

Product System (PS)

Subject Circuit Operation Theory

Part No.

Doc No.

318-C01

Rev 0

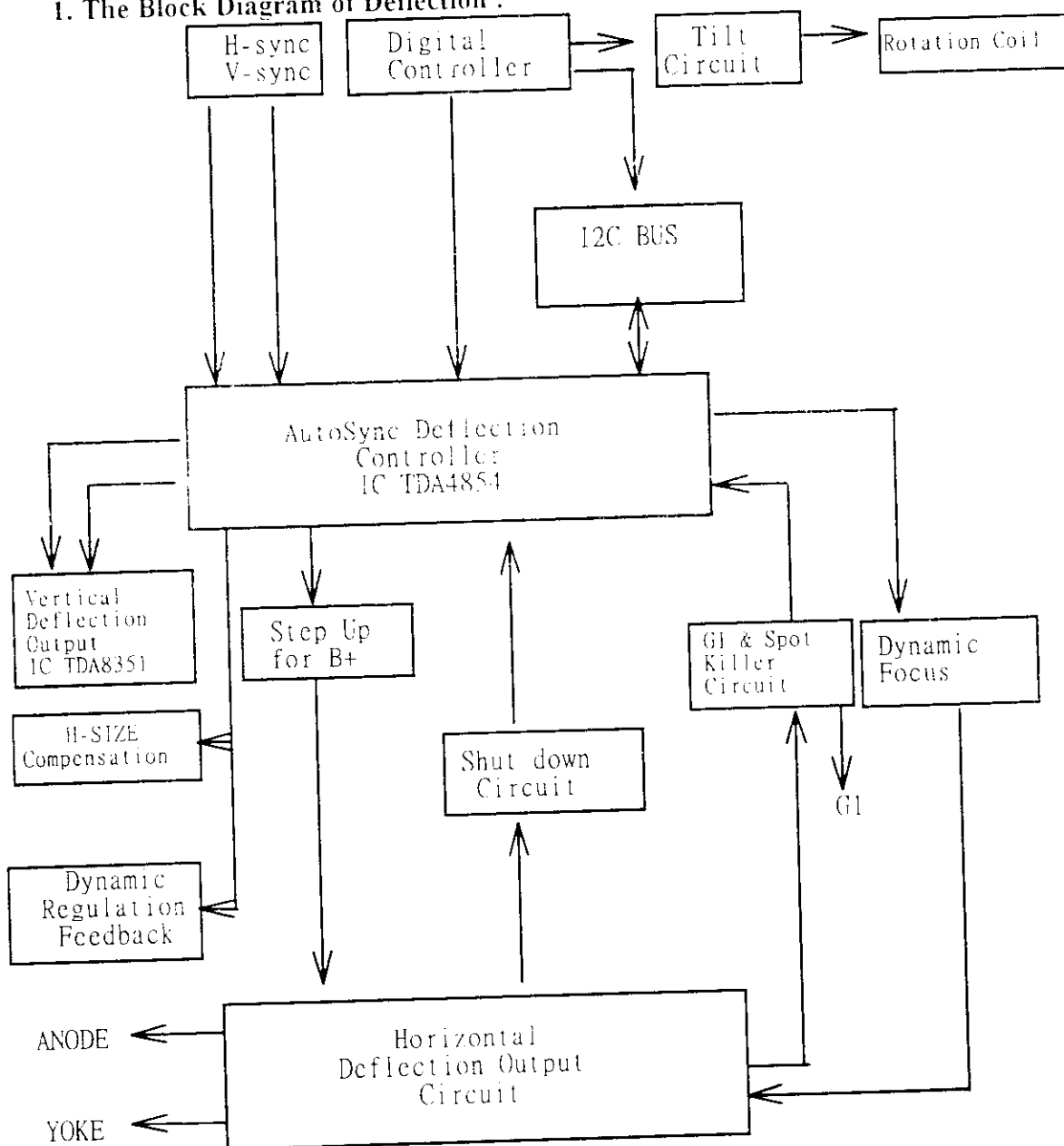
Project Code 91.70602.001

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Model Name 7277e

ACERVIEW 7277e DEFLECTION CIRCUIT OPERATION THEORY

1. The Block Diagram of Deflection :



2. Autosync Deflection Controller (TDA4854)

2.1 pin 1 is AFC feedback.

