Related Products	All ETX and X-board
Subject	JILI3 Support Short Description
Document Name	JILI3_SHORT_E211.doc
Usage	<common>

1. REVISION HISTORY

Date	Document Name	Subjects added, changed, deleted	Changed by
13.05.03	JILI3_SHORT_E210.DOC	Initial release of Application Note	U. Geisler
27.06.03	JILI3_SHORT_E211.DOC	Updated version	U. Geisler

2. TABLE OF CONTENTS

3. INTRODUCTION

The former JILI auto detection mechanism reads the LCD data for a specific VGA controller from the JILI eeprom on the JILI adapter. In this case different panel types (VGA, SVGA...) needs different DAT-files for the corresponding VGA controller.

For the new solution, downward compatible to the old one, the eeprom on the adapter provides a simple ID for the panel adapter, or the LCD itself. The smart BIOS uses this ID to scan a special flash block (JDA=Jili Data Area) located in the Flash Eprom for an entry that matches the ID. With this solution only one DAT-File (provides the ID) is necessary to connect panels on different Kontron boards.

The JILI eeprom layout allows you to program either an adapter ID (PAID), which is assigned to all LCDs working on that particular adapter, or a flat panel ID (FPID) that is assigned to a specific LCD that does not work correctly with the adapter data. The flat panel ID has higher priority. If the BIOS finds an entry in the JDA for the FPID, the VGA controller is initialized using that data. Otherwise it scans the JDA for the PAID. If neither the FPID nor the PAID are found in the JDA, the display mode is set to CRT only.

NOTE: The new JILI is backwards compatible to the old JILI. Existing JILI-cables with old dat-files can still be used with BIOSes using the new JILI. The BIOS checks the dat-file and if it finds the correct entry it reads the LCD data for a specific VGA controller.

4. NEW JILI LCD AUTODETECTION

First the BIOS checks if an eeprom with the JILI signature 55AAh is present. If it is the header of the JILI data is read until either the end criteria is, a matching controller ID (old approach) or the display descriptor ID 80h is found. The new JILI data always contains the display descriptor (DD) 80h.

NOTE: The new JILI is backwards compatible to the old JILI. Existing JILI-cables with old dat-files can still be used with BIOSes using the new JILI. The BIOS checks the dat-file and if it finds the correct entry it reads the LCD data for a specific VGA controller.

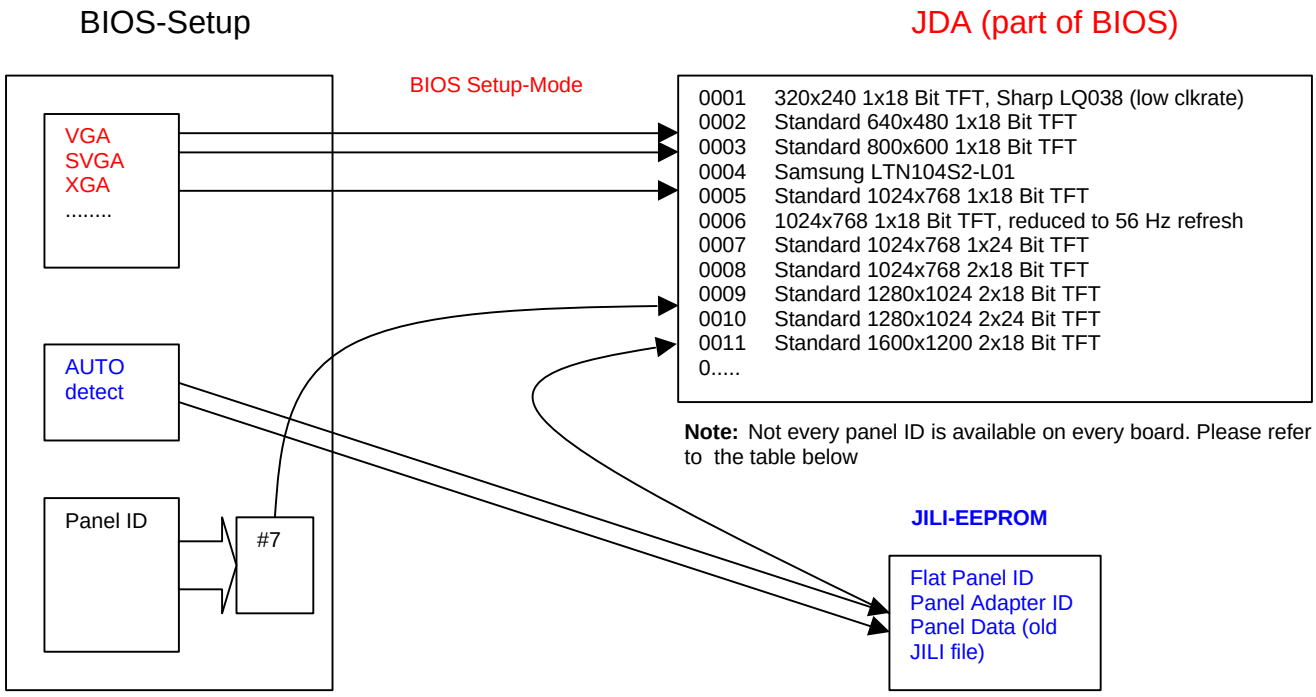
For more information about the new JILI LCD autodetection please contact your local technical support.

