

Exhibit 4

Brief Description of 15" LCD Monitot/TV1. General

1.1. Product description

The 15" LCD Monitor/TV is specified as a display peripheral with analog video signal input and include TV/Video function with 15" TFT LCD display.

Horizontal scan range is 30 - 61KHz and refresh range is 56 - 75 Hz. This scan range allows it to display resolution up to 1024*768 non-interlaced at 75 Hz refresh rate. The image can be adjust through OSD control , these adjustments can be stored on an board memory including 14 factory pre-set modes.

1.2. Basic data

1.2.1 LCD panel

Type NR.	: CLAA150XE01(CPT)
Outside dimensions	: 350.0(W)*266.5(H)*16.5(D) mm
Pitch (mm)	: 0.297 x 0.297 mm
Color pixel arrangement	: RGB vertical stripes
Display surface	: Antiglare
Number of color	: 8-bit, 16,7M colors
Backlight	: 4 CCFL edge light (top/bottom)
Active area(WxH)	: 304.1(H) x228.1 (V) mm (15.0" diagonal)
View angle	: Vertical 130 degree, Horizontal 150 degree (CR > 5)
Contrast ratio	: 500:1
White luminance	: 300 nits (Typ)

1.2.2. Power supply

AC-DC adapter	: 12V/4500mA
Power consumption	: 60 Watts max
Operating	: < 48W(typical)
Standby, off	: <3W
DC power switch off	: < 1W
Power cord length	: 1.8M
Power indicator: LED (ON: green, Standby , OFF : blinking).	
Auto power saving	: EPA, Nutek, VESA DPMS

1.3.1. Horizontal scan : 30 - 61 KHz

1.3.2. Vertical scan : 56 - 75 Hz

1.3.3. Input signals

1. PC Signal type

Analog Video : 0.7 Vp-p Linear , positive polarity

Sync : TTL level , separate , positive or negative polarity

TTL level , composite , positive or negative polarity

2. TV signal type

RF signal : Aerial input

Video signal : SCART input
 S-Video input
 Audio signal : S-terminal L/R audio input
 PC line in

1.3.4 Input connectors

(1) Input analog D-sub connector pin assignment

PIN No.	SIGNAL
1	Red
2	Green/ sync on green
3	Blue
4	Sense (gnd)
5	GND
6	Red GND
7	Green GND
8	Blue GND
9	+5V
10	Sync GND
11	Sense (GND)
12	Bi-directional data
13	H/H+V sync
14	V-sync
15	Data clock

Signal interface : 1.8M 15Pins, D-sub male with DDC2B Pin assignments
 Sync polarity : Hori.sync - positive/negative
 Vert.sync - positive/negative

1.3.5 Key board control & definition

There are nine keys used in LCD monitor Plus

<A> <C> <D> <E> <F> <G> <H> <I>

Key name	Function	VGA mode	TV/video mode
<A>	Auto-adjustment	Auto-adjustment	NO Function
	PIP ON/OFF	PIP ON/OFF	No Function
<C>	Menu	Menu / Enter	Menu / Enter
<D>	Left/Volume down	Left/Volume down	Left/Volume down
<E>	Right/Volume up	Right/Volume up	Right/Volume up
<F>	Down/channel down/Brightness down	Down/	Down/Channel Down
<G>	Up/Channel up/Brightness up	Up/	Up/Channel up
<H>	TV source select	No Function	Source select
<I>	PC/TV	PC/TV select	PC/TV select

Note: <A>-<G> controlled by scaler MCU
 <H>-<I> controlled by A10 MCU

1.3.6 Resolution

(1) Factory Preset modes (14 modes)

#	Resolution	Frequency	Pixel rate	Sync	Comment
1	640X350	31.5K/70HZ	25.175	(+/-)	IBM VGA
2	720X400	31.5K/70HZ	28.322	(-/ +)	IBM VGA
3	640X480	31.5K/60HZ	25.175	(-/-)	IBM VGA
4	640X480	35.0K/67HZ	30.24	(-/-)	MAC
5	640X480	37.9K/72HZ	31.5	(-/-)	VESA
6	640X480	37.5K/75HZ	31.501	(-/-)	VESA
7	800X600	35.2K/56HZ	36	(+/+)	VESA
8	800X600	37.9K/60HZ	40	(+/+)	VESA
9	800X600	48.1K/72HZ	50	(+/+)	VESA
10	800X600	46.9K/75HZ	49.498	(+/+)	VESA
11	832X624	49.7K/75HZ	57.28	(+/+)	MAC
12	1024X768	48.4K/60HZ	65	(-/-)	VESA
13	1024X768	56.5K/70HZ	75	(-/-)	VESA
14	1024X768	60.0K/75HZ	78.75	(-/-)	VESA

1.3.7 Description of functional block

A10 SSP	: convert RF/SVHS/CVBS/RGB9YUV) signal to R/G/B signal output To video decoder SAA7118
Video processing	: digitalize RGB to deinterlacer FLI2200
Audio processing	: 2w x2 amplifier TDA1517 is designed in, headphone or audio Line out is optional for user
Scaler	: JAGASM is used for the PC graphic and TV video to the format that meet Panel requirement.
Microprocessor	: 80C51 & FLASH are used for the sclaering function and sacler Also uP built in and a CPU also in A10 for the control of TV part
Control board	: it is provided for user to push the hard key for control

Exhibit 5