Networking your world

NMC-1200

Media Converter Chassis

USER'S MANUAL

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Maximum signal rate derived from IEEE Standard specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Netsys does not warrant that the hardware will work properly in all environments and applications, and makes no warranty and representation, either implied or expressed, with respect to the quality, performance, merchantability, or fitness for a particular purpose. Make sure you follow in line with the environmental conditions to use this product.

Foreword

Netsys' NMC-1200 Media Converter Chassis is designed to accommodate 12 units of various types of media converters at a central location for multiple segments cross connection. The slide-in media converters are available for use at 19" Media converter Chassis. The Chassis provides the best solution for users to manage media converters. Since the converter is mounted directly on the chassis, no power cable or wire is required. Moreover, a redundant power is offered cope with any accidental breakdown of power supply.

Attention:

Be sure to read this manual carefully before using this product. Especially Legal Disclaimer, Statement of Conditions and Safety Warnings.

Caution:

The NMC-1200 is for **indoor** applications only. This product does not have waterproof protection, please do not use in outdoor applications.

Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions before using the device.

- **DO NOT** open the device or unit. Opening or removing the cover may expose you to dangerous high voltage points or other risks. ONLY qualified service personnel can service the device. Please contact your vendor for further information.
- **Use ONLY** the dedicated power supply for your device. Connect the power to the right supply voltage (110V AC used for North America and 230V AC used for Europe).
- **Place** connecting cables carefully so that no one will step on them or stumble over them. DO NOT allow anything to rest on the power cord and do NOT locate the product where anyone can work on the power cord.
- **DO NOT** install nor use your device during a thunderstorm. There may be a remote risk of electric shock from lightning.
- **DO NOT** expose your device to dampness, dust or corrosive liquids.
- **DO NOT** use this product near water, for example, in a wet basement or near a swimming pool.
- **Connect ONLY** suitable accessories to the device.
- **Make sure** to connect the cables to the correct ports.
- **DO NOT** obstruct the device ventilation slots, as insufficient air flow may harm your device.
- **DO NOT** place items on the device.
- **DO NOT** use the device for outdoor applications directly, and make sure all the connections are indoors or have waterproof protection place.
- **Be careful** when unplugging the power, because it may produce sparks.
- **Keep** the device and all its parts and accessories out of the reach of children.
- **Clean** the device using a soft and dry cloth rather than liquid or atomizers. Power off the equipment before cleaning it.
- This product is **recyclable**. Dispose of it properly.

Table of Contents

Chapter 1. Unpacking Information

1.1 Check List

Carefully unpack the package and check its contents against the checklist.

Package Contents

- 1 x Media Converter Chassis
- Pre-installed bracket and Plastic foot pad
- 1 x Power Cord

Notes:

1. Please inform your dealer immediately for any missing or damaged parts. If possible, retain the carton including the original packing materials. Use them to repack the unit in case there is a need to return for repair.
2. If the product has any issue, please contact your local vendor.
3. Please look for the QR code on the bottom of the product, the user can launch the QR code scanning program to scan and download the user's manual electronic format file.

Chapter 2. Hardware Description

This section describes the important parts of the media converter chassis

2.1 Power Supply

The chassis ships with two power supplies and they support redundant power function. When the chassis is equipped with two power supplies, it has the following advanced performance.

- **Hot Swappable**

The design of the power system is based on an idea of providing maximum flexibility and redundancy. In this way, you may remove any of the two power supplies without turning off the system.

- **Redundancy**

During operation, both power supplies are switched on and share the current load. In case that one of them should fail, the other will instantaneously take 100% of the load without any loss. Similarly, if one power supply is removed from servicing, it can be switched off and removed while the chassis continues functioning.

Note:

The chassis has two hot-swappable power supplies and it can mounts up 12 media converters. It is also equipped one fan in the chassis right side. Therefore it has a good cooling system.

