GEW GBBMD1U
GEW GBCLD1U

Product Information

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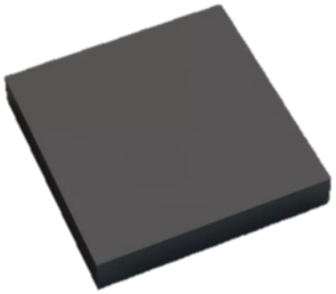
EVIYOS™ Shape

GEW GBBMD1U
GEW GBCLD1U

OSRAM EVIYOS™

Companion ASIC



ams OSRAM offers with EVIYOS™ Shape an advanced µLED-based light source that enables various illumination and projection applications with 25600 individually controllable pixels (aspect ratio of 1:4).

Please note, that this product is only available as product set. The EVIYOS™ Shape LED will be delivered together with a Companion ASIC.

Applications

- 3D Sensing
- Entertainment
- Medical Imaging
- Outdoor & Industrial Lighting
- Projection & Display
- Visualization

Features

- 25600 pixels arranged in 80 lines x 320 columns (GEW GBBMD1U)
- 19200 pixels arranged in 80 lines x 240 columns (GEW GBCLD1U)
- Pixel pitch 40 µm
- Target Color Bin: Cx: 0.32; Cy: 0.33
- Wide operating temperature range of Tj = -40 °C to 125 °C for Companion ASIC
- Wide operating temperature range of Tj = -40 °C to 150 °C for the EVIYOS™ Shape

General Description

The EVIYOS™ Shape is an advanced intelligent multi pixel light source solution with an LED driver IC. It is ideally suited for applications in the fields of architainment, entertainment, machine vision, and dynamic gobo/logo projection. Each of the 25600 pixels can be controlled individually.

The light source can be used in combination with a digital Companion ASIC having UART, RGB8, and SPI in video interface option.

The 25600 pixels are arranged in an aspect ratio of 1:4 (GEW GBBMD1U) having 80 lines and 320 columns. The EVIYOS™ Shape is also available with an aspect ratio of 1:3 (GEW GBCLD1U). In that case 80 lines and 240 columns of the EVIYOS™Shape are used.

Ordering Information

Type	Luminance[1)3)] Lv @ 1.97 mA	Ordering Code
GEW GBBMD1U[2)]	80…100 MNits	Q65113A9921

Notes

1) *Measured at nominal current at room temperature*
2) *Aspect ratio 1:4*
3) *Values are after brightness correction*

Type	Luminance[1)3)] Lv @ 1.97 mA	Ordering Code
GEW GBCLD1U[2)]	80…100 MNits	Q65113A9922

Notes

1) *Measured at nominal current at room temperature*
2) *Aspect ratio 1:3*
3) *Values are after brightness correction*

Type	Ordering Code
KEW GBXXD1U[1)]	Q65113A7604

Notes

1) *Companion ASIC*

Dimensional Drawing

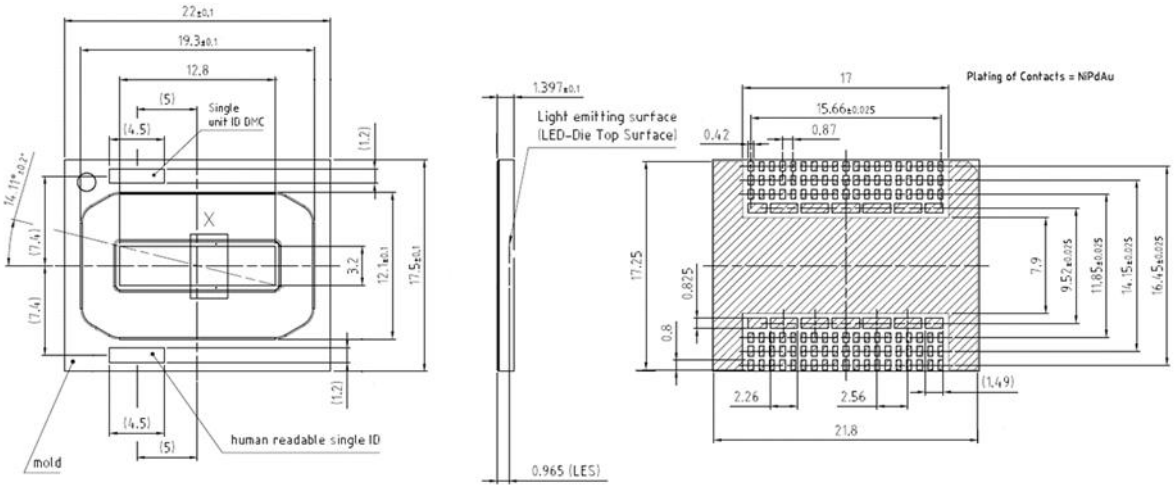


Figure 1: Top, Side, and Bottom Package view

Tolerance of Measure: Unless otherwise noted in drawing, tolerances are specified with ±0.05 and dimensions are specified in mm.

