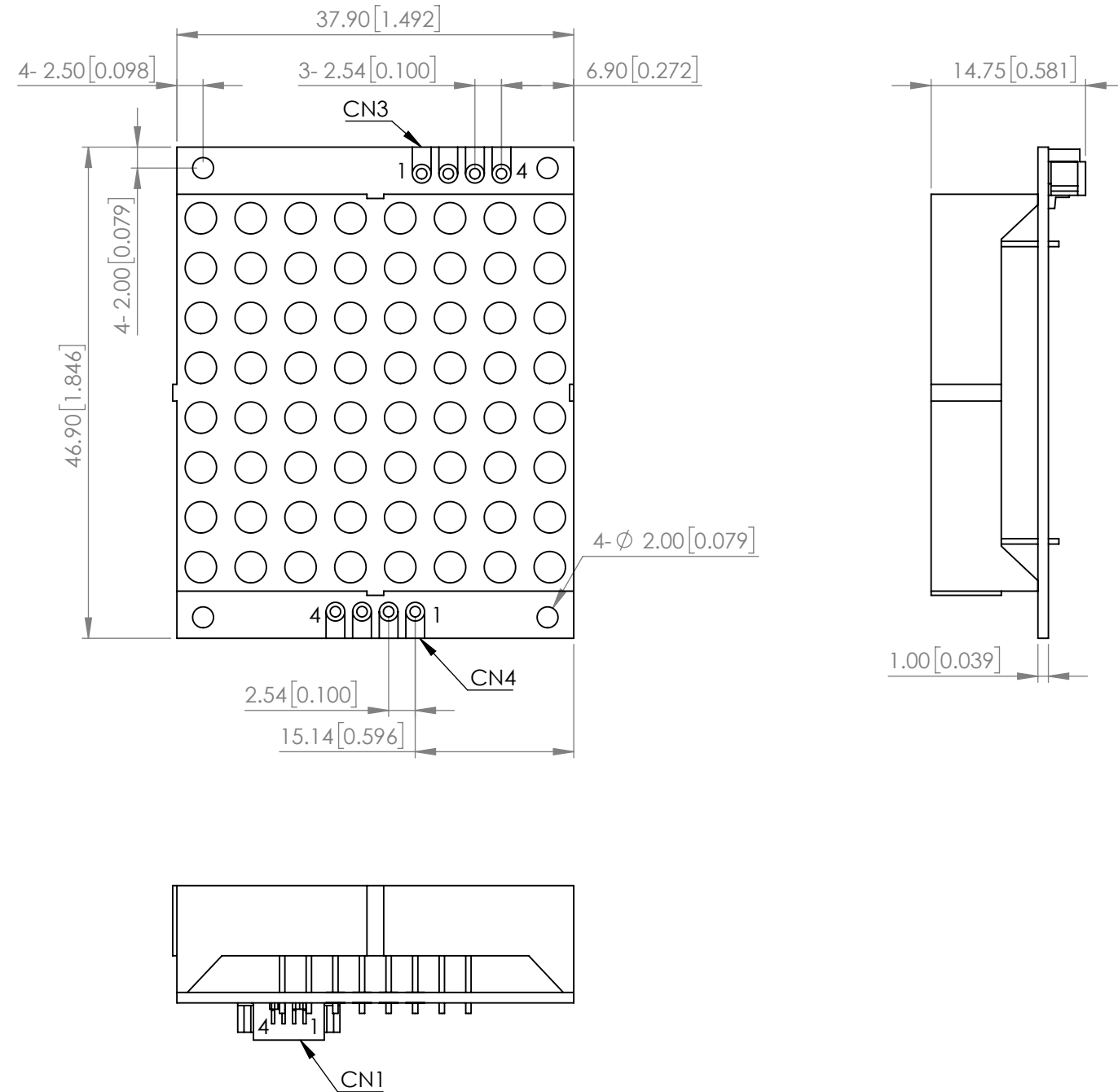


PRELIMINARY



ELECTRO-OPTICAL CHARACTERISTIC TA=25°C PER DOT

PARAMETER	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH	-	638	-	nm	If=20mA
FORWARD VOLTAGE	-	2.0	2.6	Vf	If=20mA
REVERSE CURRENT	-	-	100	uA	VR=5V
LUMINOUS INTENSITY	-	6.6	-	mcd	If=10mA
EMITTED COLOR	RED				
FACE COLOR	BLACK				
SEGMENT COLOR	MILKY WHITE DIFFUSED				

