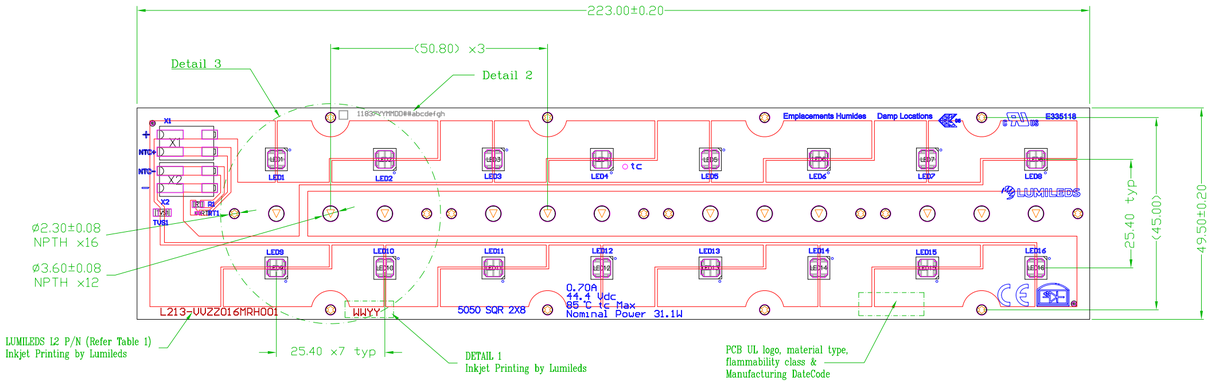
LUMILEDS RESTRICTED
THIS DOCUMENT AND ANY ASSOCIATED DATA CONTAIN RESTRICTED INFORMATION THAT IS LUMILEDS PROPERTY. ONLY DISCLOSE OR DUPLICATE FOR OTHERS AS AUTHORIZED BY LUMILEDS.

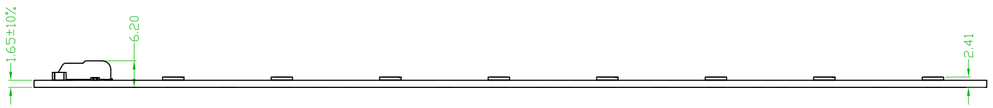
ASSOCIATED 3D MODEL IS GEOMETRY MASTER
DO NOT MODIFY THE GEOMETRY IN THIS 2D DRAWING. GEOMETRY MODIFICATIONS MUST BE MADE TO THE MASTER 3D MODEL AND USED TO UPDATE THIS DRAWING.

Symbol	Count	Hole Size	Plated	Hole Type
▽	12	3.600mm (141.73mil)	NPTH	Round
☼	16	2.300mm (90.55mil)	NPTH	Round
	28 Total			

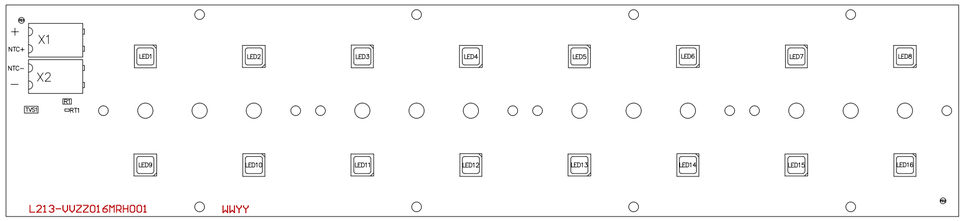
REVISION HISTORY PAGE

ZONE	REV.	REVISIONS HISTORY	REVISED BY	REVISED DATE	CO NUMBER
-	A	Initial Release	Chua Guek King	2020-04-14	Feasibility
-	B	ENEC logo, CE logo, UL logo, Built-in logo & E-file number added in silkscreen layer	Chua Guek King	2020-05-14	Feasibility
-	C	Table 1 updated & 'Future EcoDesign Data' added in inkjet printing layer	Chua Guek King	2020-06-04	Feasibility
-	D	'USEFUL LUMINOUS FLUX LUMENS' & 'BEAM ANGLE ' removed from Table 1 & Inkjet printing layer. Turn life cycle from Feasibility to production	Chua Guek King	2020-07-22	CO-056873





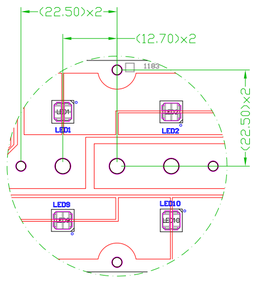
SIDE VIEW



TOP SIDE VIEW (SCALE 1:1)

Detail 1 :
Inkjet Printing by Lumileds
text height 1.6mm min.

