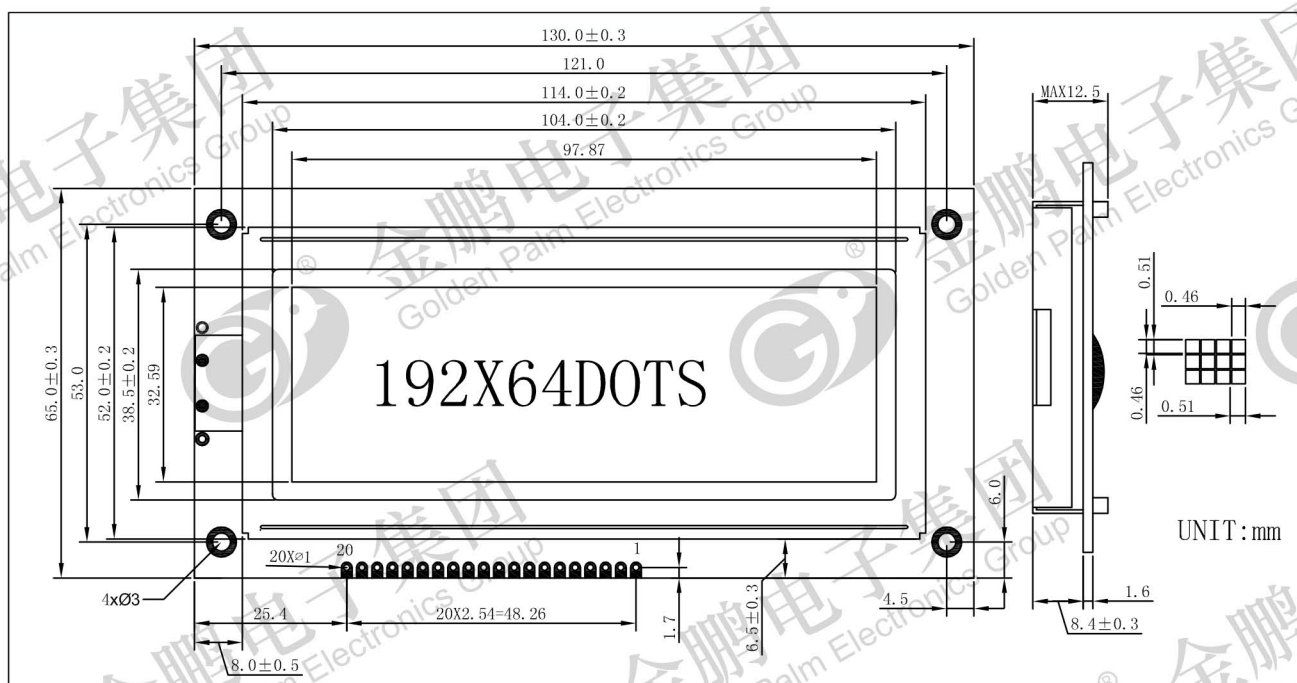




ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD}	-0.3	7.0	V
Supply Voltage(LCD)	V _O	V _{DD} -19	V _{DD} +0.3	V
Input Voltage	V _I	0	V _{DD}	V
Operating Temp.	T _{opr}	-20	70	°C
Storage Temp.	T _{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size(W X H X T)	130.0 X 65.0 X 12.5	mm
Viewing Area(W X H)	104.0 X 38.5	mm
Dot Pitch(W X H)	0.51 X 0.51	mm
Dot Size(W X H)	0.46 X 0.46	mm

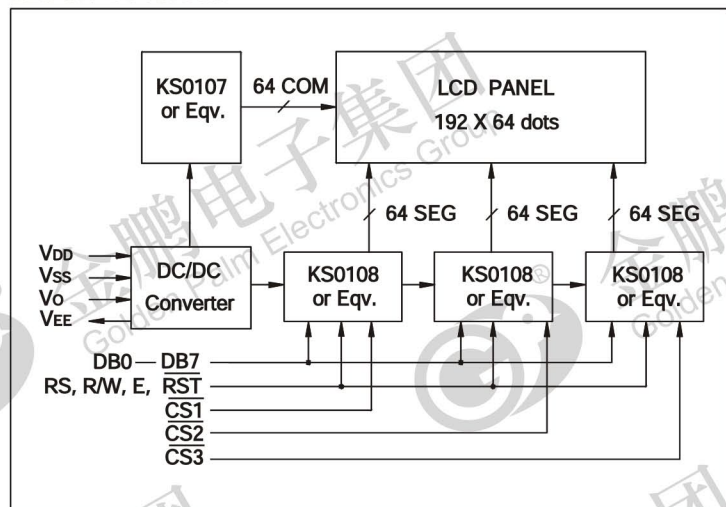
ELECTRICAL CHARACTERISTICS (V_{DD}=5V±0.25V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	--	0.7V _{DD}	--	V _{DD}	V
Input Low Voltage	V _{IL}	--	V _{SS}	--	0.3V _{DD}	V
Input High Voltage	V _{OH}	I _{OH} = -200μA	2.4	--	--	V
Output Low Voltage	V _{OL}	I _{OL} = 1.6mA	--	--	0.4	V
Supply Current	I _{DD}	V _{DD} = 5.0 V	--	1	1.5	mA
LCD Driving Voltage	V _{DD} -V _O	T _a = 25 °C	--	4.5	5.0	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V _{SS}	--	GND (0V)
2	V _{DD}	--	Supply Voltage for Logic (+5V)
3	V _O	--	Supply Voltage for LCD
4	RS	H/L	H : Data L : Instruction Code
5	R/W	H/L	H : Read L : Write
6	E	H,H→L	Enable Signal
7	DB0	H/L	Data Bus Line
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	CS1	L	Chip Selection for IC1
16	RESET	L	Reset Signal,Active Low
17	CS2	L	Chip Selection for IC2
18	CS3	L	Chip Selection for IC3
19	V _{EE}	--	Negative Voltage Output
20	LED+	--	LED B/L Power Supply

BLOCK DIAGRAM

LED BACKLIGHT SPECIFICATIONS (T_a=25 °C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V _f	4.1	4.3	V
Forward Current	I _f	200	--	mA
Emission Wave Length	λ _p	568	--	nm