BIAMP®

Vocia®

VPSI-1

Manual

January 2013

IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this product near water.

6) Clean only with dry cloth.

7) Do not block ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other product (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong.

The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the product.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with equipment rack, cart, stand or table designed to provide adequate mechanical strength, heat dissipation and securement to the building structure.

When a cart is used, use caution when moving the cart and product combination to avoid injury from tip-over.

13) Unplug this product during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING - To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

WARNING - This product employs Safety Grounding and must be connected to a MAINS socket that is properly grounded to provide a protective earthing connection.

WARNING – Speaker terminals marked with the symbol ⚡ are Hazardous Live. External wiring connected to these terminals requires installation by qualified electrical installer.

Disconnect Device - The MAINS plug is used to disconnect MAINS power and must remain readily operable.

Explanation of safety related symbols - Product labeling and the operation manual may use the internationally recognized symbols defined below to note safety messages.

Lightning Bolt: Hazardous Live voltages present when this unit is in operation. Do not touch terminals marked with this symbol while the unit is connected to live power.

Exclamation Point: Replace components (i.e. fuses) only with the values specified by the manufacturer. Failure to do so will compromise safe operation of this unit.
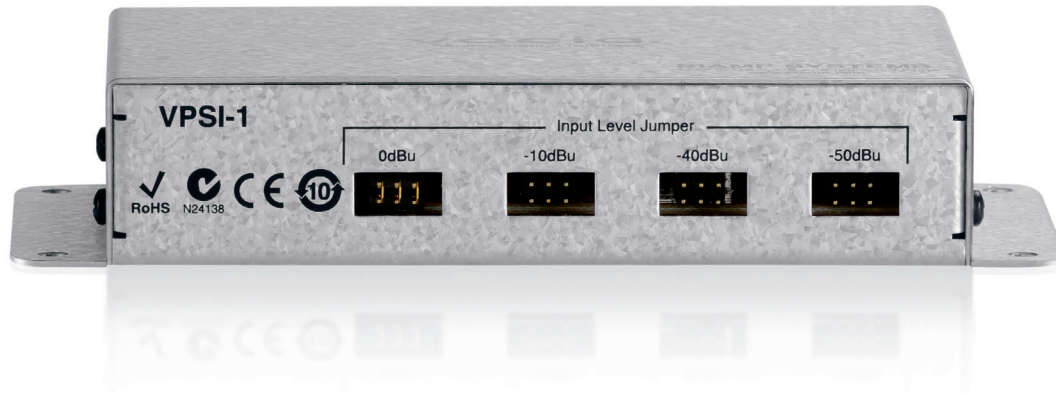
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VOCIA PAGING STATION INTERFACE 1 (VPSI-1)

The Vocia Paging Station Interface (VPSI-1) device is designed to allow third party microphones and LED indicators to interface as slave devices to the Vocia Wall Station and Desk Station (WS-4/10 and DS-4/10) series microphones and to the Vocia Input 6 (VI-6) device for paging via the Paging Ports. Up to four VPSI-1 interfaces can be connected per VI-6 when configured for Vocia Auxiliary Microphone mode.

The VPSI-1 can also facilitate third party microphones and control system interfacing with Vocia standard and Emergency Wall and Desk Stations (WS-4/10, EWS-4/10 and DS-4/10). The host Paging Station must be configured for 'Remote Control' mode within the software.

FEATURES

- Slave interface to Vocia Paging Stations and VI-6 devices
- Visual feedback of Paging and Zone status
- Suitable for surface mounting
- Audio, Power and Control over a single Ethernet cable
- IP30 Compliant
- Power is provided by the host device.
- **CE** marked, **UL** listed and **RoHS** compliant
- Covered by Biamp Systems' five year warranty

VOCIA PAGING STATION INTERFACE 1 (VPSI-1)

