# <u>SERVICE</u> NOTE

Supersedes: NONE

## 4287A RF LCR Meter

Serial Numbers: JP1KGxxxxx, JP2KGxxxxx, MY432xxxxx

## Repair procedure for 4287A option 011(Solid-State Mass Storage) is changed

Parts Required: P/N	Description	Qty.
04287-65001	S-S STRG for Service	1

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

## **INFORMATION ONLY**

AUTHOR: kW PRODUCT LINE: WN

ADDITIONAL INFORMATION:

This procedure must be performed by Agilent Technologies service offices

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## Situation:

The new S-S STRG (04287-65001) for repair does not include any operating system. When the S-S STRG (04287-65001) is used, the operating system for 4287A should be installed.

## **Solution/Action:**

The new S-S STRG repair procedure for the 4287A is as follows.

### **Required Equipment**

OS Image: CD disk (Operating system for 4287A opt.011, F/w rev.1.31, Agilent service office use only) HDD: p/n 04287-65001 (It is available for 4287A opt.011 only) Software : Symantec Ghost ™ 8.0 or later (English version, Enterprise product) System(PC) : Windows 2000 Professional (or Windows XP Professional) with CD drive (or available to support external CD drives) LAN Cable: Cross (It enables the peer-to-peer communication between the 4287A and the PC.)

LAN Cable: Cross (It enables the peer-to-peer communication between the 4287A and the PC (or 2 straight cables and a hub.)

### **Outline of the procedure**

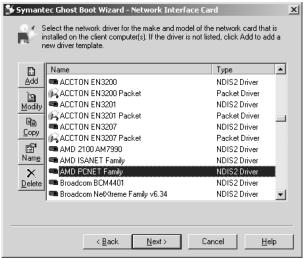
- 1. Make Boot disks using Symantec Ghost (only needs to be done one time) (5 min.)
- 2. Replace the defective S-S STRG with the new S-S STRG(p/n 04287-65001) (10 min.)
- 3. Connect the 4287A to your PC installed Symantec Ghost directly
- 4. Set up IP address and subnet mask of your PC (5 min.)
- 5. Set up GhostCast server (10 min.)
- 6. Copy the image file onto the 4287A's S-S STRG (10 min.)
- 7. Perform initial setting for the 4287A (15 min.)

#### 1. Make Boot disks using Symantec Ghost (Required for the first time)

- 1) Click Start Programs Symantec Ghost Ghost Boot Wizard.
- 2) Select Network Boot Disk and press the Next button.

1	
🔧 Symantec Ghost Boot Wizard - Introduction	×
Welcome to the Ghost Boot Wizard. Select the type of boot package you w to create for starting your client machines.	ish
Ghost boot disk with support for non-TCP peer-to-peer and CD/DVD reading/writing operations.	-
Retwork Boot Disk Ghost boot disk with network support for GhostCasting and TCP peer-to-peer connections.	
Boot disk that maps a drive letter to a shared resource on a server.	
CD/DVD Startup Disk with Ghost Ghost boot disk with generic CD-ROM drivers for reading from CD/DVDs that ware not created with Ghost	•
8.0.0.984 - Copyright (C) 1998-2003 Symantec Corp. All rights reserved.	
< <u>₿</u> ack <u>N</u> ext> Cancel <u>H</u> elp	,

3) If HP Ethernet with LAN remote power adapter is installed in the 4287A, select **AMD PCNET Family** and press the **Next** button.



If 3Com EtherLink is installed in the 4287A, select **3COM 3c90x** and press the **Next** button.

	Name	Туре
Add	🕮 3COM 3c556	NDIS2 Driver
'n	🙀 3COM 3c556 Packet	Packet Driver
4 odify	ጫ 3COM 3c575 (fe575c) CardBus	NDIS2 Driver
₿a	ጫ 3COM 3c59x	NDIS2 Driver
Copy	🙀 3COM 3c59x Packet	Packet Driver
	📾 3COM 3c689x TokenLink III	NDIS2 Driver
r I	3COM 3c90x	NDIS2 Driver
lam <u>e</u>	ጫ 3COM 3c920 Integrated	NDIS2 Driver
×I	🛥 3Com 3c98xx	NDIS2 Driver
elete	COM 3ccfe574b	NDIS2 Driver
	📼 3COM cc10	NDIS2 Driver

