

Ancillary products for Multi Media Interface Board

MMIB

DATA SHEET

Ancillary products for
MMIB2B
Multi Media Interface Board

INPCGA01 input board for TTL + Intensity signals
INPAV01 AV (Scart) input board
INPDVI01 DVI input board
Automatic brightness control

The products and specifications are subject to change without notice.
Please ask for the latest releases to guarantee the satisfaction of your product requirements.

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Ancillary products for Multi Media Interface Board

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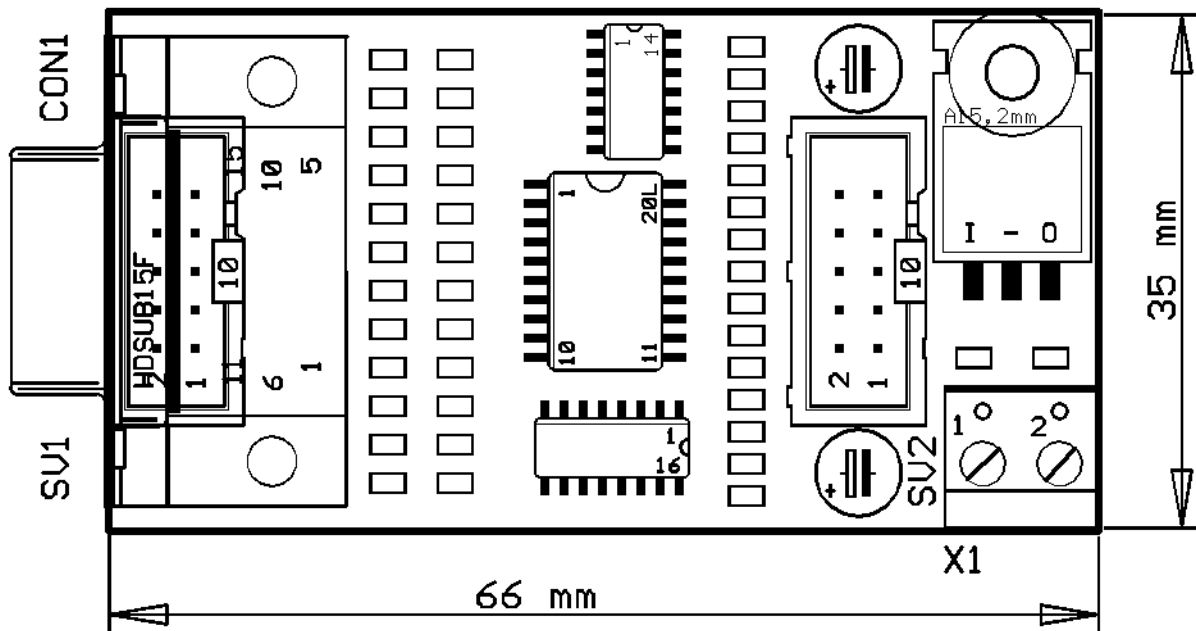
1.4 Automatic brightness control

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1.1 INPCGA01

The INPCGA01 board is designed to convert RGB+I TTL signals into analog 0.7Vpp analog RGB signals. Connection is done via 10pin flat ribbon cable to MMIB2B vga box type pin headers.



CON1: TTL input (HD subD type)			
Pin	Symbol	Description	Level
1	n.c.	no connection	
2	n.c.	no connection	
3	n.c.	no connection	
4	n.c.	no connection	
5	n.c.	no connection	
6	GND	ground	
7	I	intensity	TTL
8	V Sync	vertical sync signal	TTL
9	H Sync	horizontal or composite sync signal	TTL
10	n.c.	no connection	
11	G	green input signal	
12	n.c.	no connection	
13	R	red input signal	TTL
14	B	blue input signal	TTL
15	n.c.	no connection	

SV1: Analog VGA output (box type pin header)			
Pin	Symbol	Description	Level
1	GND	ground	
2	I	intensity	TTL
3	GND	ground	
4	n.c.	no connection	
5	R	red input signal	TTL
6	H Sync	horizontal or composite sync signal	TTL
7	G	green input signal	
8	V Sync	vertical sync signal	TTL
9	B	blue input signal	TTL
10	n.c.	no connection	

