

## Overview

TOPWAY Smart LCDs embed a display engine to show pre-loaded user-interface (UI) and display real time data provided by host via serial interface (RS-232C / RS-485 / UART).

They reduce the host system's workload and provide a much faster interaction with the users.

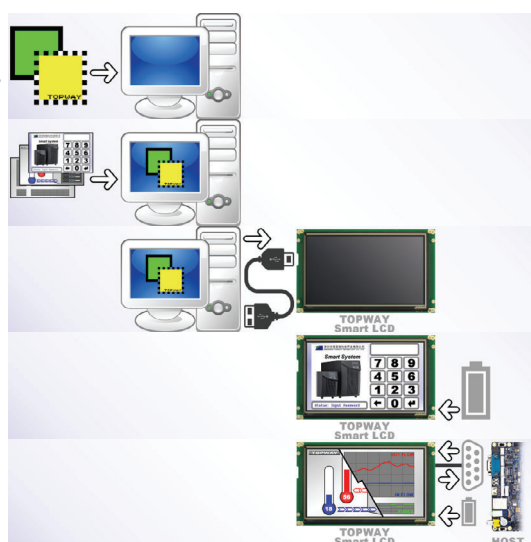
TOPWAY TML Graphics Editor also can dramatically simplify and speed-up the UI design process and realize it in minutes.

## Specifications

Display : Industrial TFT Display  
(3.5", 4.3", 5.0", 5.6", 6.8", 7.0", 8.0", 9.0", 10.1", 10.4")  
Backlight : LEDs Backlight  
Touch Panel : Industrial Resistive / Capacitive Touch Panel  
Memory : 256MB high speed flash  
(equivalent 349 (800x480)background images)  
Operating Temperature : -20 ~ +70°C  
Storage Temperature : -30 ~ +80°C

## Quick Start

- 1 Install Graphics Editor
- 2 Design Interface
- 3 Download to Smart LCD
- 4 Power on & display
- 5 Connect & show data



## Main Features

### Display Elements

- Characters Type Elements for strings, numbers, clock, etc.
- Image Type Elements for icons, animations, tachometers, etc.
- Graphic Type Elements as bars, graphs, QR code, etc.

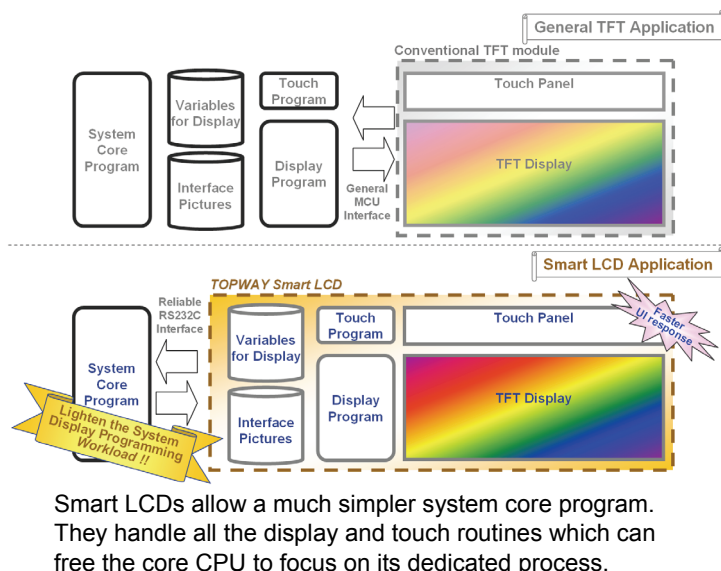
### Touch Elements

- Action Type Elements like Touch Key & Virtual Key provides interactive display and call up keyboards for input.

### Others Features

- Single byte char set for 20+ countries
- Double byte char set for Chinese, Japanese, Korean
- Display Project can be downloaded via PC or USB-Drive
- Support multiple Display-Projects
- Built-in standard keyboards and custom design keyboards
- Display-Project protection

## Smart TFT LCD vs. Conventional TFT



Smart LCDs allow a much simpler system core program. They handle all the display and touch routines which can free the core CPU to focus on its dedicated process.

## Graphics Editor

Full-function TOPWAY TML Graphics Editor is provided for free. It can run on various Windows platform to build user-interface (UI) and download to Smart LCD



### Basic Steps

1. Import pre-designed artwork as Background Images
2. Config Page Properties
3. Add functional Elements
4. Download to Smart LCD with a single click

## Major Models

| Model        | Size  | Outline (mm)         | Resolution | Bezel | T/P |
|--------------|-------|----------------------|------------|-------|-----|
| HMT035ATA-1C | 3.5"  | 93.0 x 70.1 x 13.8   | 320 x 240  |       | RTP |
| HMT043ATA-2C | 4.3"  | 121.9 x 74.7 x 14.1  | 480 x 272  |       | RTP |
| HKT043ATA-1C | 4.3"  | 139.0 x 97.0 x 26.9  | 480 x 272  | O     | RTP |
| HMT050ATA-C  | 5.0"  | 143.5 x 80.9 x 13.7  | 800 x 480  |       | RTP |
| HMT050DTB-D  | 5.0"  | 143.5 x 81.0 x 14.7  | 800 x 480  |       | CTP |
| HKT050ATA-C  | 5.0"  | 160.0 x 105.0 x 27.0 | 800 x 480  | O     | RTP |
| HMT056ATA-C  | 5.6"  | 144.8 x 110.2 x 21.6 | 640 x 480  |       | RTP |
| HMT068ATA-C  | 6.8"  | 195.0 x 69.9 x 32.1  | 1366 x 480 |       | RTP |
| HMT070ATA-1C | 7.0"  | 185.9 x 109.5 x 19.3 | 800 x 480  |       | RTP |
| HMT070DTA-D  | 7.0"  | 185.9 x 109.5 x 18.4 | 800 x 480  |       | CTP |
| HKT070DTA-1C | 7.0"  | 200.0 x 125.0 x 30.0 | 800 x 480  | O     | RTP |
| HMT080ATA-C  | 8.0"  | 196.0 x 143.9 x 17.2 | 800 x 600  |       | RTP |
| HKT080ATA-C  | 8.0"  | 217.0 x 175.7 x 24.3 | 800 x 600  | O     | RTP |
| HMT090ATA-C  | 9.0"  | 226.9 x 150.5 x 22.4 | 800 x 480  |       | RTP |
| HMT101ATA-D  | 10.1" | 251.0 x 140.0 x 17.1 | 1024 x 600 |       | CTP |
| HMT104ATA-C  | 10.4" | 247.8 x 193.7 x 19.4 | 800 x 600  |       | RTP |
| HKT104ATA-C  | 10.4" | 272.0 x 214.0 x 35.0 | 800 x 600  | O     | RTP |

Note: \*1. Above major models are RS232-C interface; UART and RS485 interface are also available.  
\*2. Features and functions may vary by model.  
\*3. Please contact us for details.