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4) Press the **Next** button

🐉 Syman	tec Ghost Boot Wizard - DOS Version		×
	Select the version of DDS that you want to use. F Ghost Boot Wizard and requires no additional files add the required system files. This requires a syste	s. To use MS-DOS, you must	
Γ	DOS Version © Use PC-DOS		
	O Use <u>M</u> S-DOS		
insert	IOS files are not installed. To install these files, a system formatted floppy disk into drive A, then Get MS-DOS.	Get MS-DOS Remove MS-DOS	
	< <u>B</u> ack <u>N</u> ext >	Cancel <u>H</u> elp	

5) Enter Parameters –szeE, and then press the Next button.

🕻 Symantec Ghost Boot Wizard - Client Type	×
Select the type of client to be included in the boot package. The location of the files can be changed if the default install path is incorrect.	
Symantec <u>Ghost</u>	
C Symantec Ghost Console Client	
Program Location	
Ghost.exe C.¥Program Files¥Symantec¥Ghost¥ghost.exe Browse	
Parameters -szeE	
,	
< <u>₿</u> ack <u>N</u> ext > Cancel <u>H</u> elp	

## 6) Press the **Next** button.

💕 Symantec Ghost Boot Wizard - External storage support	x
Ghost has built-in support for accessing external storage devices, such as FireWire, USB or Zip drives.	
USB and FireWire Options Some BIDS's may limit access to USB or FireWire external storage devices. To enable Ghost to override the BIDS and gain full access to these devices, select the appropriate option:	
Override BIOS USB control     Override BIOS EireWire control	
< <u>B</u> ack <u>N</u> ext > Cancel <u>H</u> elp	

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7) Select The IP setting ....., and enter IP address 192.168.0.1 and subnet mask 255.255.255.0. Press the Next button.

💕 Sy	rmantec Ghost Boot	Wizard -	Netwo	ork Set	tings			×
	Enter the network package. Your nel required.	settings fo work adm	or the cl ninistrato	ient that or will be	is to b able to	e booted fron o tell you wha	n this boot at values are	
	C <u>D</u> HCP will assign t	he IP sett	ings					
	• The IP settings wil	be <u>s</u> tatic	ally defi	ned: —				
	First IP Address:	192 .	168 .	0.	1			
	Subnet <u>M</u> ask:	255 .	255 .	255 .	0			
	<u>G</u> ateway:							
	<u>R</u> outer Hops:	16 -						
	<	<u>B</u> ack		ext >		Cancel	<u>H</u> elp	

8) Insert a floppy disk into your PC's FDD, and the Next button.

💕 Syma	ntec Ghost Boot Wizard - Destination Drive	×
	Select the floppy drive that contains the disks that will be created and the number of disks to be created with the current options.	
	You should leave the Format Disk(s) First option checked. This places system files on the boot disk that are required to make it bootable.	
	Floppy Disk <u>D</u> rive: A:	
	Nginber of tisk sets to create.	
	Format Disk(s) First (recommended)	
	🔽 Quick Format	
	<u> </u>	
		_
	< <u>B</u> ack <u>N</u> ext > Cancel <u>H</u> elp	

- 9) Press the **Next** button.
  - In case of selecting AMD PCNET Family:

<u>Client Details</u> Client:	Symantec Ghost	Ê
Destination:	Floppy Drive A:(Two disk set)	
Network Driv	er:	
Template:	AMD PCNET Family	
Driver:	pontnd.dos	
Driver Type:	NDIS2 Driver	
Configuration	Files:	
AUTOEXEC.BAT:		
@echo off		-
A [ TTT - 0110	~~ ~~ I	

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	ot wizaro - Review ings in the details box. To change settings, click Back. n process, click Next.		×
<u>Client Details:</u> Client: Destination:	Symantec Ghost Floppy Drive A:(Two disk set)	<b>^</b>	
<u>Network Driver</u> Template: Driver: Driver Type:	EL90X.DOS NDIS2 Driver		
Configuration F AUTOEXEC.BAT: @echo off		•	
	< <u>B</u> ack <u>N</u> ext> Cancel	<u>H</u> elp	

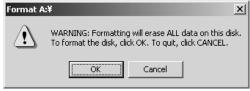
10) Press the **OK** button..



