

## 1. Description

HY035A01 is a color active matrix LCD module incorporating amorphous silicon TFT (Thin Film Transistor). It is composed of a color TFT-LCD panel, driver IC, FPC, a back light unit. The 3.5" display area contains 320 x (RGB) x 240 pixels and can display up to 16.7M colors. This product accords with RoHS environmental criterion.

## 2. Applications

- ? Digital Still Camera (DSC)
- ? Portable Multimedia Player (PMP)
- ? Global Position System (GPS)

## ? 3. Features

- ? 8 bits color depth
- ? Digital 24-bits RGB /S-RGB/ CCIR601/CCIR656 Interface supported
- ? Built-in charge-pump circuits (including VGH,VGL,VCOM set-up circuits)

## ? 4. General Specifications

Item	Specification	Unit	Remark
Display Mode	Normally White	-	-
Display Technology	$\alpha$ -Si TFT active matrix	-	-
Outline Dimension	76.9(H)X63.9(V)X3.3(T)	mm	Note 4-1
Active Area	70.08(H)X52.56(V)	mm	-
Resolution	320X(RGB)X240	dots	-
Pixel Pitch	219X219	$\mu$ m	-
Pixel Configuration	RGB Stripe	-	-
Weight	(TBD)	g	-
Backlight	6*LED	-	-
Luminance	(250)(Typ.)	cd/m <sup>2</sup>	-
Surface Treatment	Anti-Glare	-	-
Signal Interface	Digital 24-bits RGB /S-RGB/ CCIR601/CCIR656	-	Note 4-2
Viewing Direction		o'clock	Note 4-3
Power consumption	TBD	mW	Note 4-4

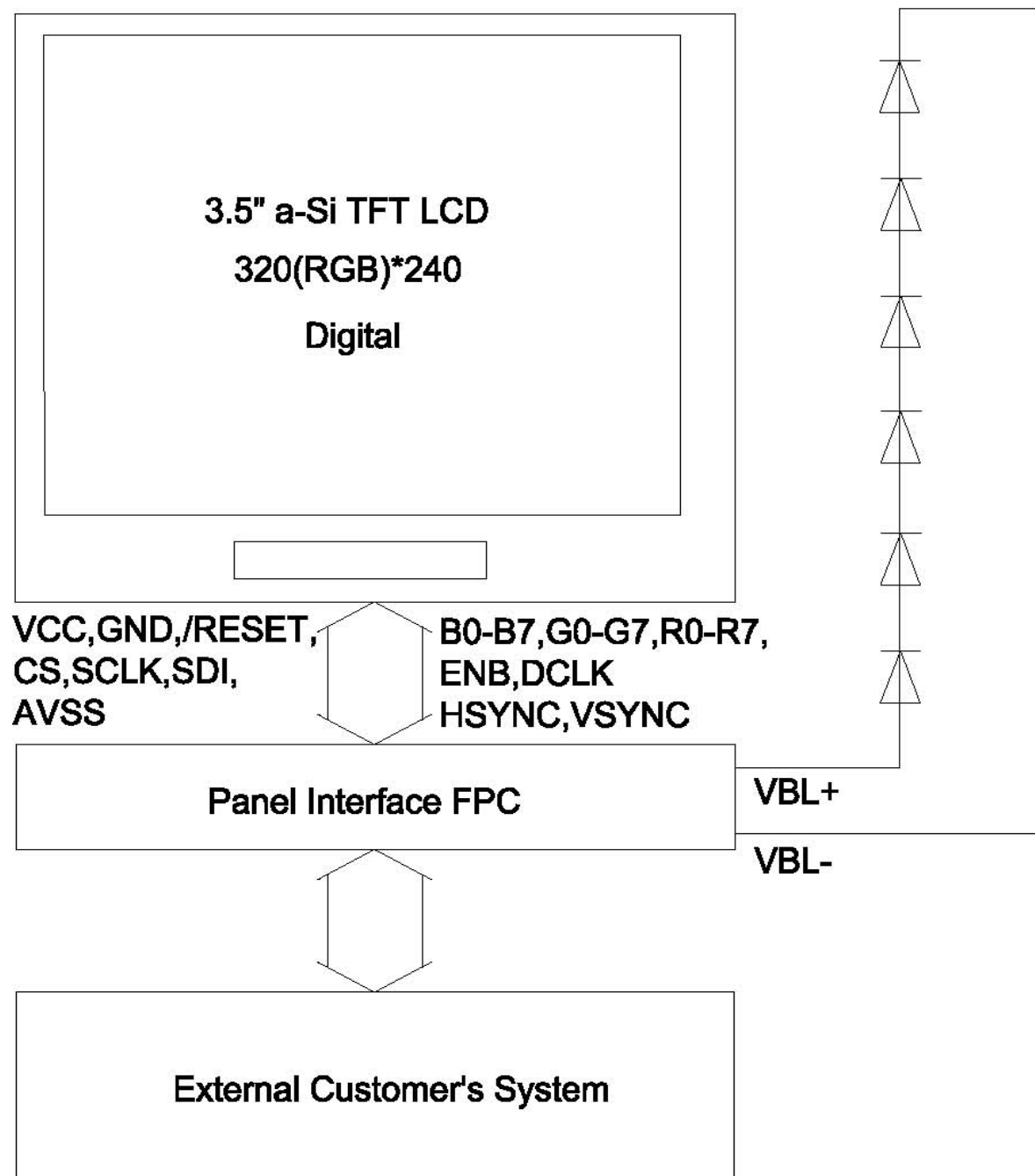
Note 4-1: Refer to the mechanical drawing on page 20.

