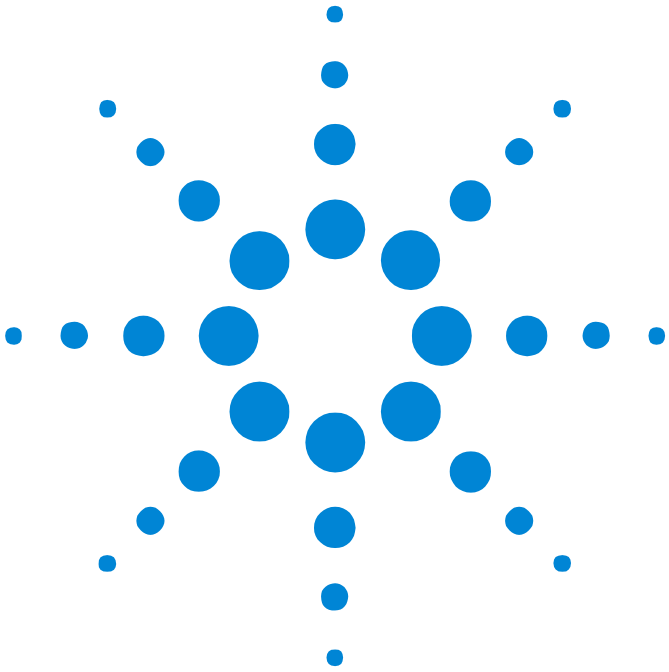

Agilent N2525A pRMC

Installation Guide

Agilent Technologies

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Copyright

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Certification

Agilent Technologies certifies that this product met its published specifications at the time of shipment. Agilent Technologies further certifies that its calibration measurements are traceable to the United States Institute of Standards and Technology, to the extent allowed by the Institute's calibrating facility, and to the calibration facilities of other International Standards Organization members.

Services and Support

Any adjustment, maintenance, or repair of this product must be performed by qualified personnel. Contact your customer engineer through your local Agilent Technologies Service Center. You can find a list of local service representatives on the Web at:

http://www.agilent.com/Service/English/index.html

Safety Summary

The following general safety precautions must be observed during all phases of operation of this instrument. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the instrument. Agilent Technologies Inc. assumes no liability for the customer's failure to comply with these requirements.

General

This product is a Safety Class 1 instrument (provided with a protective earth terminal). The protective features of this product may be impaired if it is used in a manner not specified in the operation instructions.

All Light Emitting Diodes (LEDs) used in this product are Class 1 LEDs as per IEC 60825-1.

Environmental Conditions

This instrument is intended for indoor use in an installation category II, pollution degree 2 environment. It is designed to operate at a maximum relative humidity of 95% and at altitudes of up to 2000 meters. Refer to the specifications tables for the ac mains voltage requirements and ambient operating temperature range.

Before Applying Power

Verify that the product is set to match the available line voltage, the correct fuse is installed, and all safety precautions are taken. Note the instrument's external markings described under “Safety Symbols” on page 8.

Ground the Instrument

To minimize shock hazard, the instrument chassis and cover must be connected to an electrical protective earth ground. The instrument must be connected to the ac power mains through a grounded power cable, with the ground wire firmly connected to an electrical ground (safety ground) at the power outlet. Any interruption of the protective (grounding) conductor or disconnection of the protective earth terminal will cause a potential shock hazard that could result in personal injury.

Fuses

Only fuses with the required rated current, voltage, and specified type (normal blow, time delay, etc.) should be used. Do not use repaired fuses or short-circuited fuse holders. To do so could cause a shock or fire hazard.

Do Not Operate in an Explosive Atmosphere

Do not operate the instrument in the presence of flammable gases or fumes.

Do Not Remove the Instrument Cover

Operating personnel must not remove instrument covers. Component replacement and internal adjustments must be made only by qualified service personnel.

Instruments that appear damaged or defective should be made inoperative and secured against unintended operation until they can be repaired by qualified service personnel.

Parts of the instrument marked with this symbol are subject to damage by static electricity. In order to protect against electrostatic discharge to the instrument use static-free work stations.

Safety Symbols

Caution (refer to accompanying documents)

Protective earth (ground) terminal

In the manuals:

WARNING

Warnings call attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury or loss of life. Do not proceed beyond a Warning until the indicated conditions are fully understood and met.

CAUTION

Cautions call attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the equipment. Do not proceed beyond a Caution until the indicated conditions are fully understood and met.

Documentation History

All Editions and Updates of this manual and their creation date are listed below. The first Edition of the manual is Edition 1. The Edition number increments by 1 whenever the manual is revised. New Editions are complete revisions of the guide reflecting alterations in the functionality of the instrument. Updates are occasionally made to the guide between editions.