ABSOLUTE MAXIMUM RATINGS TA=25°C PER DOT

PARAMETER	MAX	UNITS
PEAK FORWARD CURRENT)*	100	mA
FORWARD CURRENT	25	mA
POWER DISSIPATION	65	mW
REVERSE VOLTAGE	5	V
STORAGE TEMPERATURE	-40 TO +85	°C
OPERATING TEMPERATURE	-40 TO +85	°C

* 1/8Duty, 10kHz

PIN ASSIGNMENT

CONNECTOR	PIN	DESCRIPTION
CN1	1	TX1
	2	RX1
	3	3.3V
	4	VSS
CN3	1	TX1
	2	RX1
	3	3.3V
	4	VSS
CN4	1	VSS
	2	TX1
	3	RX1
	4	5V

UART CONFIGURATION


ITEM	DESCRIPTION
BAUD RATE	115200
DATA BIT	8
STOP BIT	1
PARITY BIT	NONE
FLOW CONTROL	NONE

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION} / _{-0.00} MAX= ^{+0.00} / _{-DECIMAL PRECISION}

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
N/A	Send a text or string to 8x8 LED Display	1. type a Text or String 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms	printf("2") while (USART_ReceiveData(UART1) != 'E') {} or printf("012345678ABCD") while (USART_ReceiveData(UART1) != 'E') {}
N/A	Send Image 8x8 (8x8 332/RGB bitmap) to LED Display (An array consist of 64 bytes bitmap)	1. A "for" loop to send 64 bytes user define display information 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms	for (i = 0 ; i < 64; i++) { USART_Write(User_define_array[i]); } while (USART_ReceiveData() !='E') {}
N/A	Send Image 128x16 (128x16 332/RGB bitmap) to LED Display (An array consist of 2048 bytes bitmap)	1. A "for" loop to send 2048 bytes user define display information 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms	for (i = 0 ; i < 2048; i++) { USART_Write(User_define_array[i]); } while (USART_ReceiveData(UART1) != 'E') {}
0x80	Write a 5X7 Character	1. AT80=(line,column,Character) 2. Wait until receive a module available byte ('E') from ezDisplay <example> AT80=(0,0,A)	printf("at80=(%d,%d,%d)",Line,Column,Character); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at80=(0,0,A)"); while (USART_ReceiveData(UART1) != 'E') {}
0x81	Write a 5X7 String	1. AT81=(line,column,String) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> AT81=(0,0,ABCD1234)	printf("at81=(%d,%d,%s)",Line,Column,String); while (USART_ReceiveData(UART1) != 'E') {} or printf("at81=(%d,%d,%d)",Line,Column,Value); while (USART_ReceiveData(UART1) != 'E') {} or printf("at81=(%d,%d,%f)",Line,Column,Value); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at81=(0,0,ABCD9876%\$)"); while (USART_ReceiveData(UART1) != 'E') {}
0x84	Dsisplay a 8X8 pattern	1. AT84=(X position,Y position, pattern ID) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> AT84=(16,32,1)	printf("at84=(16,32,1)"); while (USART_ReceiveData(UART1) != 'E') {}


*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION}/_{-0.00} MAX. = ^{+0.00}/_{-DECIMAL PRECISION}

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 2 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION	SCALE : NTF	APRVD BY : --	
	THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	UNIT : mm [INCH]		Ⓢ

