

# **Intelligent Setup**

This document is mainly to show you how to do intelligent setup. The following steps are applying to normal modules.

1. Click "Screen Configuration"—click" Receiver" in the interface of "Hardware Setup"—click" Intelligent setup", as follows

Hardware Setup		-	
Sender	Receiver	Display Connection	
Module Info Drive IC : File	General <u>Unknown file</u>	Scanning mode: Single-color 16 scan 16 rows/zone Module Info	
Load Capacity Setup – Actual width Actual height :	64 <=64 32 <=512	Cascade direction From right to left  Card Mode Normal	
Effects Setup Refresh FRQ Scan clock	528 <=528H; 3.0 ∨ MHZ	z Synchro refresh Auto V Hz Four-color exchange Duty ratio 50 % Afterglow Blanking	
Phase of clock Row blanking time Newline time	15 ~ 300 ns	Gray level     32     Level     Chroma space       Grey mode     Iow refresh-lower liv     Image control	
Brightness efficiency Min OE width(>40ns)	(including blanking): 38,44% : 1453 ns	High Quality     Other setup       specify     40	
Intelligent setup		New framework	
Param readback	Load from file	Save to file Send to Receiver Save to Receiver	

2. After clicking" Intelligent setup", you will see the following steps:

## 1) Intelligent setup guide 1

Pay attention to those marked in red. Others don't needs to be changed in this page.

Display type: Choose this according to your screen

Driver IC: Check this IC on the back of your module, and choose the corresponding option in the software, like MBI5153 or ICN2053, etc. If you don't find the exact IC model, you can just select "General".

Pixel X/Y:X means the actual width of one module (in pixel)<br/>Y means the actual height of one module (in pixel)

Data input Qty: The quantity of the input ports on the module



Data group: Check how many sets of R; G; B signal that each input port has.

Row decode mode: Check the type of the decode IC on the back of the module (74HC138 is the regular one).

Module cascade direction: Check how the modules connect (viewing from the front of the LED screen)

Sender	Receiver	Display Con	nection					
Module Info	ntelligent setup guide 1						×	
Drive IC: M File <u>E:\</u>	Display type O Single-color	Double-color	0	Full-color real pixel	O Full-color	virtual pixel	fodule Info	
Load Capacity Setup	Virtual pixel sequence		red A green / bl	ue red B 🖂	ale at char			
Actual width	Data type		Red, green, (blu	ue) separa 🗸	elect Chip		:a for Rv907 🛛 🗸	
Actual height :	Module information						ita exchange	
Effects Setup	Module type		Regular					
Refresh FRQ	Pixels: (adapting real	pixel for virtual displa	iy) X X: 64		ү 32		-color exchange	
Scan clock	Data input port QTY		1				rglow Blanking	
Phase of clock	Data group/port		2				hroma space	
and the transmission	Row decode mode		chip 138 decod	le		$\sim$	nage control	
Row blanking time	Card Mode		Normal			$\sim$	Other setup	
Brightness efficiency (inc	Module cascade direction	(Look from the front	of display)		<u> </u>			
Min OE width(>40ns): 3	Ofrom left to right	() from right	to left	O from top to de	own Ofro	m down to top	Extended	
	New framework				Next	Cancel	equiar cabinet	
Intelligent setup							gaiar cabinet	
							Irregular cabinet	
	Load from file			er Save to Re				

