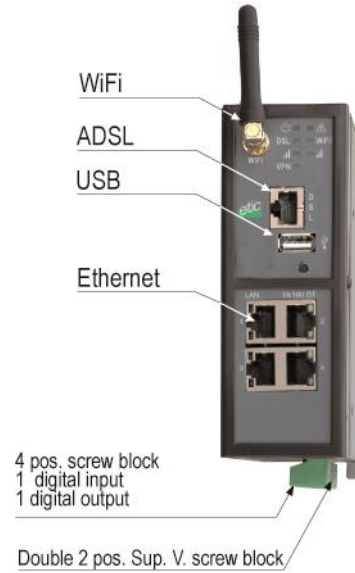
Micro-switches RS485 IPL-A-261 IPL-AW-261		
SW 1	SW 2	
ON	ON	The two 470 Ohm polarisation R. <u>are enabled</u>
OFF	OFF	The two 470 Ohm polarisation R. <u>are disabled</u>
SW3	SW4	
ON	ON	The 120 Ohm termination R. is enabled
OFF	OFF	The 120 Ohm termination R. is enabled

1.4 IPL-A-400 or IPL-AW-400 (WiFi option)

IPL-A-400



IPL-AW-400



LED INDICATORS IPL-A-400 or IPL-AW-400			
	Designation	Function	
Operation		Green Flashing red	The unit is ready Hardware default or unit start step
Ethernet WAN	ADSL	Off Flashing T=4 s Flashing T= 2 s Flashing T= 0.5 s Green	ADSL interface disabled ADSL signal not still detected ADSL connection on process IP connection on process Connected
ADSL signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
WiFi connection	WiFi	Off Green	WiFi Interface not enabled WiFi Interface enabled
WiFi Signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
Ethernet LAN 1 to 4		Off Green	Ethernet interface not connected Ethernet interface connected
Upper led	Ethernet 1	Green	The RJ45 has been setup as the WAN interface

INSTALLATION




1.5 IPL-A-220 or IPL-AW-220 (WiFi option)



LED INDICATORS IPL-A-220 or IPL-AW-220			
	Designation	Function	
Operation		Green Flashing red	The unit is ready Hardware default or unit start step
Ethernet WAN	ADSL	Off Flashing T=4 s Flashing T= 2 s Flashing T= 0.5 s Green	ADSL interface disabled ADSL signal not still detected ADSL connection on process IP connection on process Connected
ADSL signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
	VPN	Off Flashnig Green	No VPN has been enabled VPN processing One VPN at least is established
WiFi connection	WiFi	Off Green	WiFi Interface not enabled WiFi Interface enabled
WiFi Signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
Ethernet LAN 1 to 2		Off Green	Ethernet interface not connected Ethernet interface connected
Upper led	Ethernet 1	Green	The RJ45 has been setup as the WAN interface
RS232 RS485	Rx	Characters received from the serial interface (to the IPL router)	
	Tx	Characters transmitted to the serial interface (from the IPL router)	

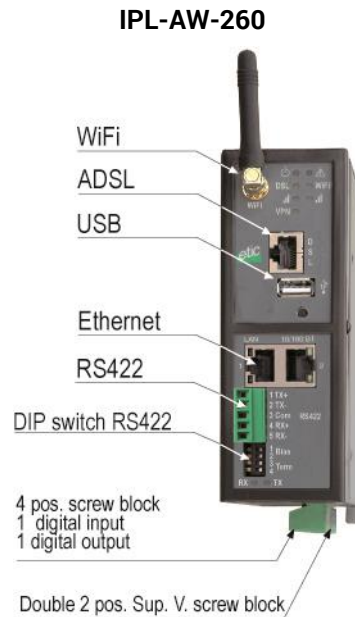
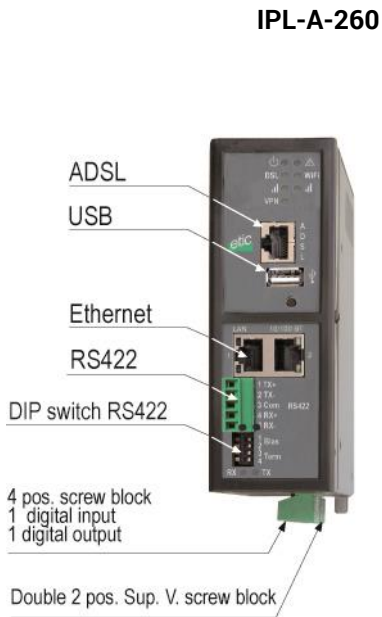
1.6 IPL-A-230 or IPL-AW-230 (WiFi option)