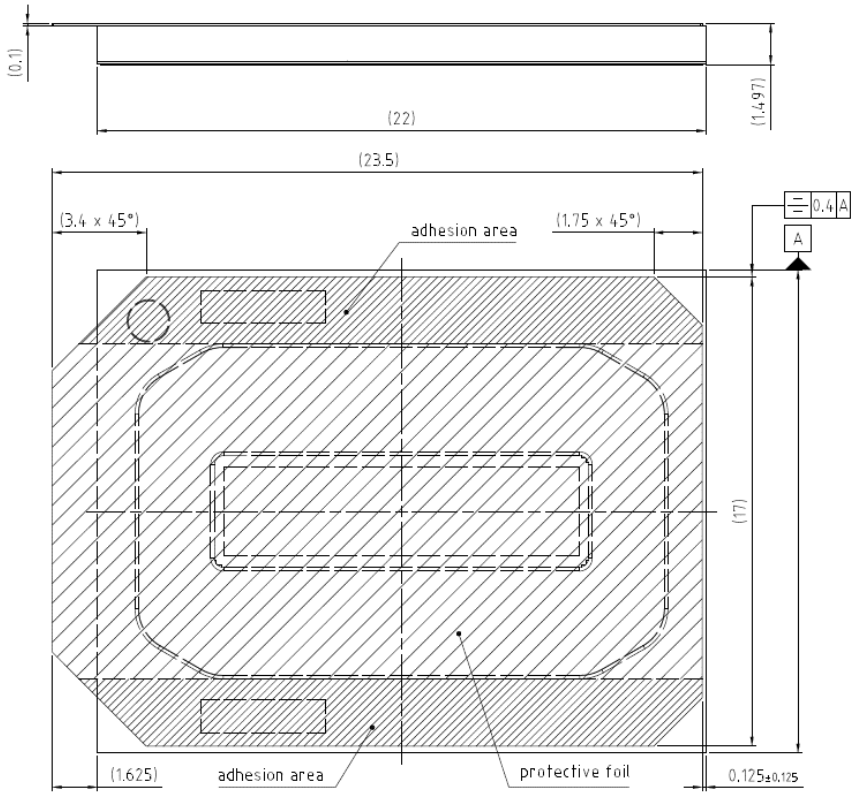


Figure 2: Cover Tape - TOP and Side View

Approximate Weight: 1 g
Corrosion Robustness Class: 3B

Electrooptical Characteristics

Parameter	Symbol		Values	Unit	Comment
Color homogeneity	ΔCx	max.	0.01		Judgement acc. to hexagon shaped color box – refer to Figure 10
	ΔCy	max.	0.02		Judgement acc. to hexagon shaped color box – refer to Figure 10
Viewing angle at 50% Iv (Full Angle)		typ.	120	°	
Pixel Pitch		typ.	0.04	mm	
Light emitting area	A		12.8 x 3.2	mm^2	
Luminance [1)]	L_v	typ.	85	Mnits	Median luminance of device
Contrast measured at first pixel after 160µm from edge of lit pixel		min.	160:1		Tested with a lit area of min 8x8 pixels
Rth real for uniform loads [2)]	$R_{th\ jLEDs}$	typ.	0.43	K/W	

Table 1: Electrooptical Characteristics

1) Short Pulse measurement

2) Vddp = 3.8 V, PWM = 100 %, Ipixel = 0.42 mA, Tj of LED is determined from average temperature of hottest spot in center. Thermal resistance between LED junction and solderpoint for uniform load of LED array

