

Infinea DVI Over Cat5/6 & Fiber

Quick Reference

& Setup Guide



Magenta Research

128 Litchfield Road, New Milford, CT 06776 USA (860) 210-0546 FAX (860) 210-1758 www.magenta-research.com

Magenta Research

128 Litchfield Road, New Milford, CT 06776 USA (860) 210-0546 FAX (860) 210-1758 www.magenta-research.com PN: 5310176-01, Rev 02, 08/07

Contents

Chapter	Page
1. Specifications	2
 Introduction	3 3 3
 Setup and Installation	4 4 4 5 6
4. Troubleshooting4.1 Common Problems	8 8
Appendix A. Cabling Pinouts	9
Appendix B. Status LED's	10
Appendix C. Compression Mode.	11
Appendix D. Pollable Serial Mode Settings	12
Appendix E. DDC Mode	15

TRADEMARKS USED IN THIS MANUAL

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

1. Specifications

	-
Cable Required:	CAT5/5e/6, Single mode fiber optic, Multimode Fiber Optic (model dependent)
Compliance:	CE; FCC Class A, IC Class A
Video Support:	DVI Single Link
Resolution:	1600x1200 , 1080P (if graphics card supports reduced clock rate)
Bandwidth:	1.65 Gbps
Audio Characteristics:	Channels: Stereo Audio (SA or SAP models)
Serial Characteristics:	Protocol: Asynchronous; transparent to data format; (SA or SAP models)
Maximum Distance:	Total end to end over fiber optic cable: 32,808 ft (10,000m). Total end to end over UTP cable: 600 ft (183m).
Connectors:	UTP Transmitter: (1) RJ-45, (2) DVI F Fiber Transmitter: (1) single or dual LC fiber, (1) RJ-45, (2) DVI F
	UTP Receiver: (1) RJ-45, (1) DVI F Fiber Receiver: (1) single or dual LC fiber, (1) RJ-45, (1) DVI F
Daisy ch	ain Receivers UTP/UTP DP Receiver: (2) RJ-45, (1) DVI F UTP/Fiber DP Receiver: (1) single or dual LC fiber, (2) RJ-45, (1) DVI F Fiber/Fiber DP Receiver: (2) single or dual LC fiber, (2) RJ-45, (1) DVI F
Audio/Se	erial Models (SA, SAP) Additional audio/serial connectors: (1) 4 phoenix, (1) 5 phoenix
	All: (1) power inlet
Temperature Tolerance:	Operating: 32 to 104°F (0 to 40°C); Storage: -4 to +140°F (-20 to +60°C)
Humidity Tolerance:	Up to 80% noncondensing
Enclosure:	Steel
Power:	+5 VDC; Consumption: 5 watts maximum
Size:	1.2"H x 4.1"W x 5.5"D (3.1 x 10.4 x 14.0 cm)
Weight:	1.0 lb. (0.45 kg), all units

1

2. Introduction

2.1 Overview

The Infinea DVI System extends DVI video signals over fiber optic (single or multimode) cable or Cat5 cable. All models support single link DVI video modes. Fiber models support either Fiber <u>OR</u> CAT5 inputs and outputs, however only one combination is active at a time. The units will autosense which port is in use. Note distance limitations of fiber or Cat5.

This manual covers Infinea DVI System units for video, Infinea DVI units for video, stereo audio, and RS232 serial (SA) and Infinea DVI units for video, stereo audio, and pollable RS232 (SAP).

Infinea DVI System receivers are available with single or dual daisychainable connections. The dual daisychainable receiver is used when the same signal is distributed to multiple display devices across a single cable in a daisychain or loop-through fashion. Setup and cabling are the same as the single-port receiver. There is no limit to the number of daisy chain receivers in a single chain and you can daisy chain to the maximum cable distance between receivers since the DVI signal is re-timed through each receiver.

Serial and audio versions provide stereo audio and full RS232 signals. When used in a daisychainable mode, the RS232 is unidirectional transmit only.

The pollable serial versions (SAP) allow a bi-directional RS 232 session to be made between the Infinea DVI transmitter and a single receiver in a daisy chain setup. Each receiver must be addressed with a unique address. See Appendix D for details.

