

# TFT128 ScreenKey

The TFT128 ScreenKey is a push button key switch with a full-color high-resolution TFT display. It boasts a 128\*128 pixel resolution, where each pixel color may be chosen from a palette of 65,536 colors, and is backlit by a white LED.

## Main Features:

- 128\*128 pixel resolution
- 65,536 colors per pixel, full-color imaging
- SPI Interface (4 wire)
- Field replaceable
- Low bandwidth
- Low profile
- Up to 10fps refresh
- Bitmap addressable
- High-level commands
- Internal character generator
- 7 lines, 9 characters per line
- User downloadable font support



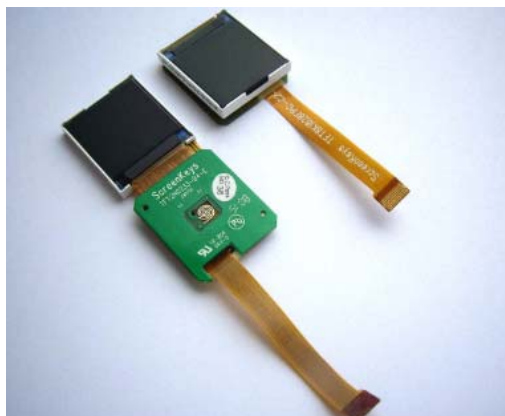
## Interface and Command Set

The TFT128 ScreenKey is an intelligent device with an onboard microcontroller and graphical display controller. A fully implemented 4-wire SPI interface (with an expanded command set) allows designers to use simple ASCII control, a full bitmap graphic display or a combination of the two. The TFT128 supports downloadable display content and is designed to minimise bandwidth requirements from a host controller. This is particularly useful in a multi-ScreenKey environment.

Overall dimensions of the TFT128 ScreenKey are 28.1 x 31.9 x 16.7mm and it is a simple click-fit into control panels, no need for soldering. A flex-tail cable terminated by a PCB connector is provided to connect to the host system. The TFT128 ScreenKey may be used in Portrait or Landscape mode depending on the application.

## Operating Modes

- **High-level command mode** simplifies integration into applications by using simple address codes such as, 'text display', 'clear display', 'report key press' etc.
- **High-speed mode** implements a simple graphics-only interface and delivers up to 10 frames per second frame refresh rate.



The TFT128 push button switch has two functions, a conventional push-to-make electrically isolated switch and an internal switch monitor which can report key activation to host systems for direct control or monitoring functions.

The TFT128 is also available as a display-only device (see opposite picture).

Operating temperature of the TFT128 ScreenKey is -20 to +70°C and life cycle is up to 7 years from manufacture.

For further details on the TFT ScreenKey see [http://www.screenkeys.com/prod\\_TFT128.shtml](http://www.screenkeys.com/prod_TFT128.shtml)