Setup and Use

The Vocia software is used for configuring and programming the host device interfacing to the VPSI-1. The information supplied by this manual relates to hardware installation, physical connections and device information. For more details on software setup, please consult the Vocia Software Help File.
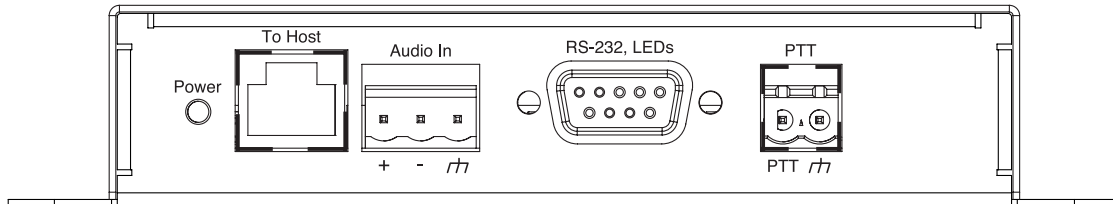
Installation

The VPSI-1 has mounting holes to facilitate discreet surface mount installation local to the external interfacing equipment.

Power

This will illuminate green when connected to the host device to indicate the device is receiving power.

To Host

The VPSI-1 is designed to connect directly to a Vocia Paging Station Auxiliary Port or a VI-6 Paging Port. The VPSI-1 has a female RJ-45 conector labelled 'To Host' to fascilitate this direct connection. A screened CAT5e or CAT6 cable wired straight through must be used, up to a maximum of 100 foot (30 meter) distance. Unscreened cable must not be used. The VPSI-1 is not an IP device and must not be connected to an Ethernet switch or network. It must be connected directly to either a Vocia Paging Station Auxiliary Port or a Vocia VI-6 Paging Port.

Audio In

A balanced audio input is available for paging audio. Input Level Jumper connections on the rear of the unit allow the input sensitivity to be set. Four nominal levels are available: 0dBu, -10dBu, -40dBu and -50dBu. A three way jumper is provided that should be placed at the required setting (fit one jumper only using long nose pliers; ensure that the jumper is correctly located on the 6-pin header).

RS-232 and LED Connector

The DB-9 connector can be configured for two modes of operation in the software, either as a RS-232 port to facilitate Paging Station Vocia Text Protocol (PS-VTP) Interfacing or as an LED indication driver for an external interface board.

PTT

An external Push-to-Talk connector is provided. The PTT is active when shorted to ground.

RS-232 or LED Configuration
The DB-9 connector can be configured one of two ways, LED mode, labeled as 'Auxiliary Microphone' mode in the software or RS-232 mode, labeled as 'Remote Control' mode in the software.

LED mode allows an external (customer supplied) LED circuit to display Paging indication status.

RS-232 mode allows a third party control system to control the host Paging Station using Vocia Text Protocol (VTP) messages.

Wiring when using LED indicators:
When connected to a Paging Station or VI-6, the VPSI-1 DB-9 connector can used to facilitate connections to LED indicators. A custom circuit will be required which must be wired as indicated below.

Pin Out	Function
Pin 1	Busy LED
Pin 2	Host TXD
Pin 3	Host RXD
Pin 4	Talk LED
Pin 5	GND / 0V
Pin 6	TXD Link Back
Pin 7	RXD Link Back
Pin 8	Wait LED
Pin 9	12 Volt DC
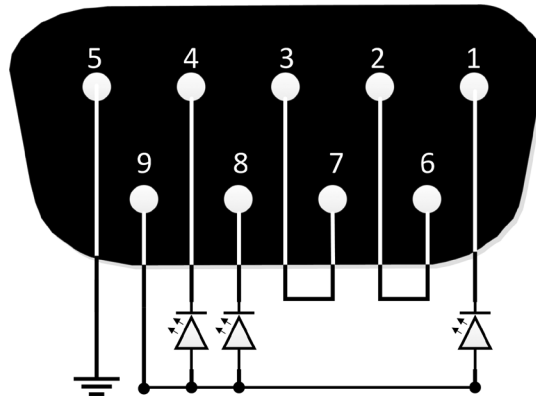
Note: LED outputs driven by 15mA current sinks.

Wiring when using RS-232 Serial control for PS-VTP:
When connected to a Paging Station the VPSI-1 DB-9 connector can be used to facilitate connections to an external control system and must be wired in the following manner.

