

TO : Customer

DATE : 2024.07.22

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TEL : 82-31-373-3623~3625
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DOCUMENTATION FOR APPROVAL

**PRODUCT : LED BACKLIGHT DRIVER (RoHS)
MODEL NAME : GH766A(P11)
GCCT NAME : GCCT766PL**

APPROVAL	CHECKED	WRITTEN

PLEASE RETURN ONE DOCUMENT AFTER APPROVED SIGN.

GREEN C&C TECH	LED DRIVER SPECIFICATION GH766A(P11)	Publishing Date	2024.07.22
		Reforming Date	

NO	Date	REVISION	Page

REVISION HISTORY

REV.														
Page														
REV.	0	0	0	0	0	0	0	0	0	0	0	0	0	
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1. APPLICATION

This Document Specified The Detailed Product Requirement of LED driver
GH766A(P11)

2. SUITABLE LOAD

LCD MODULE : 4 Strings LED BLU TFT LCD

3. ELECTRICAL CHARATERISTICS

3.1. Absolute Maximum Ratings

Item	Symbol	Spec.	Unit	Remarks
Input Voltage 1	Vin	10.8~26.4	V	
Input Voltage 2	ON/OFF	5.25	V	
Operating Temperature	Top	-20~70	℃	
Storage Temperature	Tstg	-30~80	℃	
Relative Humidity	RH	80	%	

3.2. Control Signal

PIN No.	Symbol	Status	Action	Remarks
CN1 #9	ON/OFF	HIGH	LED - ON	2.4 ~ 5.0V
		LOW	LED - OFF	0.8 V Max

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3.3. Output Characteristics

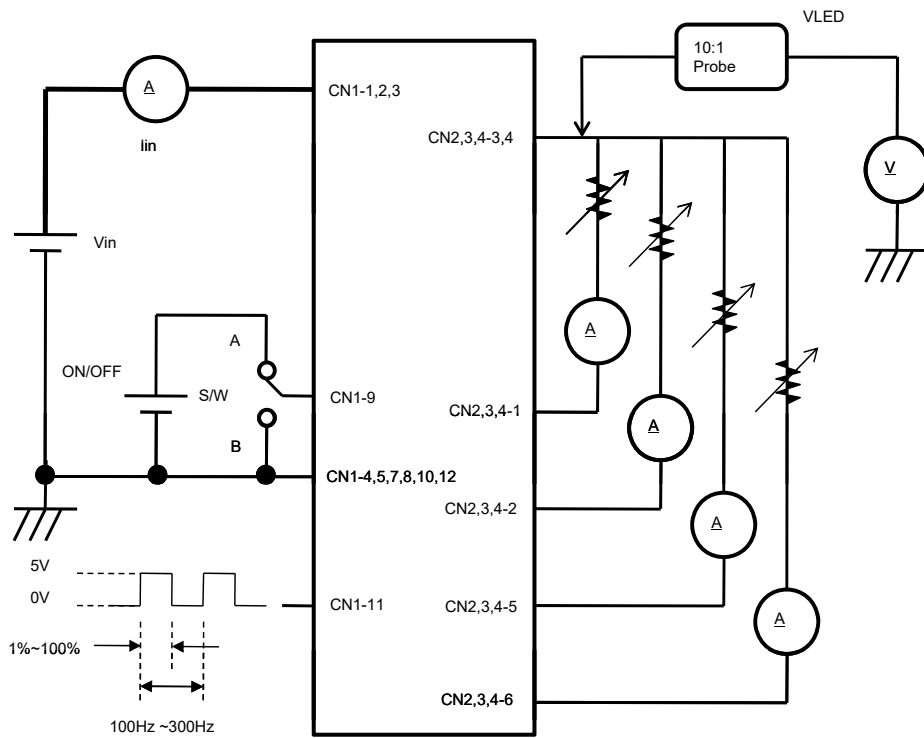
Item	Sym.	Condition	Min.	Typ.	Max.	Unit
Input Voltage	Vin	-	10.8	-	26.4	Vdc
Input Current	Iin	Vin=12V or 24V, Dim=100%	-	-	2.0	A
Output Current	Iout (max)	Vin=12V or 24V, Dim=100%	80.0	90.0	100.0	mAmean
PWM Signal	Vpwm	High(ON)	2.4	-	5.0	V
	Vpwm	Low(OFF)	-0.3	-	0.8	
	Fpwm	-	100	-	300	Hz
	DUTY	Active High Level	10 (Min)	-	100 (Max)	%

* Output Voltage is greater than Input Voltage for at least 3V or more.

