Anritsu envision : ensure

PAM4 Phase Adjustment Software for G0374A

Signal Quality Analyzer MP1800A Series

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1 What is PAM4 Phase Adjustment Software for G0374A

This software enables automatic phase adjustment between MP1800A and G0374A. This software can be downloaded the following URL for freely.

https://www.anritsu.com/en-us/test-measurement/support/downloads?model=MP1800A

2 Install PAM4 Phase Adjustment Software for G0374A.

This software only supports <u>Windows 7</u>; it does not run under Windows XP. Confirm the OS version before installing.

[Case 1]: Installing in MP1800A

[Case 2]: Installing in PC



3 Setting MP1800A IP Address to 192.168.xx.yy

Set the MP1800A IP address to 192.168.xx.yy (where xx and yy can be any number less than 254). Set Subnet Mask to 255.255.255.0.

4 Setting 86100D IP Address to 192.168.xx.zz.

Set the 86100D IP address to 192.168.xx.zz (where xx is the same number as set in step 3 and zz is any number less than 254 but not the same number as yy set in step 3).

Local Area Connection Status	Local Area Connection Properties	Internet Protocol Version 4 (TCP/IPv4) Properties
General	Networking Sharing	General
ConnectionNo netv	Connect using:	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
IPv6 Connectivity: No netv	Castana	Obtain an IP address automatically
Duration:	This connection uses the following items:	Use the following IP address:
Speed:	Clant for Microsoft Networks	IP address: 192 . 168 . 0 . 10
Details	Belle and Printer Sharing for Microsoft Networks Belle and Printer Sharing for Microsoft Networks Bos Packet Scheduler	Subnet mask: 255 . 255 . 0
	Link-Layer Topology Discovery Mapper I/O Driver	Default gateway: 192 . 168 . 0 . 1
Activity Sent Magnetic Sent _	A. Link-Layer Topology Discovery Responder A. Relable Maticase Horocol A. Internet Protocol Version 6 (TCP/IPv6) A. Internet Protocol Version 4 (TCP/IPv4) Install. Uninstal Properties Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol/Internet Protocol. The default wide area network protocol/Internet Protocol. The default wide area network protocol/Internet Protocol.	Obtain DNS server address automatically Use the following DNS server addresses: Preferred DNS server: Alternate DNS server: Validate settings upon exit Advanced
12 items See also HomeGrou Internet Op	OK Cano P Troubleshoot problems Diagnose and repair network	OK Cancel
Windows F	irewall	TECHNOLOGIES
	C	opyright 2014, Keysight Technologies. Il rights reserved.
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Start the <u>FlexDCA software</u> and select Tools > SCPI Programming Tools > SCPI Server Setup. Set the port number for the oscilloscope control software. The default is 5025.

Oscillosco	ope 🔆 File Setup	Measu	re Tools Apps	Help	Auto Scale Run Stop Clear	
	SCPI Server Setup	_				? Close
	The following interfaces are available Interface	ailable to r Enabled	emotely control this soft VISA	tware: Address	SICL Address	
Rise Time	GPIB (Address 7)	 Image: A start of the start of	GPIB0::7::INSTR		gpib0,7	Setup
1	VXI-11 ("inst0", Address 7)	✓	TCPIP0::AGILENT-BO	C9709::inst0::INSTR	lan[AGILENT-B0C9709]:inst0	Setup
Fall Time	Telnet (Port 5024)	\checkmark	(not applicable)		(not applicable)	Setup
	Sockets (Port 5025)	\checkmark	TCPIP0::AGILENT-B00	C9709::5025::SOCKET	lan,5025[AGILENT-B0C9709]	Setup
Jitter	HiSLIP ("hislip0", Port 4880)	\checkmark	TCPIP0::AGILENT-B00	C9709::hislip0,4880::INSTR	Sockets Interface Setup	Setup
Period Period A Time					Port: 5025 V	
More (1/3)	ion Timebase	87.3 mV/ -223.65 m\ 100.0 mV/ 0 V	,)	Timebase 40.00 ps/ Pos: 24.05160 ns	Acquisition Full Pattern: Off 2048 pts/wfm	Math Signals

5 Installing NI-VISA Software

[Case 1] Install the visa462full.exe (NI-VISA 4.6.2) in the MP1800A.

