## SNES S-PPU2 Pinout by <u>Jonathon W. Donaldson (jwdonal)</u> (special thanks to <u>Martin Korth (nocash)</u>)

Designator	Name	Desc	QFP100P1870X2470	-64AM	Туре	Owner	Show	Number Name
4					1	True	True	B\U\R\S\T\
1	R/0/K/2/1	Video Output Color Burst	1	Output	1	True	True	B/0/K/2/1/
	\	Strobe (Active-Low)						
	D/E/D/	(to-S-ENC)	0	D	4	т	T	מבוסו
2	P\E\D\	Unknown (NC)	2	Passive	1	True	True	P\E\D\
3	3.58M	Video Output Clock	3	Output	1	True	True	3.58M
		(3.58MHz) (NTSC) (to						
		S-ENC)						
4		Unknown (NC)	4	Passive	1	True	True	T\O\U\M\E\I\
	E\I\							
5	VCC	Supply	5	Power	1	True	True	VCC
6	PAWR	5A22 B-Bus Write Strobe	6	Input	1	True	True	P\A\W\R\
		(Active-Low)						
7	P\A\R\D\	5A22 B-Bus Read Strobe	7	Input	1	True	True	P\A\R\D\
		(Active-Low)						
8	D7	5A22 Data Bus	8	I/O	1	True	True	D7
9	D6	5A22 Data Bus	9	I/O	1	True	True	D6
10	D5	5A22 Data Bus	10	I/O	1	True	True	D5
11	D4	5A22 Data Bus	11	I/O	1	True	True	D4
12	D3	5A22 Data Bus	12	I/O	1	True	True	D3
13	D2	5A22 Data Bus	13	I/O	1	True	True	D2
14	D1	5A22 Data Bus	14	1/0	1	True	True	D1
15	D0	5A22 Data Bus	15	1/0	1	True	True	D0
16	GND		16	Power	1	True	True	GND
		Supply Address			1			
17	PA7	5A22 B-Bus Address	17	Input		True	True	PA7
18	PA6	5A22 B-Bus Address	18	Input	1	True	True	PA6
19	PA5	5A22 B-Bus Address	19	Input	1	True	True	PA5
20	PA4	5A22 B-Bus Address	20	Input	1	True	True	PA4
21	PA3	5A22 B-Bus Address	21	Input	1	True	True	PA3
22	PA2	5A22 B-Bus Address	22	Input	1	True	True	PA2
23	PA1	5A22 B-Bus Address	23	Input	1	True	True	PA1
24	PA0	5A22 B-Bus Address	24	Input	1	True	True	PA0
25	HBLANK	Horizontal Blank (to 5A22)	25	Output	1	True	True	HBLANK
26	VBLANK	Vertical Blank (to 5A22)	26	Output	1	True	True	VBLANK
27		Dot Clock Out (5.37MHz)		Passive	1	True	True	5\M\O\U\T\
	T\	(to expansion port)						
28		Reset Out 1 (to CPU, APU,	28	Output	1	True	True	R\E\S\O\U\T\1\
	U\T\1\	Cartridge, Expansion port,	20	Output	•	1140	1140	
	Otttit	etc.)						