LED INDICATORS IPL-A-230 or IPL-AW-230			
	Designation	Function	
Operation		Green Flashing red	The unit is ready Hardware default or unit start step
Ethernet WAN	ADSL	Off Flashing T=4 s Flashing T= 2 s Flashing T= 0.5 s Green	ADSL interface disabled ADSL signal not still detected ADSL connection on process IP connection on process Connected
ADSL signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
WiFi connection	WiFi	Off Green	WiFi Interface not enabled WiFi Interface enabled
WiFi Signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
Ethernet LAN 1 to 2		Off Green	Ethernet interface not connected Ethernet interface connected
Upper led	Ethernet 1	Green	The RJ45 has been setup as the WAN interface
RS232 RS485	Rx	Characters received from the serial interface (to the IPL router)	
	Tx	Characters transmitted to the serial interface (from the IPL router)	

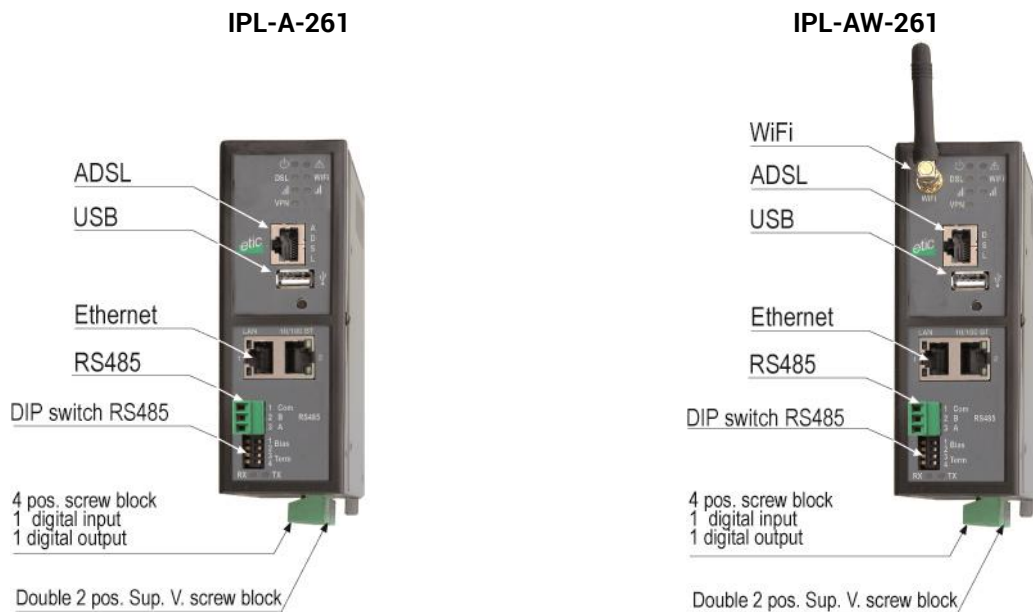
INSTALLATION

1.7 IPL-A-260 or IPL-AW-260 (WiFi option)



LED INDICATORS IPL-A-260 or IPL-AW-260			
	Designation	Function	
Operation		Green Flashing red	The unit is ready Hardware default or unit start step
Ethernet WAN	ADSL	Off Flashing T=4 s Flashing T= 2 s Flashing T= 0.5 s Green	ADSL interface disabled ADSL signal not still detected ADSL connection on process IP connection on process Connected
ADSL signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
WiFi connection	WiFi	Off Green	WiFi Interface not enabled WiFi Interface enabled
WiFi Signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
Ethernet LAN 1 to 2		Off Green	Ethernet interface not connected Ethernet interface connected
Upper led	Ethernet 1	Green	The RJ45 has been setup as the WAN interface
RS232 RS485	Rx		Characters received from the serial interface (to the IPL router)
	Tx		Characters transmitted to the serial interface (from the IPL router)