Pin Out	Function
Pin 2	RX from control system
Pin 3	TX from control system
Pin 5	GND
Do Not Wire Any Other Pins	

RS-232 Connection Settings	
Baud Rate - 57600 bps	Data Bits - 8
Parity - None	Stop Bits - 1
Flow Control - None	
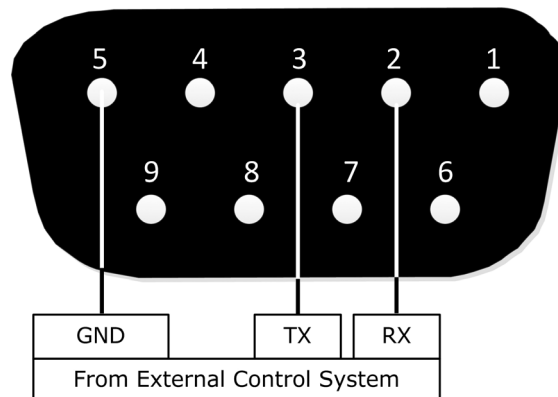
VOCIA PAGING STATION INTERFACE 1 (VPSI-1)

Using the VPSI-1 with a Vocia Paging Station

The VPSI-1 is designed to connect to the Paging Station Auxiliary Port. The Paging Station Auxiliary Port is located on the underside of the Desk Station paging device or internally on a Wall Station paging device.

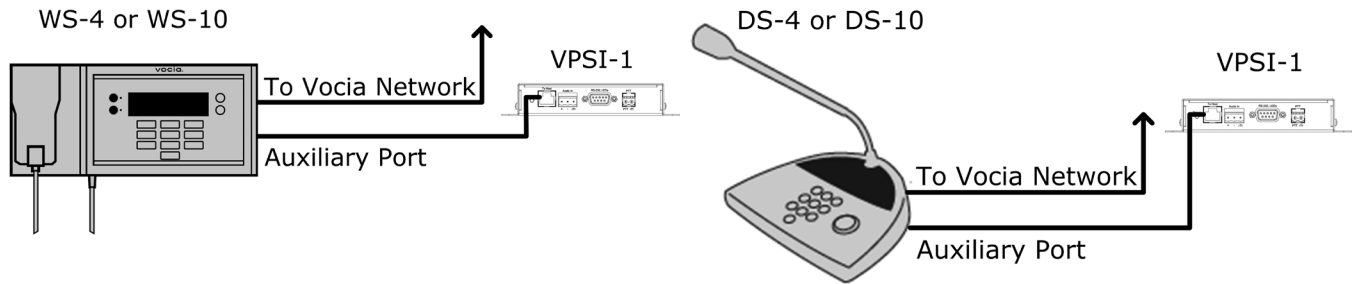The Vocia software is used to specify the Page Code accessed when using the VPSI-1 PTT. The following two modes of operation are provided:

- **Follow Paging Station Page Code:** the VPSI-1 will Page to whichever Page Code is currently selected on the associated Paging Station.

- **Use Specific Page Code:** All Pages initiated via the Push-to-Talk button on the VPSI-1 will use the specified Page Code.

Live Page Preambles are supported but must be assigned to the host Paging Station in the Vocia software. When used with a Paging Station that is configured with a PIN code, the VPSI-1 will activate and deactivate in unison with the Paging Station.

It is not possible to simultaneously Page from the VPSI-1 and host Paging Station. The first PTT button pressed will take precedence. When paging from the VPSI-1, the Paging Station will display that it is unavailable. When paging from the Paging Station the Busy and Wait status LED's will indicate on the VPSI-1.

The audio path between the VPSI-1 and the host device is not monitored and therefore may not be suitable for critical paging applications. A VPSI-1 must not be deployed with Emergency Paging Stations in EN54-16 installations.

