Brilliant Mix System Description

Demo-Kit for Evaluation Purposes

Made in Germany





Datasheet

The Brilliant Mix Demo Kit has been made exclusively for Osram OS to show their customers all benefits of this universal and unique tunable white color mixing system. It is test equipment for professional use only, and may not be used for any other purposes under any circumstances.

The Demo-Kit consists of each one Brilliant-Mix-Controller, Multi-Channel-Driver, Light-Engine and the RGB-Color-Sensor, which is optional to show the full performance of a closed loop color regulation. This four modules are assembled on a subplate and fully wired to each other. Light Engine and RGB-Sensor are brought together in a color-mixture-box, which in this case for demonstration purposes has been made as a cardboard box. The cover of this box is furnished with a light emitting aperture, which is covered by a thin spreading disc. This fully equipped Evaluation Kit allows customers to do first investigations with the Brilliant Mix System for subsequently use their application purposes. Very helpful is the PC-GUI–Program ,PC-Graph' and the ,Brilliant-Mix-Adaptor-Cable-Kit', which allows users operating the controller as well in the DemoKit as in their own applications by his PC.

This description should be used additionally to the ,Quick-Start-Manual', which is available at www.elec-con.com. This description is intended to provide more detailed information to users who have already started up with the Demo-Kit and now plan to do their own steps towards their application. Therefore it is recommended to order our special ,Investigation Kits' (see Ordering Information), which supports the user designing his own high-end lighting system.

Block-Diagram:



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Explanatory Notes on Brilliant-Mix Block Diagram:

For operating a Brilliant-Mix-Lighting-System an external power supply unit (ACDC-Converter) is necessary, which lies in full responsibility of the user. The Brilliant-Mix standard system can be operated with voltages between 18V and 40VDC. The min. Output-Power should be 20W. In user's own lighting systems other requirements concerning the PSU may come up, depending from configuration and number of connected Light Engines. Make sure that the PSU in any cases fulfills all requirements concerning safety, EMC, etc.!! Each Controller-Board can drive up to three Driver-Modules. Therefore the drivers need to be connected in parallel to the DC-Power-Rail and to the PWM-Outputs of the Controller-Board, too. The overall-length of the lines should be kept as short as possible. In an application it should not exceed 1m.

Each Driver-Module can drive up to three Brilliant-Mix Standard-Light-Engines (equipped with 4x4 LED's each). Therefore the Light-Engines need to be connected in series to the Driver-Module. Each Driver-Module is furnished with a temperature-sensor. Choose one of the temperature-sensors and connect it to the controller to enable Brilliant-Mix to run tunable white in the very effectively closed loop temperature controlled mode. The overall-length of the lines should be kept as short as possible. In an application it should not exceed 0,7m The RGB-Color-Sensor is optionally. It is connected by a I²C by means of a ribbon-cable to the controller. This sensor is necessary to run the closed loop RGB controlled mode.

Key-Performance Characteristics:





Datasheet

Note:

For more information refer to the Brilliant-Mix ,Component-Datasheets' for Controller, Driver and Light-Engine at www.elec-con.com All information do only serve as a description of this product.

No features are guaranteed, nor a committment for the suitability for any specific applications is inherited. We reserve the right for any technical modification.

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Typical curve @ Tu = 25°C / 55%rh, Dimm 100%

6500

1250

6500

6000

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96



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Mechanical Dimensions:

Dim. in mm	I.	В	h
Controller-Board	120,5	40,5	15
Driver-Module	120,5	40,5	15
Light-Engine	46	35	5
RGB-Sensor-Module	45	15	17

Electrical Characteristics:

 $V_{\rm cc}$ = 19VDC ... 40 (45)VDC; SELV-Condition of AC-Adaptor MUST be provided!! DC-Coaxial-Connector 5,5 x 2,5 mm

Environmental Characteristics:

Operating Temperature: -5...45°C Storage Temperature: -15...50°C

Ordering Information:

Ordering-Code	Туре:
BMC-I-Kit 1	Brilliant-Mix Investigation Kit*
BMC-I-Kit 2	dto. Incl. BM-Adapter-Cable-Kit

Notes: A Brilliant-Mix-Investigation-Kit consists of: 1 Brilliant-Mix Controller-Board, 1 Driver-Module, 1 Light-Engine. RGB-Sensor is NOT included.

Note:

For more information refer to the Brilliant-Mix ,Component-Datasheets' for Controller, Driver and Light-Engine at www.elec-con.com All information do only serve as a description of this product.

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