29	EXTLATO	External Latch (Lightpen	29	I/O	1	True	True	EXTLATCH
23	H	signal) (to Joypad)	20	., 0	•	TIUC	1100	EMBRIOR
30			30	Input	1	True	True	PALMODE
30			30	Input	1	TTUE	True	FALINOUL
	E	(VCC=PAL, GND=NTSC)						
0.4	VINI	(GND)	0.4	Lancer	4	т	<b>T</b>	VIAI
31	XIN	Master Clock	31	Input	1	True	True	XIN
		(21.47727MHz) (from Osc)						
32	VCC	Supply	32	Power	1	True	True	VCC
33		Reset Out 0 (to PPU1)	33	Output	1	True	True	R\E\S\O\U\T\0\
	U\T\0\							
34	R\E\S\E\T	Reset In (from CIC)	34	Input	1	True	True	R\E\S\E\T\
	\	•		•				
35	GND	Supply	35	Power	1	True	True	GND
36	FIELD	Unknown (connected to	36	Passive	1	True	True	FIELD
		PPU1)						
37	O\V\F\R\1	Unknown (connected to	37	Input	1	True	True	O\V\E\R\1\
"	\	PPU1)	··	put	•		1100	♥ (* (= (: )
	1	1131)						

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38		Desc	QFP100P1870X2470-	-O-F/AIIVI	Type	Owner	Show	Number Name
36		Dot Clock In (5.37MHz) (from PPU1)	38	Passive	1	True	True	5\M\I\N\
39		Unknown (connected to PPU1)		Passive	1	True	True	H\C\L\D\
40		Unknown (connected to PPU1)	40	Passive	1	True	True	V\C\L\D\
41		Unknown (connected to PPU2)		Passive	1	True	True	COLOR0
42		Unknown (connected to PPU2)		Passive	1	True	True	COLOR1
43		Unknown (connected to PPU2)		Passive	1	True	True	COLOR2
44		Unknown (connected to PPU2)		Passive	1	True	True	PRIO0
45		Unknown (connected to PPU2)		Passive	1	True	True	PRIO1
46		Unknown (connected to PPU2)		Passive	1	True	True	CHR0
47		Unknown (connected to PPU2)	47	Passive	1	True	True	CHR1
48		Unknown (connected to PPU2)		Passive	1	True	True	CHR2
49		Unknown (connected to PPU2)		Passive	1	True	True	CHR3
50	\	Unknown (connected to local /OVER1, and /OVER on PPU1)		Input	1	True	True	O\V\E\R\2\
51	VDB0	VRAM Data Bus (High Byte)	51	I/O	1	True	True	VDB0
52		VRAM Data Bus (High Byte)		I/O	1	True	True	VDB1
53		VRAM Data Bus (High Byte)	53	I/O	1	True	True	VDB2
54		VRAM Data Bus (High Byte)		I/O	1	True	True	VDB3
55		VRAM Data Bus (High Byte)	55	I/O	1	True	True	VDB4
56		VRAM Data Bus (High Byte)		I/O	1	True	True	VDB5
57		VRAM Data Bus (High Byte)	57	I/O	1	True	True	VDB6
58	VDB7	VRAM Data Bus (High Byte)	58	I/O	1	True	True	VDB7
59	VCC	Supply	59	Power	1	True	True	VCC
60		VRAM Data Bus (Low Byte)		I/O	1	True	True	VDA0
61	VDA1	VRAM Data Bus (Low Byte)	61	I/O	1	True	True	VDA1
62	VDA2	VRAM Data Bus (Low Byte)	62	I/O	1	True	True	VDA2
63	VDA3	VRAM Data Bus (Low Byte)	63	I/O	1	True	True	VDA3
64	VDA4	VRAM Data Bus (Low Byte)	64	I/O	1	True	True	VDA4
65	VDA5	VRAM Data Bus (Low Byte)	65	I/O	1	True	True	VDA5
66	VDA6	VRAM Data Bus (Low Byte)	66	I/O	1	True	True	VDA6

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Section	Designator	Name	Desc	QFP100P1870X2470	-64AM	Туре	Owner	Show	Number Name
Second   Vision   Second   Vision   Second   Second   Second   Vision   Second   V		VDA7	VRAM Data Bus (Low	67	I/O	1	True	True	VDA7
EXTO			Byte)						
VRAM Data Bus High   Byse   (it is undear why	68					1			
Byte)  (it is unclear why this is wind up to YRAM in this street up to YRAM in State   True   True   EXT1	69	EXT0		69	Input	1	True	True	EXT0
True									
SNES    SNES									
Extra   External Video Input (from 70   Input 1   True   True   EXT1									
VRAM Data Bus (High Byte) (It is unclear why byte) (It is unclear why byte) (It is unclear why bits is wired up to VRAM in this to wired up to VRAM in the swind up to VRAM in SNES)	70	FXT1	External Video Input (from	70	Input	1	True	True	FXT1
Byte) (it is unclear why this is writed up to VRAM in SNES)   SNES)				. •		•			<u></u>
SNES    EXT2   External Video Input (from 71   Input 1   True   True   EXT2									
Extract   External Video Input (from 71   Input   1   True   True   EXT2				l					
VRAM Data Bus (High   Byte)) (It's unclear why this is wired up to VRAM in SNES)									
Byte) (it is unclear why this is wired up to VRAM in SNES)	71	EXT2		71	Input	1	True	True	EXT2
True									
SNES    SNES    SET   SEXTRAI Video Input (from 72   Input				1					
EXT3				l.					
