

	HS-64D-CFN	SPEC.	HSL-0707
	64mm*128mmmm (4mm pitch) RED+P-G+Blue	REF	HSL-MIRE

2018/01-Rev : 1.2.

DATA SHEET

CUSTOMER : _____

DEVICE NAME : _____

MODEL NO. : _____

ISSUED DATE : _____

[CUSTOMER APPROVAL]

APPROVAL NO.				
APPROVAL DATE				
APPROVAL	INSPECTER	CHECK	APPROVAL	COMMENT

[SUPPLIER]

ISSUED DEPT.	ISSUE	REVIEW	REVIEW	APPR'D

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1. OVERVIEW

16*32 LED dot matrix module to display.

It is integrated with SMD LED. This module is compact, slim and light.

It is suitable for the wide applications of a graphic & video board beyond a simple message board.

2. SPECIFICATION

ITEM	DISCRIPTION
Size(WxHxD)	128(W) x 64(H) x 15mm SUPPORTER
Display Color	RED. GREEN. BLUE
Number of Dots	512DOTS (32(W)x16(H)) DOT 4mm Pitch
Drive mode	Dynamic Drive(1/16 duty)
DOT PITCH	4mm
View Angle	Horizontal: $\pm 75^\circ$ Vertical: $\pm 75^\circ$
Weight	25(± 5 g)

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3. ELECTRICAL SPECIFICATION

1) Absolute Maximum Ratings(Ta=25°C)

ITEM		SYMBOL	CONDITION	UNIT
DC Supply Voltage	Circuit	Vcc	5	V
	LED	Vled	5	V
Input Voltage	Circuit	Vcc	Vcc(±0.3)	V
	LED	Vled	Vled(-0.3)	V
Current Consumption	Circuit	IC	0.3(Vcc=5V)	A
	LED	IL	2.5(Vled=5V)	A
Clock Frequency		F	15	MHz
Operating Temperature		Topr	-25 ~ +95	°C
Storage Temperature		Tstg	-25 ~ +95	°C
Isolation Temperature		Viso	AC500V(10mA), 1Minute(connector~supporter)	

2) RECOMADABLE DRIVE CONDITIONS

ITEM		SYMBOL	CONDITION	UNIT
DC Supply Voltage	Circuit	Vcc	5	V
	LED	Vled	5	V
Operating Temperature		Topr	-20 ~ + 45	°C

4. OPTICAL CHARCTERISTIC

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Luminous intensity	RED		800		cd/m ²
	BLUE		600		
	GREEN		2700		
Peak Emission Wave length	RED		625		nm
	BLUE		465		
	GREEN		515		