WARNING

This equipment is not intended for, nor does it support, distribution through an Ethernet fiber network. Do not connect these devices to any sort of networking or telecommunications equipment!

2.2 Package Contents

You should have received the following when ordering a Infinea DVI System receiver:

• The transmitter or receiver unit (requires power supply sold separately)

2.3 Equipment You May Also Need

- Rackmount Brackets:
- Stereo Audio cable.
- DVI Video cable.
- Serial cable.
- Cat5/6 or Fiber Optic cable.

2.4 Compatible Cabling

Cabling for the Infinea DVI System must be a single mode or a dual multimode fiber optic cable terminated into type LC fiber optic connectors, or a Cat5/6 cable pinned to the EIA T568B specification (see Appendix A).

3. Setup and Installation

3.1 Data Mode Configuration

For pollable serial versions only: Each receiver unit must have a unique address assigned to it before installation. This is accomplished by setting a dipswitch inside the receiver units. See **Appendix D** for instructions.

3.2 Cabling Considerations

• We recommend mounting and connecting all cabling to the Infinea DVI System components before applying power. *Please note recommended power sequence below*.

3.3 Making the Connections

3.3.1 Connections and Setup in General

This section contains figures showing connections with the specific Infinea DVI System models. In general, however, the connection and setup procedure at both transmitter and receiver ends is as follows:

At the transmitter end:

1. Connect the source video to the Infinea DVI System transmitter video input port, which is a DVI connector labeled DVI IN.

2. If desired, attach a local monitor via the local monitor port to DVI OUT.

3. Depending upon model, make your audio and/or serial connections. *For audio:* Connect the audio input to the AUDIO connector

For RS-232: Connect the serial input to the RS-232 COMM connector port 1. (Port 2 is reserved for internal console use)

- 4. Connect the fiber optic or CAT5 cable to the transmitter.
- 5. Do not apply power to the transmitter at this time.

At the receiver end:

1. Connect the DVI OUT connector to the display unit, and attach any audio or serial connections depending on the model of Infinea DVI System. If pollable serial mode is in use, the receiver must have a unique address. Please see Appendix D.

2. Make sure that the fiber optic or Cat5 cable connection from the transmitter or receiver are secure.

3. Apply power to the display, then to the receiver.

4. Next, the transmitter should be powered on and finally the video source signal. Reference Appendix B for Link status and LED indicator explanations.

If there are any problems at either end, see Chapter 4.

3.3.2 CONNECTIONS ON THE SINGLE-PORT INFINEA TRANSMITTER

The following details specific connections and settings of the Infinea transmitter. Infinea FIBER transmitters also support CAT5 outputs, however only one combination is active at a time. The units will autosense which port is in use at power on. Infinea UTP transmitters only support Cat5/6 cable

Figure 3-1 shows the Infinea DVI System Transmitter connections.





Figure 3-1. Infinea Transmitter connections.

The top cover of the assembly indicates the unit's capabilities:

- Units designated UTP utilize the Cat5/6 output to extend signals.
- Units designated **FIBER** utilize the fiber output to extend signals.
- Fiber units are further designated with fiber type:
 - **SMF** is a single fiber optic single mode cable
 - **MMF** is a dual fiber optic multi mode cable
- Units designated SA support Stereo Audio and RS 232 signals with the video
- Units designated **SAP** support Stereo Audio and Addressable RS232 with video (see Appendix D).

Video compression modes (see Appendix C) are indicated as:

C for computer (static) mode **M** for movie (moving video) mode

NOTE: All transmitters and receivers must be of the same type and mode for proper operation.

3.3.3 CONNECTIONS ON THE SINGLE-PORT INFINEA RECEIVER

The following details specific connections and settings of the Infinea receiver. Infinea FIBER receivers also support CAT5 inputs, however only one combination is active at a time. The units will autosense which port is in use at power on. Infinea UTP receivers only support Cat5/6 cable

Figure 3-2 shows the Infinea DVI System Receiver connections.

NOTE: All Connections are shown. Depending on model purchased not all connectors will be available.



Figure 3-2. Infinea Receiver connections.