VRAM Data Bus (High Byte) (it is unclear why this is wired up to VRAM in SNES)	72	EXT3		72	Input	1	True	True	EXT3
### ### ##############################			VRAM Data Bus (High		•				
SNES    SNES    ST44   Extramal Video Input (from 73   Input 1   True   True   EXT4									
EXT4									
VRAM Data Bus (High   Byte) (it is unclear why this is wired up to VRAM in SNES)	72	EVTA	SNES)	72	Input	1	Truo	Truo	EVTA
Byte) (it is unclear why this is wired up to VRAM in SNES)	7.5	LX14		13	input	1	Tiue	True	LA14
this is wired up to VRAM in SNES)									
SNES    True				l					
VRAM Data Bus (High Byte)) (it is unclear why this is wired up to VRAM in SNE'S)			SNES)						
Byte) (it is unclear why this is wired up to VRAM in SNES)	74	EXT5		74	Input	1	True	True	EXT5
SNES    SNES  SNES    SNES  SNES    SNES  SNES    SNES  SNES  SNES    SNES									
SNES    External Video Input (from 75									
EXT6			SNES)						
Byte ) (it is unclear why this is wired up to VRAM in SNES)   Factor   SNES    SNES	75	EXT6	External Video Input (from	75	Input	1	True	True	EXT6
this is wired up to VRÁM in SNES)  76 EXT7 External Video Input (from 76 Input 1 True True EXT7  VRAM Data Bus (High Syte)) (it is unclear why this is wired up to VRAM in SNES)  77 TST0 Unknown (NC) 77 Passive 1 True True TST0  78 TST1 Unknown (NC) 78 Passive 1 True True TST1  79 TST2 Unknown (NC) 79 Passive 1 True True TST1  80 TST3 Unknown (NC) 80 Passive 1 True True TST3  81 TST4 Unknown (NC) 81 Passive 1 True True TST3  81 TST4 Unknown (NC) 81 Passive 1 True True TST3  82 TST5 Unknown (NC) 81 Passive 1 True True TST5  83 VCC Supply 83 Power 1 True True TST5  84 TST6 Unknown (NC) 84 Passive 1 True True TST5  85 TST7 Unknown (NC) 84 Passive 1 True True TST5  86 TST8 Unknown (NC) 85 Passive 1 True True TST6  87 TST8 Unknown (NC) 86 Passive 1 True True TST6  88 TST8 Unknown (NC) 86 Passive 1 True True TST6  87 TST9 Unknown (NC) 86 Passive 1 True True TST8  88 TST8 Unknown (NC) 86 Passive 1 True True TST6  87 TST9 Unknown (NC) 87 Passive 1 True True TST8  88 TST10 Unknown (NC) 88 Passive 1 True True TST9  89 TST10 Unknown (NC) 88 Passive 1 True True TST9  80 TST11 Unknown (NC) 88 Passive 1 True True TST9  81 TST11 Unknown (NC) 89 Passive 1 True True TST10  82 TST11 Unknown (NC) 89 Passive 1 True True TST10  83 TST11 Unknown (NC) 89 Passive 1 True True TST112					·				
SNES    Faternal Video Input (from 76   Input 1   True   True   EXT7   External Video Input (from 76   Input 1   True   True   EXT7   Faternal Video Input (from 76   Input 1   True   True   EXT7   Faternal Video Input (from 76   Input 1   True									
Factor   F									
VRAM Data Bus (Fligh Byte)) (it is unclear why this is wired up to VRAM in SNES)   TST0	76	FXT7		76	Innut	1	True	True	FXT7
Byte) (it is unclear why this is wired up to VRAM in SNES)   77	10	LAII		10	iriput	1	iiue	iiue	LAH
this is wired up to VRAM in SNES)  77 TST0 Unknown (NC) 77 Passive 1 True True TST0  78 TST1 Unknown (NC) 78 Passive 1 True TsT1  79 TST2 Unknown (NC) 79 Passive 1 True True TST2  80 TST3 Unknown (NC) 80 Passive 1 True True TST3  81 TST4 Unknown (NC) 81 Passive 1 True True TST3  82 TST5 Unknown (NC) 82 Passive 1 True True TST4  83 VCC Supply 83 Power 1 True True TST5  84 TST6 Unknown (NC) 84 Passive 1 True True TST5  85 TST7 Unknown (NC) 84 Passive 1 True True TST6  86 TST8 Unknown (NC) 85 Passive 1 True True TST6  87 TST9 Unknown (NC) 86 Passive 1 True True TST7  88 TST10 Unknown (NC) 87 Passive 1 True True TST8  88 TST10 Unknown (NC) 88 Passive 1 True True TST9  89 TST11 Unknown (NC) 88 Passive 1 True True TST9  89 TST11 Unknown (NC) 89 Passive 1 True True TST10  90 TST12 Unknown (NC) 89 Passive 1 True True TST11									
77         TST0         Unknown (NC)         77         Passive         1         True         True         TST0           78         TST1         Unknown (NC)         78         Passive         1         True         True         TST1           79         TST2         Unknown (NC)         79         Passive         1         True         TST2           80         TST3         Unknown (NC)         80         Passive         1         True         TST3           81         TST4         Unknown (NC)         81         Passive         1         True         True         TST4           82         TST5         Unknown (NC)         82         Passive         1         True         True         TST5           83         VCC         Supply         83         Power         1         True         True         VCC           84         TST6         Unknown (NC)         84         Passive         1         True         True         TST6           85         TST8         Unknown (NC)         85         Passive         1         True         Tsue         TST8           86         TST8         Unknown (NC)         87			this is wired up to VRAM in	l					
