



CaIMAN

Setup Guide

Quantum Data 70x/80x Series

Video Generators

Rev. 1.1

Introduction

The Quantum Data 70x and 80x Video Generator test patterns can be automatically controlled by CalMAN Display Calibration Software. The generators provide test patterns for visual performance evaluation, grayscale luminance ramp calibration, color gamut (CMS) calibration, and validation measurements of white, primary, and secondary luminance ramps. These generators do not provide RGB triplet support.

These generators cannot provide test patterns for saturation sweeps, ColorChecker patterns, or 3D LUT calibration.

Note: The QD 804B controls its window pattern size and the luminance/color of the window, but does not control the background of the window pattern. When you select APL patterns or the Window 4-40 pattern with the 804B, it produces a constant black background instead of the expected background.

CalMAN Required Version

- Version 5.6.0 or later
- Version 5.6.1 adds HDR10 support for QD 804 pattern generator (no 804b HDR10 support at this time)

CalMAN Recommended Workflows

- All measurement and calibration workflows except *ColorMatch* and *Color Cube*.

Quantum Data Generator Required Firmware

- All firmware versions are acceptable
- QD 804 requires firmware version 15092260 or higher to support HDR10 patterns

Quantum Data Generator Control Port

- RS-232 Serial

Quantum Data Generator Computer Connection

- Connect the Quantum Data generator to the computer with a null modem serial cable and, if necessary, a USB to serial converter.

- If a USB to serial converter is used, be sure that the proper USB driver is installed for the converter. If necessary, install the SpectraCal Device Driver Pack from this link:
<http://www.spectracal.com/download.php?id=3>

Note: See the following guide on USB to Serial Converters.

http://www.spectracal.com/Documents/QSGs/FTDI_USB_to_Serial_SetupGuide.pdf

CalMAN Connection Procedure

CalMAN Source Connect

1. On the *CalMAN Source Settings* tab, click “Find Source.”
2. On the *Find Source* dialog (Figure 1), select “Quantum Data” as the Manufacturer.
3. Select the *Model* to match your Quantum Data generator.
4. Select the *Com Port* that is assigned to the connected generator (check this in Windows Device Manager).

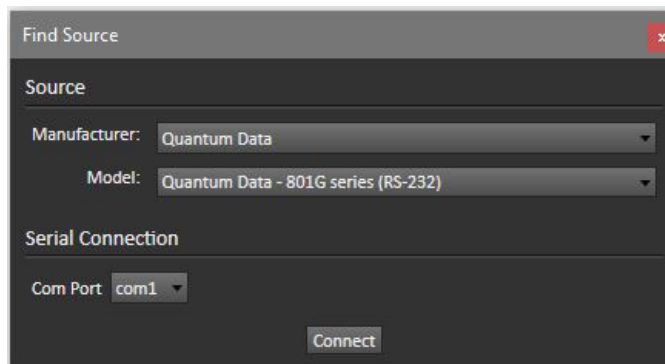


Figure 1. CalMAN Find Source dialog, for connecting to the Quantum Data generator as a CalMAN test pattern source.

5. Click *Connect* on the *Find Source* dialog.

CalMAN Source Settings Tab

The *CalMAN Source Settings* tab (Figure 2) provides *Source Information* and *Settings* for the connected Quantum Data Video Generator.

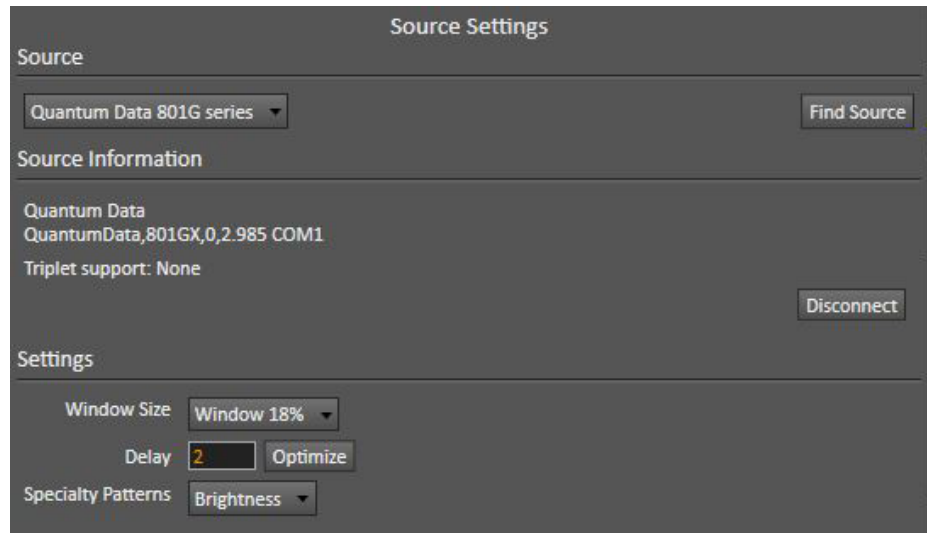


Figure 2. CalMAN Source Settings tab, for selecting generator setup options.

Settings

Window Size

Select the desired test pattern size and type from the Window Size selection box.

Note: For Plasma and CRT displays, Constant APL 50 works well.

Delay

CalMAN provides a default measurement delay time of 2 seconds to accommodate the test pattern settling time of the Quantum Data generator and an attached display. To optimize the delay time for a particular configuration, potentially speeding up all measurement times, click the *Optimize* button.

Specialty Patterns

The pattern selection field allows you to manually select patterns from the Quantum Data generator for visual display evaluation (not for automated measurements or calibration).

About / Contact

About Portrait Displays

Portrait Displays, Inc., since 1993, is a leading application software provider (ASP) for PC, smartphone, and tablet displays. The Portrait Displays team now includes **SpectraCal**, the world's leading provider of video display calibration software. The combined companies offer value-added, feature-rich solutions to both OEM display manufacturers and end users seeking improved accuracy and manageability of their displays.

Portrait Displays, an Intel Capital Portfolio company, is a private corporation with headquarters in Pleasanton, California, USA with representatives in Europe, Taiwan, China, Japan, and Korea.

Contact Us

SpectraCal

Submit a Technical Support Request:

<http://calman.spectracal.com/techsupport.html>

spectracal.com

sales@spectracal.com

+1-925-227-2700

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Portrait Displays, Inc.

6663 Owens Drive

Pleasanton, CA 94588 USA

portrait.com