2.2 Pin 4 (ANODE) is connected to a 6.25V typical) switches the whole IC into protection mode.

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Switching Power Supply Operation Theory**1. General Specification:**

Input Voltage : 90~264VAC (FULL RANGE)

Input Frequency : 47~63Hz

Output Requirement:

Output :

MAX. Load Current

-6.3V

0.7A

+15V

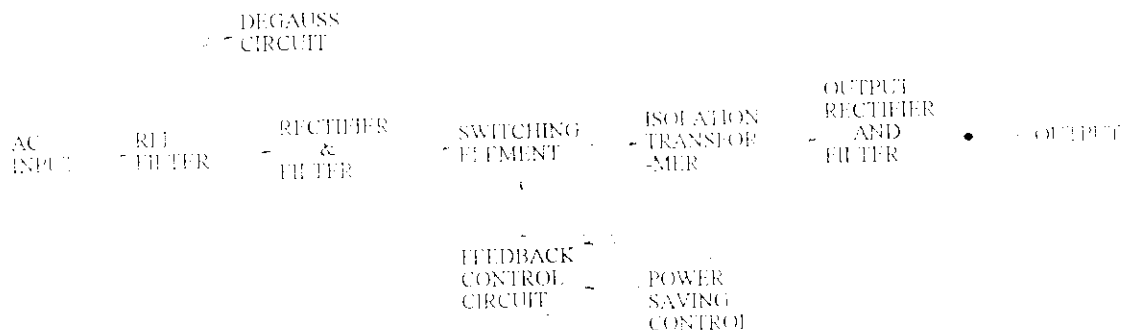
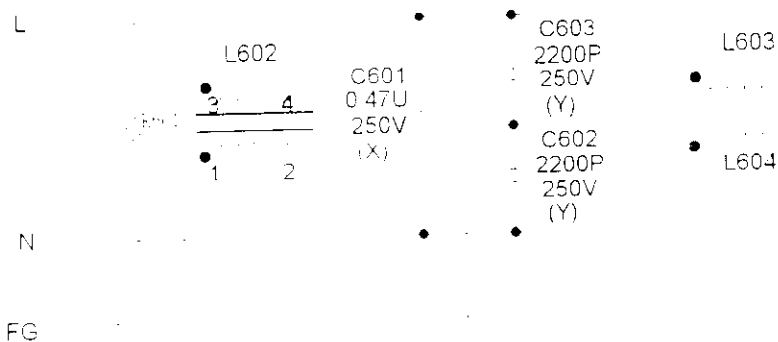
1.0A

+80V

0.15A

+45V

1.0A

2. Block Diagram**3. Circuit Operation Theorem****3.1 RFI FILTER**

This circuit designed to inhibit electric and magnetic interference for meet FCC, VDE, VCCI standard requirements.

3.2 Rectifier and filter

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3.8 power saving control

Mode	H-sync	V-sync	LED	Power Rating
Normal	Normal	Normal	Green	100%
Stand-by	None	Normal	Orange	$\leq 15W$
Suspend	Normal	None	Orange Flash	$\leq 5W$
Off	None	None	Orange Flash	$\leq 5W$

