TAA-1ETMP1800A0744

G0376A Control Software Operation Manual

1 Outline

This software performs remote control over USB of the G0376A 32Gbaud PAM4 Decoder with CTLE (hereafter G0376A) to set the Output Gain..
This software can control up to four G0376A units.

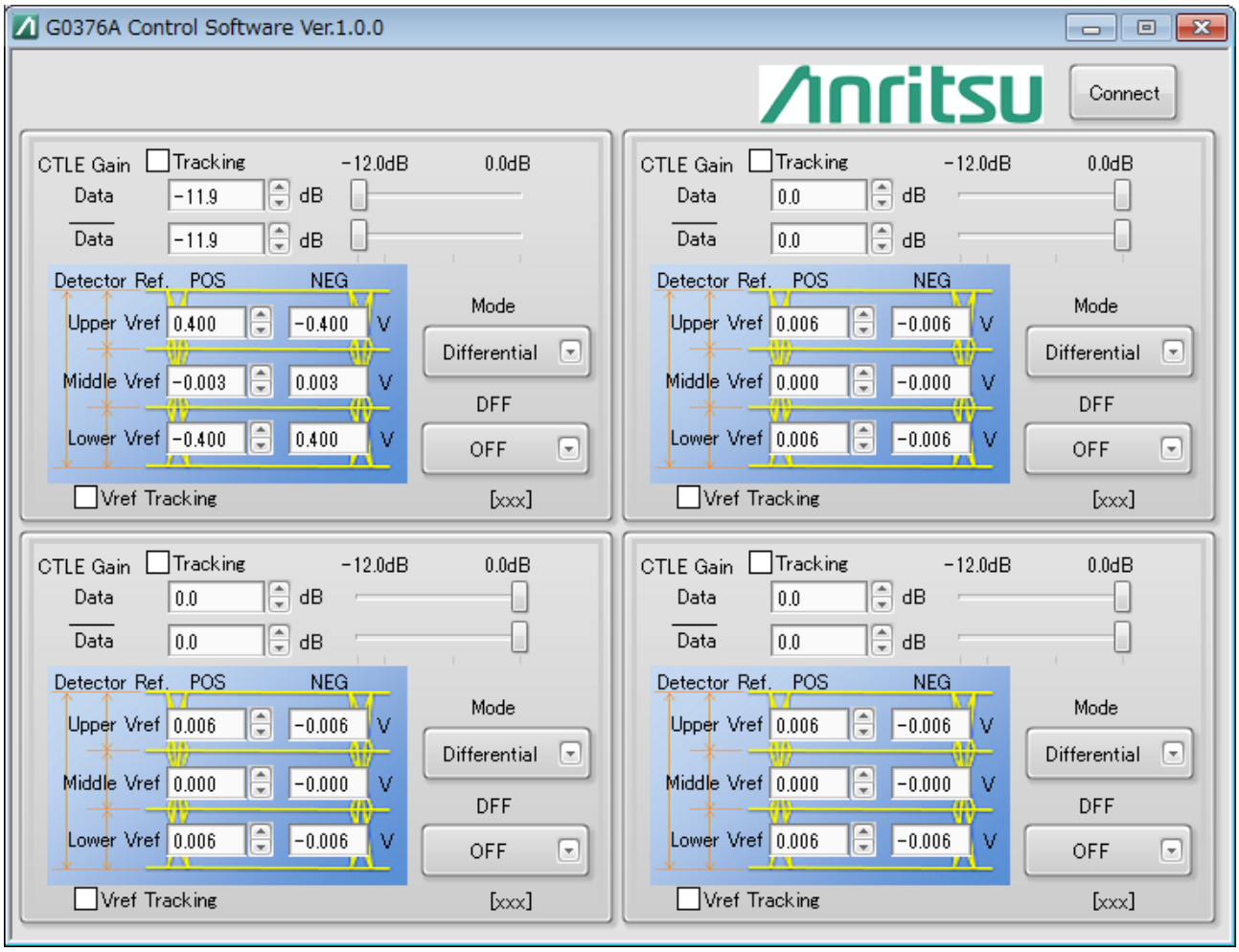


Figure 1-1 G0376A Control Software display

2 Installing/Uninstalling

2.1 Installing

Decompress the file labelled “G0375_6A_Control_Software_Vxxx.zip” and copy the resulting folder labelled “Installer_Vxxx” to the MP1800A. Then double-click the “setup.exe” file in the copied folder to run the install. (xxx in Vxxx indicates the version. For example, Version 1.0.1 is displayed as V101.)

Note:

・ At first installation of this software, about 30 minutes is required to install the NI-VISA Runtime.
・ About 1 GB of free HDD space is required to install this software.

2.2 Uninstalling

Double-click the installer .exe file and select [Remove]. Alternatively, run the software uninstaller from the Windows Control Panel.

Note:

This software uninstaller does not uninstall the NI-VISA Runtime.

2.3 Version Upgrade

Install version upgrades after first uninstalling the old software version as described above.

3 Usage

This section explains the G0376A configuration mounted in the MP1800A. The option configuration and used instruments are listed below.