The top cover of the assembly indicates the unit's capabilities:

- Units designated UTP utilize the Cat5/6 input to extend signals.
- Units designated **FIBER** utilize the fiber input to extend signals.
- Fiber units are further designated with fiber type:
 - **SMF** is a single fiber optic single mode cable
 - **MMF** is a dual fiber optic multi mode cable
- Units designated SA support Stereo Audio and RS 232 signals with the video
- Units designated **SAP** support Stereo Audio and Addressable RS232 with video (see Appendix D).

Video compression modes (see Appendix C) are indicated as:

C for computer (static) mode **M** for movie (moving video) mode

NOTE: All transmitters and receivers must be of the same type and mode for proper operation.

CHAPTER 3: Setup and Installation

3.3.4 CONNECTIONS ON THE DUAL DAISYCHAINABLE RECEIVERS

The dual daisychainable receiver is used when the same signal is distributed to multiple display devices on a single cable in a daisychain or loop-through fashion. Do not exceed rated cabling distances between units.

Setup and cabling are the same as the single-port receiver, but the dual daisy chainable model has an additional FIBER OUT or UTP OUT connector for linking to another dual daisychainable receiver or single-port receiver.

Infinea FIBER daisy chain receivers support UTP or FIBER in and UTP or FIBER out mixed combinations. however only one combination is active at a time. The units will autosense which port is in use at power on.

Figure 3-3 shows the Infinea DVI System Receiver connections.

NOTE: All Connections are shown. Depending on model purchased not all connectors will be available.



Figure 3-3. Infinea Daisy Chain Receiver connections.

The top cover of the assembly indicates the unit's capabilities:

- Units designated **DP-UTP** utilize the Cat5/6 input to extend signals.
- Units designated **DP-FIBER** utilize the fiber input to extend signals.
- Fiber units are further designated with fiber type:
 - SMF is a single fiber optic single mode cable
 - **MMF** is a dual fiber optic multi mode cable
- Units designated **SA** support Stereo Audio and RS 232 signals with the video
- Units designated **SAP** support Stereo Audio and Addressable RS232 with video (see Appendix D).

Video compression modes (see Appendix C) are indicated as:

C for computer (static) mode

 $\boldsymbol{\mathsf{M}}$ for movie (moving video) mode

NOTE: All transmitters and receivers must be of the same type and mode for proper operation.

4. Troubleshooting

4.1. Common Problems

In most cases, nearly every issue with the Infinea DVI System can be resolved by checking the Fiber optic or CAT5 cable and making sure that it's properly terminated and in the case of CAT5 cable, pinned to the TIA/EIA 568B wiring specification. However, there may be other problems that cause the system to not perform as it's designed. Below are solutions to the most common installation errors.

Problem: Solution:	 No video signal at the transmitter local port or at the receiver. Check that both units are powered. Make sure the cable is terminated correctly. Is the display device powered on and functioning? Power on units in sequence (display, receiver, transmitter, video source). Display may not be correctly identified by source device. See Appendix E for DDC communication issues.
Problem: Solution:	 Video signal is poor. See Appendix C for changing compression mode. Check all cable connections. The video signal's refresh rate may be set too high. Reset to a lower refresh rate in your monitor-configuration menu. In 1080P mode, the PC graphics card needs to be set to reduced clock rate mode. Contact the graphics card manufacturer.
Problem: Solution:	 Audio is poor. Powered speakers are required. Make sure speaker power is ON. Check input source levels from the source device. Make sure the audio source is not overdriven or underdriven.
Problem: Solution:	 Serial communication doesn't work correctly. Are the serial devices connected properly? Are the serial parameters correct for source/destination devices? Are the serial cables terminated correctly? If a null-modem cable is used, it must be placed at the receiver end. When using daisychain receivers, the serial signal is a unidirectionally broadcast mode. If using pollable RS232, ensure each receiver has a unique address. The transmitter is always address 0. See Appendix D.