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1.1 INPCGA01 (continued)

X1: Supply Input			
Pin	Symbol	Description	Level
1	VCC	Supply	9..12V
2	GND	ground	

SV2: Analog VGA output (box type pin header)			
Pin	Symbol	Description	Level
1	GND	ground	
2	R	analog red output signal	0.7Vpp
3	GND	ground	
4	G	analog green output signal	0.7Vpp
5	GND	ground	
6	B	analog blue output signal	0.7Vpp
7	GND	ground	
8	H	horizontal sync out	TTL
9	GND	ground	
10	V	vertical sync out	TTL

Power consumption: tbd mA@12V.

Color conversion chart:

I	R	G	B	Resulting Color
				Black
			+	Bblue
		+		Green
		+	+	Cyan
	+			Red
	+		+	Magenta
	+	+		Yellow 1)
	+	+	+	White
+				Gray
+			+	Bright blue
+		+		Bright green
+		+	+	Bright cyan
+	+			Bright read
+	+		+	Bright magenta
+	+	+		Yellow
+	+	+	+	Bright white

1) Some early monitors display brown or orange colors in this state.

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1.2 INPAV01

The AVINP01 input board provides a full featured AV (SCART) input to the MMIB2. This includes one composite video output (the actual selected), one video input and one RGB with fastblank (FB) functionality.

The 2nd possibility is to use the SCART input as RGB or YUV component video signal input. Therefore the G or Y signal has to be inserted also to the composite video input for synchronisation purposes (see JP1).

CON2: extension to MMIB2 (box type pin header)			
Pin	Symbol	Description	Level
1	U12	12V (taken from main supply)	
2	CooutAV	Composite video out, for AV	
3	U5A	5V analog supply	
4	FB	Fast Blank Input, 4k7 termination to gnd	
5	U3	3.3V supply	
6	Blue	Blue component of RGB (Fastblank) input	
7	GND		
8	Green	Green component of RGB (Fastblank) input	
9	COin2	2 nd composite video input (parallel to CON2)	
10	Red	Red component of RGB (Fastblank) input	
11	COin1	1 st composite video input (parallel to CON3)	
12	COinAV	Composite video input for AV	
13	Cin	Chrominance input (parallel to CON4)	
14	Yin	Luminance input (parallel to CON 4)	

CON1: AV (Scart)			
Pin	Symbol	Description	Level
1	n.c.		
2	n.c.		
3	n.c.		
4	GND	Ground	
5	GND	Ground	
6	n.c.		
7	B/U		0.7Vpp
8	n.c.		
9	GND	Ground	
10	n.c.		
11	G/Y	Green / L	1Vpp
12	n.c.		
13	GND	Ground	
14	GND	Ground	
15	R/V		0.7Vpp
16	FB		
17	GND	Ground	
18	n.c.		
19	Cout	Composite video out	1Vpp
20	Cin	Composite video in	1Vpp
21	GND	Ground	

JP1		
Pin	Symbol	Description
1	G/Y	Green or luminance signal
2	Cin	Composite video in
3	t75	75Ohm termination

- ? For normal AV operation default set jumper to Pin 2-3.
- ? For component input operation set jumper to Pin 1-2.

