WARRANTY

MicroImage Video Systems warrants that each PXQ540 is free from defects due to faulty materials or improper workmanship for a period of one (1) year. MicroImage Video Systems further warrants that any part which proves defective in materials or workmanship within one (1) year, will be replaced or repaired at no cost to the user. Labor to replace defective parts will be done without charge, provided the equipment is returned to MicroImage Video Systems prepaid, insured and properly packaged. Prior return authorization must be obtained from MicroImage Video Systems.

NOTE

This warranty covers the MicroImage PXQ540 only.

CONDITIONS

This warranty is void if the warranted part has been altered or subjected to abuse or misuse. Defective parts must be returned to MicroImage Video Systems.

SOLE WARRANTY

This Warranty is in lieu of all other warranties expressed or implied including, without limitation, any implied warranty or any implied warranty of fitness for a particular purpose. MicroImage Video Systems shall have the final right to determination as to the existence and cause of any defect and its appropriate adjustment in accordance with the terms of this warranty. In no event shall MicroImage Video Systems be liable for any consequential or collateral damages.

RETURNS

All returns MUST have an RMA number. Please call, fax or email for an RMA form. The RMA form will have the proper shipping address for returns.

Phone	610-754-6800
Fax	610-754-9766
Email	techsupport@mivs.com

QUAD DISPLAY CONTROLLER Operation Manual

Model PXD540

MicroImage Video Systems
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SPECIFICATIONS

Input levels	
Composite/B&W	1Vpp composite 75 Ω
Output levels	
Composite Video	1Vpp into 75 Ω
S-Video (Y, C)	1Vpp Y, 286mV C (burst) into 75 Ω
Connectors	
Composite	BNC female (5)
S-Video	4 pin mini-DIN female (1)
Keyboard	6 pin mini-DIN (1) [presently not used]
Power	1.3mm female coaxial power jack
RS232 Remote	3.5mm female 3 pin mini phone jack
RS232 Interface	9600 baud, 8 data bits, no parity, 1 stop bit.
Scaling	50% in quad and side-by-side modes
Memory	64 megabits total
Timebase Correction	Digital memory, frame aligned, one for each channel
Decoding	10 bit multi-standard digital decoding
Processing	Digital
Encoding	Digital Modulation
Oversampling	2x (27MHz) output over-sampling
Output DACs	10 bit digital to analog converters
Input Filters	Analog anti-aliasing filters
Output Filters	Digital plus 4th order analog anti-aliasing filters
Horizontal Freq.	
RS-170/NTSC	15.734KHz typical
CCIR/PAL	15.625KHz typical
Vertical Frequency	
RS-170/NTSC	59.94Hz typical
CCIR/PAL	50Hz typical
Bandwidth	6Mhz typical
Crosstalk	Greater than 48dB
Temperature	
Operating	0° ~ 40° C (32° ~ 104° F)
Storage	-40° ~ 60° C (-40° ~ 140° F)
Humidity	
Operating	10% ~ 90% (non-condensing)
Storage	5% ~ 95% (non-condensing)
Power	
Voltage	+5VDC +/- 5%, regulated, neg ground
Consumption	450mA typical (3W)
Protection	Automatic electronic fuse, internal, self resetting
Size	7.25" W x 5.00" D x 1.60" H (193 x 127 x 40 mm)
Weight	19.5 oz. (550g)

Power Module	
Type	Switching power supply, UL, CUL/CSA, CE, TUV approved
Output	5 VDC, 1000 to 2000mA, Regulated (no minimum load)
Voltage In	120VAC (USA) or 120 ~ 230 VAC, 50 - 60 Hz, 0.5A Max (RoHS)
Input Cable	None, small wall mount
Output Cable	4ft. 2 wire, 1.3mm female coaxial barrel connector
Size	3.2" x 1.8" x 1.2" (82mm x 46mm x 31mm)
Weight	2.6 oz (74g)

The PXQ540 series is manufactured in the USA by MicroImage Video Systems.