* Duty of the PWM Signal has to be more than 1% at step 1 of Brightness.

3.4. Test Circuit

-. S/W : A --> BLU ON
B --> BLU OFF



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4. INTERFACE

4.1. CN1 Connector (Input) : 12505WR-12A (YEONHO) or Equivalent

PIN No.	Symbol	Description
1,2,3	VIN	Voltage Input : 12V, 24V (typ.)
4,5,7,8,10,12	GND	Ground
6	N.C	No Connection
9	ON/OFF	LED DRIVER ON/OFF Control
11	DIM	10 ~ 100% (100Hz~300Hz PWM Freq.)

4.2. CN2 Connector (Output) : 12507WR-06L (YEONHO) or Equivalent

PIN No.	Symbol	Description
1	FB1	Feedback 1 (Return 1)
2	FB2	Feedback 2 (Return 2)
3	VLED	System Output
4	VLED	System Output
5	FB3	Feedback 3 (Return 3)
6	FB4	Feedback 4 (Return 4)

4.3. CN3 Connector (Output) : 10019HR-H06B (YEONHO) or Equivalent

PIN No.	Symbol	Description
1	FB1	Feedback 1 (Return 1)
2	FB2	Feedback 2 (Return 2)
3	VLED	System Output
4	VLED	System Output
5	FB3	Feedback 3 (Return 3)
6	FB4	Feedback 4 (Return 4)

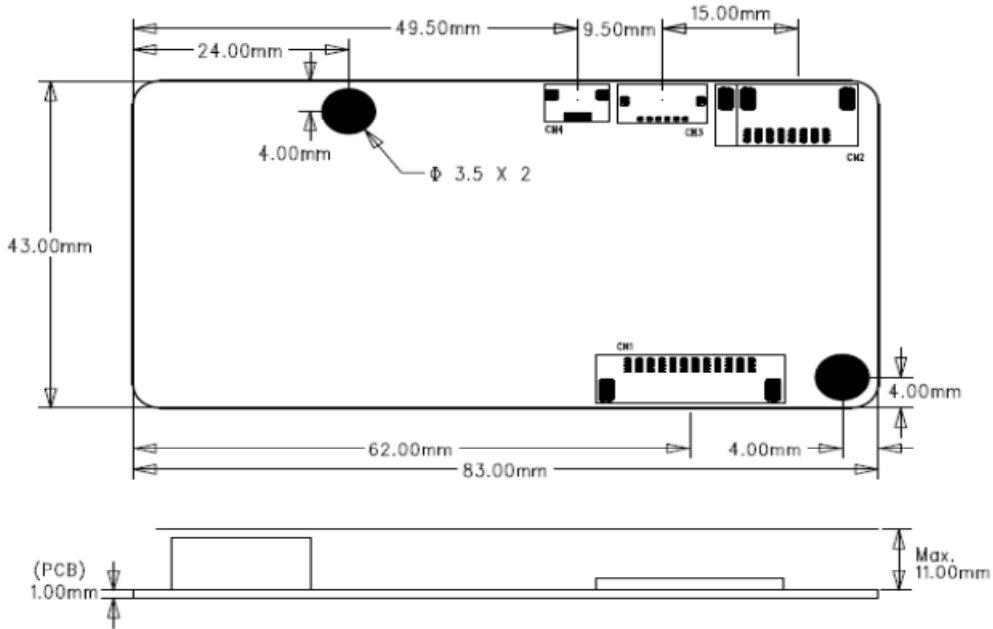
4.4. CN4 Connector (Output) : 05002HR-H06CE (YEONHO) or Equivalent

PIN No.	Symbol	Description
1	FB1	Feedback 1 (Return 1)
2	FB2	Feedback 2 (Return 2)
3	VLED	System Output
4	VLED	System Output
5	FB3	Feedback 3 (Return 3)
6	FB4	Feedback 4 (Return 4)

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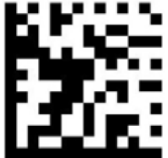
5. APPERANCE (Unit : mm)

(Tolerance : +0.8mm, -0.2mm)



6. NOTATION OF LOT NUMBER

MARKING:BOTTOM



GH766A(P11)