2.2 Front Indicators

The chassis has **Three** LED indicators. The following Table shows the description. The following Table shows the description. (Table 1)

Table 1: LED Indicators Description and Operation

LEDs	Color	Status	Descriptions
Power 1	Yellow	On	Chassis system power good and functioning properly.
		Off	Chassis is not ready or has malfunctioned.
Power 2	Yellow	On	Chassis system power good and functioning properly.
		Off	Chassis is not ready or has malfunctioned.
Fan	Yellow	On	Fan is not ready or has malfunctioned.
		Off	Fan is good and also functioning properly.

Note:
Fan LED refers to the chassis on the right side of 8cm DC fan.

Chapter 3. Installation

3.1 Hardware Installation

This chapter describes how to install the media converter chassis .Please take note of the following minimum site requirements before you begin.

3.2 Installation procedure

Before the start of actual hardware installation, make sure to provide the right operating environment, including power requirements, sufficient physical space. Verify the following installation requirement:

- The ambient temperature should be between 0 to 50 degrees Celsius.
- The relative humidity should be less than 90 percent, non-condensing.
- Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards for IEC 801 3, Level 2 (3V/M) field strength.
- Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes on each side of the switch or the fan exhaust port on the side or rear of the equipment.
- Mounted to 19-inch standard rack
  1. Wear a grounding device for electrostatic discharge.
  2. Install screws through mounting ears into each side.
  3. Locate Converter Chassis at 19-inch mounting rails and use screw lock to the front brackets.
- Desktop or any flat surface
  1. Gently down the chassis to the appropriate location.

2. Ensure the chassis receives good ventilation.

- The side-in Media Converter and Converter Chassis should be supplied only from the same source; both Media Converter and Chassis are built to match each other at dimensions, DC power jack, DC receptacle and power safety.
- Verify the Media Converter is right for this Chassis and locate +5VDC power jack on converter back, and carefully slide in and plug to match 19" rack slot +5VDC receptacle.
- Two power supplies, 12 converter modules and one 8cm DC fan built with power inside the media converter chassis are providing hot swappable.
- Select the AC input 115V/230V via the voltage DIP switch for Power 1 and Power 2 showing as Fig 3.1 Media converter chassis Front/Rear view before pushing the power switch button. For example, if the AC input source is 230V, it must be selected AC input 230V via the voltage DIP switch. Otherwise the power will be burned! The default setting for voltage DIP switch is 115V.