1.8 IPL-A-261 or IPL-AW-261 (WiFi option)

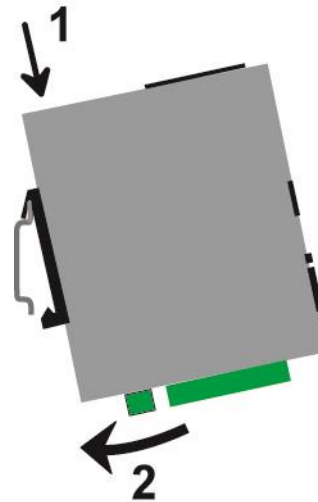


LED INDICATORS IPL-A-261 or IPL-AW-261			
	Designation	Function	
Operation		Green Flashing red	The unit is ready Hardware default or unit start step
Ethernet WAN	ADSL	Off Flashing T=4 s Flashing T= 2 s Flashing T= 0.5 s Green	ADSL interface disabled ADSL signal not still detected ADSL connection on process IP connection on process Connected
ADSL signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
WiFi connection	WiFi	Off Green	WiFi Interface not enabled WiFi Interface enabled
WiFi Signal quality		Off 1 flash 2 flashes 3 flashes	WiFi not enabled or enabled as an access point Weak not sufficient signal Sufficient signal Strong signal
Ethernet LAN 1 to 2		Off Green	Ethernet interface not connected Ethernet interface connected
Upper led	Ethernet 1	Green	The RJ45 has been setup as the WAN interface
RS232 RS485	Rx	Characters received from the serial interface (to the IPL router)	
	Tx	Characters transmitted to the serial interface (from the IPL router)	

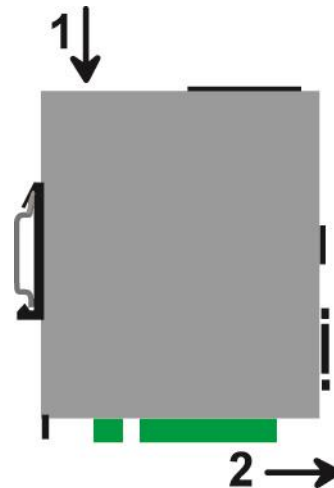
INSTALLATION

2 Mounting the product on a Din rail

Mounting the unit on the 35 mm horizontal DIN rail



Removing the unit from the DIN rail



3 Cooling

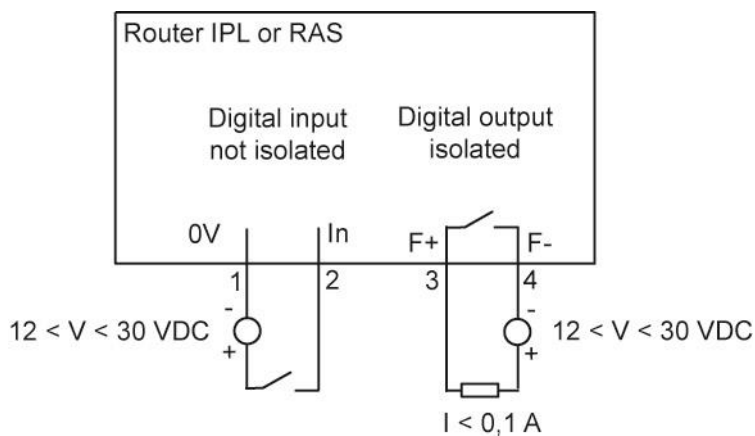
To avoid obstructing the airflow around the unit, the spacing must be at least 25 mm above and below, and 10 mm left and right.

4 Supply voltage

IPL-A-400, IPL-AW-400 IPL-A-230, IPL-AW-230 IPL-A-260, IPL-AW-260 IPL-A-261, IPL-AW-261	Minimum input voltage : 10 V DC Maximum input voltage : 60 VDC
IPL-A-220, IPL-AW-220	Minimum input voltage : 10 V DC Maximum input voltage : 30 VDC

The consumption is lower than 6 W.