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
0x85	Dsisplay a 8X16 pattern	1. AT85=(X position,Y position,pattern ID) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> AT85=(16,32,1)	printf("at85=(16,32,1)"); while (USART_ReceiveData(UART1) != 'E') {}
0x90	Draw a line	1. AT90=(X0 position,Y0 position,X1 position,Y1 position,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT90=(1,4,54,4,4) : '4' green color	printf("at90=(%d,%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,Xcoordinate2,Ycoordinate2,Color_code); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at90=(1,4,54,4,4)"); while (USART_ReceiveData(UART1) != 'E') {}
0x91	Draw a Rectangle	1. AT91=(X0 position,Y0 position,X1 position,Y1 position,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT91=(0,0,55,7,2) : '2' blue color	printf("at91=(%d,%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,Xcoordinate2,Ycoordinate2,Color_code); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at91=(0,0,55,7,2)"); while (USART_ReceiveData(UART1) != 'E') {}
0x92	Draw a filled Rectangle	1. AT92=(X0 position,Y0 position,X1 position,Y1 position,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT92=(1,1,54,6,32) : '32' red color	printf("at92=(%d,%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,Xcoordinate2,Ycoordinate2,Color_code); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at92=(0,0,55,7,2)"); while (USART_ReceiveData(UART1) != 'E') {}
0x93	Draw a Square	1. AT93=(X position,Y position,Width,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT93=(48,1,4,2) : '2' blue color	printf("at93=(%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,Width,Color_code); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at93=(48,1,4,2)"); while (USART_ReceiveData(UART1) != 'E') {}
0x94	Draw a Circle	1. AT94=(X position,Y position,Radius,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT94=(48,4,3,2) : '2' blue color	printf("at94=(%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,Radius,Color_code); while (USART_ReceiveData(UART1) != 'E') {} or input directly printf("at94=(48,4,3,2)"); while (USART_ReceiveData(UART1) != 'E') {}


*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION} -0.00 MAX= ^{+0.00} -DECIMAL PRECISION

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 3 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	SCALE : NTF	APRVD BY : --	
		UNIT : mm [INCH]		Ⓢ

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
0x95	Draw a filled Circle	1. AT95=(X position,Y position,Radius,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT95=(48,4,3,4) : '4' green color	<pre>printf("""at95=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,Radius,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at95=(48,4,3,4)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x96	Draw a tip upward Triangle	1. AT96=(X position,Y position,Height,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT96=(48,1,3,4) : '4' green color	<pre>printf("""at96=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at96=(48,1,3,4)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x97	Draw a filled tip upward Triangle	1. AT97=(X position,Y position,Height,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT97=(48,1,3,32) : '32' red color	<pre>printf("""at97=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at97=(48,1,3,32)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x98	Draw a tip downward Triangle	1. AT98=(X position,Y position,Height,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT98=(48,6,3,4) : '4' green color	<pre>printf("""at98=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at98=(48,1,3,4)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x99	Draw a filled tip downward Triangle	1. AT99=(X position,Y position,Height,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT99=(48,6,3,4) : '4' green color	<pre>printf("""at99=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at99=(48,1,3,4)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x9a	Draw a tip leftward Triangle	1. AT9a=(X position,Y position,Width,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT9a=(48,4,2,4) : '4' green color	<pre>printf("""at9a=(%d,%d,%d,%d)""",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("""at9a=(48,1,3,4)"""); while (USART_ReceiveData(UART1) != 'E') {}</pre>


*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION}/_{-0.00} MAX= ^{+0.00}/_{-DECIMAL PRECISION}

 LUMEX Creating LED and LCD Solutions Together™	425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.			PAGE : 4 OF 9	CHKD BY : E.C.
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.			SCALE : NTF	APRVD BY : --
				UNIT : mm [INCH]	(No)

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
0x9b	Draw a filled tip leftward Triangle	1. AT9b=(X position,Y position,Width,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT9b=(48,4,2,4) : '4' green color	<pre>printf("at9b=(%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("at9b=(48,1,3,4"); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x9c	Draw a tip rightward Triangle	1. AT9c=(X position,Y position,Width,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT9c=(48,4,2,4) : '4' green color	<pre>printf("at9c=(%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("at9c=(48,1,3,4"); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x9d	Draw a filled tip rightward Triangle	1. AT9d=(X position,Y position,Width,Color_code) Color_code : MONO color->0~64 RGB color-> 0~255 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <RGB LED example> AT9d=(48,4,2,4) : '4' green color	<pre>printf("at9d=(%d,%d,%d,%d)",Xcoordinate1,Ycoordinate1,height,Color_code); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("at9d=(48,1,3,4"); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x9e	Set a Pixel as default Color	1. AT9e=(X position,Y position) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> AT9e=(120,32)	<pre>printf("at9e=(%d,%d)",Xcoordinate1,Ycoordinate1); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("at9e=(12,8)"); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0x9f	Clear a Pixel	1. AT9f=(X position,Y position) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> AT9f=(32,32)	<pre>printf("at9f=(%d,%d)",Xcoordinate1,Ycoordinate1); while (USART_ReceiveData(UART1) != 'E') {}</pre> or input directly <pre>printf("at9f=(12,8)"); while (USART_ReceiveData(UART1) != 'E') {}</pre>
0xa	Shift eight row up	1. ATa=() 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATa=()	<pre>printf("atab=()"); while (USART_ReceiveData(UART1) != 'E') {}</pre>