**LED Indicators when used with Paging Station**

The VPSI-1 allows two bi-color status LEDs for monitoring of Paging status when the microphone and PTT input is used. LED behavior is as follows:

VPSI-1 LED Status	Busy LED	Wait LED	Talk LED
Idle	Off	Off	5 second pulse
Destination Zones in Use	Flash	Flash	Off
Wait	Off	On	Off
Talk Now	Off	Off	On

VOCIA PAGING STATION INTERFACE 1 (VPSI-1)

Using the VPSI-1 with a Vocia Input 6 (VI-6)

The VPSI-1 can be connected to the VI-6 Paging Port Inputs. One VPSI-1 is able to be connected to each Paging Port Input with a total of four able to be connected to a single VI-6. When the VI-6 audio input path is configured to use the VPSI-1 the associated Line Inputs of the VI-6 will be disabled. The audio channel Signal present LEDs on the front of the VI-6 chassis will continue to operate when the input channel is configured for Paging. The LED indication will function as it normally would when configured as a Background or a User Input. The LEDs will function regardless of whether the associated VPSI-1's PTT is pressed.

VI-6   VPSI-1
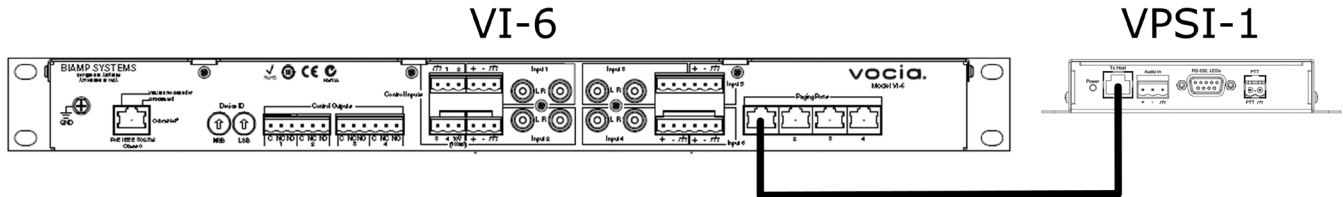
Live Page Preambles are supported but must be assigned to the host VI-6 in the software. Each Paging Input can be configured in the software with their own dedicated Page Code. Store-and-Forward paging and PIN Code protection for microphones connected to a VI-6 is not available.

LED Indicators when used with VI-6

The VPSI-1 has three status LED outputs for paging feedback. When connected to a VI-6 LED behavior is as follows:

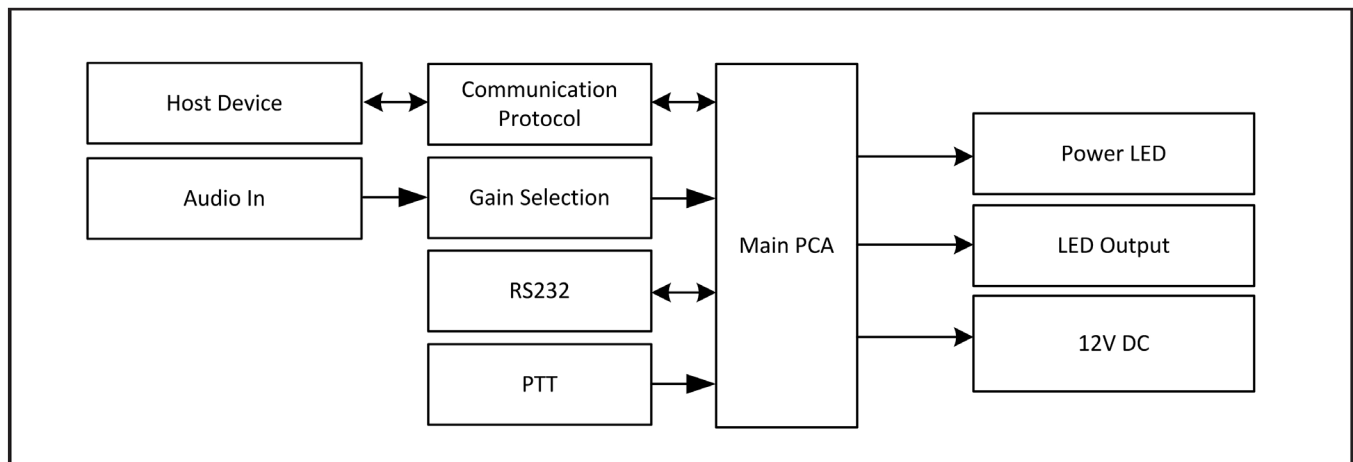| VPSI-1 LED Status	Busy LED	Wait LED	Talk LED
Idle	Off	Off	5 second pulse
Destination Zones in Use	Flash	Flash	Off
Wait	Off	On	Off
Talk Now	Off	Off	On