11) Press the **Start** button.

Format A:¥	? ×
Capacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>File</u> system	
FAT	-
Allocation unit size	
Default allocation size	-
Volume label	
Format options	
🔽 Quick Format	
Enable Compression	
[ <u>Start</u> ] <u>C</u> lose	

12) Press the **OK** button.



13) Press the **OK** button.

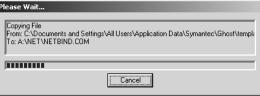


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14) Press the **Close** button.

Format A:¥ ? 🔀
Capacity:
3.5", 1.44MB, 512 bytes/sector
Eile system
FAT
Allocation unit size
Default allocation size
Volume label
Format options
Quick Format
Enable Compression
<u>S</u> tart <u>Close</u>

#### 15) Copying File. Please Wait...



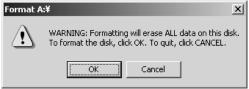
16) Insert the second disk into your PC's FDD, and press OK button.

Ghost Boot Wizard			x
Insert the second disk in the set. Select	: OK to continue, c	r CANCEL to abo	rt creation of the disk set.
	OK Ca	ncel	

17) Press the **Start** button.

Format A:¥	<u>?</u> ×
Capacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>F</u> ile system	
FAT	•
Allocation unit size	
Default allocation size	•
Volume <u>l</u> abel	
	_
Format options	
Quick Format	
Enable Compression	
	_
[]	

18) Press the **OK** button.



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Formattir	ng A:¥	X
•	Format Comp	lete.
	OK )	

## 20) Press the **Close** button.

Format A:¥	? ×
Cagacity:	
3.5", 1.44MB, 512 bytes/sector	•
<u>Fi</u> le system	
FAT	•
Allocation unit size	
Default allocation size	•
Volume label	
Format options	
Quick Format	
<u>S</u> tart	

## 21) Copying File.

Please Wait	
Creating Directory: A:\GHOST\ A:\GHOST\	
ANGHUSTY	
1	
	[Cancel]

## 22) Press the **Finish** button.

💕 Symantec Ghost Boot Wizard - Finished	x
The new Network Boot Disk has been created. Please remove the disk from the floppy drive and press the Start Again button to restart the wizard from the beginning or Finish to exit.	·
Symantec Ghost <sup>™</sup> Boot Wizard	
<u>S</u> tart Again	
Finish Cancel Help	

1) Replace the defective S-S STRG with the new S-S STRG (p/n 04287-65001). Refer to "A27 Mass Storage Disk Drive Replacement" of the 4287A service manual.

#### 3. Connect the 4287A to your PC installed Symantec Ghost directly

1) Connect the 4287A to your PC installed Symantec Ghost directly using a crossed LAN cable (or two straight LAN cables and a Hab for LAN).

#### 4. Set up your PC's IP address and subnet mask

- 1) Double-click "My Computer" icon on Windows desktop of your PC. And double-click Control Panel. The Control Panel window will appear.
- 2) In the Control Panel window, double-click Network and..., and click Local Area Connection.

🔁 Network and Dial-up Connections	- 🗆 ×
Eile Edit View Favorites Iools Advanced Help	
🛛 🕁 Back 🔹 🔿 🖈 💼 🔯 Search 🔮 Folders 🐯 History 🖙 🎼 🔀 🗙 🖄 🧱	
Address D Network and Dial-up Connections	
Make New Connections         Make New Connection         Local Irrea Conne 3Com EtherLink XL 10/100 PCI TX NIC (3C905B-TX)	
This folder contains network connections for this computer, and a wizard to help you create a new connection.	
To create a new connection, click Make New Connection.	
To open a connection, click its icon.	
To access settings and components of a connection, right-click its icon and then click Properties.	
To identify your computer on the network, click <u>Network Identification</u> .	
To add additional networking components, click <u>Add Network</u> <u>Components</u> .	
Select an item to view its description.	
2 object(s)	1.

#### 3) Press the **Properties** button.

Local Area Connec	tion Status	? ×
General		,
Connection Status: Duration:		Connected 22:18:21
Speed:		10.0 Mbps
Activity	Sent — 🕮 n L 🕁	
Packets:	1,292,732	645,784
Properties	<u>D</u> isable	
		<u>C</u> lose

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4) Select **TCP/IP** and press the **Properties** button.

Local Area Connection	Properties	? ×
General		
Connect using:		
3Com EtherLink	XL 10/100 PCI TX NIC	C (3C905B-TX)
		<u>C</u> onfigure
Components checked	are used by this conne	ction:
Install	er Sharing for Microsoft N col (TCP/IP) Uninstall	Properties
wide area network	ol Protocol/Internet Prot protocol that provides c connected networks. bar when connected	
	0	K Cancel

5) Select **Use the following IP address**, and then enter the IP address 192.168.0.2 and subnet mask 255.255.255.0. Press the **OK** button.

Internet Protocol (TCP/IP) Propert	ies ?	×
General		
You can get IP settings assigned auto this capability. Otherwise, you need to the appropriate IP settings.		
O <u>O</u> btain an IP address automatic	ally	
Use the following IP address		
<u>I</u> P address:	192.168.0.2	
S <u>u</u> bnet mask:	255 . 255 . 255 . 0	
Default gateway:		
C Obtain DNS server address auto	omatically	
┌─ ⓒ Use the following DNS server a	ddresses:	
Preferred DNS server:		
Alternate DNS server:	· · ·	
	Ad <u>v</u> anced	
	OK Cancel	

6) Restart your PC.

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## 5. Set up GhostCastServer

1) Insert the CD disk (Operating System for 4287A opt. 011) into your PC's CD drive (or an external CD drive). Then, copy the image file of the CD disk onto your PC's HDD (C drive) as a temporary image file.

- $2) \ Click \ Start-Programs-Symantec \ Ghost-GhostCastServer.$
- 3) Click the **Browse** button.

🇊 Symantec Ghos	tCast Server			_ 🗆 ×
<u>File ⊻iew H</u> elp				
Session Name		Bestore Image	C <u>C</u> reate Image	
Image File			Browse	
© Disk © <u>P</u> artition ┃			<b>T</b>	Less <u>O</u> ptions <<
Client command lin	e options Partition No.		Auto	e start
Command line	Pandon No.	× ×		nt Count
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
				Stop
Speed (MB/min)	MB Transmitted	Time Elapsed	Connected Clients	0
Percent Complete	MB Remaining	Time Remaining	Failed Clients	0

4) If Insert disk dialog box is displayed, click the **Cancel** button.

Insert disk	×
	Please insert a disk into drive D:.
	Cancel

5) Select the temporary image file you copied, and press the **Open** button.

Open					? ×
Look jn:	🔄 4287a_flashin	nage	•	+ € 💣 •	
्रि	ZIZ131113.gho				
History					
Desktop					
My Documents					
マイ コンピュー					
	File <u>n</u> ame:	IZ131113.gho		•	<u>O</u> pen
My Network P	Files of <u>type</u> :	Ghost Images (*.gho)		•	Cancel

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6) Enter session name **kobe** and client count **1**. Then select **Restore Image** and **Disk** 

Symantec Gho	stCast Server - kobe			
ile ⊻iew <u>H</u> elp				
Session Name	kobe	<u> <u>     R</u>estore Image     </u>	○ <u>C</u> reate Imag	je
mage File	C:¥4287a_flashimage¥IZ131113	.gho	Browse	
Djsk <u>Partition</u>			2	Less <u>O</u> ptions <<
Client command I				Auto Start
Disk No. Command line	Partition No.			Client Count 1 Timeout
IP Address	MAC Address	Mode	Status	Accept Clients
				<u>S</u> end
				Stop
ipeed (MB/min)	MB Transmitted	Time Elapsed	Connected Cli	ents 0
	MB Remaining	Time Remaining	Failed Clients	0

7) Click the Accept Client. Then, a message of "Waiting for client to connect..." is displayed.

Session Name	kobe	<u>     B</u> estore Image	C <u>C</u> reate Ima	age
Image File	C:¥4287a_flashimage¥IZ13111	3.gho	Browse	
Djsk C Bartition			2	Less Options <<
- Client command I Disk No.	ne options Partition N	0.		Auto Start
Command line				Timeout
IP Address	MAC Address	Mode	Status	Accept Clients
				Send
				Stop
	MB Transmitted	Time Elapsed	Connected C	lients 0
Speed (MB/min)			Failed Clients	: 0

#### 6. Copy the image file onto the 4287A's S-S STRG

- 1) Connect the external keyboard and mouse to the connectors on the 4287A rear panel.
- 2) Insert the ghost boot disk  $(1^{st} \text{ disk})$  into the FDD of the 4287A.
- 3) Turn the instrument on.
- 4) PC DOS 7.1 Startup Menu is displayed. Then, select 1 and press Enter key.
- 5) Confirm that there are no error messages on the display.
- 6) A message of "Insert Ghost boot disk 2 (containing Ghost.exe). Press any key to continue.." is displayed. Then, insert the disk 2 into the FDD, and press Enter key.
- 7) About Symantec Ghost dialog box is displayed. Then, click the OK button.
- 8) Click Ghost Cast Unicast.
- 9) GhostCast Session Name to Join dialog box is displayed. Enter the session name kobe, select Server IP Address and enter the IP address 192.168.0.2. Then, click the OK button.
- 10) Select local destination drive by clicking on the driver number dialog box is displayed. Then, click the OK button.
- 11) **Destination Drive Details** dialog box is displayed. Confirm that New Size and Old Size of each Label is as follows. Then, click the **OK** button.

Label	New Size	Old Size
HOST FOR C	202	202
USER	40	40
Free	2	2

- 12) Question: (LB22) dialog box is displayed. Then, click the Yes button.
- 13) Progress Indicator dialog box appears.
- 14) In your PC, a message of "GhostCast in progress.." is displayed.

<b>Symantec Gho</b> jle <u>V</u> iew <u>H</u> elp	stCast	5erver - kobe					_ [
Session Name	kobe			<u>B</u> estore Image		C <u>C</u> reate Ir	nage
Image File	C:¥428	7a_flashimage¥IZ13	1113.gh	0		Browse	
Djsk C Partition					7		Less <u>O</u> ptions <<
- Client command Disk No.	line option	ns Partitio	n No.				Auto Start
Command line							Client Count 1 Timeout
IP Address	M/	C Address		Mode		Status	Accept Clients
192.168.0.1	00	10-83-01-08-36		Unicast		n Progress	<u>S</u> end
Speed (MB/min)	79	MB Transmitted	22	Time Elapsed	00:17	7 Connected	Clients 1
Percent Complete	11	MB Remaining	175	Time Remaining	02:1	1 Failed Clien	its 0

- 15) In 4287A display, Clone Complete dialog box is displayed. Then, click the Continue button and Quit.16) Quit Symantec Ghost dialog box is displayed. Then, click the Yes button.
- 17) A CHOST argument is displayed. Then, the 4297 A off
- 17) A:\GHOST> prompt is displayed. Then, turn the 4287A off.
- 18) In your PC, Transfer Complete is displayed. Then, click the OK button.



19) Remove the boot disk from the 4287A's FDD.

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- 7. Perform initial setting for 4287A
- 1) Disconnect the LAN cable from the 4287A.
- 2) Turn the 4287A on.
- 3) System Setting Change Dialog Box is displayed. Then, click the No button.
- 4) Double-click the **NetConf** icon.
- 5) Network adapter window is displayed. Then, click the OK button.
- 6) Success window is displayed. Then, click the **OK** button.
- 7) Double-click the **CheckNetConf** icon.
- 8) Network adapter window is displayed. Then, click the **OK** button.
- 9) Success window is displayed. Then, click the **OK** button.
- 10) Double-click the **4287A RF LCR Meter** icon. Then, confirm that the measurement view is displayed.
- 11) Turn the 4287A off.
- 12) Turn the 4287A on. Then, confirm that the Network Neighborhood icon is displayed.
- 13) Double-click the **4287A RF LCR Meter** icon. Then, click **System LAN SETUP Network Device Disable**.
- 14) Click **System SERVICE MENU MISC MENU SHUTDOWN AS INSTR**. Then, type password "**kid**" and click the **OK**. The 4287A shuts down automatically.
- 15) Turn the 4287A on. Then, confirm that the Instrument Mode is displayed.
- 16) Turn the 4287A off.

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