

TC Solutions – by MpicoSys

for E Ink 9.7", 13.3" and 31.2" ePaper Displays

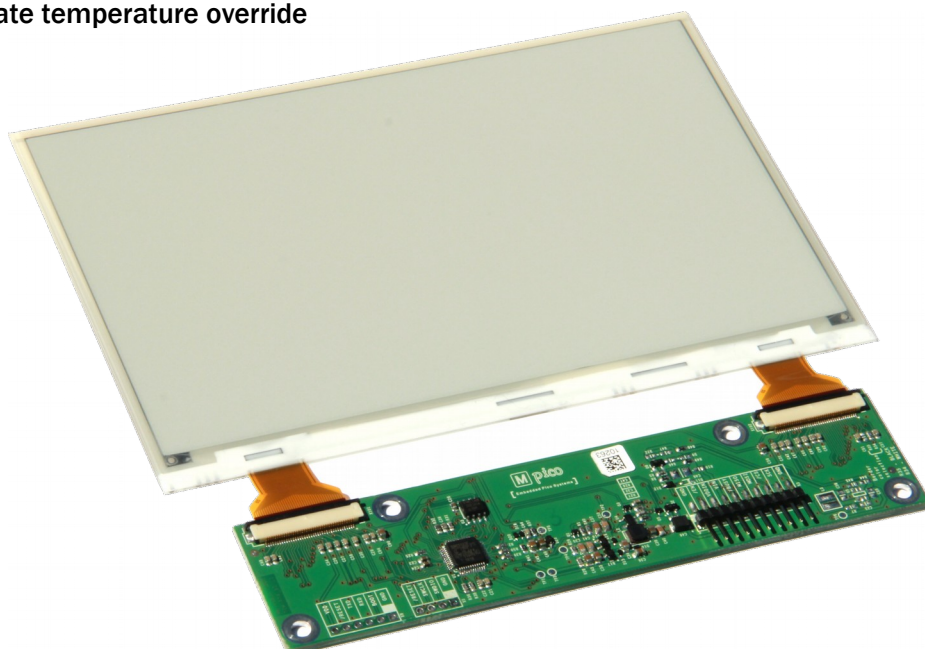
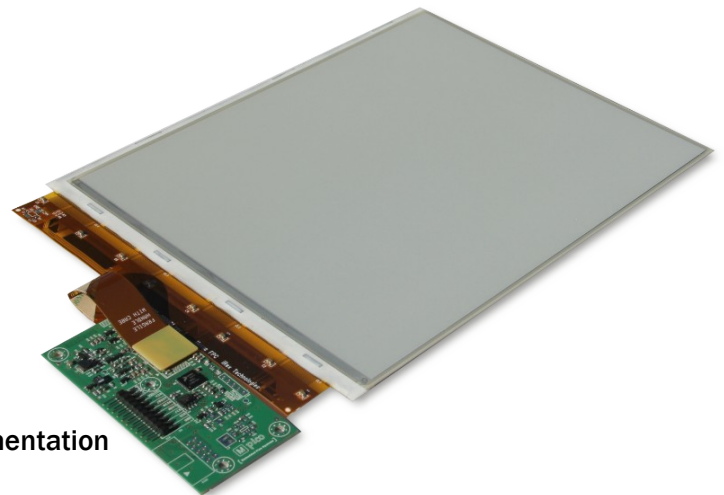
Introduction

The new generation of MpicoSys Timing Controller Solutions provides low-power driving of large size panels (9.7", 13.3" and 31.2") from E Ink. The controllers have identical functionality, command set and physical interface, allowing for easy transitions between the display sizes in your application. Offered as fully-assembled PCB module (Timing Controller Module – TCM) or for high volumes as chip only (Timing Controller – TCon), the solution allows a quick and easy integration with your host system, minimizing the cost and time-to-market.

MpicoSys TCM Solutions are designed to take full advantage of ePaper's low power capability. Thanks to the energy-efficient architecture, MpicoSys Timing Controllers consume very little power during operation. Moreover the device switches off completely when the display does not need an update, consuming less than one micro amp.

