



### HANTRONIX TFT ASPECT RATIOS ( 4 : 3 and 16 : 9 )

Hantronix offer both the 4 : 3 and 16 : 9 aspect ratio TFT color modules.

- 4 : 3 can be considered as more traditional
- 16 : 9 is for the HD video standard (w : wide)

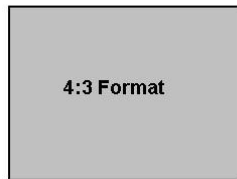
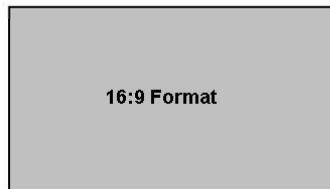
The sizes and graphics display resolution are summarized below. Some of them are new models including 9.7", 10.1" and 12.1".

#### 4 : 3 Aspect Ratio

HDA350, HDA351	3.5"	QVGA	320x240
HDA570S	5.7"	QVGA	320x240
HDA570V	5.7"	VGA	640x480
HDA800	8"	SVGA	800x600
New model, 9.7"	9.7"	XGA	1024x768
HDA1040S	10.4"	SVGA	800x600
HDA1040X	10.4"	XGA	1024x768
New model, 12.1"	12.1"	XGA	1024x768

#### 16 : 9 or similar Aspect Ratio

HDA430	4.3"	WQVGA	480x272
HDA500	5"	WVGA	800x480
HDA700	7"	WVGA	800x480
New model, 10.1"	10.1"	WXGA	1280x800
New model, 12.1"	12.1"	WXGA	1280x800



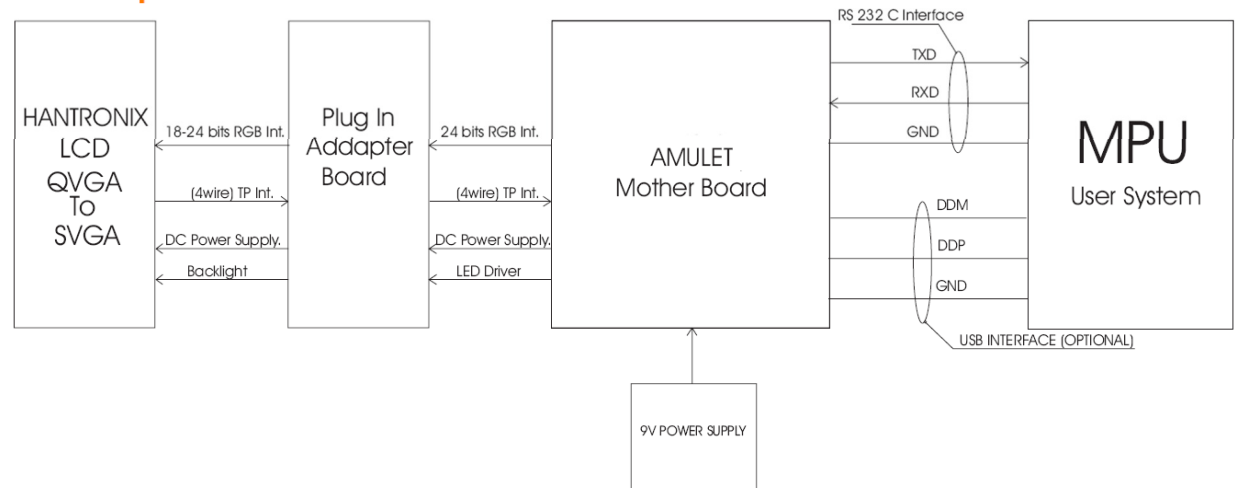
### Evaluation of Hantronix TFT using Amulet Technologies GEMexpress II Module (GCC-2)

It is important for the customer to have a simple method for evaluating any Hantronix TFT LCD. It must be inexpensive and easy to integrate with the customer's system. It also should allow the customer to quickly create a Graphical User Interface (GUI). For some applications, the availability of a touch panel interface is also necessary.

In cooperation with Amulet Technologies, Hantronix has successfully tested our TFT LCDs using the highly integrated Amulet GEMexpress II Module, and its GUI development package "Gem Studio". The GEMexpress II Module, with a built-in backlight driver and universal power supply, serves as the "motherboard" that easily links the customer's system to the Hantronix TFT LCD. The connection to the customer's system is via UART (RS232) or USB Serial Link.