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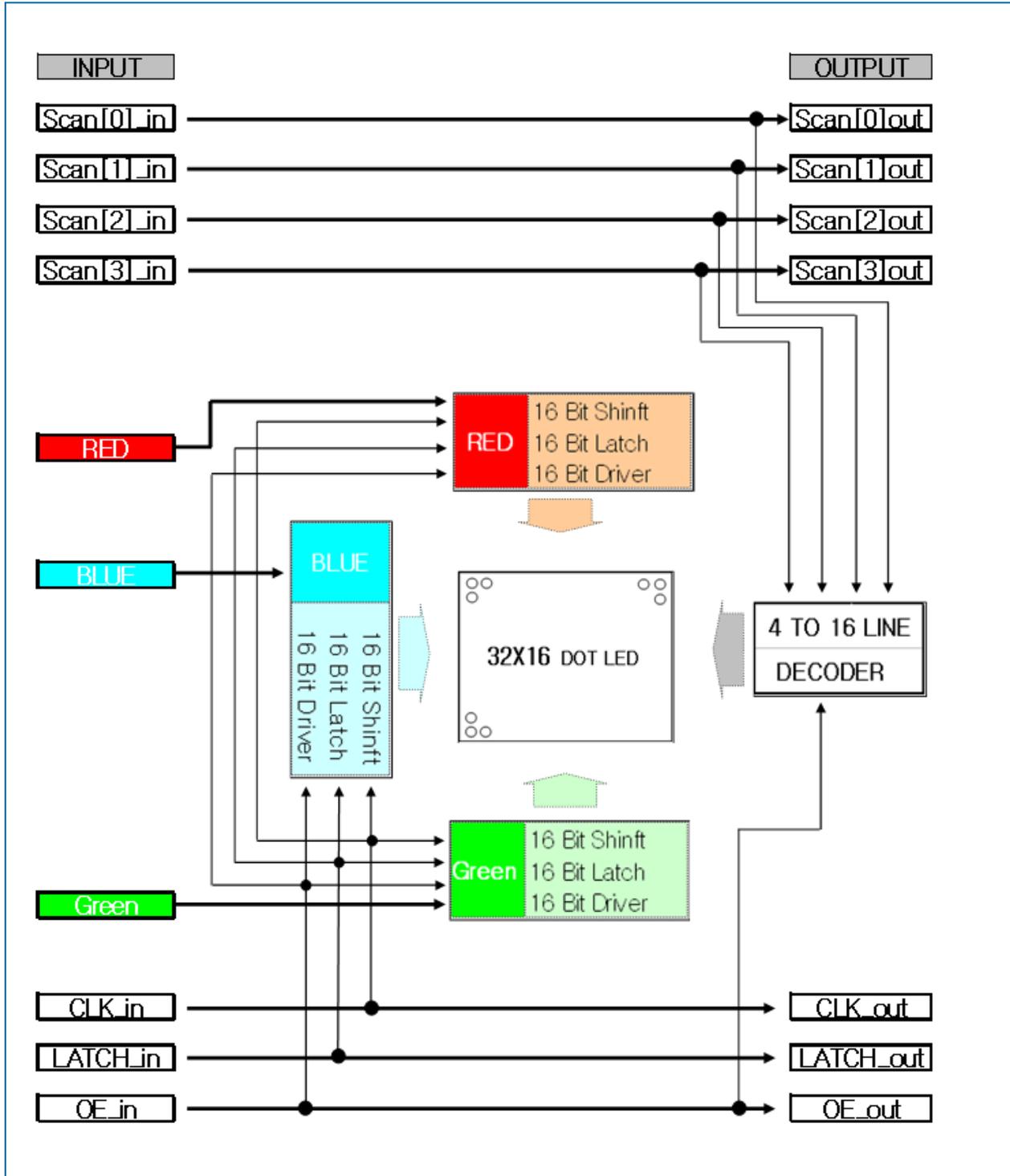
5. INPUT LEVEL