Appendix A. Cabling Pinouts

Table A-1. AUDIO connector (SA or SAP units)

<u>PIN</u>	<u>Audio</u>
Pin 1	Ground
Pin 2	Right Channel
Pin 3	Ground
Pin 4	Left Channel

Table A-2. COMM serial connector (SA or SAP units)

PIN	Audio
Pin 1	Rx 2 (console)
Pin 2	Tx 2 (console)
Pin 3	Ground
Pin 4	R x 1
Pin 4	Tx 1

Table A-3. T568B CAT5 pinout

T568B CAT5 Specification



Appendix B. Status LED's

The Infinea DVI System feature "status-at-a-glance" LED's to ensure the units are functioning properly and to isolate problems with input signals, units, and/or cabling thus saving time during installation and troubleshooting. Reference the following tables for information on theses indicators. The UTP connector also contains LED indicators on either side to provide visual cues on connection and traffic status.



Link Status LED's								
LED	Meaning							
1	Normal Operation == OFF ON == EXCEPTION—a serious problem has occurred with the unit. Contact Technical Support.							
2	Normal Operation == ON ON == Active DVI signal detected from source for transmitter side OR Active DVI display detected if receiver side							
3	Normal Operation == ON Indicates active link between transmitter and receiver							
4	Normal Operation == ON Indicates video packet transmission between transmitter and receiver							

Infinea DVI RJ45 UTP status Indicators:



Left Side LED should blink when data is sent between transmitter and receiver. If no blinking occurs, check DVI signal input from the video source.

Right Side LED should be ON when communication is established between a transmitter and receiver. If it is off, check cabling between the units.



Appendix C. Compression Mode

The Infinea DVI System features two video compression modes to enable high resolution video extension over long distances. Compression modes may be changed with a simple jumper setting accessible through the front cover. *All units must be set to the same compression mode for proper operation.*

The two modes are:

- Computer or Pixel Compression mode. Suitable for static non motion content. (DEFAULT) Jumper J10 IN
- Movie or Color Compression mode. Suitable for moving content such as DVD movies. Jumper J10 OUT

To change the compression mode, remove the compression mode jumper access cover on the front of the Infinea DVI unit and remove or install a jumper on J10 underneath it.



Figure C-1. Compression Mode Jumper Access

APPENDIX D. Pollable Serial Mode

The SAP pollable serial daisychainable receivers with video, audio and RS232 serial feature the ability to open a bi-directional session between a pollable transmitter and a single pollable receiver in a daisychain installation.

Each pollable receiver must have a unique address set first. Once this has been done, a special command (discussed below) is sent to the tranmsitter to specify the receiver to open a session with. Once this has been done, serial communication can occur between the RS232 source and display.

If an address of 0 is sent, the RS232 commands will be broadcast to all receivers.

The following details the installation and setup procedure.

To set the receiver address requires that each internal serial audio daughterboard in the receiver have a unique address set. This is done via an 8 position dipswitch. Use the following chart to determine the proper switch addresses. All receivers must have a unique address. It is recommended to write the address on each receiver once this step has been completed. It is also recommended to keep a list of receiver addresses and locations to make it easier to determine which receiver/display is desired to communicate with.

- 1) Remove the top cover assembly of the receiver
- 2) Locate the 8 position dipswitch on the internal daughterboard assembly and using the following chart, set the receiver address.

С									d	
	8	7	6	5	4	3	2	1		
ON	Π	Π	Π	Π	Π	Π		Π		
ON OFF	E	Ħ	Ħ	Ħ	H	E	H	비		

- 3) Replace cover assembly and install unit.
- 4) See below on using pollable serial mode.

In order to utilize the pollable serial mode in normal operation and connect to individual receivers, a special command needs to be sent to the transmitter in order to establish a session between transmitter and receiver.

Follow the steps below to do this (must be done from serial control application in use on port 1).

- To establish a bi-directional RS232 session with a specific receiver, the transmitter needs the receivers address set. To do this send a CTRL-D <ID> carriage return, where <ID> is the receiver address (between 1-254)
- 2) To broadcast serial commands to all receivers, set <ID> to 0.
- To disable serial communication to all receivers, set <ID> to 255 (to enable serial communication again, simply set <ID> to a receiver address).

Once a transmitter has the correct ID set, normal bi-directional communication can occur between transmitter and receiver.