[Case 2] Install the visa462full.exe (NI-VISA 4.6.2) in the PC.

Download the NI-VISA software from the following URL.

http://www.ni.com/download

6 Adding Network Device



- 1. Start NI-Measurement&Automation Explorer.
- 2. Right-click [Network Devices] and click [Create New VISA TCP/IP Resource...].



- 3. Select [Manual Entry of Raw Socket] and click [Next >].
- 4. Input the following values for Hostname or IP address, and Port Number and click [Next >].

	MP1800A		86100D	
	IP Address	Port	IP Address	Port
Case 1	127.0.0.1 or 192.168.xx.yy	5001*	192.168.xx.zz	5025**
Case 2	192.168.xx.yy	5001*	192.168.xx.zz	5025**

*The MX180000A default Port is 5001.

**The 86100D control software default Port is 5025.

7 Setting MP1800A and DCA

• 86100D DCA-X

Precision Time Base Module (Slot 1)

70 GHz Sampling Module (Slot 2: CH3/4) ... Use CH3

• MP1800A

The required module settings for the MP1800A is limited as listed below.

Slot No.	Module		
Slot 1	MU183020A		
Slot 2	MU183020A		
Slot 3	None/MU183040A/B/MU181500B		
Slot 4	None/MU183040A/B/MU181500B		
Slot 5	MU181000A/B		
Slot 6	MU181000A/B		

The required module settings and 86100D options are listed below

	Module	
86107A		
86118A		

8 Connecting Instruments

Connect the MP1800A and 86100D as shown in the following diagram.



MU183020A Connection

MU183021A Connection

9 Running PAM4 Phase Adjustment Software for G0374A



- 1. Select PAM4 Phase Adjustment Software for G0374A at Application Selector.
- 2. Click [Start].

10 Setting Network Device (Equipment Setup)

PAM4 Phase Adjustment Software for G0374A File Setup Help Environment Software	×
AUX Output (1/4 Clock Output) UB Time Base UB Time Base UB Time Base Stot 1 UB Time Base Trigger AUX Output (1/64 Clock Output)	MP1800A TCPIP0::127.0.0.1::5000::SOCKET • 86100D TCPIP0::127.0.0.1::5000::SOCKET •
	Search Start Connect

- 1. Select the network device created in step 6.
- 2. Click [Search Start] and then click [Connect].

11 Setting Target Baud-Rate and Starting Adjustment

Set a checkmark in the Target Baud-rate and click [Start Adjustment]. The software starts phase adjustment.

PAM4 Phase Adjustment Software for G0374A	
-ile Setup Help (Synchronized setting OFF
Equipment Setup Delay Adjustment With DCA	
Auto Adjustment	
Target Baud-rate ☐ 26.5625Gbaud	Initialize Instrument Before Start
✓ 53.125Gbaud	64Gbaud Start Adjustment
10G to 64Gbaud with 1G step	
☑ Manual 60 🛒 Gbaud	Stop Adjustment
PPG Data Delay	Serial Number Info
- Gb	G0374A 0000000
Channel1 mL	JI MP1800A
Channel2 ml	JI MU183020A_No1
Channel3 mL	JI MU183020A_No2
Channel4 ml	JI
Transfer to MP1800A	

12 Displaying Adjustment Results

Click [Transfer to MP1800A] to set the bit rate and adjusted delay at the MP1800A.

Auto Adjustment				
Target Baud-rate	2	Initializa Instrument Refere Start		
 26.5625Gba 53.125Gba 	□ 26.5625Gbaud □ 28Gbaud □ 53.125Gbaud □ 56Gbaud □ 64Gbaud			t before start
10G to 64G	baud with 1G step			
🗖 Manual	0 <mark>.</mark> Gba	Stop		
PPG Data Delay		Serial Number Info		
	26.5625 -	Gbaud	G0374A	
Channel1	-332	mUI	MP1800A	
Channel2	-334	mUI	MU183020A_No1	
Channel3	-300	mUI	MU183020A_No2	
Channel4	-310	mUI		
Tra	nsfer to MP1800A			

After displaying the results, cut the DCA connection and connect the DUT.

Pre-adjusting and saving the phase setting at each baud rate using this software reduces the amount of adjustment work.

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