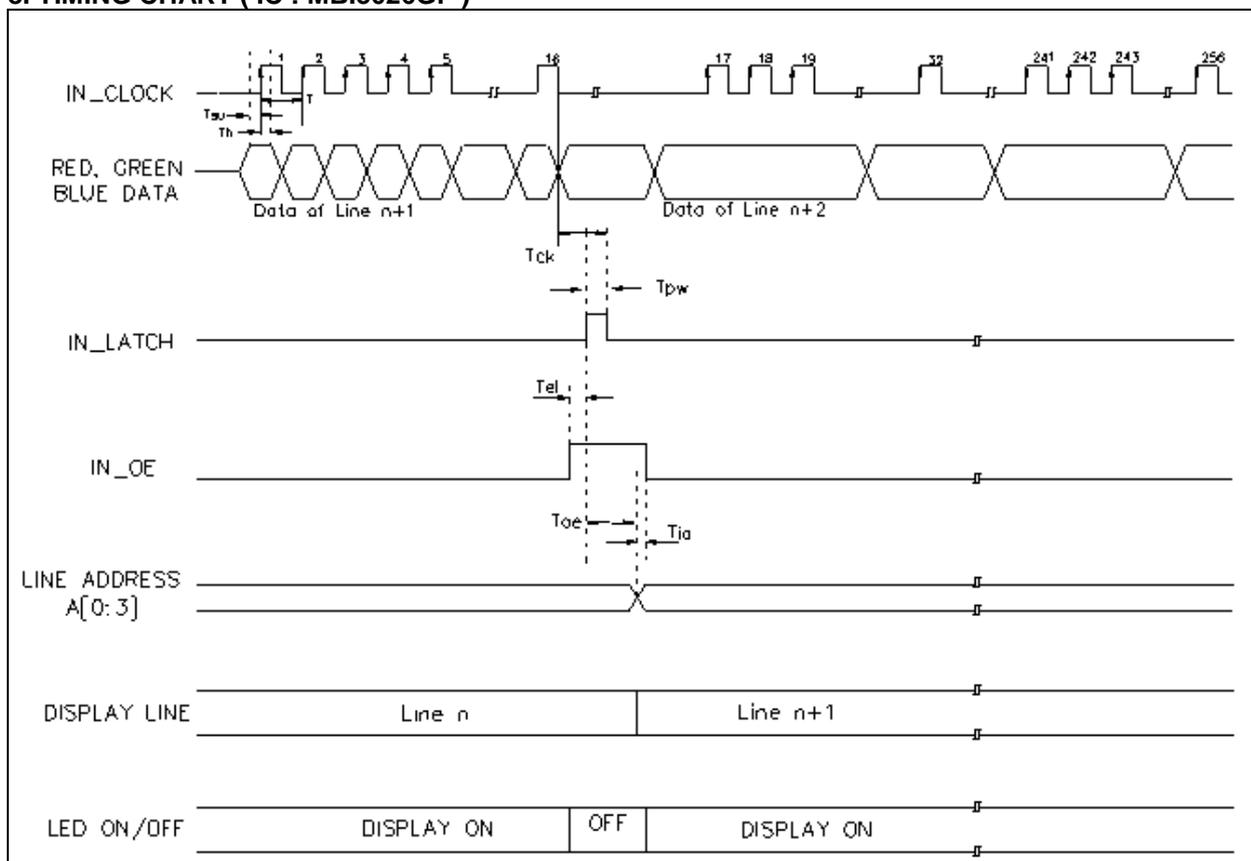
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Input "L"	ViL	-	-	0.8	V
Input "H"	ViH	2.4	-	-	

6. FUNCTION

ITEM	PIN NAME	DESCRIPTION	
Power Pin	VCC	Power supply for the circuit	
	GND	Ground of the module	
	VLED	Power supply for the LED	
SIGNAL FUNCTION	GND		1
	G0		2
	B0		3
	R0		4
	GND		5
	A0		6
	A1		7
	A2		8
	A3		9
	NC		10
	GND		11
	CLK		12
	STB		13
	OE		14
GND		15	
GND		16	

7. BLOCK DIAGRAM



8. TIMING CHART (IC : MBI5026GP)

◆ OPERATION TIMING

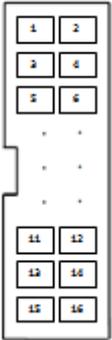
ITEM	SYMBOL	MIN	TYP	MAX	UNIT
CLOCK CYCLE	T	-	-	20	MHz
DATA SETUP TIME	Tsu	20	-	-	ns
DATA HOLD TIME	Th	25	-	-	ns
LATCH PULSE WIDTH	Tpw	60	-	-	ns
CLOCK-LATCH TIME	Tck	50	-	-	ns
ENABLE-LATCH TIME	Tel	100	-	-	ns
ADDRESS-ENABLE TIME	Tae	20	-	-	ns
LATCH-ADDRESS TIME	Tia	20	-	-	ns