APPENDIX D. Pollable Serial Mode Address Chart

Addr Switch

64 8 6 5

65 8 7 6 5

66 8 7 6 5

67 7 8 6 5

68 8 7 6 5

69

70

73

75

76

7 8 6 5

7 8 6 5

71 8 6 5

72 8 6 5

74 7 6 5

77 8 6 5

78 8 6 5

79 <u>7</u> 8 6 5 80 8 6

81 <u>7 5</u> 8 6

82 <u>8 6</u>

84 8 6

85 8 6

86 8 6

87 7 5

88 8 6

89

90

93

7 5

7 5 8 6

7 5

91 <u>8 6 5</u>

92 <u>7 5</u>

94 <u>7 5</u> 95 <u>8 6 5</u>

83

7 5 8 6

7 8 6 5

7 8 6 5

7 8 6 5

Addr Switch Setting	Addr Switch Setting
00 8 7 6 5 4 3 2 1 OFF	32 6 ON 8 7 5 4 3 2 1 OFF
01 8 7 6 5 4 3 2 OFF	33 6 1 ON 8 7 5 4 3 2 OFF
02 8 7 6 5 4 3 1 OFF	34 6 2 ON 8 7 5 4 3 1 OFF
03 8 7 6 5 4 3 OFF	35 6 2 1 ON 8 7 5 4 3 OFF
04 8 7 6 5 4 2 1 OFF	36 6 3 ON 87 54 21 OFF
05 8 7 6 5 4 2 OFF	37 6 3 1 ON 87 54 2 OFF
06 8 7 6 5 4 1 OFF	38 6 32 ON 87 54 1 OFF
07 3 2 1 ON 8 7 6 5 4 OFF	39 6 3 2 1 ON 8 7 5 4 OFF
08 8 7 6 5 3 2 1 OFF	40 6 4 ON 8 7 5 3 2 1 OFF
09 8 7 6 5 3 2 OFF	41 8 7 5 3 2 OFF
10 4 2 ON 8 7 6 5 3 1 OFF	42 6 4 2 ON 8 7 5 3 1 OFF
11 8 7 6 5 3 OFF	43 6 4 2 1 ON 8 7 5 3 OFF
12 8 7 6 5 2 1 OFF	44 6 4 3 ON 8 7 5 2 1 OFF
13 8 7 6 5 4 3 1 ON OFF	45 6 4 3 1 ON 8 7 5 2 OFF
14 8 7 6 5 4 3 2 ON	46 6 4 3 2 ON 8 7 5 1 OFF
15 8 7 6 5 4 3 2 1 ON OFF	47 6 4 3 2 1 ON 8 7 5 OFF
16 8 7 6 4 3 2 1 OFF	48 6 5 ON 8 7 4 3 2 1 OFF
17 5 1 ON 8 7 6 4 3 2 OFF	49 6 5 1 ON 8 7 4 3 2 OFF
18 8 7 6 4 3 1 OFF	50 8 7 4 3 1 OFF
19 8 7 6 4 3 OFF	51 6 5 2 1 ON 8 7 4 3 OFF
20 8 7 6 4 2 1 OFF	52 6 5 3 ON 8 7 4 2 1 OFF
21 5 3 1 ON 8 7 6 4 2 OFF	53 6 5 3 1 ON 8 7 4 2 OFF
22 5 3 2 ON 8 7 6 4 1 OFF	54 6 5 3 2 ON 8 7 4 1 OFF
23 5 3 2 1 ON 8 7 6 4 OFF	55 6 5 3 2 1 ON 8 7 4 OFF
24 5 4 ON 8 7 6 3 2 1 OFF	6 5 4 ON 8 7 3 2 1
25 5 4 1 ON 8 7 6 3 2 OFF	57 6 5 4 1 ON 8 7 3 2 OFF
26 5 4 2 ON 8 7 6 3 1 OFF	58 6 5 4 2 ON 8 7 3 1 OFF
27 5 4 2 1 ON 8 7 6 3 OFF	59 6 5 4 2 1 ON 8 7 3 OFF
28 5 4 3 ON 8 7 6 2 1 OFF	60 6 5 4 3 ON 8 7 2 1 OFF
29 8 7 6 2 OFF	61 6 5 4 3 1 ON 8 7 2 OFF
30 5 4 3 2 ON 8 7 6 1 OFF	62 6 5 4 3 2 ON 8 7 1 OFF
31 5 4 3 2 1 ON 8 7 6 OFF	63 6 5 4 3 2 1 ON 8 7 OFF

