Dreamcast Clock Diagram

3.3VDC

Reset

Texture / Framebuffer - 8Mbytes

Hitachi
SH4
200MHz

core 1.8V
I/Os 3.3V

CPU

256 BGA

VideoLogic / NEC
HOLLY

100MHz

core 2.5/3.3V
I/Os 3.3V

Graphic

500 TBGA

SDRAM
16Mbit
100MHz
50 TSOP

SDRAM
16Mbit
100MHz
50 TSOP

SDRAM
16Mbit
100MHz
50 TSOP

SDRAM
16Mbit
100MHz
50 TSOP

100MHz

100MHz

54MHz

33.3MHz

1 Serial Port

Program / Data - 16 Mbytes

SDRAM
64Mbit
100MHz
86 TSOP

SDRAM
64Mbit
100MHz
86 TSOP

100MHz

100MHz

54 or 27 MHz

Digital
Encoder
(NTSC/PAL)

NTSC / PAL
S (Y+S, C)
RGB VGA
etc...

Yamaha
AICA

22/25MHz
3.3V

Audio / RTC

3.3V Input
tolerance

100 TQFP

Real Time
Clock
32.768KHz

11.29MHz

ADAC/AMP

64Fs

Wave - 2Mbytes

SDRAM
16Mbits
100MHz
50 TSOP

67.74MHz

4 Maples
(ex-B/U)

B/U: Option

4 Maple
Game Ports

8

Maple i/f

3.3V Input
tolerance

G2 Bus i/f
AICA,
modem,
Ext. Dev.

3.3V Input
tolerance

G1 Bus i/f
EIDE. ROM

5V Input
tolerance

Expansion
Connector

Modem
33.6Kbps

Multi
Media
BOX

25MHz

48fs

31.8688MHz

to SH4: 2.0VDC

1.8/3.3

3.3VDC

3.3VDC   5VDC   12VDC

to HOLLY: 2.5VDC

2.5/3.3

3.3VDC

Power Supply

100 - 125VAC.
50/60Hz

PLL

13.5MHz

ROM
16Mbit
8bit data

FLASH
1Mbit
8bit data

Decode
& Buffer
RAM
128Kbytes

CD-ROM
Decoder

CAV
4x - 12x
GD-ROM

System / Configuration -
2Mbytes / 128Kbytes

7-2