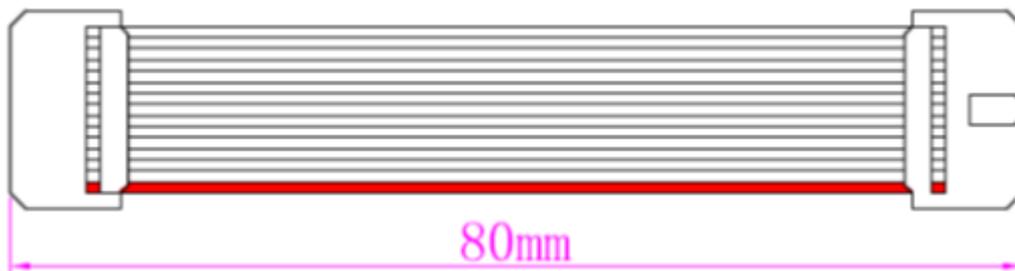
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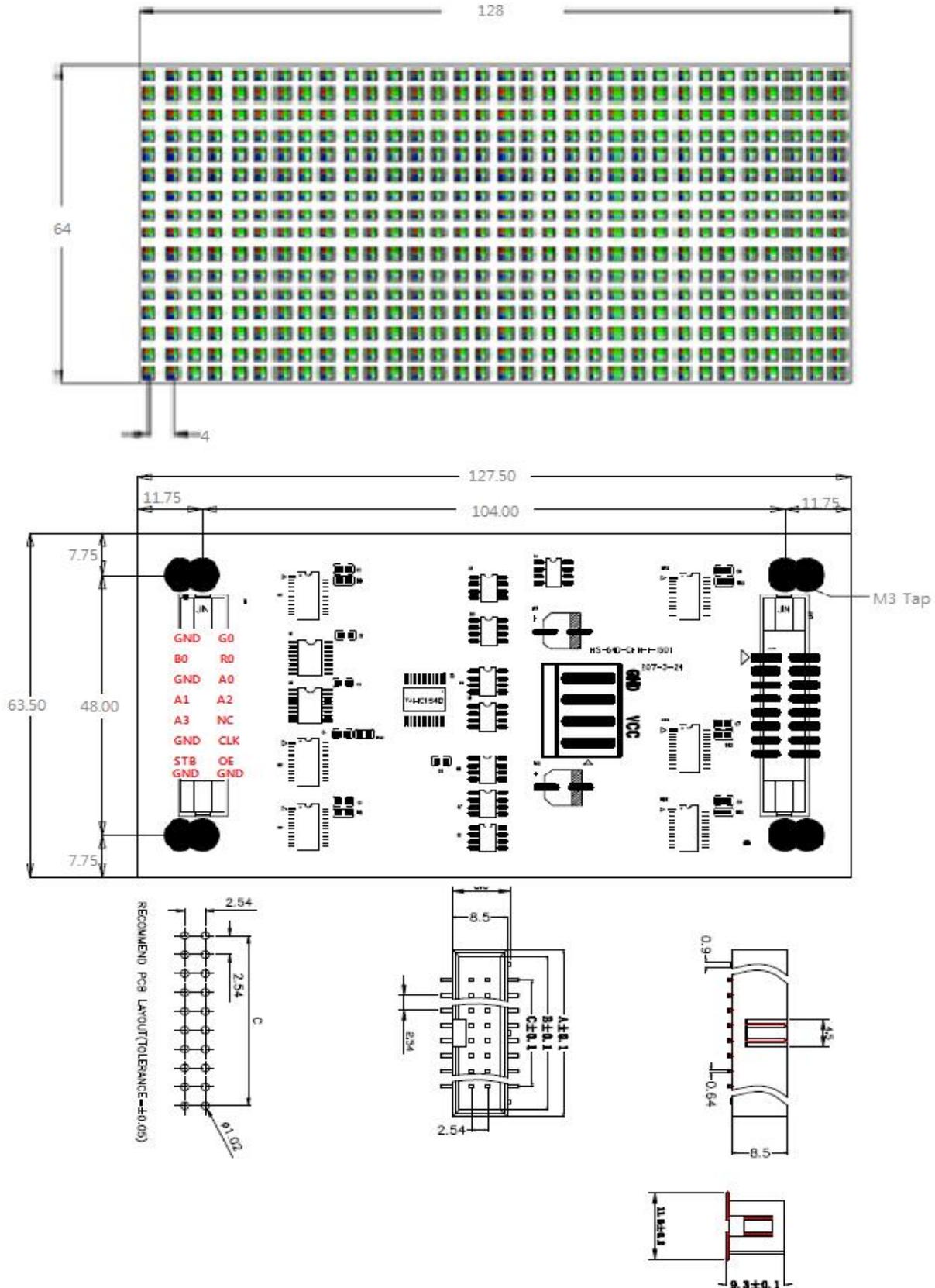
9. PIN CONNECTION