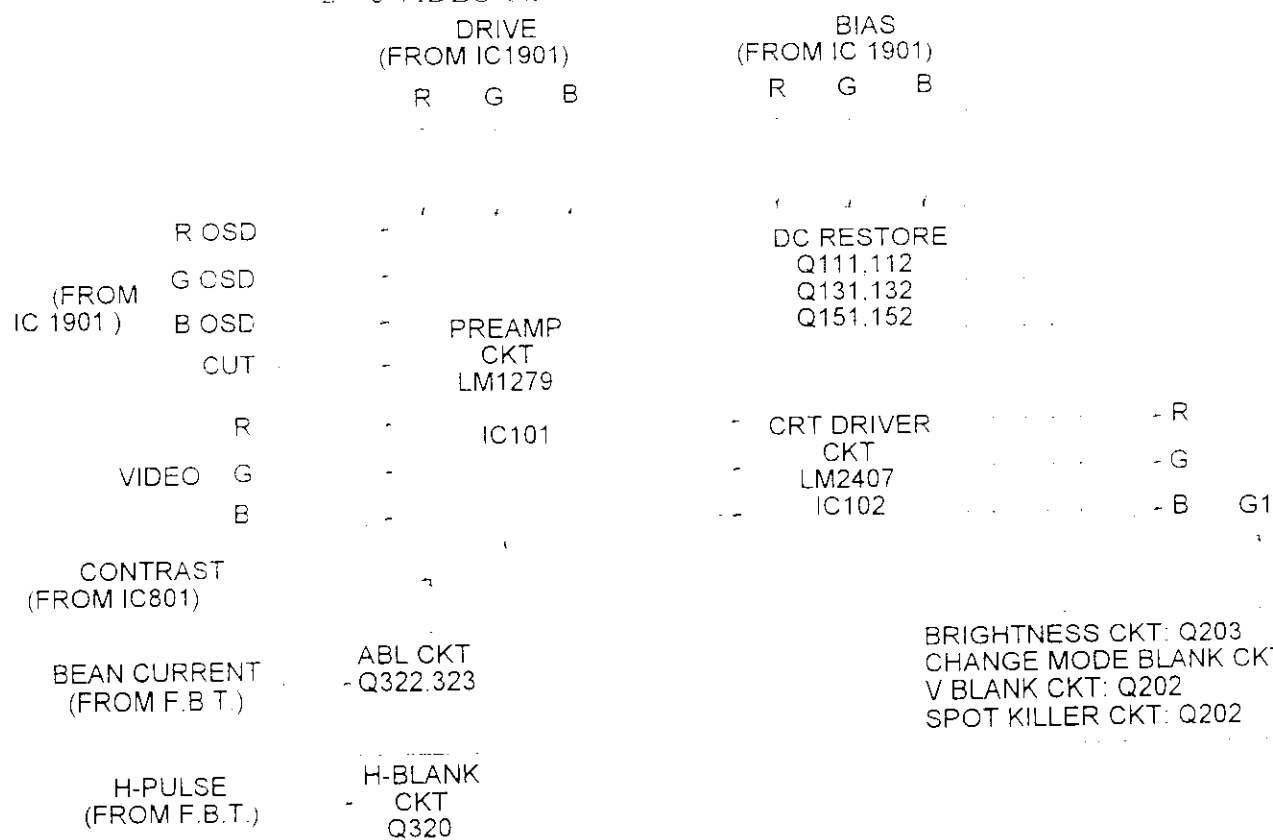
When both of the H-sync and V-sync are none, the power supply +6.3v and +15v output will be cut-off. The power input will be under 5W.

When the H-sync is none, the power supply +15v output will be cut-off. The power input will be under 15W.

When the V-sync is none, the power supply +6.3v and +15v output will be cut-off. The power input will be under 5W.

30. Video CKT

7277e VIDEO CKT BLOCK DIAGRAM :



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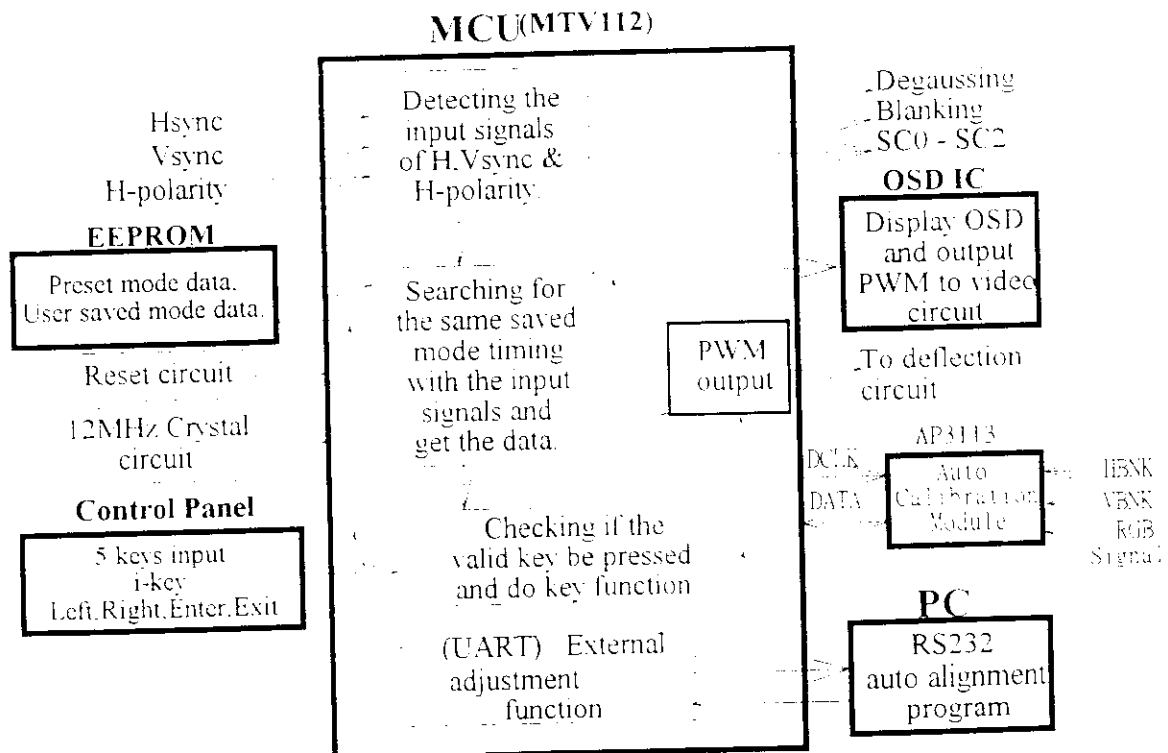
ACERVIEW 7277e MICROCONTROLLER CIRCUIT OPERATION THEORY

