

Feasa Display Analyser



Quickstart Guide



Feasa Enterprises Ltd,
Holland Road,
National Technology Park,
Castletroy,
Limerick,
Ireland.

www.feasa.ie

Email: sales@feasa.ie

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Feasa Display Analyser



About this Manual

Feasa operates a policy of continuous development. Feasa reserves the right to make changes and improvements to any of the products described in this document without prior notice.

Feasa reserves the right to revise this document or withdraw it at any time without prior notice.

This manual is written for the Feasa Display Analyser.

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Feasa Display Analyser



Introduction

The Feasa Display Analyser is a multi channel instrument that can be used to test displays.

It has been specifically designed to test displays in a Manufacturing environment.

The Display Analyser is supplied with Display Luminance Heads (DL) which are used to measure brightness and color of different areas across a display.

LED test and measurement functions have been incorporated into the Display Analyser so that a minimum of data processing is required.

A USB interface is included in the device for computer access. Power for the Spectrometer is derived from the USB Interface. A RS232 interface is available as well, a 5 V 200 mA power supply is needed in this case.

Safety Instructions

Safety precautions should be implemented when testing LEDs. Care should be taken to avoid adverse effects on the human body caused by light stimulation.

Eye protection should be worn especially when testing high power LEDs.

Never look directly into the optical parts or fibers since light can be coupled from the other end.

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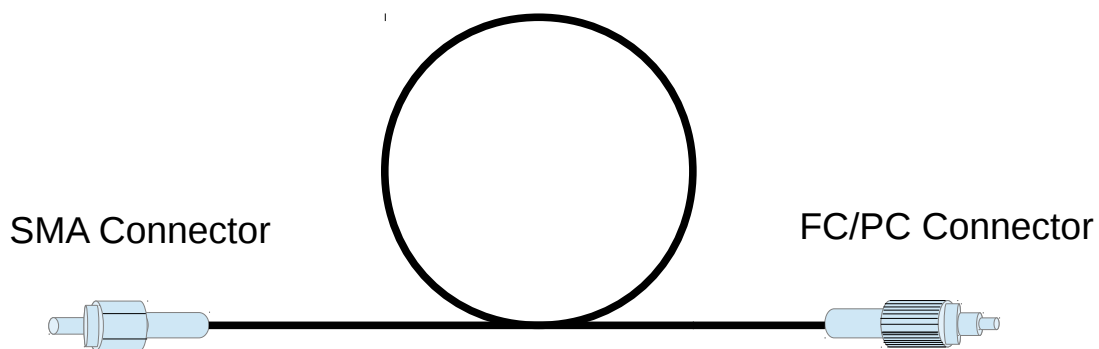
Assembly Instructions

The Feasa Display Analyser comprises the following parts:-

Display Analyser Sensor module
USB Cable
Fiber Patch Cords
Display Luminance Heads (DL)
CD

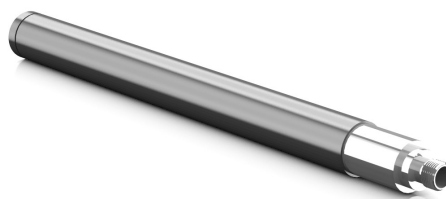
- 1/ Remove the items from the Transport Case.
- 2/ Locate the CD and install all the software on to a PC.
- 3/ Plug one end of the USB Cable into the Display Analyser and plug the other end into a free slot on the PC.
- 4/ The USB driver will take a few moments to detect the Display Analyser.
- 5/ Connect every Fiber Patch Cords SMA Connectors to the Display Analyser Sensor module on its corresponding channel. Please ensure the patch cord serial number connects to the corresponding channel number. Tighten the screw by hand.
- 6/ Connect the FC/PC connectors of the Fiber Patch Cords to the corresponding Display Luminance Heads. Please ensure that the Connector is correctly located. Verify the patch cord serial number connects to the corresponding channel number. Tighten the screw by hand.
- 7/ Start the Feasa Display Analyser Software and click on the *Connect* button.
- 8/ The Display Analyser should be calibrated with a known good Display that has been measured with the Feasa Led Spectrometer and Luminance Head. The program UserCal is supplied on the CD and should be used to calibrate the Display Analyser before use.

Fiber Patch Cord



Connect the SMA Connector to the Display Analyser Sensor module and the FC/PC Connector to the Display Luminance Head (DL). Do not over-tighten the connectors.

Display Luminance Head



Connect the FC/PC end of the Patch cord to the Display Analyser Sensor module. Do not over-tighten the connectors.

