

CXA-0385 (16W QUAD OUTPUTS WITH DIMMING FUNCTION)

Applicable LCD:

AA150XN02 (MITSUBISHI)
AA150XN03 (MITSUBISHI)
AA150XN04 (MITSUBISHI)
T-351863D150-FW-A-AB (OPTREX)

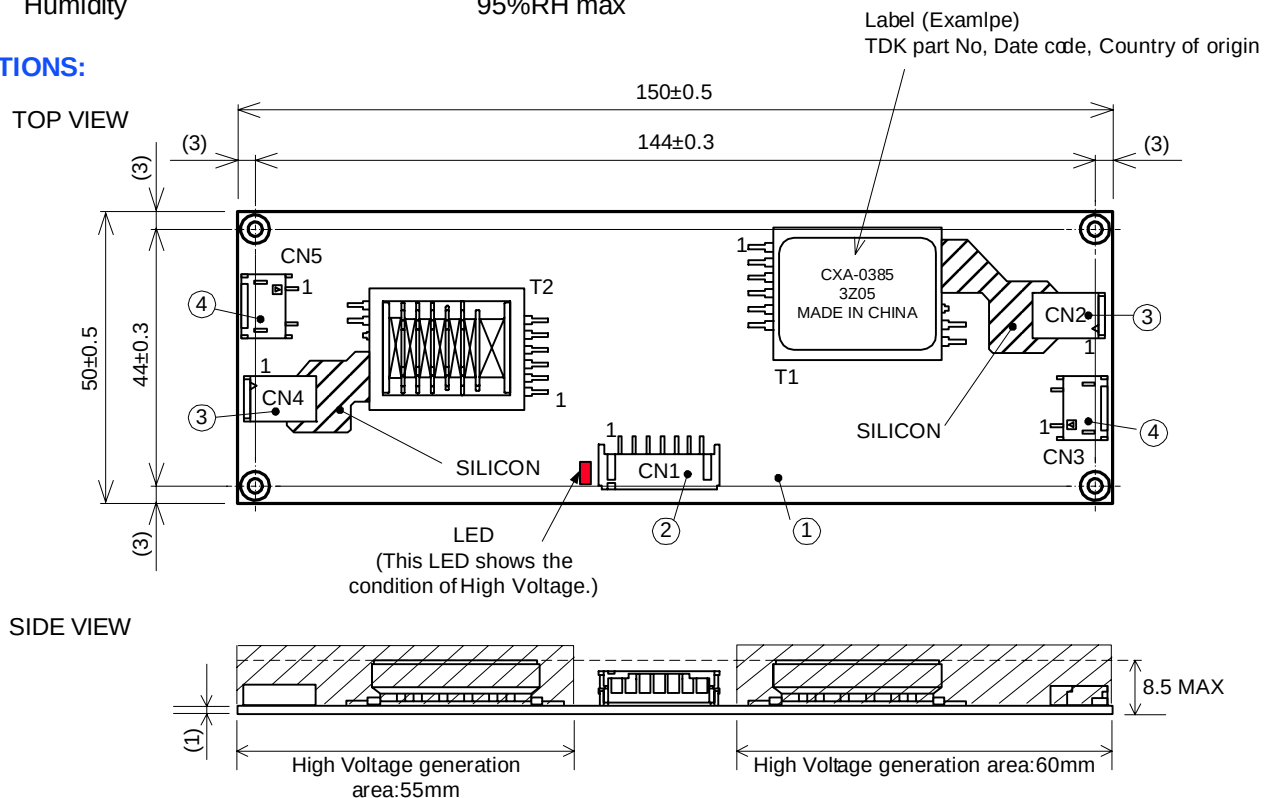
FEATURES:

- This inverter is for four lamps. It has Dimming function(PWM System) and Remote function.
- This product has shutdown function.
It prevents from keeping generating the high voltage when the lamps open.(Refer Note.6.)
- With lamp failure detector.
Normal Operation : CN1-6=0V
Some Lamps Open : CN1-6=5V
- Select the way of dimming (CN1-5)
 - Insert a potentiometer (0-50kΩ)
 - Apply the voltage (0-2.5V)
- When LED lights , it shows the generation of high voltage.
- The high-voltage area (terminals and patterns) is coated with silicone so as to avoid the defects caused by dust.

TEMPERATURE & HUMIDITY:

Operating Temperature Range : 0°C ~ +70°C
Storage Temperature Range : -30°C ~ +85°C
Humidity : 95%RH max

DIMENSIONS:



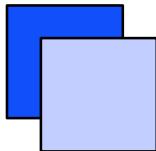
Note1 : Please keep minimum 2mm clearance (all directions) between high voltage area as marked on mechanical drawing and any conductors.