78         TST1         Unknown (NC)         78         Passive         1         True         True         TST1           79         TST2         Unknown (NC)         79         Passive         1         True         TST2           80         TST3         Unknown (NC)         80         Passive         1         True         TST3           81         TST4         Unknown (NC)         81         Passive         1         True         TST4           82         TST5         Unknown (NC)         82         Passive         1         True         True         TST5           83         VCC         Supply         83         Power         1         True         True         TST6           84         TST6         Unknown (NC)         84         Passive         1         True         TsT6           85         TST7         Unknown (NC)         85         Passive         1         True         TsT8           87         TST8         Unknown (NC)         86         Passive         1         True         TsT9           88         TST10         Unknown (NC)         88         Passive         1         True         TsT1 </td <td></td> <td></td> <td>SNES)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			SNES)						
79         TST2         Unknown (NC)         79         Passive         1         True         True         TST2           80         TST3         Unknown (NC)         80         Passive         1         True         TST3           81         TST4         Unknown (NC)         81         Passive         1         True         TST4           82         TST5         Unknown (NC)         82         Passive         1         True         TST5           83         VCC         Supply         83         Power         1         True         True         TST6           84         TST6         Unknown (NC)         84         Passive         1         True         True         TST6           85         TST7         Unknown (NC)         85         Passive         1         True         True         TST7           86         TST8         Unknown (NC)         86         Passive         1         True         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         True         TST10           89         TST11         Unknown (NC)         89         Passive						1			
80         TST3         Unknown (NC)         80         Passive         1         True         True         TST3           81         TST4         Unknown (NC)         81         Passive         1         True         TST4           82         TST5         Unknown (NC)         82         Passive         1         True         TST5           83         VCC         Supply         83         Power         1         True         True         VCC           84         TST6         Unknown (NC)         84         Passive         1         True         TsT6           85         TST7         Unknown (NC)         85         Passive         1         True         TsT7           86         TST8         Unknown (NC)         86         Passive         1         True         TsT8           87         TST9         Unknown (NC)         87         Passive         1         True         TsT9           88         TST10         Unknown (NC)         88         Passive         1         True         TsT10           89         TST11         Unknown (NC)         89         Passive         1         True         TsT11						1			
81         TST4         Unknown (NC)         81         Passive         1         True         True         TST4           82         TST5         Unknown (NC)         82         Passive         1         True         True         TST5           83         VCC         Supply         83         Power         1         True         True         VCC           84         TST6         Unknown (NC)         84         Passive         1         True         TST6           85         TST7         Unknown (NC)         85         Passive         1         True         True         TST7           86         TST8         Unknown (NC)         86         Passive         1         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         TST9           88         TST10         Unknown (NC)         88         Passive         1         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1						1			TST3