Note 4-2: Signal Interface can be selected by Register R03 Bit [3:0].Refer to Note 6-2 for more details.

Note 4-3: Refer the definition of the viewing direction on page 17.

Note 4-4: The Power Consumption is a calculated reference value ( $P_{LCD}+P_{LED}$ ).

- 1. Block Diagram
- 2. Interface



	Symbol	I/O	Description	Remark
1	VBL-	P	Backlight LED Power Supply(Cathode)	-
2	VBL-	P	Backlight LED Power Supply(Cathode)	-
3	VBL+	P	Backlight LED Power Supply(Anode)	-
4	VBL+	P	Backlight LED Power Supply(Anode)	-
5	NC	-	No Connection	-
6	NC	-	No Connection	-
7	NC	-	No Connection	-
8	/RESET	I	Chip Reset Execution Control Pin	-
9	CS	I	Chip Select Pin of Serial Interface	-
10	SCLK	I	Clock Input of Serial Interface	-
11	SDI	I	Data Input of Serial Interface	-
12	B0	I	Blue Data Bit 0(LSB)	-
13	B1	I	Blue Data Bit 1	-
14	B2	I	Blue Data Bit 2	-
15	B3	I	Blue Data Bit 3	-
16	B4	I	Blue Data Bit 4	-
17	B5	I	Blue Data Bit 5	-
18	B6	I	Blue Data Bit 6	-
19	B7	I	Blue Data Bit 7(MSB)	-
20	G0	I	Green Data Bit 0(LSB)	-
21	G1	I	Green Data Bit 1	-
22	G2	I	Green Data Bit 2	-
23	G3	I	Green Data Bit 3	-
24	G4	I	Green Data Bit 4	-
25	G5	I	Green Data Bit 5	-
26	G6	I	Green Data Bit 6	-
27	G7	I	Green Data Bit 7(MSB)	-
28	R0	I	Red Data Bit 0(LSB)	Note 6-2

	R1	I	Red Data Bit 1	Note 6-2
30	R2	I	Red Data Bit 2	Note 6-2
31	R3	I	Red Data Bit 3	Note 6-2
32	R4	I	Red Data Bit 4	Note 6-2
33	R5	I	Red Data Bit 5	Note 6-2
34	R6	I	Red Data Bit 6	Note 6-2
35	R7	I	Red Data Bit 7(MSB)	Note 6-2
36	HSYNC	I	Horizontal Synchronization Input	-
37	VSYNC	I	Vertical Synchronization Input	-
38	DCLK	I	Dot Clock Input	-
39	NC	-	No Connection	-
40	NC	-	No Connection	-
41	VCC	I	Power Supply(+3.3V Typ)	-
42	VCC	I	Power Supply(+3.3V Typ)	-
43	NC	-	No Connection	-
44	NC	-	No Connection	-
45	NC	-	No Connection	-
46	NC	-	No Connection	-
47	NC	-	No Connection	-
48	NC	-	No Connection	-
49	NC	-	No Connection	-
50	NC	-	No Connection	-
51	NC	-	No Connection	-
52	ENB	I	Data Enable Input	-
53	GND	P	Power Ground(0V)	-
54	AVSS	P	Power Ground(0V)	-

Note 6-1: CS, SCLK, SDI must be connected to referenced control pins to enable the SPI initialization, to let the LCD give a good display. Note 6-2: For S-RGB/CCIR601/CCIR656 Interface, only R0-R7 is used. For unused pins (B0-B7,G0-G7), please connect to GND. The interface is selected by the SPI initial code.