VOCIA PAGING STATION INTERFACE 1 (VPSI-1)

Vocia Paging Station Interface 1 SPECIFICATIONS

Input	
Frequency Response (20Hz to 10kHz)	+0, -1dB
Nominal Level (Hardware Configurable**)**	0dBu, -10dBu**,** -40dBu and -50dBu
THD + N (20Hz to 10kHz**)**	<0.08%
Effective Input Headroom	25dB

LED Driver Mode	**Used for VI-6 and Paging Stations**
LED Output Voltage	15mA

RS-232 Connection settings	**Only used for Paging Stations**
Baud Rate	57600 bps
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

Host Connection:	RJ45 with shielded Ethernet cable (CAT5, CAT5e, CAT6, or CAT 7)

Overall Dimensions:	
Length**:**	6.1 Inches (155mm)
Width:	3.2 Inches (80mm)
Depth:	1.2 Inches (30mm)
Weight:	11oz (300g)

Environment	
Ambient Operating Temperature Range**:**	23-104° F (-5 – 40° C)
Humidity:	0 – 95%RH non-condensing
Altitude**:**	0 – 10,000 feet MSL (3000 meters)

Compliance:	RoHS Directive EU Directive 2002/95/EC

Vocia Paging Station Interface 1 BLOCK DIAGRAM

WARRANTY

BIAMP SYSTEMS IS PLEASED TO EXTEND THE FOLLOWING 5-YEAR LIMITED WARRANTY TO THE ORIGINAL PURCHASER OF THE PROFESSIONAL SOUND EQUIPMENT DESCRIBED IN THIS MANUAL

1. BIAMP Systems warrants to the original purchaser of new products that the product will be free from defects in material and workmanship for a period of 5 YEARS from the date of purchase from an authorized BIAMP Systems dealer, subject to the terms and conditions set forth below.

2 If you notify BIAMP during the warranty period that a BIAMP Systems product fails to comply with the warranty, BIAMP Systems will repair or replace, at BIAMP Systems' option, the nonconforming product. As a condition to receiving the benefits of this warranty, you must provide BIAMP Systems with documentation that establishes that you were the original purchaser of the products. Such evidence may consist of your sales receipt from an authorized BIAMP Systems dealer. Transportation and insurance charges to and from the BIAMP Systems factory for warranty service shall be your responsibility.

3. This warranty will be VOID if the serial number has been removed or defaced; or if the product has been altered, subjected to damage, abuse or rental usage, repaired by any person not authorized by BIAMP Systems to make repairs; or installed in any manner that does not comply with BIAMP Systems' recommendations.

4. Electro-mechanical fans, electrolytic capacitors, gooseneck microphones, cords connecting handheld microphones, hard-drives, displays, and normal wear and tear of items such as paint, knobs, handles, keypads and covers are not covered under this warranty. All server-based devices are warranted for 3 years only.

5. This warranty is in lieu of all other warranties, expressed or implied. Biamp Systems disclaims all other warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose.

6. The remedies set forth herein shall be the purchaser's sole and exclusive remedies with respect to any defective product.

7. No agent, employee, distributor or dealer of Biamp Systems is authorized to modify this warranty or to make additional warranties on behalf of Biamp Systems. Statements, representations or warranties made by any dealer do not constitute warranties by Biamp Systems. Biamp Systems shall not be responsible or liable for any statement, representation or warranty made by any dealer or other person.

8. No action for breach of this warranty may be commenced more than one year after the expiration of this warranty.

9. Biamp systems shall not be liable for special, indirect, incidental, or consequential damages, including lost profits or loss of use arising out of the purchase, sale, or use of the products, even if BIAMP Systems was advised of the possibility of such damages.

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FCC COMPLIANCE

FCC NOTICE - CLASS B DIGITAL DEVICE

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential as well as in a commercial installation. This equipment generates, 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) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected or 4) Consult the dealer or an experienced radio/TV technician for help.