*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION}/_{-0.00} MAX= ^{+0.00}/_{-DECIMAL PRECISION}

 LUMEX Creating LED and LCD Solutions Together™	425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.			PAGE : 5 OF 9	CHKD BY : E.C.
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.			SCALE : NTF	APRVD BY : --
				UNIT : mm [INCH]	(No)

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
0xac	Shift one row up	1. ATac= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATac=()	printf("atc="); while (USART_ReceiveData(UART1) != 'E') {}
0xad	Shift one row down	1. ATad= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATad=()	printf("atd="); while (USART_ReceiveData(UART1) != 'E') {}
0xae	Shift one column left	1. ATae= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATae=()	printf("atae="); while (USART_ReceiveData(UART1) != 'E') {}
0xaf	Shift one column right	1. ATaf= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATaf=()	printf("ataf="); while (USART_ReceiveData(UART1) != 'E') {}
0xd0	Clear display	1. ATd0= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd0=()	printf("atd0="); while (USART_ReceiveData(UART1) != 'E') {}
0xd1	Show the data in the display memory	1. ATd1= 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd1=()	printf("atd1="); while (USART_ReceiveData(UART1) != 'E') {}
0xd2	Scroll the whole display upward	1. ATd2=(shif time in ms) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd2=(20)	printf("atd2=(30)"); while (USART_ReceiveData(UART1) != 'E') {}
0xd3	Scroll the whole display downward	1. ATd3=(shif time in ms) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd3=(20)	printf("atd3=(30)"); while (USART_ReceiveData(UART1) != 'E') {}


*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION} -0.00 MAX= ^{+0.00} -DECIMAL PRECISION

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 6 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	SCALE : NTF	APRVD BY : --	
		UNIT : mm [INCH]		Ⓢ

ezDisplay 8x8 DOT MATRIX LED DISPLAY COMMAND LIST

Code	Function	Instruction of AT Command mode	API for C (using STM32F030 as an example)
0xd4	Scroll the whole display leftward	1. ATd4=(shif time in ms) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd4=(20)	printf("atd4=(30)"); while (USART_ReceiveData(UART1) != 'E') {}
0xd5	Scroll the whole display rightward	1. ATd5=(shif time in ms) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATd5=(20)	printf("atd5=(30)"); while (USART_ReceiveData(UART1) != 'E') {}
0xf0	Turn display Off	1. ATf0=() 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATf0=()	printf("atf0=()"); while (USART_ReceiveData(UART1) != 'E') {}
0xf1	Turn display On	1. ATf1=() 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATf1=()	printf("atf1=()"); while (USART_ReceiveData(UART1) != 'E') {}
0xf2	Set the brightness of RGB LED Display	1. ATf2=(level of brightness 0~11) 2. Wait until receive a module available byte ('E') from ezDisplay or delay 10 ms <example> ATf2=(3)	printf("atf2=(8)"); while (USART_ReceiveData(UART1) != 'E') {}



*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION}/_{-0.00} MAX= ^{+0.00}/_{-DECIMAL PRECISION}

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 7 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION	SCALE : NTF	APRVD BY : --	
	THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	UNIT : mm [INCH]		Ⓢ

COLOR CODE TABLE

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= $\begin{matrix} +\text{DECIMAL PRECISION} \\ -0.00 \end{matrix}$ MAX= $\begin{matrix} +0.00 \\ -\text{DECIMAL PRECISION} \end{matrix}$

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 8 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	SCALE : NTF	APRVD BY : --	
		UNIT : mm [INCH]		