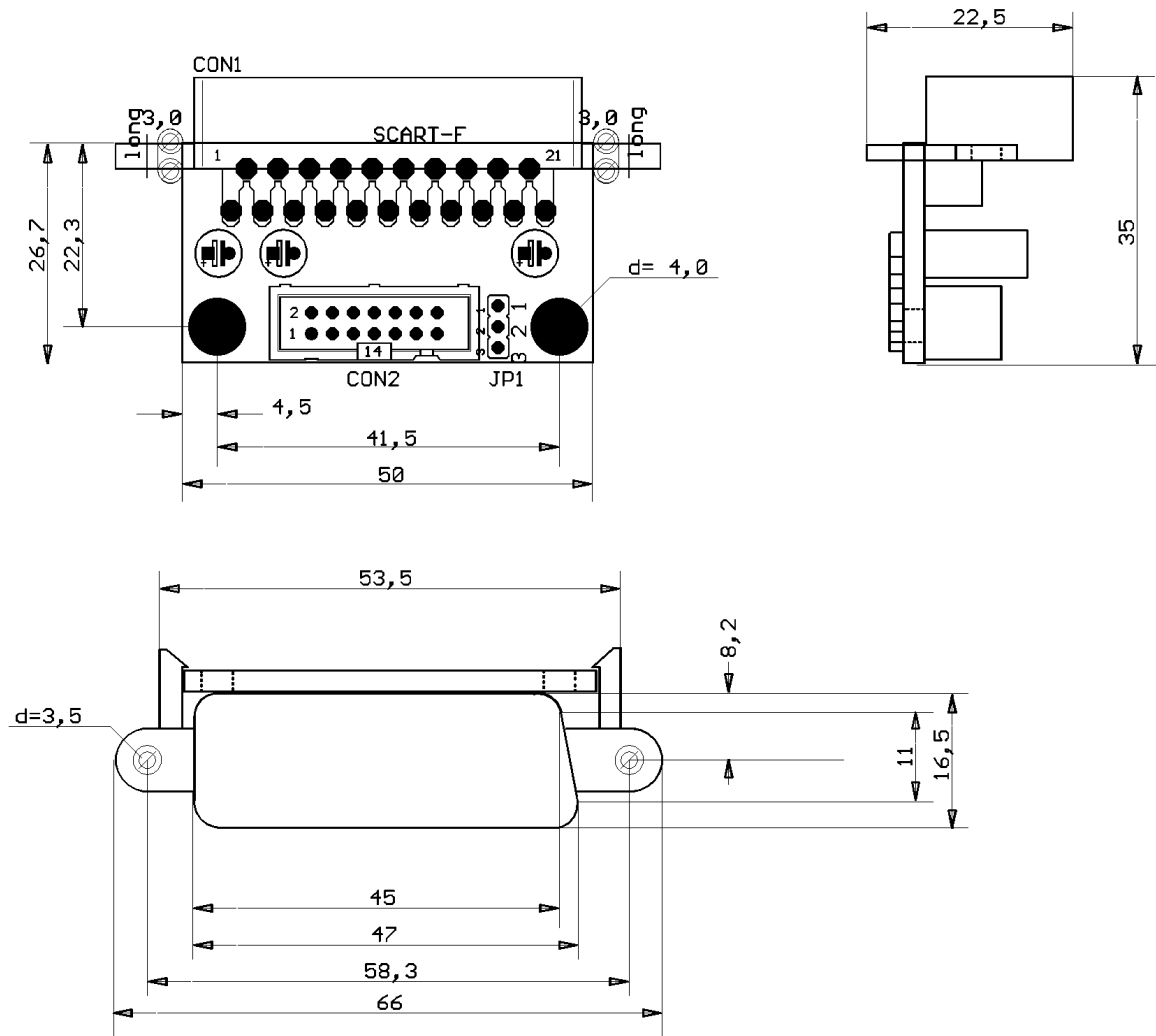
Additionally the desired operation mode has to be selected in the MMIB OSD Menu (see INPUT->Options->AV) in Videomode.

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1.2 INPAV01 (continue)

Mechanical drawing:

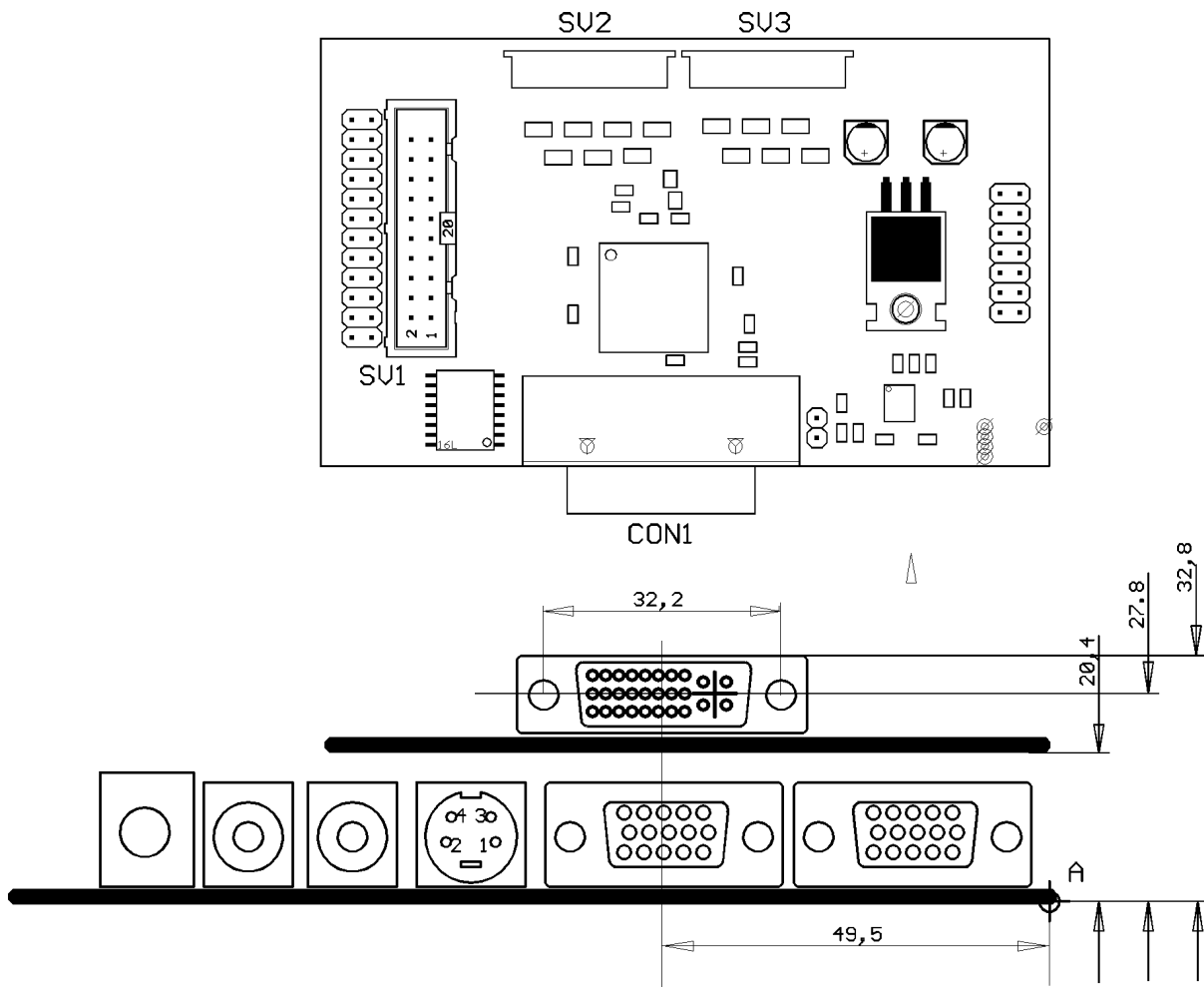


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1.3 INPDVI01

Mechanical drawing:



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1.4 Automatic brightness control

For automatic backlight adjustment a additional LDR or PT is required.

The LDR is connect over SV5 (Keyboard pin header) to the MMIB.

SV5 Pin out:

SV5.02:	GND
SV5.07:	AD1 (analog input for ADC)
SV5.15:	+5V

Connect the LDR between Pin 7 and Pin 15. Connect a Resistor (e.g. 4,7k Ohm) between Pin 7 and Pin 2. This Resistor is important for LDR's sensitivity.

We use a photo transistor and socket (Farnell 178-946 + 491-718). Controlling behavior is adjustable via OSD settings (See detailed OSD description 2.3.7).