82         TST5         Unknown (NC)         82         Passive         1         True         True         TST5           83         VCC         Supply         83         Power         1         True         True         VCC           84         TST6         Unknown (NC)         84         Passive         1         True         TST6           85         TST7         Unknown (NC)         85         Passive         1         True         TST7           86         TST8         Unknown (NC)         86         Passive         1         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         TsT9           88         TST10         Unknown (NC)         88         Passive         1         True         TsT10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12						<u>i</u>			
83         VCC         Supply         83         Power         1         True         True         VCC           84         TST6         Unknown (NC)         84         Passive         1         True         TST6           85         TST7         Unknown (NC)         85         Passive         1         True         TST7           86         TST8         Unknown (NC)         86         Passive         1         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         TST9           88         TST10         Unknown (NC)         88         Passive         1         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12						1			
85         TST7         Unknown (NC)         85         Passive         1         True         True         TST7           86         TST8         Unknown (NC)         86         Passive         1         True         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         True         TST9           88         TST10         Unknown (NC)         88         Passive         1         True         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12	83	VCC	Supply	83	Power	1	True		VCC
86         TST8         Unknown (NC)         86         Passive         1         True         True         TST8           87         TST9         Unknown (NC)         87         Passive         1         True         True         TST9           88         TST10         Unknown (NC)         88         Passive         1         True         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12						1			
87         TST9         Unknown (NC)         87         Passive         1         True         True         TST9           88         TST10         Unknown (NC)         88         Passive         1         True         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12			Unknown (NC)			1			
88         TST10         Unknown (NC)         88         Passive         1         True         True         TST10           89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12						1			
89         TST11         Unknown (NC)         89         Passive         1         True         True         TST11           90         TST12         Unknown (NC)         90         Input         1         True         True         TST12						1			
90 TST12 Unknown (NC) 90 Input 1 True True TST12			Unknown (NC)			1			
91 TST13 Unknown (NC) 91 Input 1 True True TST13	90	TST12	Unknown (NC)	90		1	True	True	TST12
in to the control of the true to the total	91	TST13	Unknown (NC)	91	Input	1	True	True	TST13

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Designator	Name	Desc	QFP100P1870X2470-	64AM	Туре	Owner	Show	Number Name
92	TST14	Unknown (NC)	92	Input	1	True	True	TST14
93	TST15	Unknown (NC)	93	Input	1	True	True	TST15
94	AVCC	Supply	94	Passive	1	True	True	AVCC
95	R	Analog Red Component (to S-ENC)	95	Output	1	True	True	R
96	G	Analog Green Component (to S-ENC)	96	Output	1	True	True	G
97	В	Analog Blue Component (to S-ENC)	97	Output	1	True	True	В
98	HVCMOD E	Home Video Computer (a.k.a. Famicom) Mode (purpose unknown since SNES can play Famicom games already) (GND)	98	Input	1	True	True	HVCMODE
99	GND	Supply	99	Power	1	True	True	GND
100	C\S\Y\N\ C\	Video Output Composite Sync (Active-Low) (to S-ENC)	100	Output	1	True	True	CISIYINICI

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