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Se	lect Chip Type						X		
Module Info	Other Seriec	MBI Seriec	MV Seriec	SLIM Series	SM Seriec	TCN Series			
File	Coporal	MDI Jenes	MV0221	SUM2017	SM160175	ICN Jenes	-		
	General	MD10000	MT9ZZI	50M2017	51100175	ICN2027			
Load Capacit	DM13H	MBI5252	MY9231	SUM2017T	SM16136	ICN2028	-		
Actual wid	DM6902	MBI5224	MY9266	SUM2019	SM16158	ICN2037		$\sim$	
A should be a	TC62D722	MBI5166	MY9268	SUM2028	SM16159	ICN2038			
Actual nei	SC6618	MBI5155	MY9269	SUM2030	SM16259	ICN20385/2045			
Effects Setur	SC6618IP	MBI5153	MY9366	SUM2032	SM162075	ICN20385_T/2045_T			
Refresh FR	L59918	MBI5152	MY9862	SUM2033	SM162275	ICN2053/2050		ie i	
Scan clock	L59929	MBI5151	MY9868	SUM2130	SM16237	ICN2055/2065			
Beamcident	SC6660	MBI5124DPWM				ICN2058	-		
Phase of ck	SC6751	MBI5124							
Row blankir	W52812	MBI5053							
Brightness	GW6205	MBI5052							
Min OF widt	UC58903	MBI5051B							
PIILI OE WILL	UC59812	MBI5051					~		
Totelliger						OK Cance	l t		
Intelliger						Texagular	cohipot		

- Click 1: to see what color the first module (normally on the upper right of the LED screen) displays
- Click 2: to see what color the first module (normally on the upper right of the LED screen) displays

After comparing status1 & status2, choose the corresponding option in LedStudio For example,





Status2



🐻 Hardware Setup					े <del>क</del>	×
Sender	Receiver	Display Connection	ı,			
Module Info Drive IC: ICN203 File <u>C:\User</u>	8 s\hughm\Desktop\视输\20	Scanning mode: Fi	ull-color real pixel 32 s	scan 64 rows/zone	Module Info	
Load Capacity Setup         Actual width         Actual height:         Effects Setup         Refresh FRQ         Scan clock         Phase of clock         4         Row blanking time         Scan blanking time         Brightness efficiency (including Min OE width(>40ns): 23 ns	Intelligent setup guide2 Led display diversificati Status changes a from the display s 1 02 Display status g blanking): 72.34%	on utomatically, one time/4 secor status. <u>status 1 displays</u> <u>Grey equaize</u> High Quality Specify	nds, observe LED mod white, status 2 displa Last	tule, and choose the right ys black Next	Atta for RV908      Data exchange      Data exchange      Our-color exchange      Afterglow Blanking      Chroma space      Image control      Other setup      Extended	
Intelligent setup		New framework			Irregular cabinet	
Param readback	Load from file	Save to file	5end to Receiver	Save to Receiver		

Choose "status 1 displays white, status 2 displays black" according to the above situation, and click "Next".

#### 3) Intelligent setup guide 4

Click1&2 and then compare the status of them. Choose the corresponding options according to the actual change of the first module (normally on the upper right of the LED screen)





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Sender	Receiver I	isplay Connection		
Module Info Drive IC : ICN File <u>C:\L</u>	2038 sers\hughm\Desktop\视输\203	Scanning mode: Full-color real pixel 32 scan 64 rows/zone Module	e Info	
Load Capacity Setup Actual width Actual height :	f Intelligent setup guide4	X 4 data for Data ex	RV908 🖌	
Effects Setup Refresh FRQ Scan clock Phase of clock	Status changes au from the display st 15 1 2 16 Display status	somatically, one time/4 seconds, observe LED module, and choose the right answer atus. status 1 is brighter than status 2	exchange v Blanking	
Row blanking time Newline time Brightness efficiency (inclu	50 5 ding blanking): 84.92%	Last Next Cancel Image Grey equaize 0 Other High Quality	control setup	
Min OE width(>40ns): 27	ns	specify 40 ns Exter	nded	
Intelligent setup		New framework	r cabinet r cabinet	
Param readback	Load from file	Save to file Send to Receiver Save to Receiver		

Click 1; 2; 3; 4 and then compare status of them Choose the corresponding options according to the actual change of the first module (normally on the upper right of the led screen)





