



DVD

Sat

AV

VCR

Tape

Display/TV

Since no level shift no reference problem at 3V3 threshold.

Hotplug 47k - see CM2021 datasheet fig 4.

Unused inputs must be tied to a known state, eg. R1 to 3V3 and R10 to +5V. See datasheet p.1.

Connect to Auxiliary PSU VL740-3203 Supplying 500mA @ 10V and 300mA @ 5V. Minimum Loads: -5V = 100mA, -3V3 = 500mA.

Chassis ground will be a segment of the PCB ground plane electrically bonded to the outer enclosure but isolated from the signal ground plane. The AV9 will have chassis and signal ground connected through 100Ω ferrite beads.

HDMI spec has weak pullup at sink (R7) and strong pullup at source (R48) hence resistors before not fitted on SCL, SDA.

HOTPLUG to source will only go high when:
AND 1. The source is selected.
AND 2. The HOTPLUG from the TV/Display is high.
AND 3. The 5V power from the source is high.

Select signals are derived from MC logic running @ 10MHz (IC138 and IC139).

Channel Select

SO	S1	S2	
0	0	0	no signal
0	0	1	DVD
0	1	0	Sat
0	1	1	VCR
1	0	0	TV
1	0	1	Type
Others			no signal

Latch Sequence
 - "Clear" and "Clock" are high
 - "Clear" goes low
 - 400ns source FE at "Clock"
 - "Clear" goes high
 - 375ns holdover outputs
 - 400ns clear after ~100ns
 - "Clear" maintained high
 - "Clock" maintained high.

HC374
 Hold time wrt FE of Clk = 5 ns.
 Setup time wrt FE of Clk = 18 ns.

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AV9 HDMI Multiplex		A & R Cambridge Ltd. Pembroke Avenue Waterbeach Cambridge CB5 9QR		Notes:		05_E150 PJC 22/7/05		First Prototype (Issue A) manufacture	
				05_E130 PJC 27/6/05		Preliminary PCB Issue		A	
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