5 Digital input and output



To check that the input and the output are correctly wired, select

Diagnostic > Hardware > Input / Output

The status of the input is displayed and the output can be switched ON or OFF.

6 RS232

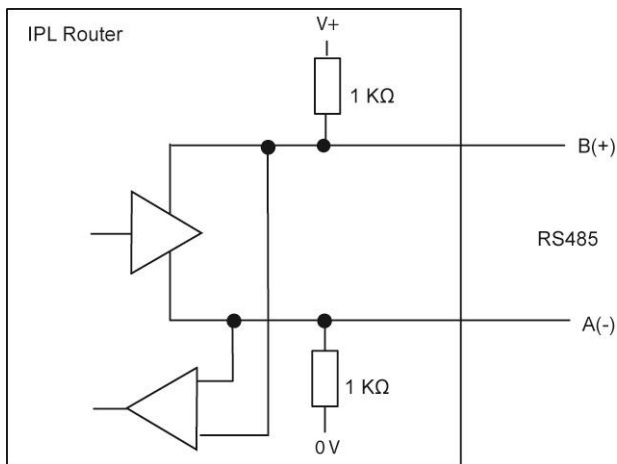
The RS232 cable must be shorter than 10 meters.

Cables can be provided to connect the product to DTE and DCE as follows :

RS232 cables (L=1 m)		
Code	User connector	Cable function
CAB592	SubD 9 male	To connect a DCE to the router
CAB593	SubD 9 female	To connect a DTE to the router
CAB609	Wires	To connect a device providing a specific connector

INSTALLATION

7 RS485 connection (IPL-A-220 or IPL-AW-220)



The RS485 serial interface is provided on the front panel 2 positions screw-block.

It is not isolated.

Long RS485 line or high data rate

if the RS485 line is longer than 10 meters or if the data rate is greater than 19200 b/s, it is necessary to connect one 120 Ohm matching resistor at each end of the line and two 390 Ohm polarisation resistors at one of the two extremities of the line.

8 RS422 isolated interface (IPL-A-260 or IPL-AW-260)

The RS422 interface is isolated.

When two devices or more are connected to the RS422 interface of the IPL router, the IPL router must be the only device to transmit data on the TX+/TX- line towards all the other devices.

It means that the TX+/TX- line of the IPL router must be connected to the RX+/RX- of all the other devices of the bus.

The polarisation and termination resistors can be selected with DIP switches.

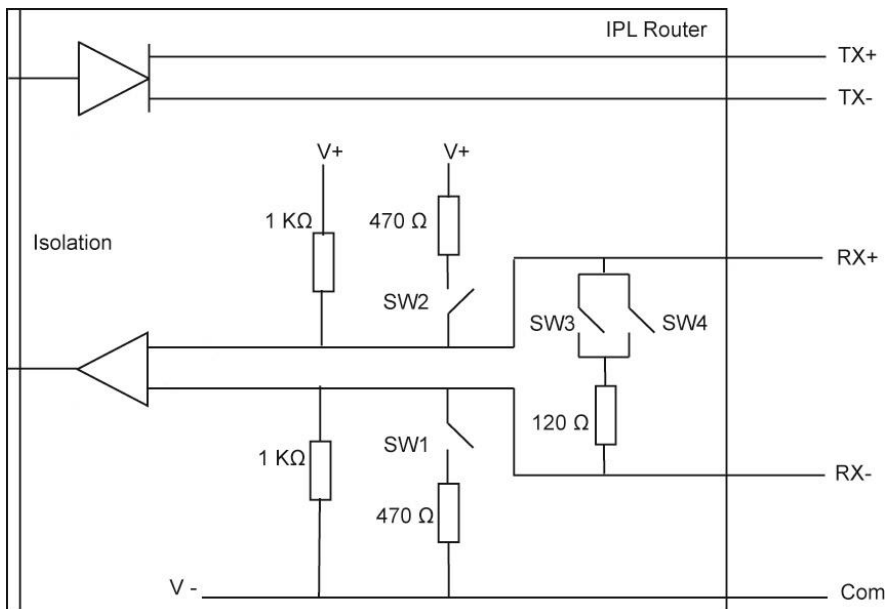
The polarisation resistors must be enabled by one device of the bus.

The termination resistor must be enabled with SW3 & SW4 when the router is located at the extremity of the bus.

Up to 16 devices can be connected to the bus.

We recommend to use a shielded cable and twisted pairs.

If the line is exposed to lightning, we recommend to protect the router with a surge arrester.



INSTALLATION

9 RS485 isolated interface (IPL-A-261 or IPL-AW-261)

The RS485 (3 wires : A- / B+ plus the common voltage wire) interface is isolated.

The polarisation and termination resistors can be selected with DIP switches.

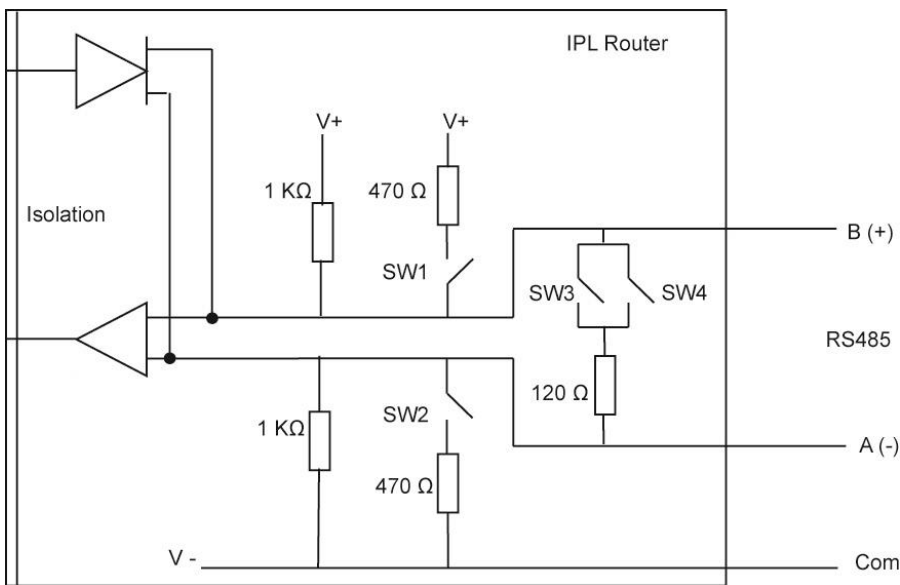
The polarisation resistors must be enabled by one device of the bus.

The termination resistor must be enabled with SW3 & SW4 when the router is located at the extremity of the bus.

Up to 16 devices can be connected to the bus.

We recommend to use a shielded cable and twisted pairs.

If the line is exposed to lightning, we recommend to protect the router with a surge arrester.



10 Connecting the router to the ADSL line

The IPL-A router can be connected to an analogue line telephone line or an unbundled loop when the attenuation of the reception signal is better than 63 dB

When the reception level is close to the limit, disconnections may occur.

In that situation, we recommend to ask to the ISP to setup the line with the RE-ADSL modulation which is suited for long line and weak signal.

ADSL filter :

If the line must be used for analogue voice transmission simultaneously with ADSL transmission, it is necessary to connect an ADSL filter.

Surge arrester :

The ADSL board of the IPL-A router is protected very carefully against over voltage coming from the line. However, when the line is exposed to lightning, we recommend to connect a surge arrester between the line and the IPL router.

Report to annex 1 for wiring.

INSTALLATION

11 ADSL subscription

The IP address assigned by the ISP to the ADSL interface of the router can be a fixed or a dynamic public IP address.

If it is dynamic, it changes frequently; for instance at each ADSL connection.

It is why; the router which owns a dynamic IP address can only initiate the communication (initiate a VPN for instance) towards a router owning a fixed IP address.

Reciprocally, a router owning a dynamic IP address cannot easily receive a connection except a DynDNS or NoIP service is used.

The IP router is fully compatible with that services but we do not recommend to use that kind of service for a critical industrial application.

