

### **Receiver Card**

### Mini901GV4

V 1.0 Jan 2018

#### 1. Features

Mini901GV4 is a high-end and full-featured ultra-small size mini receiver card. Compared with traditional receiver card, Mini901 GV4 uses DDR SODimm200 Interface. It is more flexible and it adapts to a variety of electronic circuit structure, achieving a card suitable for all applications. For this DDR interface we can provide docking development template for reference, which will considerably reduce the types of purchasing receiver card.

The system, specific circuits and program design of Mini901GV4, can effectively reduce the electromagnetic radiation and effectively help products pass the EMC test easily. Specific features are as follows:

1. It has all functions of 8<sup>th</sup> and 9<sup>th</sup> generation receiver cards and it is completely compatible with them.



- 2. Single card can support 32 groups RGB data output.
- 3. Supporting high refresh and high gray level.
- 4. Supporting general driver IC and PWM IC.
- 5. Supporting any type of scan within 32 scan, and supporting 595 and other serial decoding scan.
- 6. Support pixel-by-pixel brightness and color calibration.
- 7. Single card maximum supports 1024X256 pixels.
- 8. Supporting 12-bit HDMI colors input (required the 9<sup>th</sup> generation sending card).
- 9. Using 18-bit signal processor, maximum supporting 18-bit (260,000) gray (each of red, green and blue).
- 10. Supporting single-card color space conversion
- 11. Supporting configuration file read back.
- 12. Supporting pixel fault detection (requires a dedicated chip).
- 13. Supporting network cable BER test.
- 14. Supporting flat cable fault detection.
- 15. Supporting hot backup with dual receiver cards, dual power supplier, etc.
  - 16. Module Flash chip can store calibration data.



- 17. Supporting temperature and humidity monitoring.
- 18. Supporting smoke monitoring.
- 19. Supporting voltage monitoring.
- 20. Supporting the cabinet-door (open/close) monitoring and fan speed monitoring.
- 21. Supporting the LCD panel display module.
- 22. In line with EU standards RoHS
- 23. In line with EU standards CE-EMC;

# 2. Appearance Introduction

### Signal lights



**DDR SODimm interface** 

Picture 1 Mini901 Picture

Official website: www.linsn.com

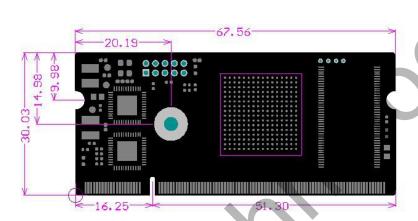
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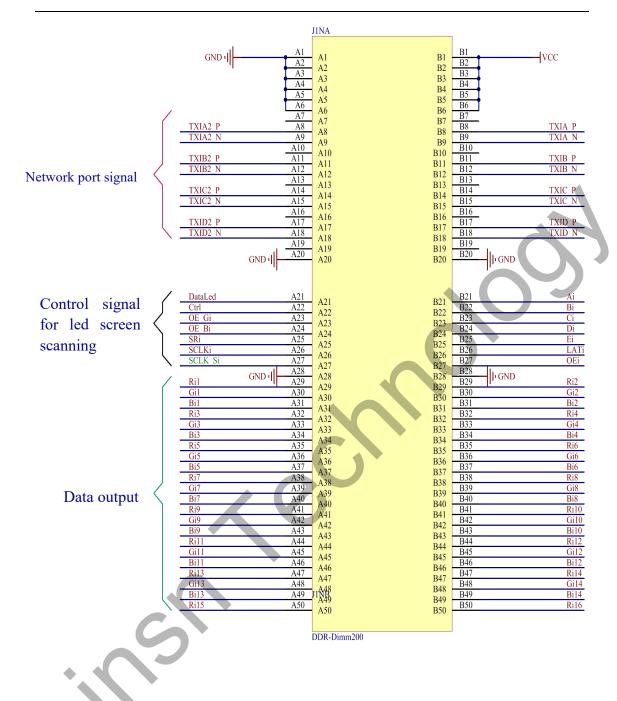
## 3. Dimensions



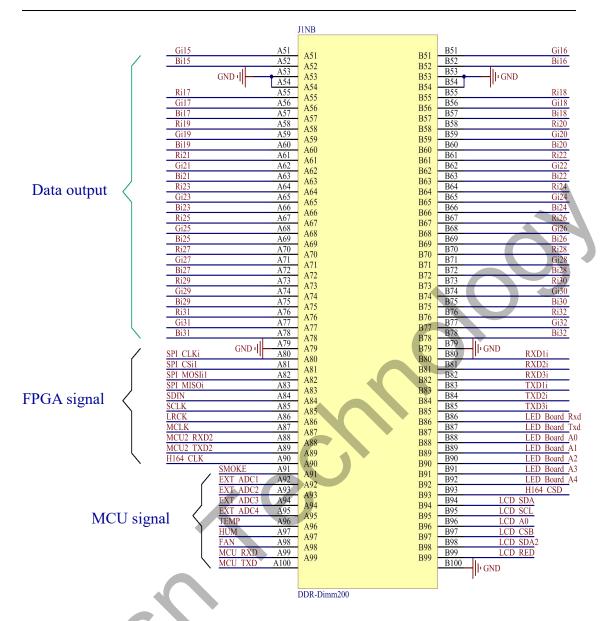
Picture 2 Mini901 Hole dimension drawings (mm)

# 4. Pin Description









Picture3 DDR SODimm200 interface

Definition Description: The following comments table of pin definitions correspond with the pins map above ( from top to down).