Feasa Display Analyser



Display analyser Software

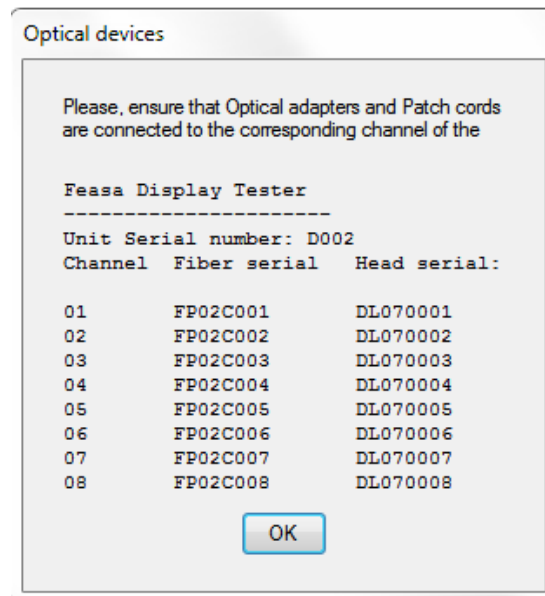
Select the Display Analyser software from:

Start→Programs→Feasa Display Analyser→Display Analyser→Display Analyser



Click on Connect button to open the connection with the Display Analyser. The channel status window appears and indicates the serial numbers for the Fiber Optic Patch Cords and the Display Luminance Heads corresponding to every channel number.

Feasa Display Analyser



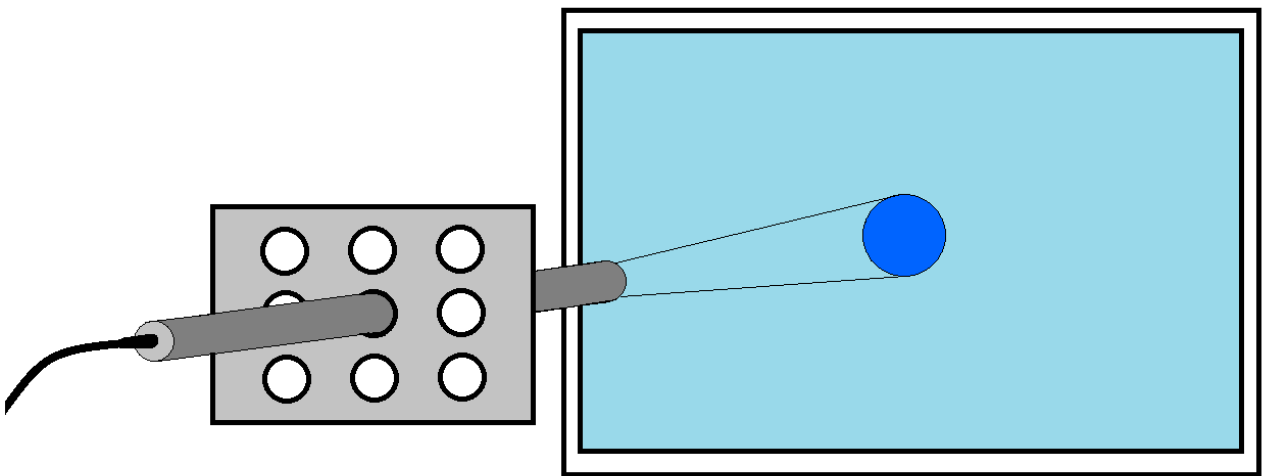
Once the Display Tester is connected to your PC, you can capture and obtain the results from every channel.

Click the Capture button to measure the display. There are 5 different ranges (from low to ultra) that allow you to select the proper brightness level. The Auto range automatically selects the proper range to be used.

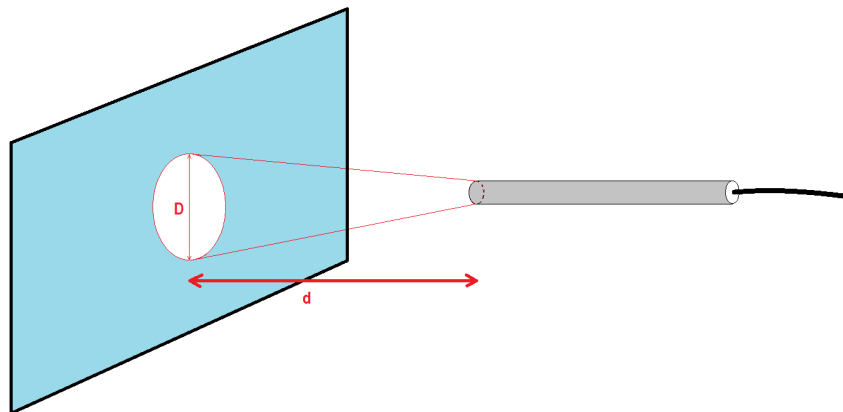
Refer to the User Manual for a full list of different functions.

Display Analyser fixturing

The Display Luminance Heads have to be positioned forming a 90° angle with the surface of the display. At a particular distance from the display (1 mm to 500 mm), they project a measurement disc on the surface of the display. Different number of channels can be placed to cover the measurement desired areas.



The diameter D of the projected disc on the display surface is given by:



$$D = 7.1 + 0.067d \text{ (mm)}$$

Where d is the distance from the end of the Display Luminance Head and the surface of the display.
0.067 corresponds to an angle of acceptance θ of 1.9°.