Hardware Setup				- 0	
Sender	Receiver Display	Connection			
Module Info Drive IC: ICN2038 File <u>C:\Users\</u>	Intelligent setup guide5	anning mode : Full-color real pixel 32 scan 64 rows/zone	×	Module Info	
Load Capacity Setup Actual width 256 Actual height : 256	Status changes automatica answer from the display sta Led display diversification	lly, one time/4 seconds, observe LED module, and choose atus.	the right	24 data for RV908 V	
Effects Setup Refresh FRO 1920	1 Display status 1	blue	~	Four-color exchange	
Scan clock 16.7 Phase of clock 4	O2 Display status 2 O3 Display status 3	red	~	Afterglow Blanking	
Row blanking time 500 Newline time 5	O 4 Display status 4	Black	~	Image control	
Brightness efficiency (including l Min OE width(>40ns): 27 ns		last Next	Cancel	Other setup Extended	
Intelligent setup	E	New framework		Trregular cabinet	
Param readback	Load from file Save	to file Send to Receiver Save to Receiver	iver	Fregular cabinet	

Bright line of LED display: choose" row" Bight rows of LED display: check the actual bight rows of the upper right module



Internal row (including one bright row): means the quantity of the black rows between bright rows, and the final value for this option should plus one. For example, there are 2 bright lines showing on the module, and between the two lines

For example, there are 2 bright lines showing on the module, and between the two lines there are 3 black rows. Therefore, you need to choose 2 for bright rows option and 4(3+1) for interval row option.

If there is just one line, choose 1 for bright rows option and 1 for interval row option.



Hardware	Setup			- 🗆 X
Send	ler	Receiver	Display Connection	
Module Ir Drive I File	nfo C: ICN2 <u>C:\Us</u>	2038 sers\hughm\Desktop\视输\	Scanning mode : Full-color real pixel 32 scan 64 rows/zone	Module Info
Load Cap Actual Actual Effects Si Refresh Scan do	width height : etup FRQ	256 < Bright li 256 < Bright li 256	nt setup guide6 X ne of LED display of Mo O Column All ows of LED display 1 V I row (including one bright row) 1 V	ode 24 data for RV908 V Data exchange Four-color exchange Afterglow Blanking
Phase o Row bla Newline Brightne Min OE	if clock inking time time set ficiency (include width(>40ns): 27 ficiency (include width(>40ns): 27 ficiency (include width(>40ns): 27 ficiency (include width(>40ns): 27 ficience width(>40ns): 27 fici	4	s: if only one bright row, must choose a interval row.	Chroma space Image control Other setup Extended
Inte	lligent setup		New framework	Irregular cabinet
Para	am readback	Load from file	Save to file Send to Receiver Save to Receiver	

Locate the blinking pixel on the first module, and mark it in the software by clicking the corresponding position. Follow the track of blinking pixel until "pixel recognition finish...." pops up, click "OK" and "Complete"





3. After finishing guide7, go back to the interface of "Receiver"
Pay attention to those marked in red
Actual width: the actual width (in pixel) that one receiving card loads
Actual height: the actual height (in pixel) that one receiving card loads
Ps: If there are more than one receiving card in your screen, and they load different pixel, input the greater value for the actual W&H
Scan clock: usually from 16.67 to 18.75
Gray level: Normally choose 65536(Max refresh)
Grey mode: Normally choose high refresh-light

🐻 Hardware Setup			X
Sender	Receiver	Display Connection	
Module Info Drive IC : File	General ✓	Scanning mode: Single-color 16 scan 16 rows/zone	Module Info
Load Capacity Setup			
Actual width	128 <=139	Cascade direction From right to left V	Card Mode Normal ~
Actual height :	128 <=512	Out Mode Normal ~	Data exchange
Effects Setup			
Refresh FRQ	840 ~ <=8968	Hz Synchro refresh Auto V Hz	Four-color exchange
Scan clock	16.7 V MHZ	Duty ratio 50 %	Afterglow Blanking
Phase of clock	4 ~	Gray level 65536(Max Refrest Level	Chroma space
Row blanking time	100 ns	Grey mode high refresh-light	Image control
Newline time	5	Grey equalize 0	Other active
Brightness efficiency (	(including blanking): 95.90%	High Quality	Other setup
Min OE width(>40ns):	: 53 ns	specify 40 ns	
Intelligent setup		Mew framework	
Param readback	Load from file	Save to file Send to Receiver Save to Receiver	

4. Finally, click" send to receiver". If the screen works ok, click" save to receiver" and then "save to file". At this moment, intelligent setup is done.