Chromaticity Coordinate Groups

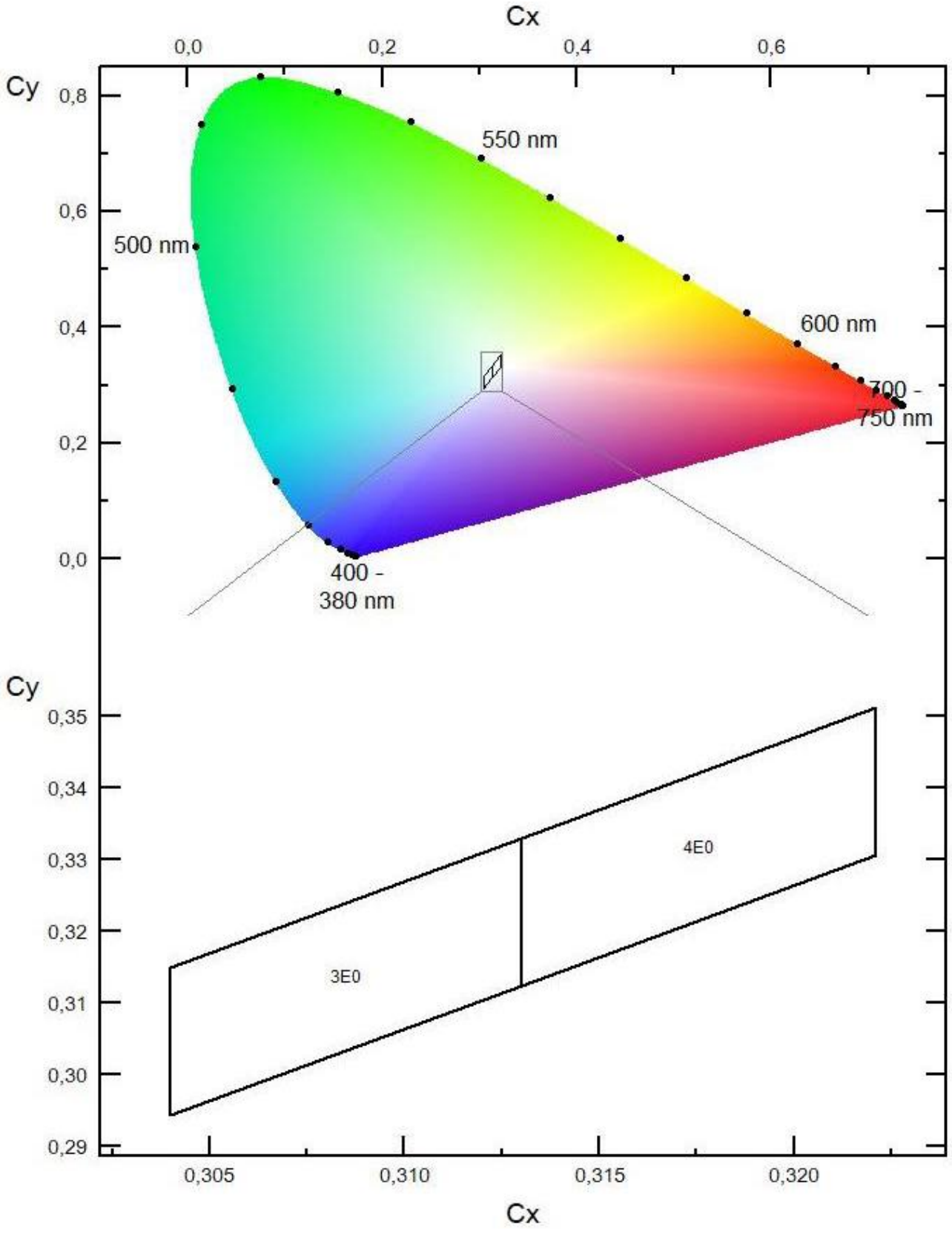


Figure 3: Binning Scheme [1)]

1) Attention: Target Color Binning will be determined by LV measurement

Group	Cx	Cy
3E0	0.3040	0.3149
	0.3040	0.2944
	0.3130	0.3125
	0.3130	0.3330

Group	Cx	Cy
4E0	0.3130	0.3125
	0.3221	0.3307
	0.3221	0.3512
	0.3130	0.3330

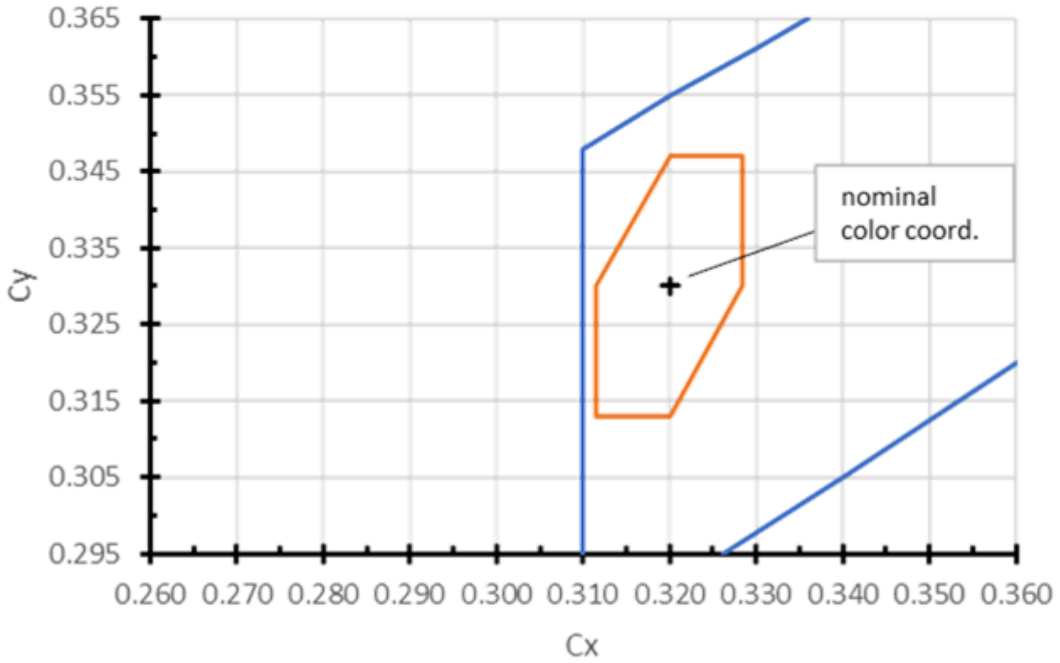


Figure 4: Color homogeneity, hexagonal color box.

EU RoHS and China RoHS compliant product
此产品符合欧盟 RoHS 指令的要求；
按照中国的相关法规和标准，
不含有毒有害物质或元素。

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