3.3 Physical Description

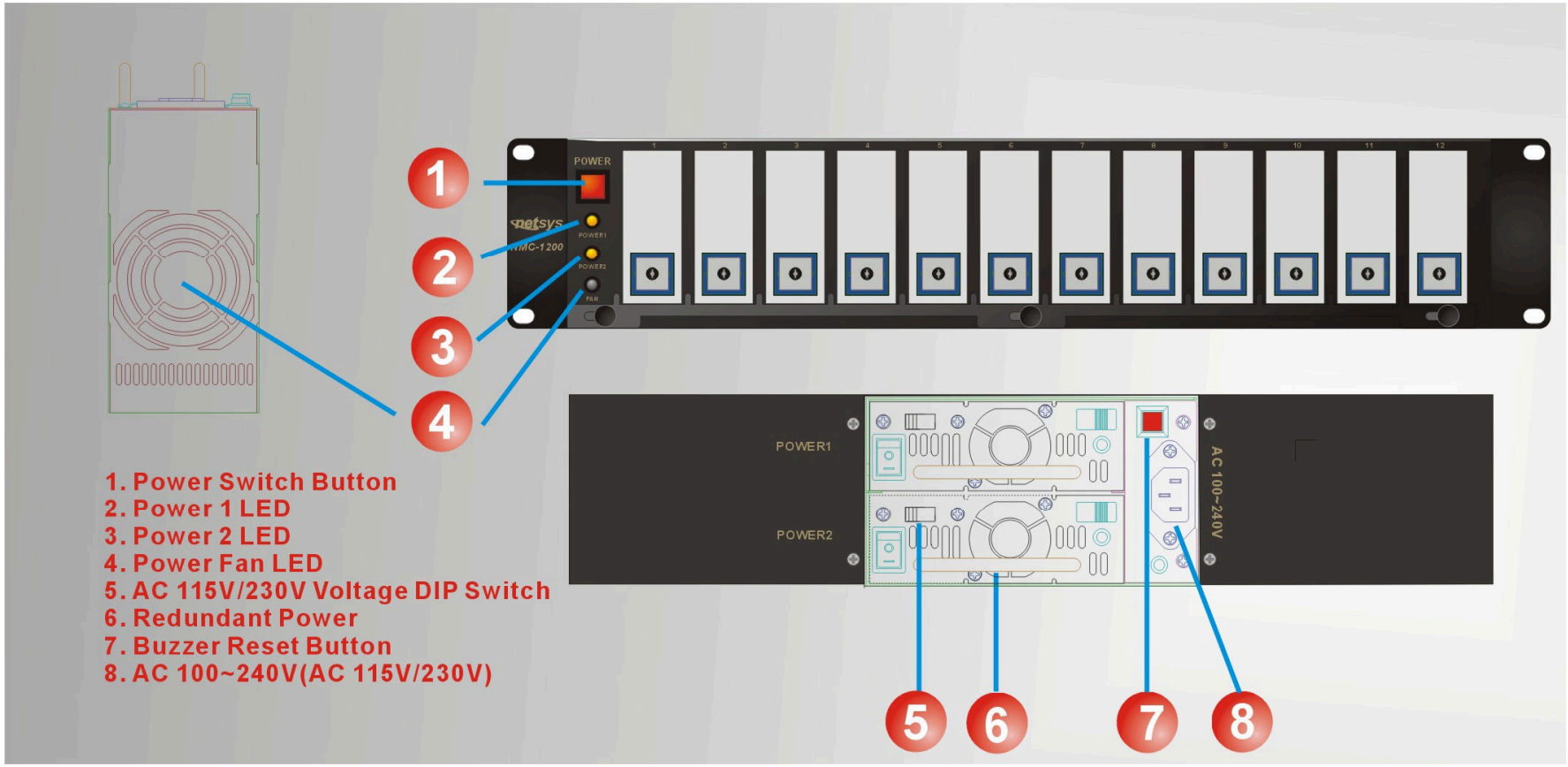

Figure 3.1 Media converter chassis Front/Rear view

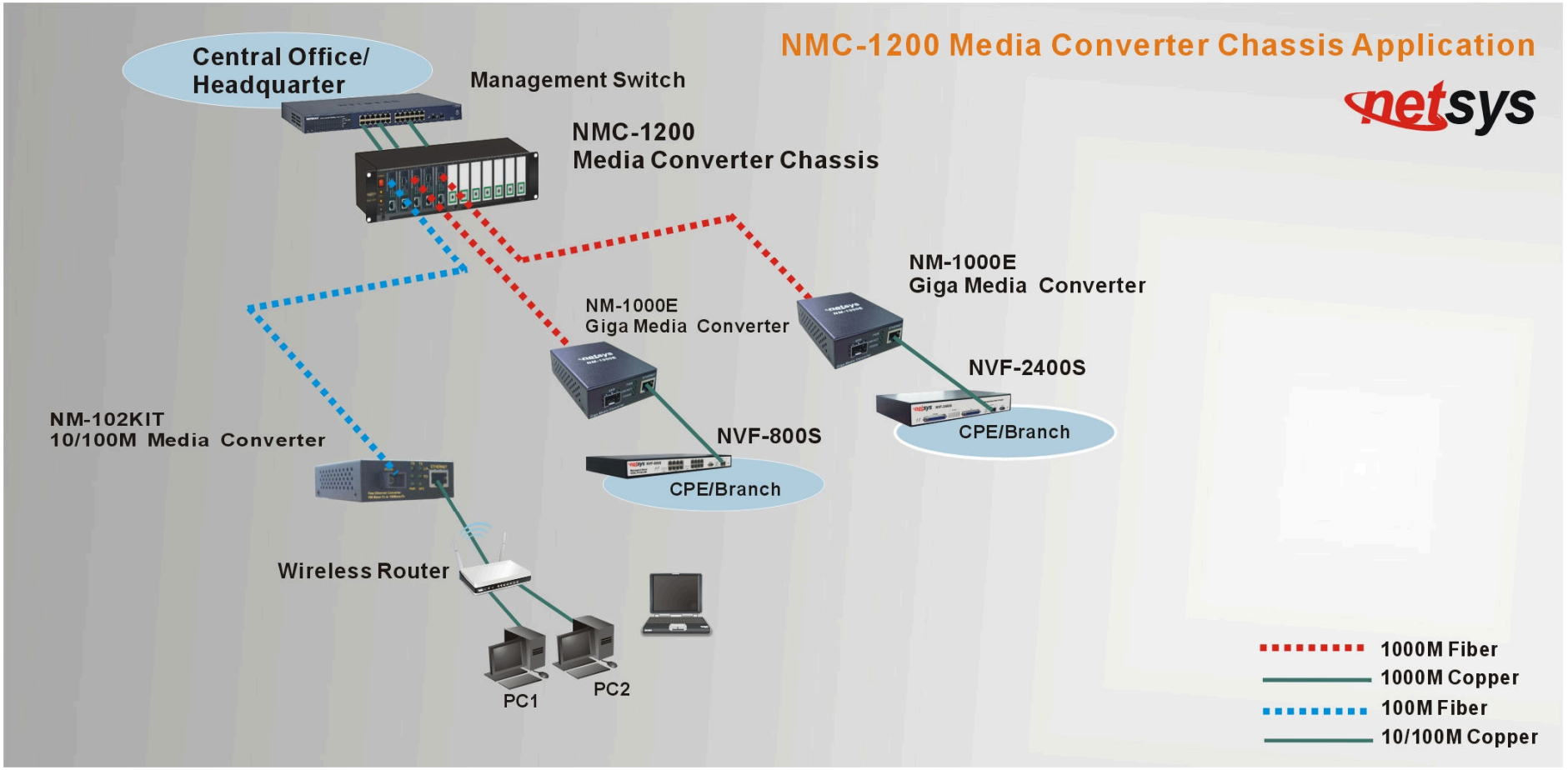

Figure 3.2 Media converter chassis application

Figure 3.3 Media converter chassis internal view

Appendix A: Product Specification

Key Features & Benefits:

- 12-slots media converter chassis
- Support NM-102KIT 10/100M media converter
- Support NM-1000E Giga media converter
- Hot-swappable both media converter and redundant power supply
- Dual Power Module redundancy
- Front Panel LED1/LED2 for two redundant Power Module and Fan Status
- 19-inch rack mountable
- EMC certified by CE, FCC
- RoHS compliant

Product Specification:

Item	Description
Capacity:	12 open slots for media converters
LED:	Power 1, Power 2, Fan
Power Supply:	Two power supplies provided, hot swappable
Converter Model:	NM-102KIT , NM-1000E
Per slot DC Power Output:	+5VDC/1A
Input voltage:	115V/230V 8A/4A 60Hz/50Hz
Power Dissipation:	40W maximum
Operating Temperature:	0°C ~ 50°C(32°F ~ 122°F)
Storage Temperature:	-20°C ~ 60°C(-4°F ~ 140°F)
Operating Humidity:	20 to 90% (non-condensing)
Dimension:	426mm x 380mm x 88mm
Weight:	7kg
Emission:	FCC part 15 Class A, CE

Note:
Input voltage range set with a 115/230 VAC selector: For (1)115VAC, the range is from 90VAC to 132VAC; (2)230VAC, the range is from 180VAC to 264VAC.

