KLM - 064MA - 16B

This module designed for light emitting display device. Organize with 16×32 matrix combination with 512 of each Red, Green LED Chips, for indoor use.

FEATURES

- Active display size : 64mm×128mm
- Dot size : ø3
- Dot pitch : 4mm
- Display color : RED, GREEN, AMBER(Mixed color)
- Duty rate : 1/16
- Dot matrix : 512(16×32)
- Weight : 150g(Typ.)
- With a simple serial - inter face.

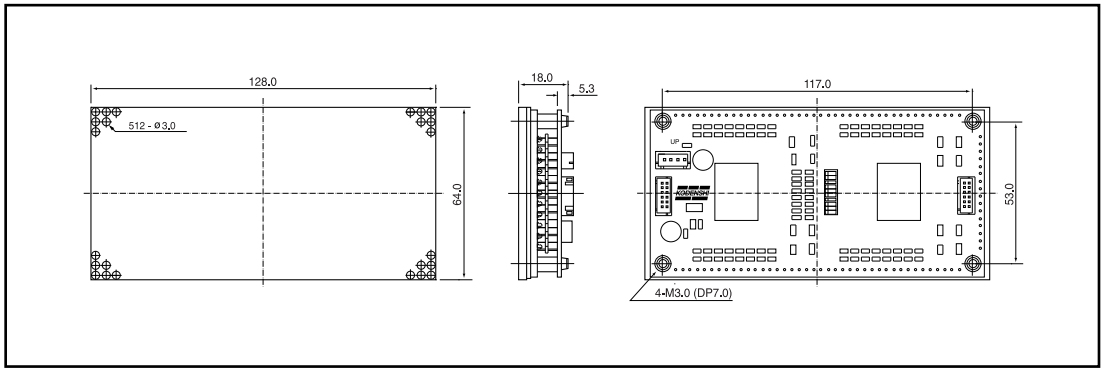
MAXIMUM RATINGS

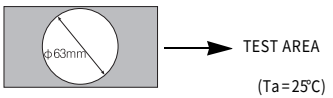
(Ta=25℃)

ITEM	SYMBOL	RATING	UNIT	COND.
Power dissipation	P_D	25	W	
Supply voltage(DRIVE)	V_{DD}	6	V	
Supply voltage(LED)	V_{LED}	6	V	
Logic input power	V_{in}	- 0.5~V_{DD}	V	
Junction Temp.	T_j	115	℃	
Operating Temp.	T_{opr}	- 20~+60	℃	
Storage Temp.	T_{stg}	- 20~+65	℃	

DIMENSIONS

(Unit : mm)





OPTICAL CHARACTERISTICS

(Ta=25℃)

ITEM		SYMBOL	CONDTION	MIN.	TYP.	MAX.	UNIT.
Bright - ness(16×16)	GREEN	IV_g	V_{DD}=5V	-	120	-	cd/m² *1
	RED	IV_r		-	100	-	
	AMBER	IV_o		-	180	-	
Dot - Belance	GREEN	IVR_g	V_{LED}=5V	-	-	2	-
	RED	IVR_r		-	-	2	
	AMBER	IVR_o		-	-	2	
Emisson Wavelen - ght	GREEN	λp_g		-	565	-	nm
	RED	λp_r		-	630	-	
Spectrum half - band	GREEN	$\triangle\lambda_g$		-	25	-	nm
	RED	$\triangle\lambda_r$		-	40	-	

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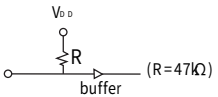
ELECTRICAL CHARACTERISTICS (VOLTAGE CURRENT CHARACTERISTICS)

(Ta=25℃)

ITEM		SYMBOL	CONDTION	MIN.	TYP.	MAX.	UNIT.
Supply voltage(LOGIC)		V_{DD}	-	4.75	5	5.25	V
Supply voltage(LED)		V_{LED}	-	4.50	5	5.50	V
Supply current(LOGIC)		I_{DD}	V_{DD}=5V	-	50.0	70.0	mA
Supply current(LED)	GREEN	I_{LEDg}	Lighting all *2	-	-	2.4	A
	RED	I_{LEDr}		-	-	2.2	
	AMBER	I_{LEDo}		-	-	3.6	
Logic - input vol tage LOW		V_{IL}	V_{LED}=5V	-	-	1.5	V
Logic - input vol tage HIGH		V_{IH}	V_{DD}=5V	3.5	-	-	V

*2. V_{DD}=5V, V_{LED}=5V

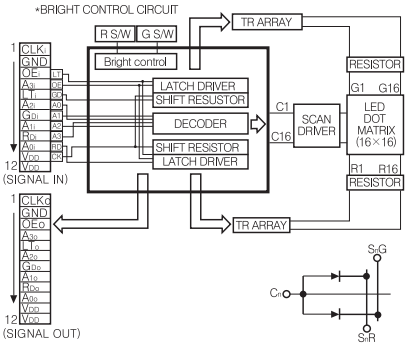
*PULL UP



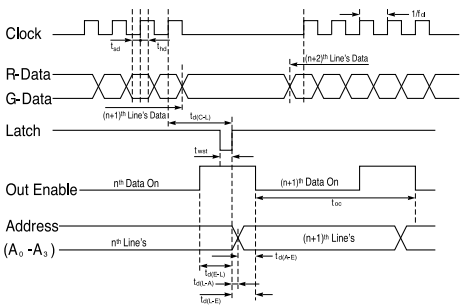
ELECTRICAL CHARACTERISTICS (CONNECTOR SPECIFCATION)

CLASSIFICATION		NAME	STANDARD	LENGH	COMPANY	REMARK
POWER CONN.		WAFER	B 4B - XH - A	-	KST	JST C/N
INPUT SIGNAL CONN.		WAFER	B 12B - PHDSS	-	KST	JST C/N
OUTPUT SIGNAL CONN.		WAFER	B 12B - PHDSS	-	KST	JST C/N
ASS'Y	POWER	HARNESS	XHP - 4P - 000R(Ring type)	Option	KST	JST C/N
		HARNESS	XHP - 4P - 000S(Solder type)	Option	KST	JST C/N
	SIGNAL	HARNESS	HPDR - 12VS - 000	Option	KST	JST C/N

BLOCK DIAGRAM



TIMING CHART



RECOMMENDED TIMING CONDITION

NO	ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT.
1	CLOCK FREQUENCY	f_{cl}	-	-	40	MHz
2	CLOCK CYCLE	$1/f_{cl}$	25	-	-	ns
3	CLOCK - LATCH TIME	$t_{d(C-L)}$	25	-	-	ns
4	LATCH PULSE WIDTH	t_{wst}	25	-	-	ns
5	ENABLE - LATCH TIME	$t_{d(E-L)}$	0	-	-	ns
6	DATA SETUPTIME	t_{sd}	6	-	-	ns
7	DATA HOLD TIME	t_{hd}	6	-	-	ns
8	ADDRESS - ENABLE TIME	$t_{d(A-E)}$	25	-	-	ns
9	LATCH - ADDRESS TIME	$t_{d(L-A)}$	0	-	-	ns
10	LATCH - ENABLE TIME	$t_{d(L-E)}$	0	-	-	ns
11	ENABLE CYCLE	t_{oc}	-	-	1	ms