1. Introduction :

This model, 7277e, will support powerful OSD function to help end user fine adjustment. The Microcontroller circuit of the 7277e can determine what mode it is by detecting the frequency of horizontal and vertical synchronous and the polarity of horizontal synchronous, and provide DC voltages to control the picture and save the adjusted value into the EEPROM by using the OSD, "On Screen Display control", that means the user can get any information of the picture display or adjust it and save the status values into the EEPROM by choosing and pressing the proper key according to the indication of the OSD. In addition, user can press i-key to do auto-calibration

2. Block diagram :

The major parts of 7277e Microcontroller circuit are MCU, EEPROM, OSD IC, and Auto Calibration Module. The circuit block diagram is shown as below.



3. MCU and the peripheral circuit operation theory:

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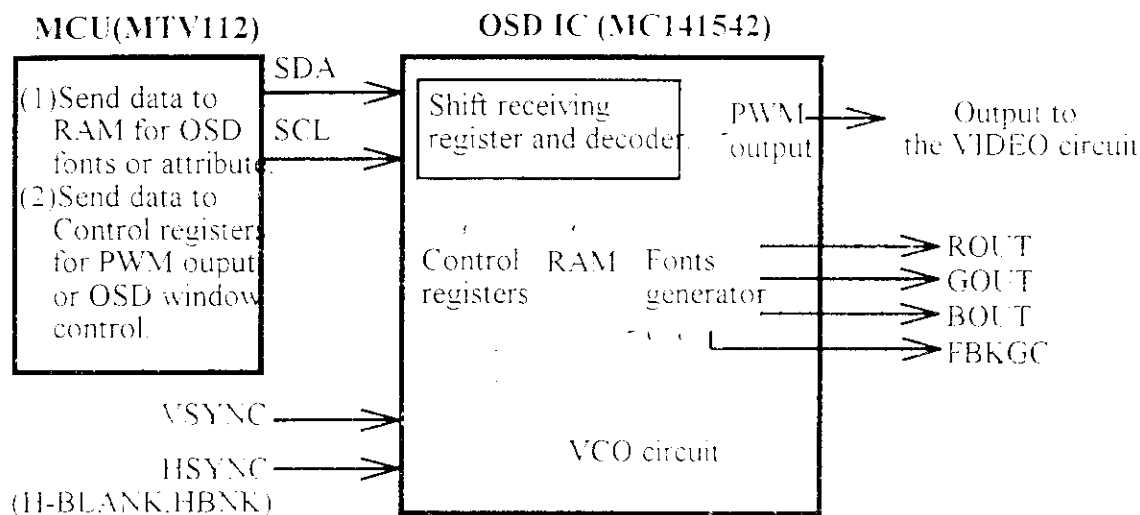
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3-6. How to execute the auto alignment function:

The MCU MTV112 supports the UART function. It has 2 I/O serial ports, one is the receiver, the other is the transmitter. They are connected with an interface to PC and PC can execute alignment program by RS232 communication to send the formatted data to the MCU for adjusting any adjustable parameters of the picture and saving the adjusted values into EEPROM. By this way, we can get the products with the same quality and reduce the manufacturing time.

3-7. Flowchart for Auto Calibration: