

# VITY LAN



## User Manual

# THANK YOU & CONGRATULATIONS:

Thank you for purchasing the VITYLAN Ethernet/RS 485 gateway and webserver of VITY Media Bus Control® automation system. VITYLAN is RS 485/Ethernet gateway that enables to link Vimaty touch panels to the Vity controllers by Ethernet. This manual is made to assist you to install the VITYLAN.

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Before to proceed to the installation of VITYLAN, read attentively this manual.

The manufacturer will not be responsible for some damage and accidents due to installation, even accurate of products.

Data and characteristics of product can be change without preliminary notification.

## **1. Presentation**

### **1.1 Principle**

- VITYLAN is a gateway MediaBus/Ethernet which uses the protocol UDP for communicate. This gateway permit to transfer and to recover messages of MediaBus on Ethernet (messages of bus RS485 VITY), or to control MediaBus devices with an Internet Browser by Internet or Ethernet.

### **1.2 Description of VITYLAN**

This gateway is composed of following modules :

- Interface RS485 to communicate with products of VITY range.
- Interface RJ45 for the communication between VITYLAN.
- Module "Power Over Ethernet" for power by Ethernet.

### **1.3 Technicals datas**

#### **1.3.1 Power**

- Power by power cord: 12V regulate.
- Power by Ethernet: 48V on free pairs of the RJ45 cable (norm 802.3af).
- Power consumption of VityLAN: 50mA.
- Power consumption max: 600mA.

#### **1.3.2 Particularities**

- VITYLAN can be powered by 2 ways:
  - By a converter: 12V DC regulate / 4A.
  - By a network: 48V on free pairs of the RJ45 cable for respect the norm 802.3af.
- Possibilities of power to other products by VITYLAN.
- Update of the software by the network.
- Configuration of Ethernet TCP/IP characteristics of VITYLAN.
- Size: 88mm x 74mm x 32mm.
- Possibility of fixation on din rail.

## 2. Functionality

### 2.1 Apply the voltage

When VITYLAN is powered, initialization is about 30 seconds . It will be operational 30 seconds after start of functioning.

### 2.2 Power Over Ethernet (Point to Point B Mode and Midspan B Mode only)

VITYLAN could be powered by Ethernet.

This power supply of 48V must respect norm 802.3af and must be only accessible free pairs of the cable RJ45.

### 2.3 Gateway Mediabus / Ethernet

It transfers messages from MediaBus to Ethernet using UDP protocol.

It receives messages from MediaBus circulating on Ethernet to be directed towards bus RS485.

This gateway check also validity of messages which are transferring.

### 2.4 WEBServer

MediaBus installation is accessible by Ethernet or Internet with a WEB browser with the JAVA™ technology. This operation uses TCP protocol. The WEBServer looks like the VIMATY 35S remote and his design is created with PC2Maty software.

**NOTA** : If the VITYLAN is configured as WEBServer, it can not be use as MediaBus/Ethernet gateway.

### 2.5 Detection of equipments

- Detection of equipments connected to RS485 bus at the time of initialization of VITYLAN.
- Detection of equipments connected during operation.

Notes: To detect correctly all the different units, you have to connect first the RS485 bus of these units and secondly powered them (except for Infra-Red learning).

### 2.6 Interface RS485

VITYLAN send and receive data by RS485 VITY bus.

- Speed: 115200 bauds.
- Length: 8 bits.
- Parity: None.
- Stop bit: 1.

### 2.7 Interface RJ45

VITYLAN send and receive data by network Ethernet.

- Speed: 10 / 100 base – T.
- Utilization of protocol UDP (port 12000).
- Default IP address = 192.168.0.142
- Default subnet mask : 255.255.255.0
- Default gateway : 192.168.0.1

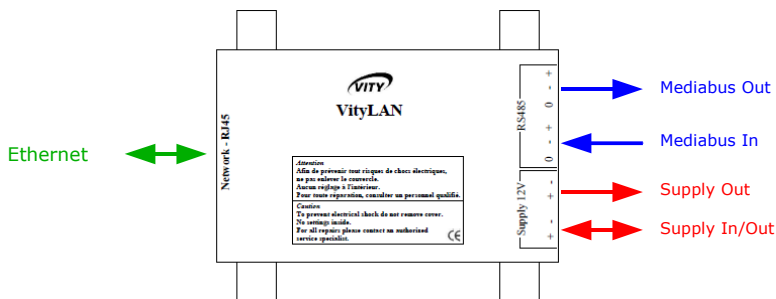
### 3. Wiring and installation

Several connectors are available on the VITYLAN.

- Two connectors "RS 485"
  - Connector: 3 points detachable terminal blocks (0.14mm<sup>2</sup> to 0,5mm<sup>2</sup>). (Gauge 28-20)
  - Bus of communication MediaBus which serves to interconnect all the equipment of the Vity range.
  - Respect polarities of bus.
  - The sign marking '0' isn't essential for good functioning of the bus. However, some situation, to avoid inconvenience, it could be useful to connect the shielding of the cable but only on one side of the cable.
  - Not accept direct communication with others firms devices.
- The connector "Network – RJ45"
  - Connector : RJ45 8 points.
  - Connect VITYLAN to network Ethernet.
  - Permit VITYLAN to communicate between them when used as MediaBus/Ethernet gateway
  - Permit VITYLAN to communicate with computers when used as WEBServer

**NOTA** : These two types of use can not be done by the same VITYLAN..

- 2 connectors "Supply 12V"
  - Connector: 2 points detachable terminal blocks.
  - Permit to supply VITYLAN.
  - Permit to provide a power supply for others equipments.



## 4. Procedure

### 4.1 Procedure of installation

#### 4.1.1 Power supply by 12V power cord

- 1°- Cable connectors "RS485".
- 2°- Cable the connector "Network – RJ45" to Ethernet network.
- 3°- Power VITYLAN cabling the power supply.

#### 4.1.2 Power supply by network (Power over Ethernet – 802.3af) - Point to Point B Mode and Midspan B Mode only -

- 1°- Cable connector "RS485".
- 2°- Cable connector "Network – RJ45" to IP network.

TAKE CARE : to not damage the product, the power supply 48V provided to VITYLAN have to be transmit on free pairs (4,5,7,8) and not on pairs of data (1,2,3,6), by respecting norm 802.3af.

### 4.2 OS update

The VITYLAN update is possible by network with the "Vity's Devices : Search & Upgrade" software or the "Upgrade\_VityLAN" software. For more information, see the users manuals of these softwares.

### 4.3 Network configuration and factory settings restoration.

These tasks are provided by network with the "Vity's Devices : Search & Upgrade" software "VityLAN setup & upgrade" restoration package. For more information, see the users manuel of these softwares.

### 4.4 Working mode : MediaBus/Ethernet gateway and WEBServer

The VITYLAN can be switch between two modes :

#### ➔ MediaBus/Ethernet gateway

This mode allows you to reduce RS485 cable lenght by using existing Ethernet installation. In this mode, the VITYLANS communicate together.

#### ➔ WEBServer

This mode allows you to control the MediaBus installation with a computer connecting to Internet/Ethernet. The program is stocked in the VITYLAN and can be accessible by a standard WEB browser.

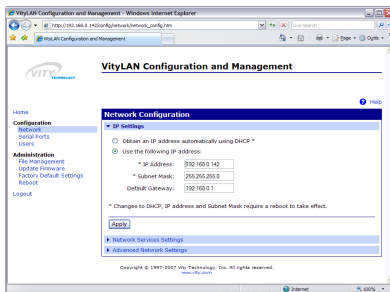
The designer for the WEB pages of the VITYLAN WEBServer is PC2Maty. For more information, see the user's manuel of this software.

You can plug on the same RS485 bus two VITYLANS **only if they are in differents modes**. This can be used if you need these two modes at the same time.

## 4.5 Configuration of the network parameters

### 4.5.1 Configuration of IP address

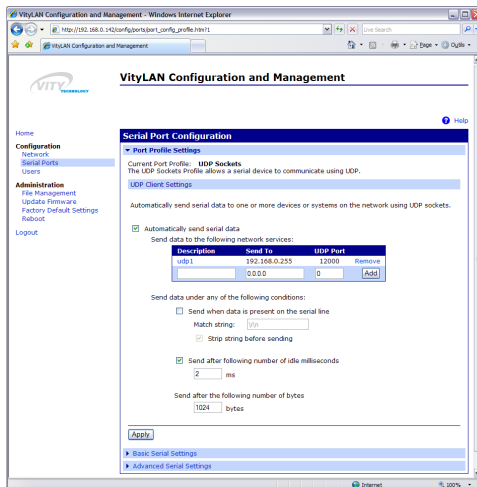
- 1°- Open your web Browser (like Internet Explorer) and key for URL the IP address of VityLAN (default "192.168.0.142").
- 2°- Enter the username and the password (by default "admin" and "1234"), then click on the link "Network".
- 3°- Enter your network parameters (IP Address, Subnet mask, Default gateway).
- 4°- Confirm your parameters pressing on "Apply".
- 5°- Reset the system while clicking on the link "reboot" then on the button "reboot".



### 4.5.2 Configuration of recipient address

- 1°- Click on the link "Serial port".
- 2°- Enter the recipient address in the box "send data to the following network services":
  - In box "Description", enter a name describing the type of communication.
  - In box "Send to", enter broadcast IP address (this address depend on your network).
  - In box "UDP Port", enter the value following: 12000.
  - Save data while clicking on button "Add".
  - Confirm configuration of parameters while clicking on button "Apply".

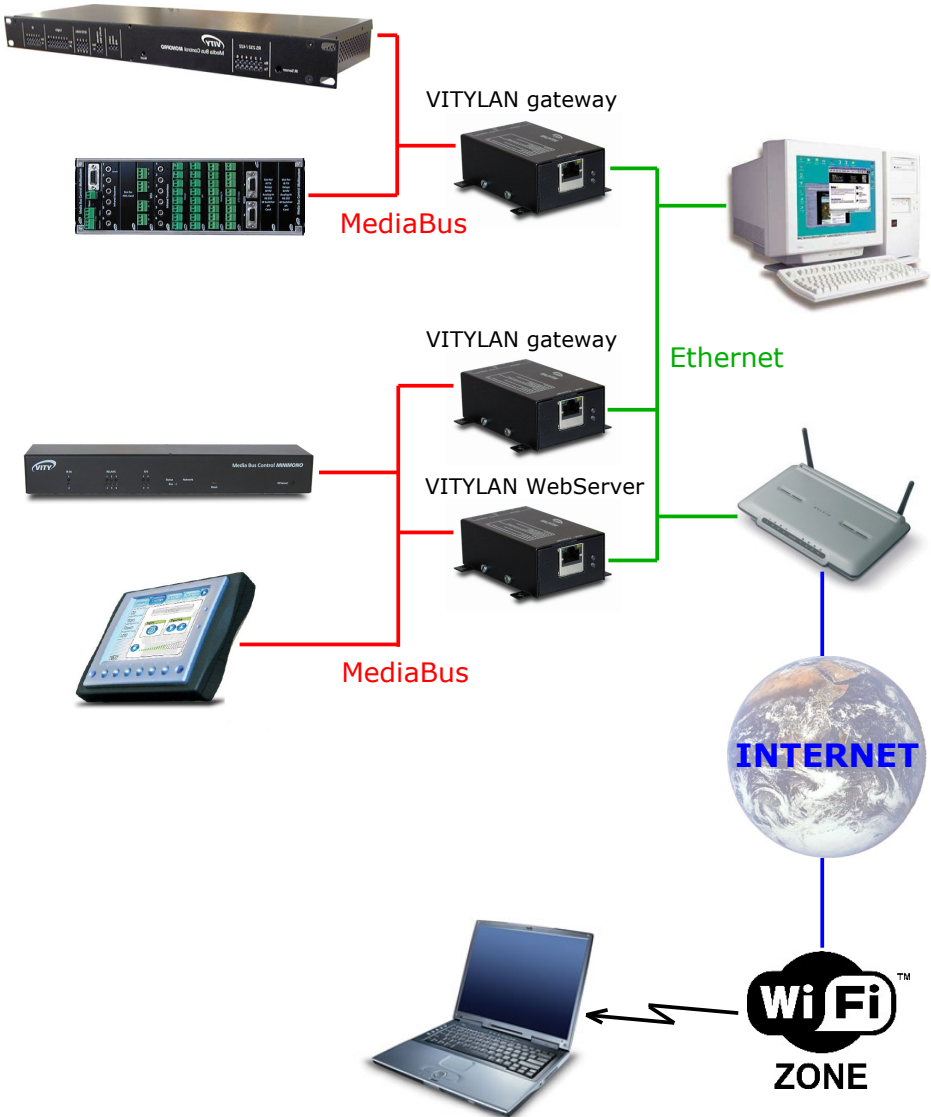
N.B.: The vityLAN have to run with broadcast, so its very important to indicate like recipient address the address of broadcast from your network.