Setting		Setting
4 3 2 1 OFF	96 <u>7 6</u> 8 5	0N 4 3 2 1 OFF
1 ON 4 3 2 OFF	97 <u>7 6</u> 8 5	4 3 2 OFF
2 ON 4 3 1 OFF	98 <u>7 6</u> 8 5	2 ON 4 3 1 OFF
2 1 ON 4 3 OFF	99 8 7 6 5	2 1 ON 4 3 OFF
3 ON 4 2 1 OFF	100 <u>8 7 6</u> 5	3 ON 4 2 1 OFF
3 1 ON 4 2 OFF	101 8 7 6 8 5	3 1 ON 4 2 OFF
32 0N	102 8 7 6 8 5	32 0N
321 ON 4 OFF	103 8 7 6 8 5	3 2 1 ON 4 OFF
4 ON 3 2 1 OFF	104 8 7 6 8 5	4 ON 3 2 1 OFF
4 1 ON 3 2 OFF	105 <u>8 7 6</u> 5	4 1 ON 3 2 OFF
4 2 ON 3 1 OFF	106 7 6 8 5	4 2 ON 3 1 OFF
4 2 1 ON 3 OFF	107 <u>7 6</u> 8 5	4 2 1 ON 3 OFF
43 ON 21 OFF	108 7 6 8 5	4 3 ON 2 1 OFF
4310N 20FF	109 <u>7 6</u> 8 5	4310N 20FF
4 3 2 ON 1 OFF	110 7 6 8 5	432 ON 1 OFF
4 3 2 1 ON OFF	111 <u>8 7 6</u> 5	4321 ON OFF
0N 4 3 2 1 OFF	112 <u>8 7 6 5</u>	0N 4 3 2 1 OFF
1 ON 4 3 2 OFF	113 <u>7 6 5</u>	4 3 2 OFF
2 ON 4 3 1 OFF	114 <u>8 7 6 5</u>	2 ON 4 3 1 OFF
2 1 ON 4 3 OFF	115 <u>7 6 5</u>	2 1 ON 4 3 OFF
3 ON 4 2 1 OFF	116 <u>8 7 6 5</u>	3 ON 4 2 1 OFF
3 1 ON 4 2 OFF	117 <u>8 7 6 5</u>	3 1 ON 4 2 OFF
32 ON 4 1 OFF	118 <u>8 7 6 5</u>	32 ON 4 1 OFF
321 ON 4 OFF	119 <u>7 6 5</u>	321 ON 4 OFF
4 ON 3 2 1 OFF	120 <u>8 7 6 5</u>	4 ON 3 2 1 OFF
4 1 ON 3 2 OFF	121 8 7 6 5	4 1 ON 3 2 OFF
4 2 ON 3 1 OFF	122 <u>7 6 5</u>	4 2 ON 3 1 OFF
4 2 1 ON 3 OFF	123 <u>7 6 5</u>	4 2 1 ON 3 OFF
4 3 ON 2 1 OFF	124 <u>7 6 5</u>	4 3 ON 2 1 OFF
4310N 20FF	125 <u>7 6 5</u>	4310N 20FF
4 3 2 ON 1 OFF	126 7 6 5 8	4 3 2 ON 1 OFF
4 3 2 1 ON OFF	127 <u>7 6 5</u>	4 3 2 1 ON OFF