PREPARING THE SETUP

1 First setup

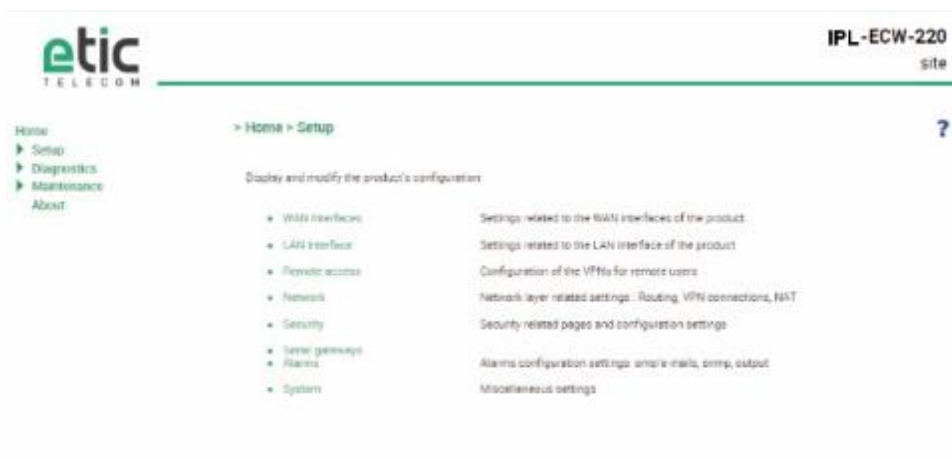
Coming from factory, the IP address of the router is 192.168.0.128.

Step 1 : Create or modify the PC IP connection.

Assign to the PC an IP @ in accordance with the IPL router IP address.
For the first configuration, assign for instance 192.168.0.127 to the PC.

Step 2 : Connect the PC directly to the LAN interface of the IPL router.

Step 3 : Launch the HTML browser : <http://192.168.0.128>



2 Protecting the access to the administration web server

- Select Set-up > Security > Administration rights.
- Enter an administration identifier and password.

PREPARING THE SETUP

3 HTTPS set-up modifications through the WAN interface

The administration web server is located at the LAN IP address.

Coming from factory, access to the administration web server is not allowed through the WAN interface

To use HTTPS instead of HTTP to setup the product or to authorise access to the administration web server through the WAN interface,

- Select Configuration > Security > Administration rights.
- Enter an administration identifier and password.
- Check the “HTTPS configuration” box.
- Check the “WAN access” box if you wish to access to the administration web server through the WAN interface.

Remark : the port Nr used to access to the administration web server with HTTPS is 4433.

Exemple : <https://192.168.38.191:4433>.

4 Recovering the factory LAN IP address

- Press the rear panel push-button ;

The OPERATION led indicator will flash.

The factory IP address 192.168.0.128 will be restored but the current configuration remains active.

5 Restoring the factory set-up

If firewall rules have been created finally preventing from reaching any IP address on the LAN interface including the router itself, it may be necessary to restore the factory configuration of the router.

To restore the factory configuration,

- Switch OFF the power supply of the IPL router.
- Press the rear panel push button and, switch-on the power supply.
- Keep the push button pressed until the operation led turns red.

Remark : The curent configuration is cleared and the factory IP address 192.168.0.128 is restored.

6 Saving or restoring a set of parameters

Once a product has been set-up, the current set of parameters can be stored inside the router. In a second step, any set stored inside the router and displayed with the Configurations table can be saved as an editable file stored outside the ETIC router.

Inversely, a saved file can be loaded to the product Configurations table and then, if necessary, declared as the active set of parameters.

- Select the Maintenance > configuration management menu

To store the current configuration set of parameters in the configurations table,

- Assign a name for the current set of parameters ("configuration name" field) and click the Save button.

The updated Configurations table is displayed with an additional line.

To save a stored set of parameters as an editable file

- Select the set of parameters name in the Configurations table,
- Click the Export to the PC button.

The set_of_parameters.txt file is created.

To import an editable *.txt file

- Click the Select a file button,
- Browse the PC and select the file,
- Click the Import from PC button.

The updated Configurations table is displayed with an additional line.

To select a configuration set of parameters in the Configuration table, as the current configuration

- Select the set of parameters name in the Configurations table,
- Click the Load button.

The selected set of parameters is now the current set of parameters.