5. FPID/PAID TABLE

ID (d)	old jcf name(s)	panel/mode
0001	QA401	320x240 1x18 Bit TFT, Sharp LQ038 (low clkrate)
0002	VA101, VA201, VA401	Standard 640x480 1x18 Bit TFT
0003	SA001, SA101, SA201, SA401	Standard 800x600 1x18 Bit TFT
0004	SA102, SA202	Samsung LTN104S2-L01
0005	XA001, XA101, XA201, XA401	Standard 1024x768 1x18 Bit TFT
0006	XA002, XA102, XA402	1024x768 1x18 Bit TFT, reduced to 56 Hz refresh
0007	XB101	Standard 1024x768 1x24 Bit TFT
0008	XC101, XC401	Standard 1024x768 2x18 Bit TFT
0009	EC101	Standard 1280x1024 2x18 Bit TFT
0010	ED101	Standard 1280x1024 2x24 Bit TFT
0011	UC101, UC401	Standard 1600x1200 2x18 Bit TFT

6. JILI MODES

	BIOS Setup	Old JILI Mode (auto detect)	New JILI Mode (auto detect)
Advantages	Customer from competitors can switch easily to Kontron boards.	All panels can be adapted by updating the content of the JILI configuration EEPROM.	PNP
Disadvantges	No PNP If a panel doesn´t work with the standard settings the BIOS has to be updated.	No PNP.	If a panel doesn´t work with the current deposited data the JDA (part of the BIOS) has to be updated.
Remark	No serial EEPROM necessary.	Serial EEPROM must be used. Panel specific data in the DAT-File.	Serial EEPROM must be used. Panel specific data in the JDA selected by the PAID or FPID in the DAT-File.



At the moment available Panel ID´s on ETX and X-board

	X-Board	ETX-MGX	ETX-P1	ETX-P3	ETX-P3e	ETX-P3M	ETX-VEx	ETX-xx	ETX-xx
0001 320x240 1x18 Bit TFT, Sharp LQ038 (low clkrate)	✓								
0002 Standard 640x480 1x18 Bit TFT	✓	✓	✓	✓	✓	✓	✓		
0003 Standard 800x600 1x18 Bit TFT	✓	✓	✓	✓	✓	✓	✓		
0004 Samsung LTN104S2-L01 (800 x 600 LVDS)		✓	✓	✓					
0005 Standard 1024x768 1x18 Bit TFT	✓	✓	✓	✓	✓	✓	✓		
0006 1024x768 1x18 Bit TFT, reduced to 56 Hz refresh			✓	✓	✓				
0007 Standard 1024x768 1x24 Bit TFT			✓	✓					
0008 Standard 1024x768 2x18 Bit TFT			✓	✓	✓				
0009 Standard 1280x1024 2x18 Bit TFT			✓	✓		✓	✓		
0010 Standard 1280x1024 2x24 Bit TFT			✓	✓					
0011 Standard 1600x1200 2x18 Bit TFT			✓	✓	✓	✓	✓		