- DATA SIGNAL FUNCTION(J1, J2)

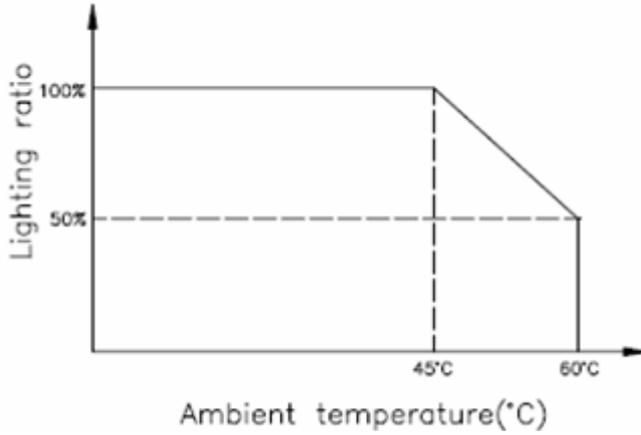
CONNECTOR	PIN		DESCRIPTION
	NUM.	NAME	
<IN/OUT> 	1	GND	GND
	2	G0	G0
	3	B0	B0
	4	R0	R0
	5	GND	GND
	6	A0	A0
	7	A1	A1
	8	A2	A2
	9	A3	A3
	10	NC	NC
	11	GND	GND
	12	CLK	CLK
	13	STB	STB
	14	OE	OE
	15	GND	GND
	16	GND	GND



10. DIMENSION

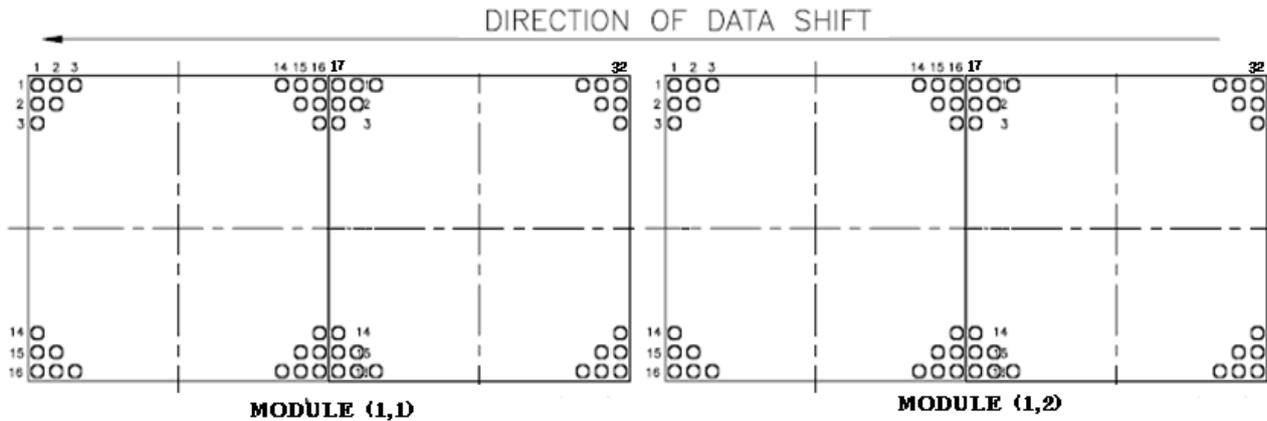


11. THE RATE OF LIST DERATING CURVE



When you drive the module, refer to left graph.

