

PROG. Board

Connector

31	+5V	32	+5V
30	PA14_OUT	33	TA13
29	U12	34	TA12
28	U11	35	TA11
27	PA13_OUT	36	TA10
26	U10	37	TA9
25	PA12_OUT	38	TA8
24	PA11_OUT	39	TA7
23	PA10_OUT	40	TA6
22	PA9_OUT	41	TA5
21	PAB_OUT	42	TA4
20	TD0	43	TA3
19	TD1	44	TA2
18	TD2	45	TA1
17	TD3	46	TA0
16	TD4	47	TA22
15	TD5	48	TA21
14	INT_I_ROM_OE	49	TA20
13	TD6	50	TA19
12	TD7	51	TA18
11	TD8	52	TA17
10	TD9	53	TA16
9	CART_CS	54	TA15
8	TD15	55	TA14
7	TD14	56	GND
6	TD13	57	GND
5	TD12	58	GND
4	TD11	59	GND
3	TD10	60	GND
2	U8	61	CLK
1	GND	62	GND

J2

PA\*\_OUT are connected to the address lines on J1. On some boards they go through a resistor array

Connector

31	+5V	32	+5V
30	AS	33	PA23
29	U7	34	PA22
28	U6	35	PA21
27	INT_P_ROM_OE	36	PA20
26	U5	37	PA19
25	U4	38	PA18
24	U3	39	PA17
23	R/W	40	PA16
22	U2	41	PA15
21	PULL_UP	42	PA14
20	PD15	43	PA13
19	PD14	44	PA12
18	PD0	45	PA11
17	PD1	46	PA10
16	PD2	47	PA9
15	PD3	48	PA8
14	PD4	49	PA7
13	PD5	50	PA6
12	PD6	51	PA5
11	PD7	52	PA4
10	PD8	53	PA3
9	PD13	54	PA2
8	PD12	55	PA3
7	PD11	56	U8
6	PD10	57	+5V
5	PD9	58	+5V
4	U1	59	+5V
3	PA2_OUT	60	+5V
2	PA1_OUT	61	+5V
1	GND	62	+5V

J1

I expect some of the unknown pins are used for DMA or IRQ from the ASIC, also there should be an UDS and LDS for 8-bit writes from the CPU.

The pull up on pin J1\_21 is required for the cartridge to boot.

489J1\_26 could be LDS, J1\_25 could be UDS

CHAR. Board

Connector

31	+5V	32	+5V
30	BA17	33	BA16
29	BA20	34	BA15
28	BA19	35	BA14
27	BA22	36	BA18
26	BA21	37	+5V
25	BA8	38	BD15
24	AA22	39	BD14
23	AA9	40	AA7
22	AA23	41	AA6
21	AA10	42	AA5
20	AA24	43	AA4
19	AA14	44	AA3
18	AA15	45	AA2
17	BD0	46	AA1
16	BD1	47	AA0
15	BD2	48	+5V
14	BD3	49	BA0
13	BD4	50	BA1
12	BD5	51	BA2
11	BD6	52	BA3
10	BD7	53	BA4
9	BD8	54	BA5
8	BD13	55	BA7
7	GND	56	BA8
6	BD12	57	BA9
5	BD11	58	BA10
4	BD10	59	BA11
3	BD9	60	BA12
2	BA6	61	BA13
1	GND	62	GND

J2

ConnectorCharJ1

31	+5V	32	+5V
30	AA17	33	MA9
29	AA16	34	MA10
28	AA19	35	MA11
27	AA18	36	GND
26	AA21	37	MD7
25	AA20	38	MD6
24	MD5	39	MA12
23	MD4	40	MA13
22	MD3	41	MA14
21	MD2	42	MA15
20	MD1	43	MA16
19	MD0	44	MA17
18	MA0	45	MA18
17	MA1	46	MA19
16	MA2	47	MA20
15	MA3	48	MA23
14	MA4	49	MA22
13	MA5	50	MA21
12	AD7	51	MA6
11	AD6	52	MA8
10	AD5	53	MA7
9	AD4	54	AD14
8	AD0	55	AD13
7	AD1	56	AD12
6	AD2	57	AD11
5	AD3	58	AD10
4	AA11	59	AD9
3	AA12	60	AD8
2	AA13	61	INT_M_ROM_OE
1	GND	62	GND

J1

The BOTTOM board contains the sound sample data (M\*), sprite mask data (B\*) and sprite pixel data (A\*), together with some components to select individual ROM chips.

General:  
There is no consistent labelling of the connectors on the cartridge. Also, the numbering on the bottom of the solder side is guessed, as numbers are only printed on the silkscreen of the component side.

Pin names that start with U\* are unknown, because they are either not connected to anything, or only connected to the ASIC.

Sheet: /Summary/	
File: Summary.sch	
Title: IGS PGM Connector Summary	
Size: A4	Date:
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