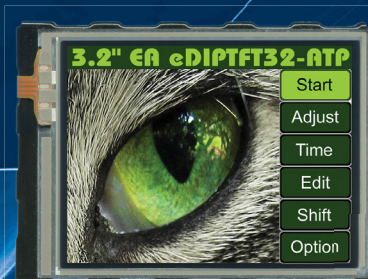


## Ad-hoc running TFT SPI, I<sup>2</sup>C, RS-232

- 3.2" - 4.3" - 5.7" - 7"
- Resistive or PCAP Touch Panel
- No Controller Board required !
- SPI + I<sup>2</sup>C Bus + RS-232
- Character Set & Graphic Functions
- Single Supply +5V (3.2" also +3.3V)
- Incl. Touch Panel Controller
- T<sub>Op.</sub> -20..+70°C



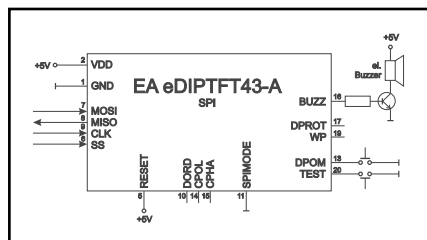
# SMART AND SIMPLE

## Touch to Operate Systems

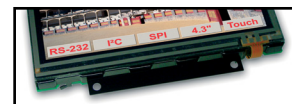
In recent years, TFT displays were adapted for mobile phones, PDA, and digital cameras. Now, increasing numbers of industrial applications are also equipped with color displays. Thanks to colors, process parameters or exceeding of limits can be highlighted easily. At the same time, a colored TFT display can enhance the vibrance and the product image of your equipment. Finally, the previously unreachable brilliance and excellent contrast satisfy the sophisticated of customers.

### Complex Driving? No!

Upon closer inspection of standard TFT panels on the market, engineers often oppose



those beautiful colored TFT panels. The primary reason for opposition is the big effort required for driving such a display, that requires something like a PC or Raspberry. Other concerns include the high current consumption for those boards and the long delay for power-up and boot sequence makes these systems inefficient. In addition, the effort required for the development of hardware (incl. driving backlight and touchpanel) and software is considerable. This is no longer profitable for a quantity of 50 or even 500 pcs. Finally time consumption for such development delays market launch.



### The solution

The smart alternative is using an intelligent display that is easy to integrate into a typical and well known microcontroller system because it is ready for immediate operation. The power supply ranges from +3.3V-5V for the 3.2" version to +5V for the 4.3", 5.7", and the 7" versions. One of the three interfaces (RS-232, I2C, and SPI) can be used for communication. Multiple character sets and graphic functions are built-in and available for immediate use. The internal FLASH stores pictures up to 65,536 colors (JPEG, BMP, PNG, TGA, and GIF incl. animation). Create individual company logos with ease. Alterable character sets (Cyrillic, Hebrew Arabic, etc.) are created easily with a FREE Windows tool, making it simple to join international markets.

Characteristics						
Value	Condition	eDIPTFT32	eDIPTFT43	eDIPTFT57	eDIPTFT70	Unit
Resolution		320x240x3	480x272x3	640x480x3	800x480x3	dots
Dimension		82x61	107x71	145x107	170x112	mm
Size		3.2	4.3	5.7	7.0	inch
Temp. Range		-20...+70				°C
Op. Voltage		3.3-5V	5	5	5	V
Brightness	w/o. Touch	700	500	400	500	cd/m <sup>2</sup>
	with Touch	550	410	320	400	cd/m <sup>2</sup>
Power Supply	Backlight 100%	160-120	180	680	690	mA
	Backlight off	37-25	80	190	200	mA

### The Touch Panel: Resistive or PCAP

Our reliable touch panel technologies are simple and quick to operate. The only visible keys and functions are those needed in the current mode of operation, making double keystrokes and deep menu structures obsolete. This prevents malfunctions from the beginning.

A large number of functions support the touch panel, including individual key size and key position. Adjustments can be made using a quick-defined slide bar.



Convenient compact design with increased HMI functionality. The resistive version may be operated with a pen or hand gloves; the PCAP is sensitive enough to run behind a 4mm glass plate or with thin hand gloves.

The operating temperature range is between -20...+70°C. Long-term

availability and high quality make this displays perfect for industrial, automotive, and medical applications. A black mounting bezel made of anodized aluminum is available as an accessory, making the display easy to mount directly to the front panel. Also available is an Evaluation kit for smooth work with the display-internal FLASH memory. The included test board provides push buttons to emulate the digital inputs and some LED to test the output lines. Multiple interfaces are supported, including RS-232 (5V), RS-232 (-+12V), RS-485, SPI, I2C, and USB.