- G0376A
- MP1800A-015
- MU181000A
- MU183040B-x20 + x22
- G0375A with MU183020A

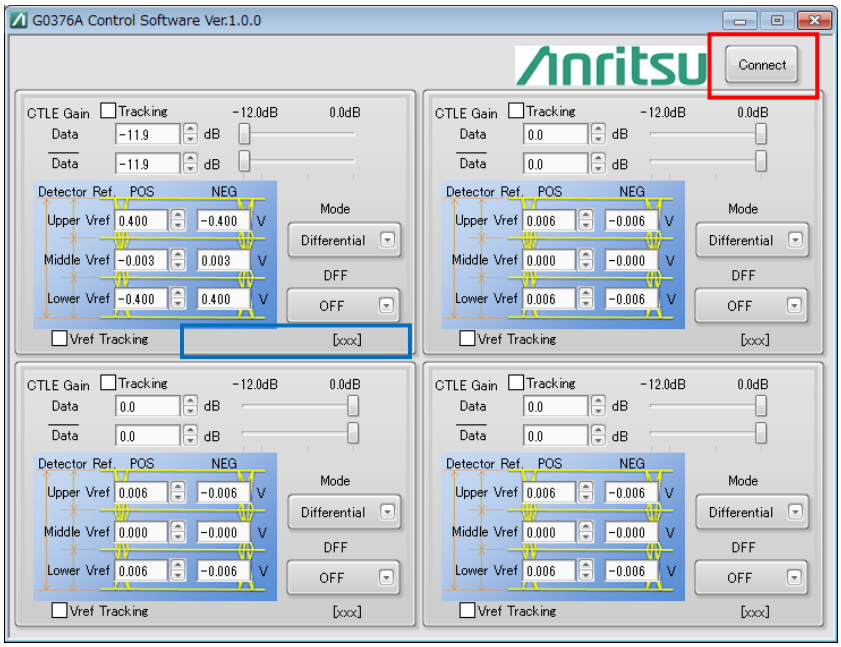
3.1 Connecting with G0376A

1. Set-up the connections.
Power-on the G0376A and connect to the MP1800A using the USB cable. Refer to the G0375A/G0376A Quick Guide for details of the 32G ED and G0376A connections.

2. Start the software.
Double-click the icon to start the G0376A Control Software.

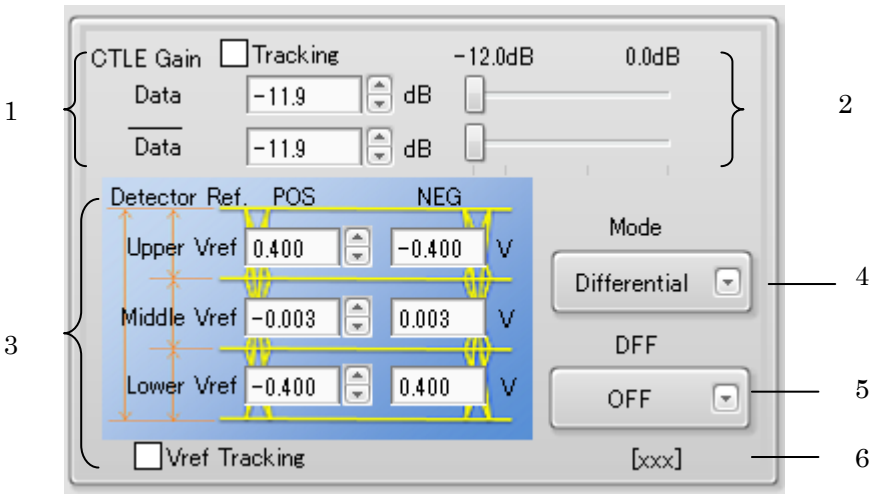
3. Click the [Connect] button.
When the software detects the G0376A, the serial number of the controlled G0376A is displayed.

4. After use, quit the software.
Double-click the × button to quit the software.



3.2 Setting CTLE and Decoder

This section explains how to set the CTLE Gain and the Decoder conditions using this software.



1. Set the Gain (input numeric values).
   Set the Gain for each of Data and $\overline{\text{Data}}$.
   Setting Range: 0.0 to –12.0 dB in 0.1 dB steps
   Default Value: 0.0 dB

   When the Tracking checkbox is checked (ON), the $\overline{\text{Data}}$ setting tracks the Data setting.

2. Set the Gain (slider setting).
   Use the mouse to drag the slider to input values.

3. Set Detector Reference.
   Set the Upper/Middle/Lower Threshold voltages for the input PAM4 signal. The POS setting can also be set. The NEG setting sets a value that is the inverse of the POS setting.
   Setting Range: 0.400 to –0.400 V in 0.001 V steps
   Default Value: Upper = 0.100 V, Middle = 0.000 V, Lower = –0.100 V

   When the Tracking checkbox is checked (ON), the Lower setting follows the Upper setting and the +/– inverted value is set.

4. Select the PAM4 signal input mode.
   Either Differential or Single-end can be selected for the input PAM4 signal.
   Default Value: Differential

5. Set DFF.
   Select the DFF ON/OFF setting for retiming the Decoder Output using the External Clock.
   Default Value: OFF

6. Display the G0376A serial number.
   The serial number of the G0376A is displayed in the GUI. When controlling two or more G0376A units, to identify which unit is controlled, confirm that the serial number of the G0376A unit matches the serial number displayed by the GUI.