G 20 01 A

0001 PL

- ① USER MODEL CODE
- ② PRODUCTION MANAGEMENT CODE
- ③ SERIAL NUMBER OR CONTROL CODE

①	GH766A(P11)	: USER MODEL CODE
	G	: MANUFACTURER CODE (GREEN C&C TECH)
	20	: YEAR OF PRODUCT
		20 → 2020 , 21 → 2021 , ... , 29 → 2029
②	01	: WEEK OF PRODUCT 01,02,03,04,...52
	A	: PUBLICATION NUMBER A,B,C,...,Z,0,1,2,...,9
③	0001	: SERIAL NUMBER 0001,0002.....9998,9999
	PL	: GCCT CONTROL MODEL CODE

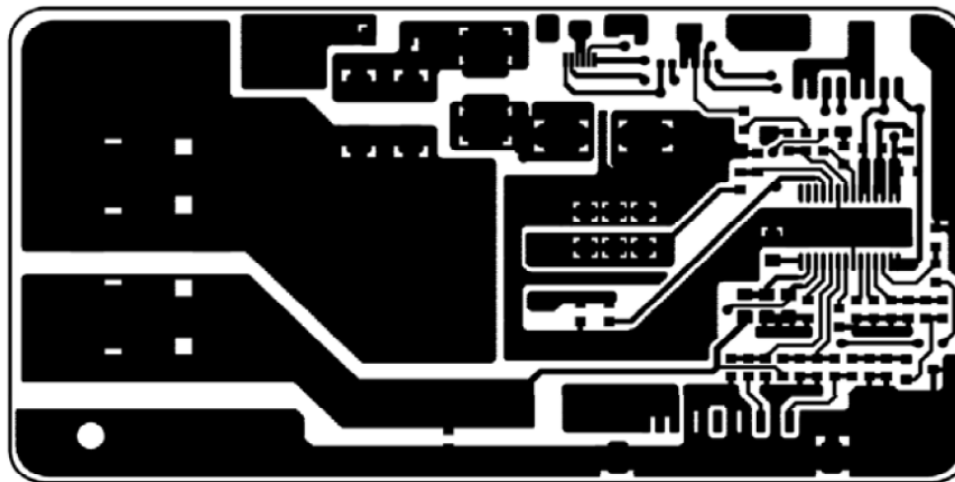
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7. PART LIST

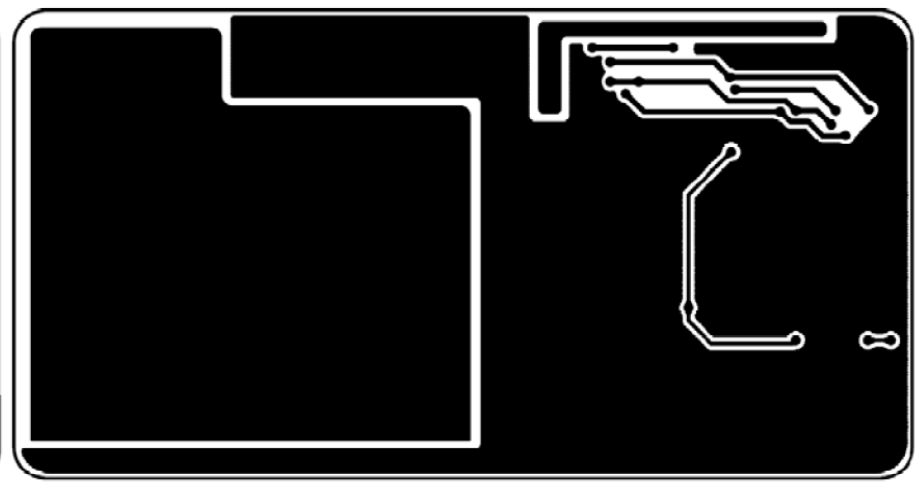
SYMBOL	NAME	1st		2nd	
		TYPE No	MAKER	TYPE No	MAKER
U1	IC	MP3391EF	MPS		
Q1	FET	AP9997GH	APEC	Equivalent	
D1,D2	DIODE	B2100	DIODES	Equivalent	
C1	C-ELEC	BXJ Series 220uF/35V	SAMYOUNG	Equivalent	
C16		BXJ Series 10uF/100V	SAMYOUNG	"	
C2,C4	MLCC	CL21A225KA	SEMCO	Equivalent	
C3		CL21B105KB	"	"	
C5,C8		CL10A105KA	"	"	
C7		CL10B102KB	"	"	
C9		CL10B104KB	"	"	
C14		CL10C101JB	"	"	
C15		CL31B105KC	"	"	
R1		CHIP-R	RM10JTN100	TA-I Tech	Equivalent
R3,R12	RM06JTN224		"	"	
R4,R5	RM06JTN513		"	"	
R6,R9,R19, R25,R26	RM06JTN104		"	"	
R7,R10	RM06JTN273		"	"	
R11,R24	RM06JTN102		"	"	
R17	RM06JTN101		"	"	
R18	RM06JTN100		"	"	
R20,R21	RL12FTNR200		"	"	
R27	RM06JTN362		"	"	
F1	FUSE		CCF1N4	KOA	CB61F4A
		451004	LITTELFUSE	453004	LITTELFUSE
L1	Inductor	SPI-1580SDM-470	SEJIN	Equivalent	
L2		SFCB7050-100	SAMWHA TECOM	"	
CN1	Connector	12505WR-12A	YEONHO	Equivalent	
CN2		12507WR-06L	YEONHO	"	
CN3		10019HR-H06B	YEONHO	"	
CN4		05002HR-H06CE	YEONHO	"	
PCB	PCB	GH766A REV0.0	SEOKANG	GH766A REV0.0	DAUN ENG
		GH766A REV0.0	AMC KOREA	GH766A REV0.0	SKY TECHNOLOGY