Edition 1, December 2000

Trademarks

Windows NT 4.0 is registered trademark of Microsoft Corp. in US and other countries

Pentium is registered trademark of Intel Corp. in US and other countries

Acrobat Reader is registered trademark of Adobe Corp. in US and other countries.

All other brand and product names are trademarks or registered trademarks of their respective companies.

On-line Information

Please check the following Internet address on a regular base for additional information or updates:

http://www.agilent.com/

Who Should Use this Guide

This document provides instructions for taking the Agilent N2525A Remote Management Card (pRMC) into service.

The target audience is service personnel who will be installing the pRMC into a server. This document is intended to guide the service personnel through the installation of the RMC, the configuration of the RMC Setup, and the initial login. Fundamental knowledge of PCI card installation and BIOS configuration is expected.

Technical Requirements

The pRMC has certain minimum requirements at the server and the client that must be met so that all functions of the pRMC can be used.

Requirements on the server

The server must provide I^2C/IPMB support and either:

- an IEEE P1386.1 PCI mezzanine card interface
- an CompactPCI Interface. In this case a carrier card (e.g. Motorola CPV8540) is required.

Requirements for communications

For the pRMC to be accessed remotely, there must be a dedicated 10BaseT-compatible or 100BaseT-compatible LAN connection at the server. The pRMC must also have a unique IP address on the LAN. If a modem will be used, there must be a phone line with a separate phone number.

The pRMC supports the Dynamic Host Configuration Protocol (DHCP). If there is a DHCP server on your network, the pRMC can be configured to request its own network connection settings.

Client requirements

The client connects to the pRMC either over the LAN or with a modem. The pRMC GUI can be run with a browser that supports Java script 1.1 (for example, Microsoft Internet Explorer 5 or Netscape Navigator 4.7).

Installing the pRMC Card

As with any work inside a computer, follow the standard guidelines when installing the pRMC PCI card.

WARNING

Disconnect the main power supply before starting.

Hazardous voltages are present inside the server. Always disconnect AC power and unplug external connecting cables from the server while working inside the unit. Serious injury or death may result if this warning is not observed.

CAUTION

Observe antistatic precautions.

Electronic components can be damaged by electrostatic discharges. Make sure you are grounded before touching any components.

The use of an antistatic service kit, such as 3M 8501/8502/8505 or equivalent, is recommended.

CAUTION

Observe LAN connection precautions.

To reduce the possibility of an electric shock from the local area network, plug the computer into an AC outlet before connecting to the network. Likewise, disconnect the network before unplugging the computer from the AC power outlet.

