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Short Form Manual

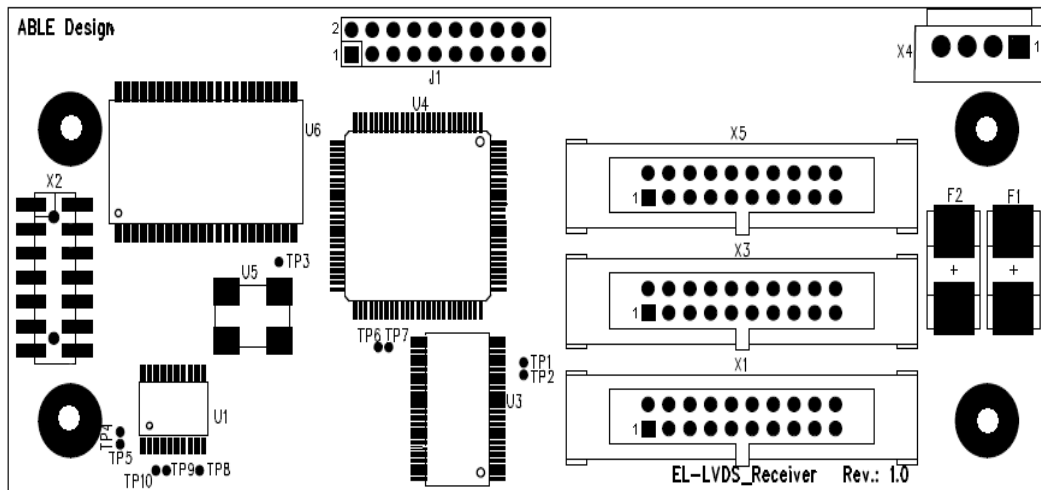
EL-LVDS Receiver

Rev. 1.0

Release: 0
Revision: 1.0
Date: 25.07.07
Name: Jörg Bühse

	Name	Date	Signature
Composed:	Jörg Bühse	27.07.2007	
Approved:			
Released:			

1. Hardware



Connector:

- X1: EL640.480 connector
- X2: for internal use
- X3: EL320.240 connector
- X4: Power supply
- X5: LVDS input
- J1: Jumper for configuration

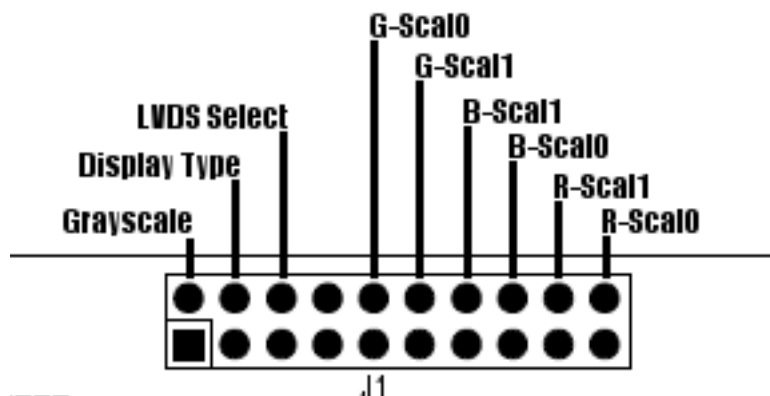
Test Pin:

- TP1: Link with TP2 = test picture for EL320.240.36
- TP2: +5V for EL320.240 test picture
- TP3: internal use
- TP4: Link with TP5 = internal generated test picture
- TP5: GND
- TP6: Link with TP7 = reset Xilinx FPGA
- TP7: GND
- TP8: internal use
- TP9: Link with TP10 = reprogramming Xilinx
- TP10: GND

Fuse

- F1: 12V protection 4A (Littelfuse 0452004.MRL)
- F2: 5V protection 4A (Littelfuse 0452004.MRL)

Configuration (Jumper)



	open	close
Grayscale	4 steps	5 steps (default)
Display Type	320x240	640x480 (default)
LVDS Select	Jeda standard	Vesa standard (default)

Colour Scaling:

Red	R-scal0 open; R-scal1 open (default)	No colour scaling for red
	R-scal0 close; R-scal1 open	Colour value = 1/2
	R-scal0 open; R-scal1 close	Colour value = 1/4
	R-scal0 close; R-scal1 close	Colour value = 1/8
Green	G-scal0 open; G-scal1 open (default)	No colour scaling for green
	G-scal0 close; G-scal1 open	Colour value = 1/2
	G-scal0 open; G-scal1 close	Colour value = 1/4
	G-scal0 close; G-scal1 close	Colour value = 1/8
Blue	B-scal0 open; B-scal1 open (default)	No colour scaling for blue
	B-scal0 close; B-scal1 open	Colour value = 1/2
	B-scal0 open; B-scal1 close	Colour value = 1/4
	B-scal0 close; B-scal1 close	Colour value = 1/8

2. Pin-Out

X1: E640.480 Displayconnector

Samtec EHT-110-01-S-D

Video Data UD1	1	2	Video Data UD0
Video Data UD3	3	4	Video Data UD2
Video Data LD1	5	6	Video Data LD0
Video DataLD3	7	8	Video Data LD2
Data input Clock CP2	9	10	Ground
Input data latch CP1	11	12	Ground
Scan Start-up signal	13	14	Ground
Ground	15	16	Ground
+5V	17	18	+5V
+12V	19	20	+12V

X3: EL320.240.36 Displayonnector

Samtec EHT-110-01-S-D

+12V	1	2	+12V
Selftest input	3	4	Reserved
+5V	5	6	Ground
Vertical Sync	7	8	Ground
Horizontal Sync	9	10	Ground
Video Clock	11	12	Ground
Video data VID0	13	14	Ground
Video data VID1	15	16	Ground
Video data VID2	17	18	Ground
Video data VID3	19	20	Ground

X4: Power connector

Hirose DF1-4P-2,5DSA

+5V	1
GND	2
GND	3
+12V	4

X5: LVDS input

Samtec EHT-110-01-S-D

LVDS Data 0-	1	2	LVDS Data 0+
GND	3	4	LVDS Data 1-
LVDS Data 1+	5	6	GND
LVDS Data 2-	7	8	LVDS Data 2+
GND	9	10	LVDS Clk-
LVDS Clk+	11	12	GND
LVDS Data 3-	13	14	LVDS Data 3+
GND	15	16	GND
+5V	17	18	+5V
+12V	19	20	+12V

Input timing

640x480 timing with 60Hz like the NEC nl6448bc33 in Fixed mode.