Detail 2
2D Barcode 2.0x2.0mm (20 digits)



Detail 3

NOTES:
1. DIMENSION
1.1 UNLESS OTHERWISE SPECIFIED
1.2 CRITICAL DIMENSIONS ARE INDICATED BY (*) WITH CPK ≥1.33; AND WITH A NUMBER ENCLOSED WITH A CIRCLE, THE LAST CRITICAL DIMENSION IS ENCLOSED WITH A SQUARE
1.2.1 PCB LENGTH TOLERANCE
= ±0.1mm(<100mm), ±0.2(<200mm), ±0.25mm(<300mm)
1.2.2 PCB WIDTH TOLERANCE
= ±0.1mm(<100mm), ±0.2(<200mm), ±0.25mm(<300mm)
1.2.3 PCB HOLE POSITIONAL TOLERANCE
= ±0.1mm
1.2.4 PCB WARPAGE (BOW & TWIST) ALLOWANCE
= <0.75% per IPC-TM-650 TEST METHOD

2. ASSEMBLY SPECIFICATIONS
2.1 MOUNT COMPONENTS IN ACCORDANCE WITH ANSI/IPC-A-610 CLASS 2

3. LASER 2D MATRIX CODE LABELING
3.1 LASER 2D MATRIX CODE INFORMATION:
11837 – PCB PART NUMBER
YYMMDD – DATE CODE
abcd – PANEL SERIAL NUMBER FROM ***0001*** to ***9999***
– SUPPLIER CODE
efg – INDIVIDUAL BOARD SERIAL NUMBER FROM ***001*** to ***00x*** (ONLY FOR BOARD ID)

PCB SPECIFICATIONS
BASE MATERIAL = MCPCB
CONDUCTIVE SURFACE FINISHING = OSP
SOLDERMASK = White
SILKSCREEN = BLACK
SOLDER MASK TO METALLIZATION MISREGISTRATION = ± 75um
ALL MATERIALS MUST BE ROHS COMPLIANCE

BOM TABLE

ITEM	DESCRIPTION	QTY	DES REF#
1	LUXEON 5050 SQR	16	LED1- LED16
2	2 Pole Connector	2	X1, X2
3	TVS, 1206	1	TVS1
4	Res, 0805	1	R1
5	NTC, 0402	1	RT1

CIRCUIT DIAGRAM

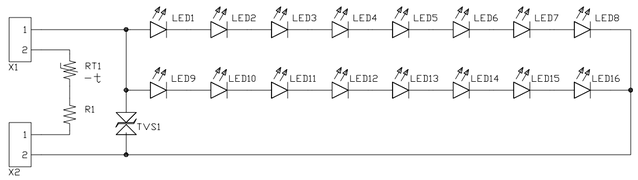


TABLE 1

LUMILEDS BOARD P/N	LUMILEDS L2 P/N L213-VVZZ016MRH001	CUSTOMER PART NUMBER	LED PART NUMBER	DESCRIPTION	CCT [VV]	CRI [ZZ]
324700011837	L213-2770016MRH001	NA	L150-2770500600S0	16up LED BOARD with LUXEON 5050 SQR 2700K 70CRI	2700K [27]	70 [70]
	L213-3070016MRH001		L150-3070500600S0	16up LED BOARD with LUXEON 5050 SQR 3000K 70CRI	3000K [30]	70 [70]
	L213-4070016MRH001		L150-4070500600S0	16up LED BOARD with LUXEON 5050 SQR 4000K 70CRI	4000K [40]	70 [70]
	L213-3080016MRH001		L150-3080500600S0	16up LED BOARD with LUXEON 5050 SQR 3000K 80CRI	3000K [30]	80 [80]
	L213-2780016MRH001		L150-2780500600S0	16up LED BOARD with LUXEON 5050 SQR 2700K 80CRI	2700K [27]	80 [80]
	L213-4080016MRH001		L150-4080500600S0	16up LED BOARD with LUXEON 5050 SQR 4000K 80CRI	4000K [40]	80 [80]

	Chua Guek King DRAWN BY	2020-03-13 DATE YYYY-MM-DD	5050 SQR 2x8 16up (LUXEON 5050 SQR) POD Drawing
	Chow Seak Chen ENGINEER/CHECKER	2020-03-13 DATE YYYY-MM-DD	TITLE FRAME DATE: 1-April-2015
TOLERANCE TYPE: DO NOT SCALE THIS METRIC DRAWING; GD&T SYMBOLOGY PER ISO 1101 & ISO 5459	UNLESS OTHERWISE SPECIFIED * DIMENSIONS ARE IN MILLIMETERS * THIRD ANGLE PROJECTION * ADHERENCE TO DWG A-5951-1561-1 (COMPANY STD. SECTION 608) AND A-5951-1745-1 (GSE) IS REQUIRED	1 OF 1 SHEET; 1:1 SHEET SCALE; A2 SIZE	PART NUMBER L213-VVZZ016MRH001; POD00005091 DOCUMENT NUMBER