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8. PCB LAYOUT



TOP LAYER



BOTTOM LAYER

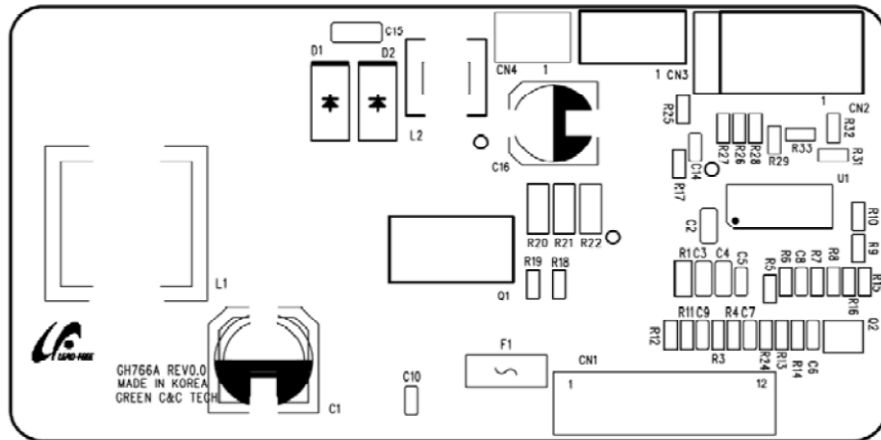
GREEN C&C TECH

LED DRIVER SPECIFICATION

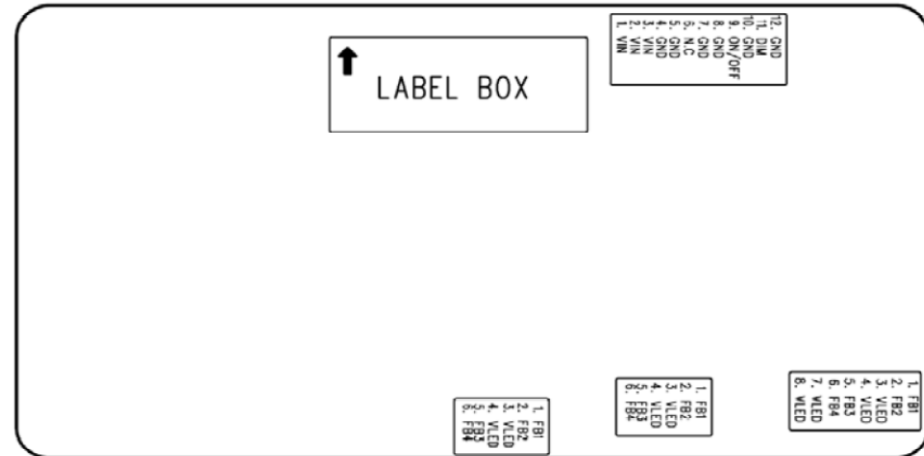
GH766A(P11)

Publishing Date
Reforming Date

2024.07.22



SILK SCREEN TOP



SILK SCREEN BOTTOM

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10. RELIABILITY TEST SPEC.