## 5. Standard application

This type of application permit to limit the length of cables of bus RS485 while using existing Ethernet cables.



## 6. Brands compatible

MEDIA BUS CONTROL automation systems is compatible to drive many brands of the AV manufacturers, lights manufacturers and EIB manufacturers. You will find here a list with main brands, but Media Bus Control can control more systems...

***3M, ABB, Adtec, Akg, AllenHeath, Analogway, Ask, Autopatch, Barco, Behringer, Biamp, Canon, Clipsal, CommTec, DIS, Epson, Extron, Faroudja, Fostex, Gyra, Hager, Imerge, Jung, JVC, Kenwwod, Knox, Kodak, Kramer, Legrand, Lexicon, Lightec, Lite Touch, Lutron, Meridian, Merten, Mitsubishi, Nec, Niko, Onkyo, Panasonic, Phillips, Pioneer, Pixelmagics, Proxima, RGB Spectrum, Samsung, Sennheiser, Siemens, Sharp, Sony, Tasca, Theben, Vigatec, Vity, Xantech, Yamaha, Zumtobel...***

## 7. Warranty

### **1- VITY Warranty**

VITY Technology Headquarters, France and its subsidiaries VITY china, VITY USA, warrant their products any defects in materials and workmanship for a period of 2 years from the date of the invoice. This warranty concerns products manufactured by VITY Technology. A return material authorization (RMA) must be obtained from VITY before products are returned for service. This authorization can be obtain on the website of vity : [www.vity.com](http://www.vity.com) and have to be returned by fax to VITY - +33 297 89 20 10. In the case of product is distributed by Vity Technology, the applicable warranty is the warranty of the manufacturer and can be less or more than 2 years. This warranty will be specified on the invoice.

**Warranty of VITY LAN: 2 years**

### **2- What This Warranty Does Not Cover**

This warranty does not apply to (a) any VITY product that has been modified, altered or repaired by an unauthorized agent or improperly transported, stored, installed, used, or maintained; (b) damage caused by acts of nature, including flood, erosion, or earthquake; (c) damage caused by a sustained low or high voltage situation or by a low or high voltage disturbance, including brownouts, sags, spikes, or power outages; or (d) damage caused by war, vandalism, theft, depletion, or obsolescence.

### **3- Disclaimer of Other Warranties**

The warranties contained in Section 1 are the exclusive warranties given by VITY and supersede any prior, contrary or additional representations, whether oral or written. VITY disclaims and excludes all other warranties – whether express, implied, or statutory.

### **4- Buyer's Exclusive Remedies for Any Nonconformity**

If a VITY product fails to conform to the warranties in Section 1, Buyer must notify VITY within a reasonable time and in no event more than thirty (30) days after the discovery of the nonconformity, and VITY will repair any nonconforming products or components.

### **5- Application of the warranty**

During the period of warranty, VITY Technology will repair the defective units free. The defective products must be sent to your expenses to the VITY Technology's offices (Caudan). The repaired units will be turned over to our expenses with the recipient. Apart from the period of warranty, VITY Technology will repair the defective units in its offices at Caudan, and the cost of repair will be the responsibility of the customer. In the case of the defected product was bought to a Vity subsidiary or a Vity distributor, you have to return it directly to them.

### **6- Exclusion of Consequential and Incidental Damages.**

Vity shall be not liable under any circumstances for consequential or incidental damages including, but not limited to, labour costs or loss of profits arising in connection with the use of or the inability to use Vity products.

### **7- Transport Damage**

VITY will not be responsible for items damaged during shipment to or from VITY. The shipping carrier is responsible for items damaged during shipment.

### **8- No Modifications**

This warranty may not be modified except in writing by an authorized VITY officer.

### **9- Other Notice**

VITY reserves the right to modify or discontinue designs, specifications, warranties, prices, and policies without prior notice.