How to Install the pRMC PCI Card

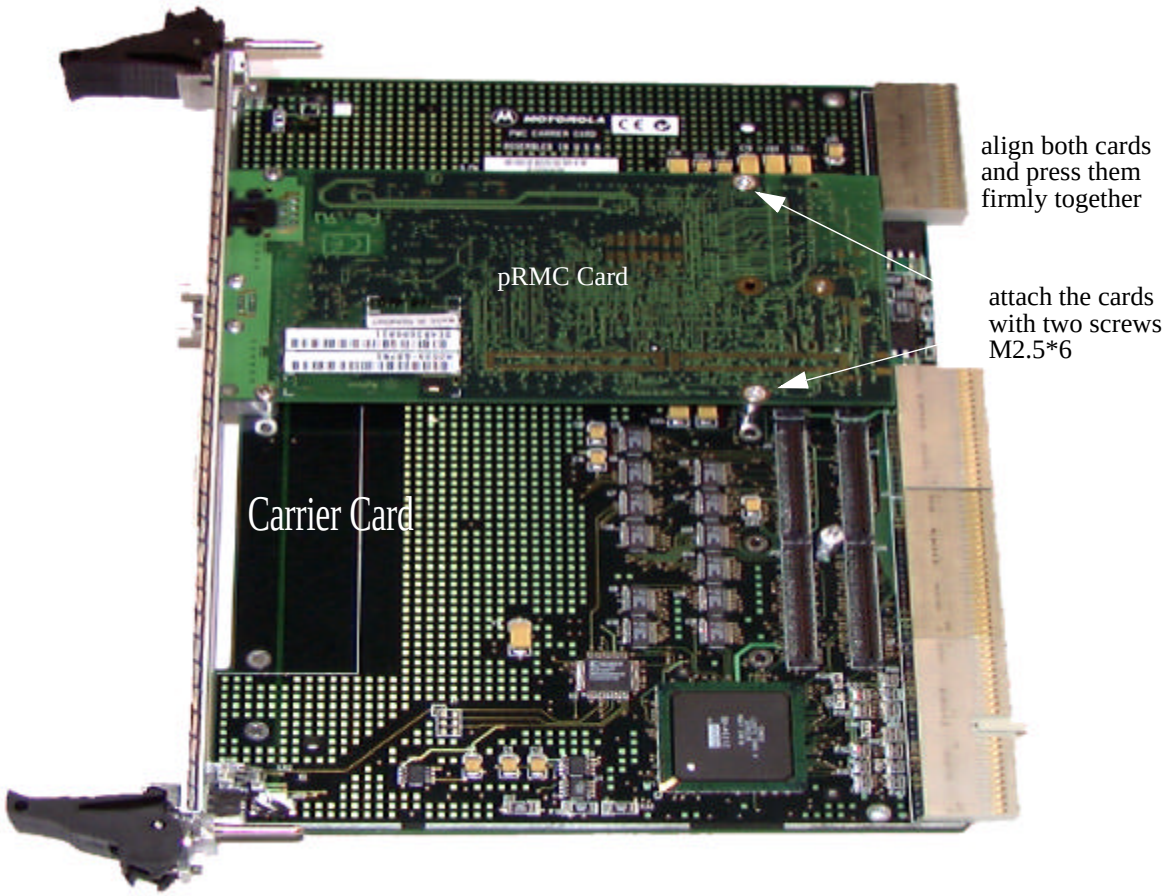
Installation procedure

To install the pRMC PCI card into the server, do the following:

1. Insert the pRMC card into one free slot of a carrier card.
2. Insert the carrier card into the server.
3. Connect the LAN and/or the serial cable (optional).

NOTE Please note that for proper operation of the pRMC card a custom specific connection of the user I/O pins to system pins is required (for details refer to the N2525A pRMC Hardware Reference Manual).

NOTE Please note that the M2.5*6 screws are not part of the shipment



Verifying RMC PCI Card Installation

RMC self-test

The RMC PCI card runs a self-test each time it is powered up. Whenever the RMC PCI card boots, two diagnostic LEDs (one green, one red) switch on for about 10 seconds.

Identifying installation errors

After the self-test, you should see one of the following conditions:

- Green LED flashes, red LED is not lit.

  Normal condition, no errors have been found on the RMC.

- Green LED flashes, red LED flashes.

  A problem on the RMC PCI card has been identified. If this occurs, try resetting the RMC PCI card by disconnecting all power sources (PCI bus, AC/DC adapter, battery). If the problem continues after restarting, contact your service and support department.

If the green LED does not light up at all, check if the RMC is getting power. Otherwise, contact your service and support department.

Configuring the RMC Setup

The RMC has a setup program (available at server boot) to configure the basic settings. You must define the communication settings here so that you can gain remote access to the RMC later.

Working in the RMC Setup

The Setup interface is made up of various screens for defining settings. You can enter screens by pressing the appropriate key.

Entering the RMC Setup

To enter the RMC Setup:

1. Boot the server.

   The following message will appear when the RMC has been recognized by the server:

   ```
   Agilent Technologies Remote Management Card recognized
   Version Number XX.XX.XX
   LAN address XXX.XXX.XXX.XXX
   Press <F3> to enter Setup
   ```

2. When this message appears, press the F3 key to enter the RMC Setup.

RMC Setup welcome screen

The RMC Setup welcome screen opens.

```
Agilent Technologies Remote Management Card Setup
   <L>   LAN Settings
   <P>   PPP Settings
   <R>   Remote Boot Settings
   <F>   Firmware Update Settings
   <X>   Exit
```

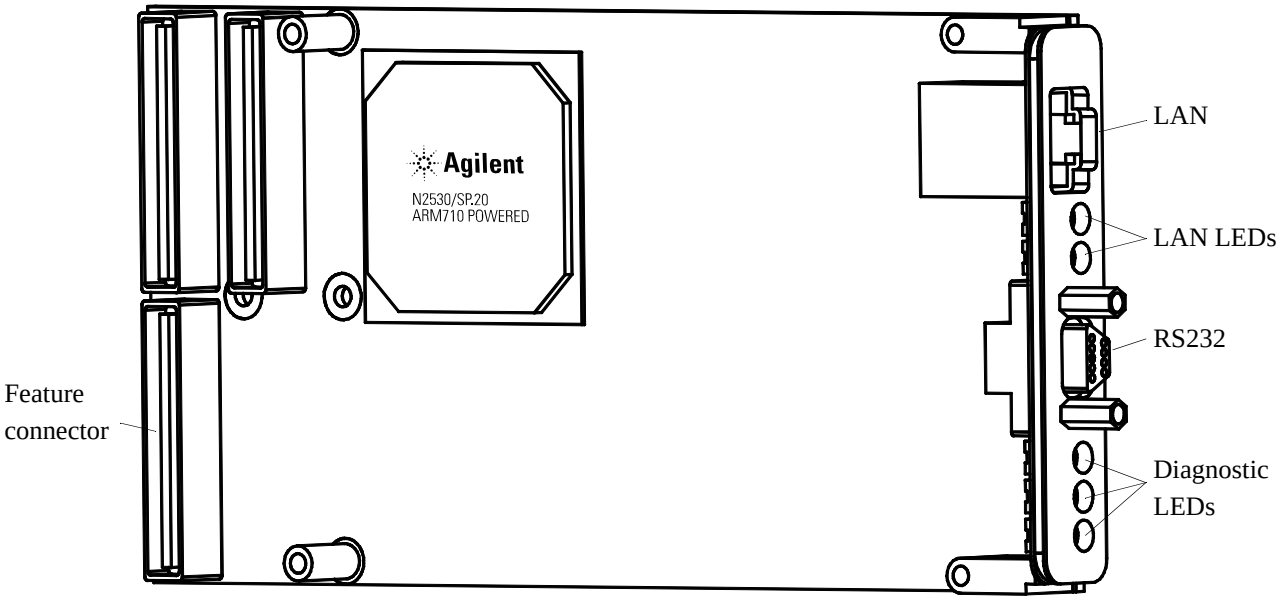
3. Press the appropriate letter to open the desired configuration screen.

Interfaces

This chapter shows the various interfaces on the PMC. All descriptions are seen from the PMC. An input pin is therefore seen as an input pin to the PMC. An output pin is a pin driven by the PMC.

PMC Layout

The following illustration displays the layout of the PMC.



Technical Specifications

Hardware

Table 1

Feature	Description
Physical Characteristics	Single-width PCI Mezzanine Card (PMC) The PMC fits in host modules with either 3.3 V or 5 V keying pins.
Environmental Conditions	Operating temperature: 5 to 40°C (40 to104°F) ambient Storage temperature: –40 to 65°C (–40 to 150°F) Operating humidity: 20 to 80% Storage humidity: 90% non-condensing
Power Consumption	2 A at +5 V (10 W maximum)

On-Board Frequencies

The following frequencies are used by the pRMC:

Table 2

Frequency	Usage
25 MHz	Crystal-controlled clock
10/125 MHz	LAN
33 MHz	SP 2.0 Frequency
33 MHz	Primary PCI Bus
33 MHz	SDRAM Interface
100 kHz	I2C

The main frequency is generated by a 25-MHz crystal clock oscillator. The clock generation is integrated in the SP 2.0.

Declaration of Conformity

Manufacturer's Address: Boeblingen Verifications Solutions (BVS)
Herrenberger Str. 130
D-71034 Boeblingen

Declares, that the product

Product Name: **Remote Management Card**
Model Number: **N2525A**
Product Options: *This declaration covers all options of the above product.*

Conforms with the following European Directives:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC (including 93/68/EEC) and carries the CE Marking accordingly.

Conforms with the following product standards:

	Standard	Limit
EMC	*CISPR 22:1997 / EN 55022:1998*	*Group 1 Class A [1]*
	IEC/CISPR 24:1997 / EN 55024:1998	
	IEC 61000-4-2:1995+A1:1998 / EN 61000-4-2:1995	*4kV CD, 8kV AD*
	IEC 61000-4-3:1995 / EN 61000-4-3:1995	*3 V/m, 80-1000 MHz*
	IEC 61000-4-4:1995 / EN 61000-4-4:1995	*0.5kV signal lines, 1kV power lines*
	IEC 61000-4-5:1995 / EN 61000-4-5:1995	*1 kV line-line, 2 kV line-ground*
	IEC 61000-4-6:1996 / EN 61000-4-6:1996	*3V, 0.15-80 MHz, 80%*
	IEC 61000-4-11:1994 / EN 61000-4-11:1994	*10 ms/>95%, 500 ms/30%, 5 s/>95%*
	Canada: ICES-003:1998	
	Australia/New Zealand: AS/NZS 3548	
	USA: FCC CFR 47 Part 15 subpart B	
Safety	*IEC 60950:1991+A1:1992+A2:1993+A3:1995+A4:1996*	
	EN 60950:1992 +A1:1993+A2:1993+A3:1995+A4:1997	
	Canada: CSA C22.2 No. 950:1995	
	USA : UL 1950 : 1995 +A1 :1997	

Supplemental Information:

[1] The product was tested in a typical configuration with Agilent Technologies test systems.

2000-10-25
Date

Hans-Martin Fischer
Name

Product Regulations Engineer
Title

For further information, please contact your local Agilent Technologies sales office, agent or distributor.

Regulations Information

UL No. E191913

CISPR 22 Warning

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

FCC Statement (for USA)

This equipment has been tested and found 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 generates and uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manuals, 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 his own expense.

UL Statement (for USA)

This product is intended for use in a listed server.

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Printed in Germany

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Agilent Technologies