Appendix B: Troubleshooting

1. Symptom:	How to turn off the buzzer alarm?
Cause:	Defective power supply of Power 1 or Power 2.
Solution:	Push the Buzzer Reset Button showing as Item 7 of Figure 3.1 Media converter chassis Front/Rear view.

2. Problem:	How to pull the media converter?
Solution:	You can use the network cable to pull out the product, as following steps. 1. Plug in the network cable to the Ethernet interface at the Media Converter. 2. Using a network cable pull out the converter.
Note:	The first thing you have to relax the front panel bracket to avoid interference.

Appendix C: FCC and CE Mark Warning

FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a computing device, pursuant to Part 15 of FCC class A rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. The equipment and the receiver should be connected to outlets on separate circuits.
4. Consult the dealer or an experienced radio/television technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If this telephone equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance in order for you to make necessary modifications to maintain uninterrupted service.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

Important Safety Instructions

- **Caution:** The direct plug-in wall transformer serves as the main product for disconnecting. The socket outlet shall be installed near the product and be readily accessible.
- **Caution:** Use only the power supply included with this product. In the event the power supply is lost or damaged:In the United States, use only with CSA certified or UL listed Class 2 power supply.
  IN Europe, use only with CE certified power supply.
- **Do not** use this equipment near water, for example in a wet basement.
- **DO NOT DISASSEMBLE THIS EQUIPMENT**. It does not contain any user serviceable components.

FCC Warning

This equipment has been tested to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment can generate, use, and radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at owner's expense.

CE Mark Warning

This is a class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

RoHS Mark Warning

RoHS stands for Restriction of Hazardous Substances, and impacts the entire electronics industry and many electrical products as well. The original RoHS, also known as Directive 2002/95/EC, originated in the European Union in 2002 and restricts the use of six hazardous materials found in electrical and electronic products. All applicable products in the EU market since July 1, 2006 must pass RoHS compliance. Directive 2011/65/EU was published in 2011 by the EU, which is known as RoHS-Recast or RoHS 2. RoHS 2 includes a **CE-marking directive**, with RoHS compliance now being required for CE marking of products. RoHS 2 also added Categories 8 and 9, and has additional compliance recordkeeping requirements. Directive 2015/863 was published in 2015 by the EU, which is known as RoHS 3. RoHS 3 adds four additional restricted substances (phthalates) to the list of six

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Warranty

The original owner that the product delivered in this package will be free from defects in material and workmanship for one year parts after purchase.

There will be a minimal charge to replace consumable components, such as fuses, power transformers, and mechanical cooling devices. The warranty will not apply to any products which have been subjected to any misuse, neglect or accidental damage, or which contain defects which are in any way attributable to improper installation or to alteration or repairs made or performed by any person not under control of the original owner.

The above warranty is in lieu of any other warranty, whether express, implied, or statutory, including but not limited to any warranty of merchantability, fitness for a particular purpose, or any warranty arising out of any proposal, specification, or sample. We shall not be liable for incidental or consequential damages. We neither assume nor authorize any person to assume for any other liability.

WARNING:
DO NOT TEAR OFF OR REMOVE THE WARRANTY STICKER AS SHOWN, OR THE WARRANTY IS VOID.

Chinese SJ/T 11364-2014

部件名称	有毒有害物质或元素					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬[Cr(VI)]	多溴联苯(PBB)	多溴二苯醚(PBDE)
结构壳体	○	○	○	○	○	○
电路组	○	○	○	○	○	○
电源供应器	○	○	○	○	○	○
风扇	○	○	○	○	○	○
线材	○	○	○	○	○	○
包装及配件	○	○	○	○	○	○
○：表示该有毒物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。 ╳：表示该有毒物质至少在该部件的某依均质材料中的含量超出 GB/T 26572 标准规定的限量要求。						

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