Key Features

- Supporting the state-of-the-art E Ink panels
- SPI interface to host – slave device with additional /TC_EN and /TC_BUSY lines
- 2-bit color (4 grayscales)
- Complete solution including:
 - Temperature compensation
 - Common electrode voltage compensation
 - All voltages needed for the display
- Internal image buffer retains content during system power down
- Flashless display update
 - no flashing during the image transition
- Partial image upload
 - no need to send the full image data
- Reduced power consumption due to reactive implementation
- Multiple image slots
- Image data checksum calculation ensuring data integrity
- Display update temperature override



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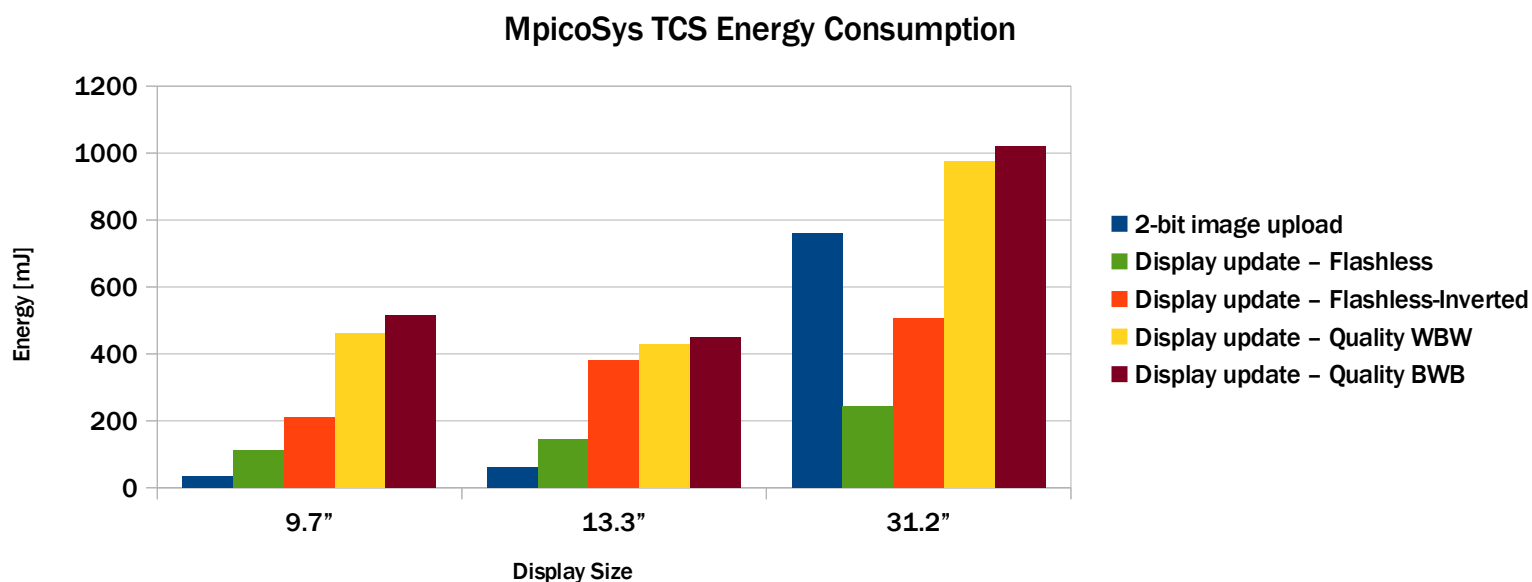


Ordering Information

MpicoSys TCS Product Code	E Ink Display Size	E Ink Display Material (FPL)	E Ink Display Part No.	E Ink Display Resolution [px]	E Ink Display Density [dpi]
TCS2-E97-320_v1.0	9.7"	Carta - v320	ED097TC2	1200x825	150
TCS2-E133-320_v1.3	13.3"		ED133UT2	1600x1200	150
TCS2-E312-320_v1.2	31.2"		ED312TT2	2560x1440	94

Energy Consumption

Typical energy consumption [mJ] per single full image write and display:



USB Interface Available

USB2TCM devices are available serving as interface between a computer and any of MpicoSys TCMs. The USB2TCM connects to any computer (running Windows, Linux, or OS X) USB port, and installs as flash memory, requiring no additional drivers.

Contact Information

Please contact sales@mpicosys.com or visit our website at www.mpicosys.com