BOTTOM VIEW



Unit:mm

Weight:43g



DC-AC INVERTER UNIT

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CONNECTOR CONFIGURATION:

No.	Part Description	Qty.	Material	Using connector	Corresponding connector
①	PWB	1	Composite (CEM-3) t=1.0mm	-	Using connector
②	Input Connector	1	-	S7B-PH-SM3(JST)	PHR-7(JST)
③	Output Connector	2	-	SM02B-BHSS-1(JST)	BHSR02VS-1(JST)
④	Output Connector	2	-	SM02(4.0)B-BHS-1(JST)	BHR-02VS-1(JST)

CN01:S7B-PH-SM3 (JST)

Pin	Symbol	Note
CN1-1	Vin	10.8~13.2V Input Voltage
CN1-2		
CN1-3	GND	0V Ground
CN1-4		
CN1-5	Vbr	0~2.5V
	Rbr	0~50kΩ
CN1-6	Vst	0V / 5V Alarm Signal
CN1-7	Vrmt	0~0.4V : OFF 2.5~Vin : ON Remote Control

Note2 : This is an output pin and it is active high(5V) if any Lamp opens / fails.

CN2,CN4:SM02B-BHSS-1 (JST)

Pin	Symbol	Note
CN2-1	Vhigh1	600Vrms / 6.5mArms
CN2-2	Vhigh2	600Vrms / 6.5mArms
CN4-1	Vhigh3	600Vrms / 6.5mArms
CN4-2	Vhigh4	600Vrms / 6.5mArms

CN3,CN5:SM02(4.0)B-BHS-1 (JST)

Pin	Symbol	Note
CN3-1	Vlow1	(2V)
CN3-2	Vlow2	(2V)
CN5-1	Vlow3	(2V)
CN5-2	Vlow4	(2V)

ELECTRICAL CHARACTERISTICS:

Parameter	Symbol	Conditions					Specifications			Unit	Note
		Vin(V)	Vrmt(V)	Vbr(V) / Rbr(kΩ)	Ta(°C)	RL1~RL4(kΩ) // CL1~CL4(pF)	min.	typ.	max.		
Output Current	Iout1 ~Iout4	12.0±1.2	5±0.25	0 / 0	0~70	90 // 5	6.0	6.5	7.0	mArms	Max Brightness
		12.0±1.2	5±0.25	2.5 / 50	0~70	90 // 5	2.3	3.0	3.7	mArms	Min Brightness
Input Current	Iin1	12.0±1.2	5±0.25	0 / 0	0~70	90 // 5	-	1.7	2.0	A	
	Iin2	12.0±1.2	0	0~2.5 / 0~50	0~70	90 // 5	-	-	1	mA	Remote OFF
Frequency	F1	12.0±1.2	5±0.25	0	0~70	90 // 5	45	50	55	kHz	
Frequency (Duty)	F2	12.0±1.2	5±0.25	2.5 / 50	0~70	90 // 5	240	270	300	Hz	
Open Voltage	Vopen	12.0±1.2	5±0.25	0	0~70	∞ / ∞	1.5	1.6	-	kVrms	
Alarm Signal	Vst	12.0±1.2	5±0.25	0	0~70	90 // 5	-	0	-	V	Normal
		12.0±1.2	5±0.25	0~2.5 / 0~50	0~70	90 // 5 Refer Note 6	4.5	5	5.5	V	Operation Alarm Signal

Note3. The test circuits added 5pF capacitor across the load resistor for LCD back light stay capacitor.



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[illegible]

SW1	Operation of Unit
a	Operation
b	Non Operation
OPEN	Non Operation

SW2	Operation of Unit
a	Voltage dimming Vbr=0~2.5V (Vbr=0V : Max Brightness)
b	Variable resistance dimming Rbr=0~50kΩ (Rbr=0Ω : Max Brightness)

Load Condition	*1Alarm Signal (CN1-6)	*2Shutdown Operation
Normal Operation	0.5V max.	Normal
1 Lamp Open	4.5~5.5V	Normal
2 Lamps Open	4.5~5.5V	Normal
3 Lamps Open	4.5~5.5V	Normal
4 Lamps Open	4.5~5.5V	Shutdown

The diagram shows the connection between the CXA-0385 and the LCD Module. The CXA-0385 has eight pins: VLOW, VHIG, VHIG, VLOW, VLOW, VHIG, VHIG, and VLOW. The LCD Module has four pins: Lamp, Lamp, Lamp, and Lamp. The connections are as follows:

- CXA-0385 VLOW (1st) connects to LCD Module Lamp (1st) through a fuse.
- CXA-0385 VHIG (2nd) connects to LCD Module Lamp (2nd).
- CXA-0385 VHIG (3rd) connects to LCD Module Lamp (3rd).
- CXA-0385 VLOW (4th) connects to LCD Module Lamp (4th) through a fuse.
- CXA-0385 VLOW (5th) connects to LCD Module Lamp (4th) through a fuse.
- CXA-0385 VHIG (6th) connects to LCD Module Lamp (2nd).
- CXA-0385 VHIG (7th) connects to LCD Module Lamp (3rd).
- CXA-0385 VLOW (8th) connects to LCD Module Lamp (4th) through a fuse.

*Connect the High Frequency Current Meter to the Low-Voltage (VLOW) side.

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