ASCII CODE OF 5X7 FONTS AND 8X16 FONTS

HEX	SYMBOL	HEX	SYMBOL	HEX	SYMBOL
0x20		0x40	@	0x60	`
0x21	!	0x41	A	0x61	a
0x22	"	0x42	B	0x62	b
0x23	#	0x43	C	0x63	c
0x24	\$	0x44	D	0x64	d
0x25	%	0x45	E	0x65	e
0x26	&	0x46	F	0x66	f
0x27		0x47	G	0x67	g
0x28	(	0x48	H	0x68	h
0x29	)	0x49	I	0x69	i
0x2a	*	0x4a	J	0x6a	j
0x2b	+	0x4b	K	0x6b	k
0x2c	,	0x4c	L	0x6c	l
0x2d	-	0x4d	M	0x6d	m
0x2e	.	0x4e	N	0x6e	n
0x2f		0x4f	O	0x6f	o
0x30	0	0x50	P	0x70	p
0x31	1	0x51	Q	0x71	q
0x32	2	0x52	R	0x72	r
0x33	3	0x53	S	0x73	s
0x34	4	0x54	T	0x74	t
0x35	5	0x55	U	0x75	u
0x36	6	0x56	V	0x76	v
0x37	7	0x57	W	0x77	w
0x38	8	0x58	X	0x78	x
0x39	9	0x59	Y	0x79	y
0x3a	:	0x5a	Z	0x7a	z
0x3b	;	0x5b	]	0x7a	{
0x3c	<	0x5c	\	0x7a	|
0x3d	=	0x5d	[	0x7a	}
0x3e	>	0x5e	^	0x7a	~
0x3f	?	0x5f	_	0x7a	<-

ASCII CODE OF 16X16 FONTS

HEX	SYMBOL
0x30	0
0x31	1
0x32	2
0x33	3
0x34	4
0x35	5
0x36	6
0x37	7
0x38	8
0x39	9

NO. OF 8X16 PATTERN

No.	Symbol
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9


NO. OF 8X8 PATTERN

No.	Symbol
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

NO. OF 16X16 PATTERN

No.	Symbol
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION} -0.00 MAX= ^{+0.00} -DECIMAL PRECISION

 <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p>	46.9(L)*37.9(W)*14.75(H)mm, 1.5"/8*8 DOT MATRIX LED DISPLAY, 638nm RED, BLACK FACE WITH MILKY DOTS, 64 GRAY LEVELS, UART INTERFACE	DATE : 2021.03.16	DRAWN BY : E.C.	
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE : 9 OF 9	CHKD BY : E.C.	
	CONFIDENTIAL INFORMATION	SCALE : NTF	APRVD BY : --	
	THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	UNIT : mm [INCH]		Ⓢ

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [LED Displays & Accessories](#) category:

Click to view products by [Lumex](#) manufacturer:

Other Similar products are found below :

[LTC-2721WC](#) [LTC-4624JD](#) [LTC-4627G](#) [LTC-4627WC](#) [LTC-571P](#) [LTD-5021AWC](#) [LTM-8522G](#) [LTP-4323P](#) [LTP-747G](#) [LTS-3361JG-06](#)
[1668](#) [HT-F196NB-5323](#) [IPD2131-27](#) [LDQ-N514RI](#) [LDS-A3506RD](#) [LDS-A3926RI](#) [SC03-12HDB](#) [SI-B9T151550WW](#) [SI-B9V171550WW](#)
[SLC-3PF-WL](#) [SLDN-32M-G](#) [1624](#) [LTC-2621JD](#) [LTC-2623WC](#) [LTC-4624P](#) [LTC-4627JD](#) [LTC-5623JD-20](#) [LTD-322G](#) [LTD-482PC](#) [LTP-](#)
[1057AHR](#) [LTP-1457AKR](#) [LTP-3784G-01](#) [LTS-313AP](#) [LTS-4812SKR-P](#) [LTS-547AE](#) [LTS-6780P](#) [446010401-3](#) [HV-7W30-6829](#) [DA43-](#)
[11GWA](#) [LDD-E305RI](#) [LDQ-N3402RI](#) [LDQ-N3606RI](#) [LDS-A3924RI-SI](#) [LDT-M2804RI](#) [86004CB830](#) [LTP-3862JD](#) [LTP-2088AKD](#) [LTD-](#)
[6740P](#) [LTS-6880Y](#) [LDS-SMC3002RISUGTR](#)