BIAMP®

CE

EC Declaration of Conformity

Biamp Systems Corporation, as manufacturer having sole responsibility, hereby declares that our delivered version the following described product complies with the applicable provisions of the DIRECTIVES below except as noted herein. Any alterations to the product not agreed upon and directed by Biamp Systems Corporation will invalidate this declaration.

Brand Name: Vocia®

Product Description: Paging Station Control Interface

Model: VPSI-1

Applicable EC Directives: Applicable Harmonized Standards:

LVD Directive (2006/95/EC)   Safety   EN 60065:2002
                                                                    IEC 60065:2001 + Amd 1:2005

EMC Directive (2004/108/EC)   Emissions   EN 55103-1:2009, Environment E2
                                              Immunity   EN 55103-2:1996, Environment E2

RoHS Directive (2011/65/EU)   RoHS Recast

Special Considerations for Product Environment or Compliance:

• For use connected to "Auxiliary" Port or "Paging Ports" provided by host Vocia Paging Stations and Input Expanders.

• Shielded cabling must be used for system connections.

Technical Construction File, Location and Contact:

Biamp Systems Corporation   phone: (503) 641.7287
9300 S.W. Gemini Drive   fax: (503) 626.0281
Beaverton, OR USA 97008   e-mail: compliance@biamp.com

Signed for and on behalf of Biamp Systems Corporation:

Authorized Representative: Larry Copley, Compliance Engineer

Authorized Signature: *Larry Copley*

Date and Place Issued: July 2012, Beaverton, Oregon USA

COMPLIANCE

EU RoHS COMPLIANT

This Biamp product, including all attendant cables and accessories supplied by Biamp, meets all requirements of EU Directives 2002/95/EC of January 27, 2003, and 2005/618/EC of August 18, 2005, the EU RoHS Directives. An EU RoHS Materials Content Declaration document may be obtained at www.biamp.com

(This information is presented to comply with the requirements of Chinese law SJ/T11363-2006)
有害物质表 (Hazardous Substances Table)
Biamp Systems Corporation
广播设备 (Announcement Device)
Vocia VPSI-1

部件名称 (Part Name)	有毒有害物质或元素 (Substances)					
	Pb 铅	Hg 汞	Cd 镉	Cr+6 六价铬	PBB	PBDE
设备机箱 (Equipment Chassis)	X	O	X	O	O	O
手册和其他书面文档 (Manual and Paper Documents)	O	O	O	O	O	O
包装箱和所有包装材料 (Box and Packing Materials)	O	O	O	O	O	O

0：表示该部件所有均质材料中的这种有毒有害物质低于 SJ/T11363-2006 的限制要求.

X：表示该部件中至少有一种均质材料所含的这种有毒有害物质高于 SJ/T11363-2006 的限制要求.

在电触头和（或）镀镉所含的均质材料中，镉及其化合物的含量可以超过 0.01%，但欧盟指令 91/338/EEC（根据欧盟指令 76/769/EEC）限制销售和使用某些危险物质和制剂部分中所禁止的用途除外

在以下一种或多种物质所含的均质材料中，铅及其化合物的含量可以超过 0.1%：
1) 电子元器件中玻璃内所含的铅
2) 铅在钢材中是作为一种合金元素，含量可达 0.35%
3) 铅在铝材中是作为一种合金元素，含量可达 0.4%
4) 铅在铜材中是作为一种合金元素，含量可达 4%
5) 高熔点类焊料中的铅（即铅料合金，铅含量超过 85%）
6) 电子陶瓷部件内的铅
7) 由两种以上元素组成的焊料中所含的铅，用于连接针脚和微处理器包装，其中铅的含量超过 80% 但低于 85%
8) 顺应针连接系统内的铅
9) 倒装芯片封装中半导体芯片及载体之间形成可靠连接所用焊料中的

在正常使用情况下，中国环保使用期限为 10 年，条件是：
- 环境温度为 0-40C (32-104°F)
- 湿度为 0-95%，无凝结
- 海拔高度为 0-10,000 英尺
- 气流不受阻碍
- 没有水或其他液体进入任何部件
- 通过主机 IEEE 802.3af PoE 获得电源
- 部件没有损坏（损坏部件应立即修理）
- 由工厂授▪人▪使用批准的材料▪行所有▪修