RS232 Remote Control

The PXQ540 can be controlled or queried by a computer or process controller via the wired RS232 interface. The PXQ540 uses a simple protocol to communicate with the host system. An interface manual is available on the MicroImage Video Systems website in the PXQ540 section at www.mivs.com.

IN CASE OF DIFFICULTY

If you are experiencing problems with any MicroImage product, you can contact MicroImage Support using the following methods:

Phone	610-754-6800
Fax	610-754-9766
Email	techsupport@mivs.com
Web	www.mivs.com

DESCRIPTION

The PXQ540 is designed to display multiple images on one screen in a traditional quad mode. Any of the four inputs can be displayed full screen as well. An optional border can be selected in the quad mode.

The PXQ540 will work with a variety of cameras or other video sources, either Black & White or Color. The PXQ540 accepts composite video input signals and will operate with NTSC or PAL video systems (switch selectable)

Board Level and OEM versions of this product are also available. Please contact your dealer or MicroImage Video Systems for additional information.

UNPACKING

The Quad Display Controller package includes the following items:

PXQ540 Quad Controller unit
+5 VDC Regulated Universal Power Module
This operation manual

Please inspect all items carefully and report damaged or missing items to your dealer or MicroImage Video Systems immediately.

INITIAL SETUP

Before the unit can be used, it must be set up for the proper video standard. This function is set with a DIP switch located on the rear of the unit. Each switch is numbered and OFF is in the UP position while ON is in the DOWN position. The following sections describe how to set these switches properly.

SIGNAL STANDARD SELECTION

The PXQ540 controller MUST be set to the proper video standard to work correctly. The choices are NTSC (RS170/60Hz) or PAL (CCIR/50Hz). NTSC is the common video standard for North America while PAL is common in Europe and other parts of the world. The factory default setting is NTSC (DIP switch number 1 off).

To set the unit for PAL operation, place the DIP switch in the LOWER (ON) position. The RAISED (OFF) position is for NTSC standard.

The unit must be set to the same standard as the video sources (cameras, VCRs, etc) and the monitor.

Switches 2 through4 are presently unused and are reserved for future options.

CONNECTIONS

Power

Plug the small connector on the end of the power module cord into the power input connector on the PXQ540 controller. Plug the power module into an appropriate power receptacle.

Inputs

Connect the video output from video source A to the Input A connection on the PXQ540 controller with a BNC cable.

Connect the B, C and D inputs with BNC cables as well.

Outputs

Connect a video cable from the PXQ540 controller to the video monitor or other display or recording devices using either the composite video output BNC connector, the S-Video output mini-DIN connector, or both.

OPERATION

Once connected properly, the PXQ540 is easy to use. Following is a description of each switch and control.

Power Pressing the power switch will turn the power on or off. The green indicator next to the power switch will light to indicate power is on. The power switch will remember its state if power is removed.

A Pressing the A switch will change the display to show the input A image full screen. A Red indicator to the right of the switch will indicate this mode is selected.

B Pressing the B switch will change the display to show the input B image full screen. A Red indicator to the right of the switch will indicate this mode is selected.

C Pressing the C switch will change the display to show the input C image full screen. A Red indicator to the right of the switch will indicate this mode is selected.

D Pressing the D switch will change the display to show the input D image full screen. A Red indicator to the right of the switch will indicate this mode is selected.

Quad Pressing this key will cause all four images to be displayed at reduced size in a quad mode. Image A will be in the upper left corner, B in the upper right corner, C in the lower left corner and D in the lower right corner.

Border In the Quad modes, this switch will cycle through one of five border settings. The selections are Off, Black, Dark Gray, Light Gray and White. Light gray is the default.

Bars Pressing this key will enable the internal color bar generator for monitor and system tests. Selecting another display mode will cancel this setting.