PREPARING THE SETUP

7 Configuration steps

To configure the router, we advise to proceed as follows :

- ADSL interface setup
- LAN interface setup
- VPNs setup
- Routing and IP address translation functions setup
- Remote users connections, the user list and the access rights setup
- Serial or USB gateway setup
- Firewall setup

For detail about the configuration, refer to the IPL routers setup manual refernce 90 234 09.

1 Diagnostic

1.1 Logs

- Select the Diagnostic > Logs menu

Main logs

It registers
the ADSL connections & disconnections
the VPN connections & disconnections
theremote users connections & disconnections
The router starts

OpenVPN & IPSec Logs

These logs registers the detail of the VPN connections

Advanced logs

That logs registers details about the following events :

- ADSL events
- M2Me
- RIP
- DHCP
- VRRP
- Telnet gateway
- Alarm emails

The filter checkbox allow to display particular classes of events.

1.2 Network status

To display the Interfaces status pages ,

- Select The Diagnostic > Network status>Interfaces menu.

The Interfaces page summarizes the current information of each interface of the router, like for instance :

LAN interface :	MAC and IP address Ethernet ports status ...
Ethernet WAN interface :	MAC and IP address, default gateway address Priority level ...
ADSL interface :	Connection Status IP address and remote IP address Reception level ...
WiFi interface :	Wifi mode (client or base station Connection status SSID RF Frequency ...

To display the M2Me page,

- Select The Diagnostic > Network status> M2Me menu.

The M2Me page summarizes the current status of the M2Me connection and also displays the M2Me logs.

To display the remote users page,

- Select The Diagnostic > Network status> Remote users menu.

This page displays the table of the remote users currently connected.

To display the VPN connections page,

- Select The Diagnostic > Network status> VPN (IPSec or OpenVPN) menu.

This page displays the table of the Open VPN or IPSec VPNs currently connected.

DIAGNOSTIC

To display the Routes page,

- Select The Diagnostic > Network status > Routes menu.

This page displays the table of the routes set-up by the router and the ARP table.

1.3 Serial gateways status

- Select the Diagnostic > Serial gateway menu

That page displays the current status of the serial gateways :

Type of the gateway (Modbus, RAW UDP or TCP, Telnet ...),
serial port set-up (data rate etc...),
number of characters received or sent,
Number of TCP frames or UDP datagrams received or sent,
Number of TCP connections enabled.

The View link displays a window which shows the hexadecimal received and transmitted traffic over each serial COM port.
It can be a great help for trouble shooting.

1.4 « Ping » tool

Select the Diagnostic > Tool > Ping menu.

Enter the PING destination IP address.

1.5 « WiFi » scanner tool

The Wifi scanner displays the main information about each WiFi network :

MAC address of the access point, SSID, reception level.

Remark : The WiFi interface of the ETIC router needs to be registered as a WiFi client interface.

2 Firmware update

The firmware update can be carried-out locally or remotely.

If the firmware update operation do not succeed, for instance if the connection fails, the ETIC router restarts with the current firmware.

Once the firmware update has been carried-out, the ETIC router restores the previous current set of parameters.

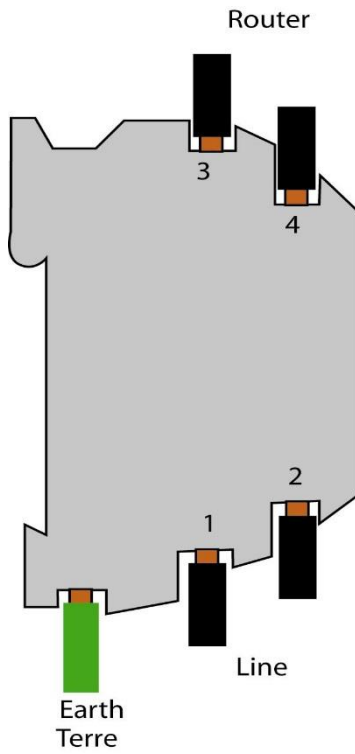
To update the firmware,

- Select Maintenance > Firmware update menu,
- Click the Select the firmware file button,
- Click Upgrade now.

When the firmware is updated, the product automatically reboots.

APPENDIX 1 : Wiring of the ADSL line surge arrester

Product reference : PS02-1



The wires 1 & 2 can be inverted.
The wires 3 & 4 can be inverted.



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