Controller	CN1	Signal	Direction
1	9	+5V Power	Saturn → Keyboard
2	3	Data 1 (D)	Keyboard → Saturn
3	4	Data 0 (U)	Keyboard → Saturn
4	5	SELect (S0/TH)	Saturn → Keyboard (enable)
5	8	REQuest (S1/TR)	Saturn → Keyboard (clock)
6	7	ACKnowledge (TL)	Keyboard → Saturn (data ready)
7	1	Data 3 (R)	Keyboard → Saturn
8	2	Data 2 (L)	Keyboard → Saturn
9	6	GND	Keyboard → Saturn

Row & Column numbering correspond to the assigned CN2 pin inside the keyboard.

SW1 RH CTRL
SW2 LH CTRL
SW3 RH SHIFT
SW4 LH SHIFT
SW5 F8
SW6 F9
SW7 F10
SW8 F11
SW9 F12
SW10 PRINT SCREEN
SW11 SCROLL LOCK
SW12 PAUSE
SW13 ? /
SW14 _ \
SW15 UP
SW16 LEFT
SW17 DOWN
SW18 RIGHT
SW19 PAGE DOWN
SW20 PAGE UP
SW21 > .
SW22 無変換
SW23 カタカナ
SW24 前候補
SW25 SPACE
SW26 Z
SW27 END
SW28 K
SW29 L
SW30 + :
SW31 * :
SW32 }]
SW33 ENTER
SW34 X
SW35 HOME
SW36 I
SW37 O
SW38 P
SW39 ` @
SW40 { [
SW41 DELETE
SW42 A
SW43 INSERT
SW44 (8
SW45) 9
SW46 ~ 0
SW47 = –
SW48 _ ^
SW49 | ¥
SW50 S
SW51 BACKSPACE
SW52 < ,
SW53 M
SW54 N
SW55 B
SW56 V
SW57 C
SW58 J
SW59 H
SW60 G
SW61 F
SW62 D
SW63 CAPS LOCK
SW64 U
SW65 Y
SW66 T
SW67 R
SW68 W
SW69 TAB
SW70 E
SW71 半角/全角
SW72 ' 7
SW73 & 6
SW74 % 5
SW75 $ 4
SW76 # 3
SW77 " 2
SW78 Q
SW79 ! 1
SW80 F7
SW81 F6
SW82 F5
SW83 F4
SW84 F3
SW85 F2
SW86 ESC
SW87 F1
SW88 RH ALT
SW89 LH ALT

ROW 1
ROW 2
ROW 3
ROW 4
ROW 5
ROW 6
ROW 7
ROW 8
ROW 9
ROW 10
ROW 11
ROW 12
ROW 13
ROW 14

COL 16
COL 17
COL 18
COL 19
COL 20
COL 21
COL 22
COL 23

RN1
10KΩ
+5VOUT

U1
Teensy4.1

GND 1
GND 2
0_RX1_CRX2_CS1 3
1_TX1_CTX2_MISO1 4
2_OUT2 5
3_LRCLK2 6
4_BCLK2 7
5_IN2 8
6_OUT1D 9
7_RX2_OUT1A 10
8_TX2_IN1 11
9_OUT1C 12
10_CS_MQSR 13
11_MOSI_CTX1 14
12_MISO_MQSL 15
3V3 16
24_A10_TX6_SCL2 17
25_A11_RX6_SDA2 18
26_A12_MOSI1 19
27_A13_SCK1 20
28_RX7 21
29_TX7 22
30_CRX3 23
31_CTX3 24
32_OUT1B

ROW 5 4
ROW 13 5
ROW 12 6
ROW 11 7
ROW 10 8
ROW 9 9
ROW 8 10
ROW 3 11
ROW 7 12
ROW 6 13
ROW 4 14
COL 23 17
COL 22 18
COL 21 19
COL 20 20
COL 19 21
COL 18 22
COL 17 23
COL 16 24

VUSB 49
(3.6v to 5.5v) VIN 48
GND 47
(250mA max) 3V3 46
23_A9_CRX1_MCLK1 45
22_A8_CTX1 44
21_A7_RX5_BCLK1 43
20_A6_TX5_LRCLK1 42
19_A5_SCL 41
18_A4_SDA 40
17_A3_TX4_SDA1 39
16_A2_RX4_SCL1 38
15_A1_RX3_SPDIF_IN 37
14_A0_TX3_SPDIF_OUT 36
13_SCK_LED 35
GND 34
41_A17 33
40_A16 32
39_MISO1_OUT1A 31
38_CS1_IN1 30
37_CS 29
36_CS 28
35_TX8 27
34_RX8 26
33_MCLK2 25

+5VOUT 48
GND 47
ROW 1 45
ROW 14 44
ROW 2 43
GND 34
TRS1 31
THS0 30
LD2 29
UD0 28
RD3 27
DD1 26
TL 25

D- 66
D+ 67
USB Device
USB Host
Ethernet

C1
10µF

RN2
100KΩ

Saturn CN1
GND 0
TRS1 5
GND 9
THS0 4
LD2 8
UD0 3
RD3 7
DD1 2
TL 6
+5VOUT 1

H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
H5 MountingHole
H6 MountingHole

github.com/BrettHallen
www.youtube.com/@Brfff
Brett Hallen

Sheet: /
File: Sega_Saturn_Keyboard.kicad_sch

Title: Sega Saturn Keyboard (HSS-0129)

Size: A3	Date: 3/DEC/2025	**Rev: WIP**
KiCad E.D.A. 9.0.5		Id: 1/1