Addr 128	8	Sv	vite	ch	S	etti	ing	
	8	7	6	5	4	3	2	1
129	-	7	6	5	4	3	2	
130	8	7	6	5	4	3	2	1
131	8	7	6	5	4	3	2	1
132	8	7	6	5	4	3	2	1
133	8	7	6	5	4	3	2	1
134	8	7	6	5	4	3	2	1
135	8	7	6	5	4	3	2	1
136	8	7	6	5	4	3	2	1
137	8	7	6	5	4	3	2	1
138	8	7	6	5	4	3	2	1
139	8	7	6	5	4	3	2	1
140	8	7	6	5	4	3	2	1
141	8	7	6	5	4	3	2	1
142	8	7	6	5	4	3	2	1
143	8	7	6	5	4	3	2	1
144	8	7	6	5	4	3	2	1
145	8	7	6	5	4	3	2	1
146	8	7	6	5	4	3	2	1
147	8	7	6	5	4	3	2	1
148	8	7	6	5	4	3	2	1
149	8	7	6	5	4	3	2	1
150	8	7	6	5	4	3	2	1
151	8	7	6	5	4	3	2	1
152	8	7	6	5	4	3	2	1
153	8	7	6	5	4	3	2	1
154	8	7	6	5	4	3	2	1
155	8	7	6	5	4	3	2	1
156	8	7	6	5	4	3	2	1
157	8	7	6	5	4	3	2	1
158	8	7	6	5	4	3	2	1
159	8	7	6	5	4	3	2	1

APPENDIX D. Pollable Serial Mode Address Chart (cont.)

_	Addr	Switch Setting	,	Addr	Switch	Setting		Addr	Switch S	Setting	_
ON OFF	160	8 6 7 5 4 3 2 1	ON OFF	192	8765	4 3 2	ON 1 OFF	224	876	321	ON OFF
ON OFF	161	8 6 1 7 5 4 3 2	ON OFF	193	8765	4 3 2	1 ON OFF	225	876 54	1 3 2	ON OFF
ON OFF	162	8 6 2 7 5 4 3 1	ON OFF	194	87 65	43	ON 1 OFF	226	876	2 13 1	ON OFF
ON OFF	163	8 6 2 1 7 5 4 3	ON OFF	195	87 65	43	1 ON OFF	227	876	21	ON OFF
ON OFF	164	8 6 3 7 5 4 2 1	ON OFF	196	8765	3 4 2	ON 1 OFF	228	876	3	ON OFF
ON OFF	165	8 6 3 1 7 5 4 2	ON OFF	197	8 7 6 5	3 4 2	1 ON OFF	229	876	3 1 1 2	ON OFF
ON OFF	166	8 6 3 2 7 5 4 1	ON OFF	198	8765	32	ON 1 OFF	230	876	32	ON OFF
ON OFF	167	8 6 3 2 1 7 5 4	ON OFF	199	8765	32	1 ON OFF	231	876	<u>321</u>	ON OFF
ON OFF	168	8 6 4 7 5 3 2 1	ON OFF	200	8765	4 3 2	ON 1 OFF	232	876 4	1 321	ON OFF
ON OFF	169	8 6 4 1 7 5 3 2	ON OFF	201	8765	4 3 2	1 ON OFF	233	876 4	32	ON OFF
ON OFF	170	8 6 4 2 7 5 3 1	ON OFF	202	87 65	4 2 3	ON 1 OFF	234	876 4	2 3 1	ON OFF
ON OFF	171	8 6 4 2 1 7 5 3	ON OFF	203	8765	4 2 3	1 ON OFF	235	876 4	1 <u>2 1</u> 3	ON OFF
ON OFF	172	8 6 4 3 7 5 2 1	ON OFF	204	8765	4 3 2	ON 1 OFF	236	876 4	3 21	ON OFF
ON OFF	173	8 6 4 3 1 7 5 2	ON OFF	205	87 65	43	1 ON OFF	237	876 4	1 <u>3</u> 1 2	ON OFF
ON OFF	174	8 6 4 3 2 7 5 1	ON OFF	206	8765	432	ON 1 OFF	238	876 4	1 <u>32</u> 1	ON OFF
ON OFF	175	8 6 4 3 2 1 7 5	ON OFF	207	87 65	4 3 2	1 ON OFF	239	876 4	321	ON OFF
ON OFF	176	8 6 5 7 4 3 2 1	ON OFF	208	875 6	4 3 2	ON 1 OFF	240	8765	321	ON OFF
ON OFF	177	8 6 5 1 7 4 3 2	ON OFF	209	875 6	4 3 2	1 ON OFF	241	8765	1 3 2	ON OFF
ON OFF	178	8 6 5 2 7 4 3 1	ON OFF	210	875 6	4 3	ON 1 OFF	242	8765	2 13 1	ON OFF
ON OFF	179	8 6 5 2 1 7 4 3	ON OFF	211	875 6	43	1 ON OFF	243	8765	21 13	ON OFF
ON OFF	180	8 65 3 7 4 21	OFF L	212	875	3 4 2		244	8765	3	ON OFF
ON OFF	181	8 <u>65</u> <u>3</u> <u>1</u> 7 <u>4</u> <u>2</u>	ON OFF	213	875	3 4 2	1 ON OFF	245	8765	3 1 1 2	ON OFF
ON OFF	182	8 6 5 3 2 7 4 1	ON OFF	214	875	32 4	ON 1 OFF	246	8765	32 1 1	0
ON OFF	183	8 65 321 7 4	ON OFF	215	875	<u>32</u> 4	1 ON OFF	247	8765	321	ON OFF
ON OFF	184	8 654 7 321	OFF L	216	875	4 3 2	ON 1 OFF	248	87654	321	ON OFF
ON OFF	185	8 654 1 7 32	ON OFF	217	875	4 3 2	1 ON OFF	249	87654	1 <u>1</u> 3 2	ON OFF
ON OFF	186	8 <u>654</u> 2 7 3 1	ON OFF	218	875	4 2 3	ON 1 OFF	250	87654	3 1	ON OFF
ON OFF	187	8 654 21 7 3	ON OFF	219	8 7 5	4 2 3	1 ON OFF	251	87654	3	ON OFF
ON OFF	188	8 6 5 4 3 7 2 1	OFF L	220	875 6	43	ON 1 OFF	252	87654	21	ON OFF
ON OFF	189	8 <u>6 5 4 3 1</u> 7 2	ON OFF	221	<u>875</u>	4 3 2	1 ON OFF	253	87654	3 1	ON OFF
ON OFF	190	8 6 5 4 3 2 7 1	ON OFF	222	875	4 3 2	ON 1 OFF	254	87654	32	ON OFF
ON OFF	191	8 6 5 4 3 2 1	ON OFF	223	875	432	1 ON OFF				

