

EyeScan Tool

File EyeScan About

Configure USB Apater Save to File Load from File Clear Eye Diagrams Scan

EyeScan

Status MISControl Equalization Pattern

ID Registers

StatusControl Device ID DP149 Revision 01

Register Map

Script Mode

Miscellaneous Registers

Lane Swap Disabled

Polarity Swap Disabled

Clock Input Signal Detector Disabled

Forced Power Down Disabled

HPD_AUTO_PWRDWN_DISABLE Disabled

I2C Data Rate 100Kbps

Application Mode Selection Source

HPDSNK_GATE_EN Disabled

AUX bridge function -

Device Function Mode

Automatic Redriver to Retimer Cross Over at 1.0Gbps

TMD5 lane deskew No Completed

Power Down Status Normal Operation

Standby Status Normal Operation

TMD5 Clock Detected

Value TMD5 clock present on input

HDMI Clock Rate 75MHz

HDMI Control Registers

Slew Rate Slow Fast

HDMI_SEL HDMI

Transmit Termination No termination

DDC data rate -

TMD5 Clock Ratio -

DDC training block function -

Data Output Swing ViaDj set

Clock Output Swing Set by Data Rate

HDMI de-emphasis No pre-emphasis

Equalization Register (IDN)

Data Lane EQ 0dB

Clock Lane EQ 0dB

Half the clock output swing -

PLL Status Registers

PLL locked indicator Not Locked

Digital lock detect output Lock not complete

PLL feedback divider ratio 20.0

Advance Equalization Settings

Equalizer Mode Adaptive

Equalizer: Enabled

Equalizer Hold Adaptive State Disabled

Equalizer Shorten Adaptive Filter Time Disabled

Equalizer Zero Frequency 135MHz for below 1.25Gbps

Equalizer adaptive level monitor

Lane 0 7

Lane 1 7

Lane 2 7

Lane 3 7

TMD5 Error Count

Lane 0 0

Lane 1 0

Lane 2 0

Lane 3 0

Read Status OK

TEXAS INSTRUMENTS

EyeScan Tool

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Read ALL Write ALL Update Mode Manual

Save Load

MISControl

Lane Swap

Polarity Swap

Clock Input Signal Detector

Forced Power Down

HPD_AUTO_PWRDWN_DISABLE

HPDSNK_GATE_EN

AUX bridge function

Application Mode Selection Sink

Device Function Mode

Automatic Redriver to Retimer Cross Over at 1.0Gbps

DP_TST_EN 0 1 2 3

HDMI Control

Slew Rate Control Slow Fast

HDMI_SEL HDMI

Transmit Termination No termination

DDC data rate

TMD5 Clock Ratio

Data Output Swing ViaDj set

Clock Output Swing Set by Data Rate

HDMI de-emphasis No pre-emphasis

DDC training block function

Read Status OK

TEXAS INSTRUMENTS

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Status MISC Control Equalization Pattern

Equalizer **On** Equalizer Mode Adaptive **Read** **Apply Changes**

Fixed Receiver Equalizer

Lane 0

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 1

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 2

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 3

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Read Status OK

TEXAS INSTRUMENTS

EyeScan

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EyeScan

EQ Controls Lane Swap Position **Quick Bit Set** 7 6 5 4 3 2 1 0 Persistence 1 Delay (ms) 0 **Scan**

1 1 1 1 1 1 1 1

Persistence 1 Infinite Loop

Lane 0 **On** **Off**

Voltage (mV)

Phase 148 UI

Lane 1 **On** **Off**

Voltage (mV)

Phase 148 UI

Lane 2 **On** **Off**

Voltage (mV)

Phase 148 UI

Lane 3 **On** **Off**

Voltage (mV)

Phase 148 UI

Scanning Completed

TEXAS INSTRUMENTS

File EyeScan

Configure USB Apatar Save to File Load from File Clear Eye Diagrams Scan

EyeScan Status MISC Control Equalization Pattern

Equalizer **On** Equalizer Mode Fixed

Fixed Receiver Equalizer

Lane 0

Equalizer Level **7**

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 1

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 2

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

Lane 3

Equalizer Level 7

Equalizer FTC 135MHz for below 1.25Gbps

Fixed EQ Gain 10.64dB

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EyeScan Update Mode Manual

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Address (hex)	7	6	5	4	3	2	1	0	Value (hex)
00	0	1	0	0	0	1	0	0	44
01	0	1	0	1	0	0	0	0	50
02	0	0	1	1	0	0	0	1	31
03	0	0	1	1	0	1	0	0	34
04	0	0	1	1	1	0	0	1	39
05	0	0	1	0	0	0	0	0	20
06	0	0	1	0	0	0	0	0	20
07	0	0	1	0	0	0	0	0	20
08	0	0	0	0	0	0	0	1	01
09	0	0	0	0	0	0	1	0	02
0A	0	0	1	1	0	0	0	1	31
0B	0	0	0	0	0	0	0	0	00
0C	0	0	0	0	0	0	0	0	00
0D	0	0	0	0	0	0	0	0	00

Page 1

Address (hex)	7	6	5	4	3	2	1	0	Value (hex)
42	1	0	0	0	0	0	0	0	80
43	1	0	0	0	0	0	0	0	80
44	1	1	1	1	1	1	1	1	FF
45	0	0	0	0	0	0	0	0	00
46	0	0	0	0	0	0	0	0	00
47	0	0	0	0	0	0	0	0	00
48	1	1	1	1	1	1	1	1	FF
49	1	1	1	1	1	1	1	1	FF
4A	1	1	1	1	1	1	1	1	FF
4B	1	1	1	1	1	1	1	1	FF
4C	0	0	0	0	0	0	1	1	03
4D	0	0	1	1	0	0	0	0	30
4E	0	1	1	1	0	1	1	1	77
4F	0	1	1	1	0	1	1	1	77