For evaluating a specific Hantronix TFT LCD, the customer can easily prepare a Plug In Adapter Board that can be staffed with any 0.5-1 mm FFC/FPC connector with pin count up to 70 pins. Pin array matrix allow for soldering wires quickly for any RGB interface pinout configuration, backlight and touch panel. Below there is Block Diagram.

Any technical questions can be directed to Hantronix Senior FAE Zenon Winiarski @ 408-517-4247.

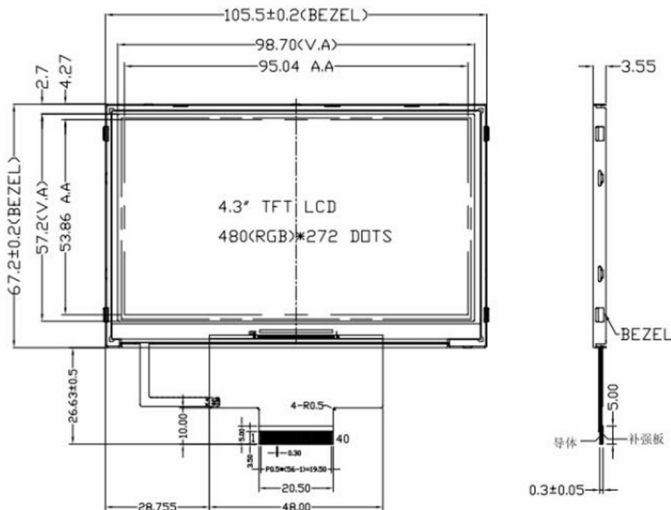


### **Hantronix Announces HDA430-5S Low Cost – Single Flex Tail Solution**

Hantronix is pleased to announce the addition of HDA430-5S and HDA430T-5S (w/touch panel) to our extensive offering of small-mid size TFT products. This new model was developed to provide an extra advantage in the highly competitive 4.3" TFT market.

In addition to very aggressive pricing, this 4.3" TFT model also offers unique technical advantage that will benefit the customer. Based on key customer feedbacks, our HDA430-5S was designed with a single interface tail. Whereas, our competition 4.3" will have up to 3 separate tails (interface, LED, touch panel), our HDA430-5S model has combined all three flex tails into a single tail solution. This will greatly reduce the design and production burden to the customer, in dealing with 3 different mating connectors.

Please contact your regional sales team for additional information.



## **Hantronix Bi-Stable LCD**

A Bi-Stable LCD's crystals can exist in one of two stable orientations, either dark or light, so power consumption mainly occurs when changing the display image. This characteristic makes Bi-Stable LCD an ideal solution for many applications where the display information is unchanged or does not need to be constantly updated. Hantronix offers a very cost effective standard 132x64 model in various color options. In addition, Hantronix provides very economical custom Bi-Stable LCD solutions.



### **Hantronix Bi-Stable LCD**

- Some Ideal Applications: Retail price/sale signage, Thermostats, Alarm panels
- Low Power Consumption: 1  $\mu$ A in constant display mode
- Very Wide Viewing Angles in all 4 directions
- High Contrast Ratio: 25:1
- No screen refresh necessary; Screen redraw time about 1 second
- Hantronix Standard Available: 132x64 (white/blue, green/black, yellow/black)
- Custom Bi-Stable Tooling Cost and Unit Price competitive versus STN LCD

### **Hantronix Housekeeping Note: 60 Days Evaluation LCD Return Policy**

A brief review of the Hantronix standard LCD sampling procedure and policy. (Please note that this policy does not apply for custom LCD samples.) Please understand that our policy is not intended to make sampling a profit center for our company or upset our valued customers, but just to ensure that a reciprocal consideration is maintained in our efforts to provide the customer with the best LCD solution. As always, our field sales rep's judgment will be the key, in the administrating of this policy. Please contact your regional sales team for any questions or comments.

#### **Alphanumeric STN LCD**

- 1 pc. free sample
- Additional samples may require payment
- No "Return 60 days" rule apply



#### **TFT LCD / Graphic STN LCD**

- 1 pc. "Return 60 days" evaluation LCD
- After 60 days period, if project/evaluation is still in progress, please advise to your regional sales team, for extension or write-off. Decision to extend or write-off will be determined on a project by project basis.
- After 60 days period or before, if project/evaluation is no longer in progress, please request to the customer for the return of the LCD to Hantronix, or remit payment for the unit. The return can be sent to the attention of your regional sales team member. No RMA is needed for this return.