

Agilent E5070B/E5071B ENA Series RF Network Analyzers

Detect the End of Measurement

Second Edition



Agilent Technologies

No. 16000-95014

August 2002

Notices

The information contained in this document is subject to change without notice.

This document contains proprietary information that is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of Agilent Technologies.

Agilent Technologies Japan, Ltd.

Component Test PGU-Kobe

1-3-2, Murotani, Nishi-ku, Kobe, Hyogo, 651-2241 Japan

MS-DOS®, Windows®, Windows 98, Windows NT®, Visual C++®, Visual Basic®, VBA, Excel and PowerPoint® are U.S. registered trademarks of Microsoft Corporation.

Portions ©Copyright 1996, Microsoft Corporation. All rights reserved.

© Copyright Agilent Technologies Japan, Ltd. 2002

Sample Program

The customer shall have the personal, non-transferable rights to use, copy, or modify SAMPLE PROGRAMS in this manual for the customer's internal operations. The customer shall use the SAMPLE PROGRAMS solely and exclusively for their own purposes and shall not license, lease, market, or distribute the SAMPLE PROGRAMS or modification of any part thereof.

Agilent Technologies shall not be liable for the quality, performance, or behavior of the SAMPLE PROGRAMS. Agilent Technologies especially disclaims any responsibility for the operation of the SAMPLE PROGRAMS to be uninterrupted or error-free. The SAMPLE PROGRAMS are provided AS IS.

AGILENT TECHNOLOGIES DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Agilent Technologies shall not be liable for any infringement of any patent, trademark, copyright, or other proprietary right by the SAMPLE PROGRAMS or their use. Agilent Technologies does not warrant that the SAMPLE PROGRAMS are free from infringements of such rights of third parties. However, Agilent Technologies will not knowingly infringe or deliver software that infringes the patent, trademark, copyright, or other proprietary right of a third party.

Controlling the E5070B/E5071B

Detect the End of Measurement

When you trigger the instrument by issuing the **SCPI.TRIGger.SEquence.SINGLE** object, you can use the **SCPI.IEEE4882.OPC** object to suspend the program until the end of measurement.

The sample program disk contains a sample program, named "meas_sing.vba", that demonstrates how to use the **SCPI.TRIGger.SEquence.SINGLE** object to suspend the program until the end of measurement. This VBA program consists of the following modules:

Object name	Module type	Content
frmSingMeas	UserForm	Uses the SCPI.TRIGger.SEquence.SINGLE and SCPI.IEEE4882.OPC objects to suspend the program until the end of measurement.
mdlSingMeas	Standard module	Invokes a UserForm.

In Visual Basic Editor, open the UserForm (object name:frmSingMeas), and double-click the **Meas** or **Exit** button to bring up the code window. The following is the description of the subprograms associated with the respective buttons.

Procedure called when the user clicks the **Exit** button on the UserForm (lines 10 to 50)

Line 30 Unloads the UserForm from the memory, and terminates the program.

Procedure called when the user clicks the **Meas** button on the UserForm (lines 70 to 330)

Line 110 Hides the UserForm (object name: frmSingMeas) from the screen.

Line 130 Displays 9 channel windows.

Line 140 Sets the trigger source to "bus".

Lines 160 to 240 These lines turn on or off Continuous Activation mode for each channel depending on whether the corresponding option buttons are on or off. By default, the mode is turned on for channel 1 only.

Line 260 Triggers the instrument to start a measurement cycle.

Line 270 Executes the **SCPI.IEEE4882.OPC** object to suspend the program until the value of 1 is returned indicating the end of measurement.

Line 290 Displays a measurement completion message.

Line 310 Displays the UserForm (object name: frmSingMeas) on the screen.

Example**Using the SCPI.TRIGger.SEquence.SINGLE object to suspend the program until the end of measurement (object name:frmSingMeas)**

```
10| Private Sub cmdExit_Click()  
20|  
30|     Unload Me  
40|  
50| End Sub  
60|  
70| Private Sub cmdMeas_Click()  
80|  
90|     Dim Dmy As Long  
100|  
110|     frmSingMeas.Hide  
120|  
130|     SCPI.DISPlay.Split = "d123_456_789"  
140|     SCPI.TRIGger.SEquence.Source = "bus"  
150|  
160|     SCPI.INITiate(1).CONTinuous = optOn1.Value  
170|     SCPI.INITiate(2).CONTinuous = optOn2.Value  
180|     SCPI.INITiate(3).CONTinuous = optOn3.Value  
190|     SCPI.INITiate(4).CONTinuous = optOn4.Value  
200|     SCPI.INITiate(5).CONTinuous = optOn5.Value  
210|     SCPI.INITiate(6).CONTinuous = optOn6.Value  
220|     SCPI.INITiate(7).CONTinuous = optOn7.Value  
230|     SCPI.INITiate(8).CONTinuous = optOn8.Value  
240|     SCPI.INITiate(9).CONTinuous = optOn9.Value  
250|  
260|     SCPI.TRIGger.SEquence.SINGLE  
270|     Dmy = SCPI.IEEE4882.OPC  
280|  
290|     MsgBox "Measurement Completion"  
300|  
310|     frmSingMeas.Show  
320|  
330| End Sub
```