NO.	ITEM	Conditions and Method
1	High Temperature Storage Test	Temp : 80 °C Duration : 250hrs
2	Low Temperature Storage Test	Temp : -30 °C Duration : 250hrs
3	High Temperature High Humidity Operation Test	Temp : 70 °C Humidity : 95%RH Duration : 250hrs
4	Signal On/Off Test	Temp : Normal Temperature On-Off Signal On 10sec / Off 10sec Power on full Load 30,000 cycles
5	Thermal Shock Test	Temp : -30 °C ↔ 80 °C, 100 cycles (30min) (30min)
6	High Temperature Operation Test	Temp : 70 °C Duration : 250hrs
7	Low Temperature Operation Test	Temp : -20 °C Duration : 250hrs

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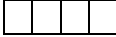

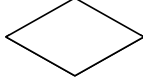
11. FLOW CHART

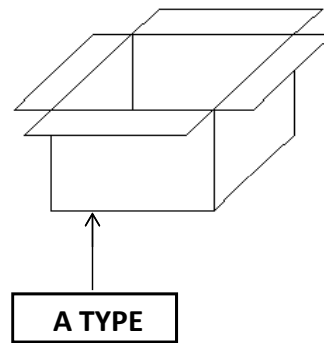
MODEL (TYPE)	GH766A(P11)	REVISION	0
WRITER	K.S.LEE		
FLOW CHART	PROCESS	EQUIPMENTS	Remark
	Raw Material		PART LIST
	Solder Printing	Cream-solder Printer	
	Surface Mounting	Low-high Mounter	
	Reflow Soldering (CTQ)	Reflower	
	Visual Inspection (AOI)	Microscope, Vision-Master	
	Label attachment	Marking	
	Preparing Process		
	Soldering by Hand for Discrete Parts		
	Spreading Silicon	Silicon Dispenser	
	Insert Lead Parts		
	Wave-Soldering	Wave-Soldering Machine	
	Visual Inspection		
	PCB Division		
	Aging	Power Supply, Aging Box	2hrs
	Electrical Characteristics inspection	Testing System, Testing JIG	
	Insulator Attachment		
	Bar-Code Reading	Bar-Code Reader	
	Package		
	Outgoing Inspection	Testing System, Testing JIG	List of Inspection
	Shipping		
Based on Standard Rule	GCCT766PL		

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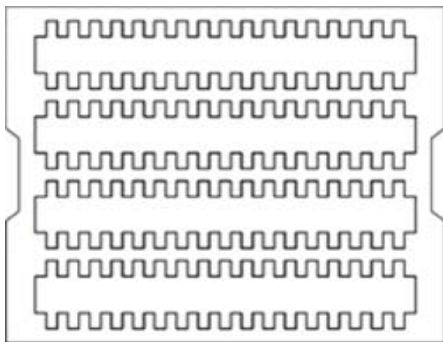
12. PACKING

12.1. BOX

 LEAD-FREE		 	 L/C NO : C/T NO : MADE IN KOREA
1. Customer			
2. PART NAME	GH766A(P11)		
3. PO NO			
4. Q'ty	000 EA		
5. Date	00.00.00		
6. LOT NO			



12.2. TRAY



SYMBOL	TYPE NO
PACKING-TRAY	393*324*58
PACKING-BOX	415*340*332
PACKING-PAD	400*325*5

1 TRAY : 54EA (GR2054)
 1BOX : 5 TRAY (270EA) - A TYPE

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13. Material list for safety GH766A(P11)

SYMBOL	NAME	TYPE No	MANUFACTURER	DESCRIPTION
F1	FUSE	CCF1N4	KOA	UL FILE NO. : E171861
		451004	LITTELFUSE	UL FILE NO. : E10480
		453004		CSA FILE NO : LR29862
		CB61F4A	COOPER BUSSNANN	UL FILE NO. : E19180
PCB	Printed Writing Board	FR4	SEOKANG	UL FILE NO. : E150774
			DAUN ENG	UL FILE NO. : E529627
			AMC KOREA	UL FILE NO. : E475806
			SKY TECHNOLOGY	UL FILE NO. : E513927
CN1	Connector	12505WR-12A	YEONHO	UL FILE NO. : E108706
CN2		12507WR-06L	YEONHO	UL FILE NO. : E108706
CN3		10019HR-H06B	YEONHO	UL FILE NO. : E108706
CN4		05002HR-H06CE	YEONHO	UL FILE NO. : E108706