	GND	A1	B1	VCC	
	GND	A2	B2	VCC	
	GND	A3	В3	VCC	
	GND	A4	B4	VCC	
	GND	A5	В5	VCC	
	GND	A6	В6	VCC	
	Reserved	A7	В7	Reserved	
	TXIA2_P (orange)	A8	B8	TXIA_P (orange)	
	TXIA2_N (White and	A9	В9	TXIA_N (White and	
	Orange)			Orange)	
	Reserved	A10	B10	Reserved	
Net	TXIB2_P (green)	A11	B11	TXIB_P (green)	Net
	TXIB2_N (white and	A12	B12	TXIB_N (white and	
interface	green)			green)	interface
	Reserved	A13	B13	Reserved	
module	TXIC2_P (blue)	A14	B14	TXIC_P (blue)	module
	TXIC2_N (white and	A15	B15	TXIC_N (white and	
one	blue)			blue)	two
	Reserved	A16	B16	Reserved	
	TXID2_P (brown)	A17	B17	TXID_P (brown)	
	TXID2_N (white and	A18	B18	TXID_N (white and	
	brown)			brown)	
	Reserved	A19	B19	Reserved	
	GND	A20	B20	GDN	
Self-Test	DataLed	A21	B21	Ai	
	Ctrl	A22	B22	Bi	Casa
	OE Gi	A23	B23	Ci	Scan
	OE Bi	A24	B24	Di	aantral
	SRi	A25	B25	Ei	control
Data	SCLKi	A26	B26	LATi	signal
Clock					signal
Extended	SCLK Si	A27	B27	OEi	
Clock					
	GND	A28	B28	GND	
Data	Ri1	A29	B29	Ri2	
<b>*</b>	Gi1	A30	B30	Gi2	
signal	Bi1	A31	B31	Bi2	
	Ri3	A32	B32	Ri4	

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output	Gi3	A33	B33	Gi4	
output	Bi3	A34	B34	Bi4	
module	Ri5	A35	B35	Ri6	
	Gi5	A36	B36	Gi6	
	Bi5	A37	B37	Bi6	
	Ri7	A38	B38	Ri8	
	Gi7	A39	B39	Gi8	
	Bi7	A40	B40	Bi8	
	Ri9	A41	B41	Ri10	
	Gi9	A42	B42	Gi10	
	Bi9	A43	B43	Bi10	
	Ri11	A44	B44	Ri12	
	Gi11	A45	B45	Gi12	
	Bi11	A46	B46	Bi12	
	Ri13	A47	B47	Ri14	
	Gi13	A48	B48	Gi14	
	Bi13	A49	B49	Bi14	
	Ri15	A50	B50	Ri16	
	Gi15	A51	B51	Gil6	
	Bi15	A52	B52	Bi16	
	GND	A53	B53	GND	
	GND	A54	B54	GND	
	Ri17	A55	B55	Ri18	
	Gi17	A56	B56	Gi18	
	Bi17	A57	B57	Bi18	
	Ri19	A58	B58	Ri20	
	Gi19	A59	B59	Gi20	
	Bi19	A60	B60	Bi20	
	Ri21	A61	B61	Ri22	
	Gi21	A62	B62	Gi22	
	Bi21	A63	B63	Bi22	
	Ri23	A64	B64	Ri24	
	Gi23	A65	B65	Gi24	
	Bi23	A66	B66	Bi24	
	Ri25	A67	B67	Ri26	
	Gi25	A68	B68	Gi26	
	Bi25	A69	B69	Bi26	
	Ri27	A70	B70	Ri28	

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	Gi27	A71	B71	Gi28	
	Bi27	A72	B72	Bi28	
	Reserved	A73	B73	Reserved	
	Reserved	A74	B74	Reserved	
	Reserved	A75	B75	Reserved	
	Reserved	A76	B76	Reserved	
	Reserved	A77	B77	Reserved	
	Reserved	A78	B78	Reserved	
	GND	A79	B79	GND	

FPGA other signal	SPI_CLKi	A80	B80	RXD1i	
	SPI_CSi1	A81	B81	RXD2i	
	SPI_MOSIi1	A82	B82	RXD3i	
	SPI_MISOi	A83	B83	TXD1i	
Ä	SDIN	A84	B84	TXD2i	
oth	SCLK	A85	B85	TXD3i	
er er	LRCK	A86	B86	Reserved	
S1g	MCLK	A87	B87	Reserved	
nal	MCU2_RXD2	A88	B88	Reserved	
	MCU2_TXD2	A89	B89	Reserved	
	Reserved	A90	B90	Reserved	
MCU signal module	SMOKE	A91	B91		
	EXT_ADC1	A92	B92		
	EXT_ADC2	A93	B93		
	EXT_ADC3	A94	B94	LCD_SDA	
	EXT_ADC4	A95	B95	LCD_SCL	,CI
	TEMP	A96	B96	LCD_A0	) pa
	HUM	A97	B97	LCD_CSB	panel c signal
	FAN	A98	B98	LCD_SDA2	LCD panel control signal
	MCU RXD	A99	B99	LCD_RED	1tro
<b>*</b>	MCU TXD	A100	B100	GND	



# 5. Working Conditions

	Normal	Minimum value	Maximum value	Unit
Rated Power	4	3.3	4.8	W
Rated voltage	5	4.5	5.5	V
Rated current	0.8	0.73	0.87	A
Working		-20	70	°C
temperature				
Working		0	95	0/0
humidity				

**END**