13

APPENDIX E. DDC/EDID Modes

The Infinea DVI System features the ability to send DDC/EDID display identifiers to the video source in order to determine display capabilities. The DDC is a data communication channel used in plug and play devices to accurately report a displays capabilities and identify the manufacturer. If this data is not available, the video source may revert to a low resolution or not display at all.

Infinea features the ability to report a Universal Display (MRI Magic Display) that supports most popular VESA standards in standard or widescreen formats as well as the ability to clone an actual displays DDC information that is attached to either the local DVI output of the transmitter or the receiver DVI output.

The various modes are detailed below:

- Mode 1: Universal Display (MRI Magic Display) (DEFAULT) This mode reports a generic display supporting popular screen formats and is suitable for most if not all display types.
- Mode 2: Clone DDC from DVI Output of transmitter This mode copies the DDC from a display attached to the local output of the transmitter.
- Mode 3: Clone DDC from receiver (first one if using daisychain options) This mode copies the DDC data from a display attached to the receiver (first receiver if a daisychain mode is in use).

To change modes requires internal jumpers to be changed. See Figure E-1 for jumper locations:

- Mode 1: To restore, install jumper J20 while transmitter is powered on. No other cable connections need to made.
- Mode 2: To clone DDC from a display connected to the local DVI output of the transmitter, Install a jumper on J9 and J20 while transmitter is powered off, then connect the display to the transmitter and power it on. Remove J20 while transmitter is powered on and leave J9 in. The video source does not need to be connected.
- Mode 3: To clone DDC from a display connected to the DVI output of the receiver, remove jumper on J9, ensure J20 is in while transmitter is powered off, then connect the display to the receiver and the receiver to the transmitter and power everything on. Remove J20 while transmitter is powered on and leave J9 off. The video source does not need to be connected.



Figure E-1. Jumper locations to change DDC Mode.

15

16

NOTES