12. DATA SHIFT DIRECTION

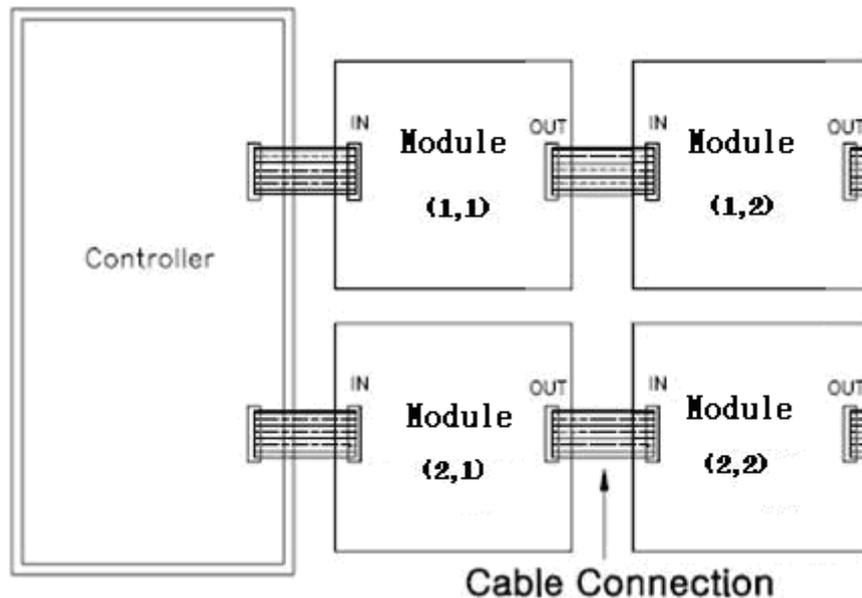


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
2	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
3	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
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11	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352
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16	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512

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13. EXAMPLE CONNECTION



14. MATTER ON CAUTION WHEN INSTALLED (assembly)

- 1) It should be installed deeply considered in noisy place because wrong operation might be occurred
- 2) Make sure of power source before operating after being assembled module. Damage may be occurred by low voltage or short circuit.
- 3) The module is not waterproofed. So, do waterproof treatment to instrument of you need.
- 4) Please install module within guaranteed scope and specially escape installation from circumstance of smoke, dust, and SO₂-GAS.
- 5) Please tern off power source if there is no data transmission when you testing its operation after installation.
- 6) Please establish policy of heat release and use it under circumstance within guarantee scope in case a lot of module is assembled and used.
- 7) In case it is used under below zero circumstance, it is favolable to use it with high voltage within maximum extent of value of input power source.
- 8) Please make instrument after examining weight fully as module weight if 80g.

15. MATTER OF REFERENCE WHEN HANDING

- 1) Over voltage prevention circuit is built in "LED POWER SUPPLY(VLED)" of module and LED will be turned off in casehigh voltage so supplied beyond maximum extent of regular power.
- 2) VR volume of brightness adjustment-use id adjusted in fixed rank by LOT and supplied therefore don't operate it as you please.
- 3) Operating circuit is composed of CMOS, so, please take caution for static electricity.
- 4) If you have any question for using this, please contact us.

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※ Warranty contents

Exchange without compensation will be made for the period of **12month** after having been delivered in case troubles in ordinary treatment in occurred.

Warranty is for deliver products. Expense of exchange work, damage compensation for advertisement suspension is not paid. Also compensative treatment will be made in case of following even for warranty period.

1. Troubles by handing carelessness and wrong using.
2. Troubles by inapplicable repair or remarking.
3. Troubles by natural disaster.

◎ Matters that demand attention and notice in compliance with contents of this document and use of the product.

- 1) In case that the products mentioned in this document is application ti foreign exchange and foreign control law, admission of Korea government is required when exporting or taking out.
- 2) Technical information mentioned in this document is record of production characteristics and practical circuit and it is not mean guarantee of possessive right of industry or permission if performance right.
- 3) Standard use of this production – it is used for general electronic parts(dedicators, Display, Office machine measuring equipment and home consumer products). When it is used for specific use(Aviation space, Traffic equipment. Burning equipment and safety equipment, ETC) which special quality and reliability is required and when trouble or miss operation of these threaten human's life of do harm to person, you should discuss it whit us in advance considering using except standard use of our intention.
- 4) You should use it within the warranty scope for special maximum rating operation power source electronic voltage scope and heat release ability. We are not responsible for the defect that occur to instrument when it is used beyond our warranty measures.

◎ If you have any question or change required about the specification, please solve it after agreement with us.