



**Description**

EM is offering competitive and accurate capacitive Touch solutions based on the EM6420. This IC is an ultra low power plug and play Touch Sensor Interface able to work with tightly spaced as well as regularly spaced electrodes (up to 16 per IC).

EM is able to offer complete solutions (IC + electrodes) and can support development and production of optimised electrodes design on various dielectric substrates as illustrated below.

**1. Opaque Substrate**

Capacitive electrodes design for various opaque, flat or curved surfaces. For example: curved plastic housing. Advantages: replaces push buttons, fashion, watertight, cost effective.

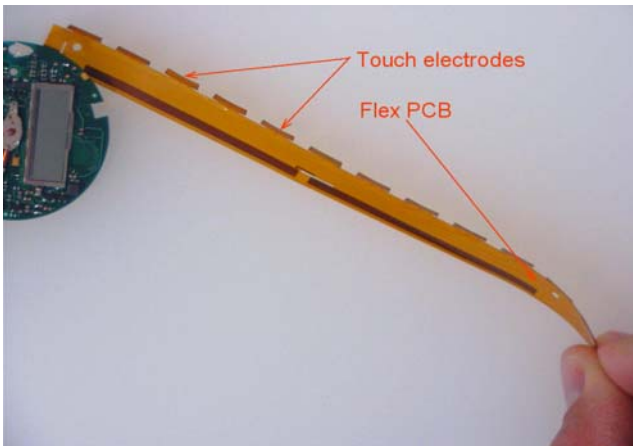


Figure 1: Touch on thin flex PCB.

**2. Transparent Substrate**

Invisible capacitive electrodes on transparent substrate. For example: sapphire, glass or plastic. Can be used on top of a display or optically glued under a transparent cover lens. Advantages: Invisible electrodes, highly transmissive, watertight scratch resistant, custom designs, package display and / or cover lens + touch available.

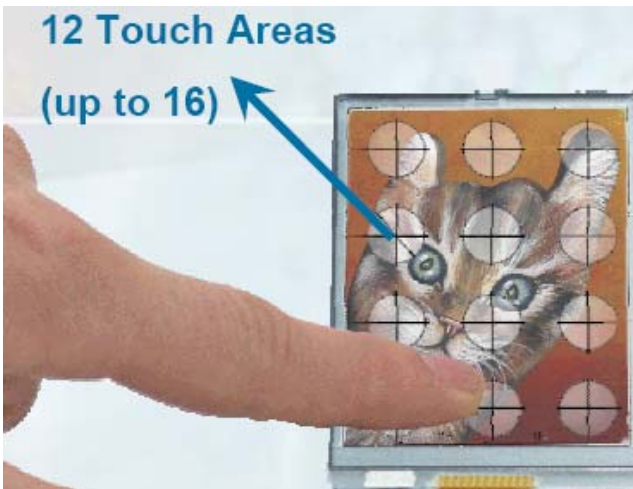


Figure 2: Add-on invisible touch on TFT display.

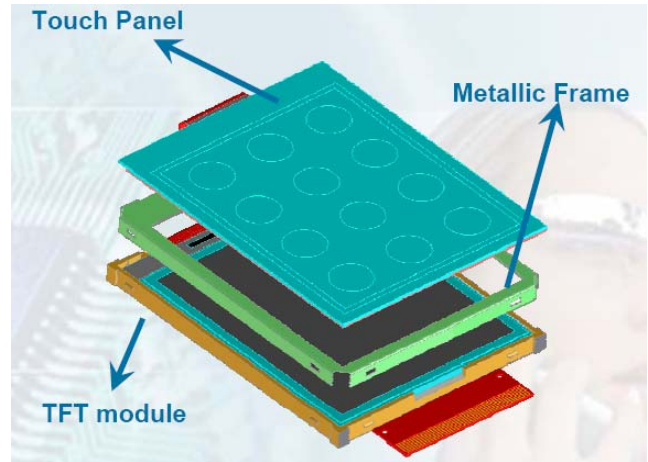


Figure 3: Add-on invisible touch on TFT display concept.

**3. Touch in Display**

Invisible touch sensors are directly built in an icon display. Just touch the displayed icon. Advantages: no additional layer on top of display, cost effective, for glass and flexible plastic icon displays, invisible, ultra thin, custom designs, dual side sensors activation.

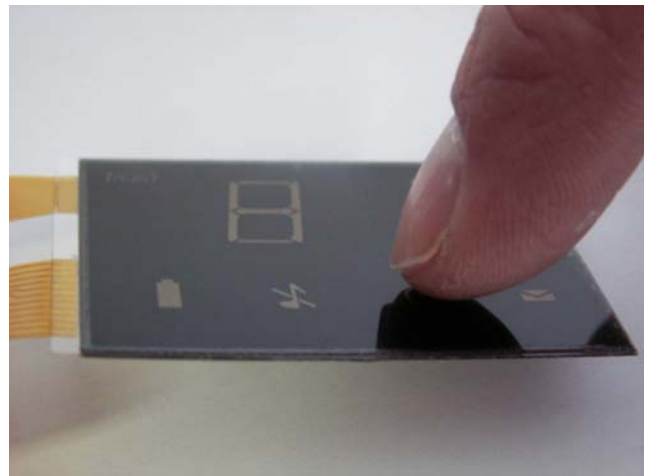


Figure 4: Built-in invisible touch in icon display (thickness 0.65mm).

**Typical Applications**

- Mobile phones, cordless phones
- PDA, keyboards, displays
- White & brown goods
- Toys

**Availability**

- Naked die, SMT package MLF40
- EM6420 Starter kit or Demonstrator with EM6819 MCU

More information on EM6420 and touch solutions on [www.emmicroelectronic.com](http://www.emmicroelectronic.com)