Touch Modules

Touch sensor systems to improve the human interface. EM Microelectronic is today able to offer multiple custom capacitive touch screen solutions.

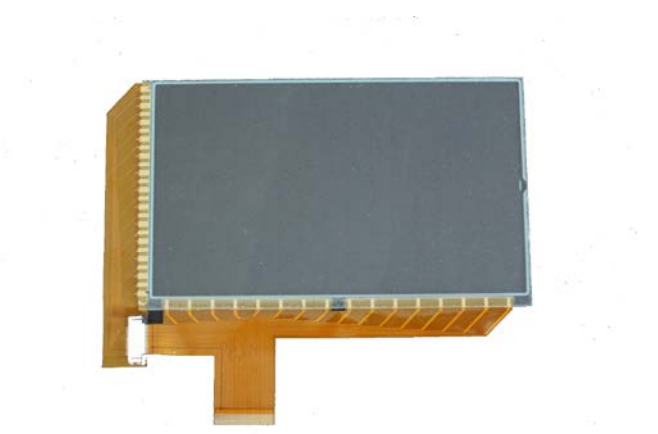
The customization possibilities offered are wide and EM Microelectronic can combine such touch screens in a Display Module or can supply the Touch module separately for applications on which a Display is not required.

Touch solution can be applied on transparent surface (glass) and on non transparent plastic surface.

For touch screens on transparent surfaces the main focus of EM Microelectronic is to offer solutions with very high optical performances (non visible electrodes, high light transmission). With such goals the ideal technology is Capacitive touch screens. Capacitive solutions can be also offered for Touch areas on Plastic (non transparent) surface.

Capacitive touch screen on glass has high transparency (87-90%) and is more robust against external mechanical shock and stress than a Resistive touch.

The solution offered by EM Microelectronic consists of the sensor IC and the hardware interface (touch screen, cables, connectors..etc) delivered in a complete and fully integrated customized module.



Touch Screen Technologies outlook

The capacitive touchscreen (glass, plastic, etc) is coated with a conductive layer (normally ITO) that conducts a continuous electric current across a sensor on a specific ITO pattern. The human body acts as an electrical device changing the capacitance when touching the ITO layer on the screen with a bare finger (or a conductive device held by a bare hand) and the sensor detects the capacitance variation.

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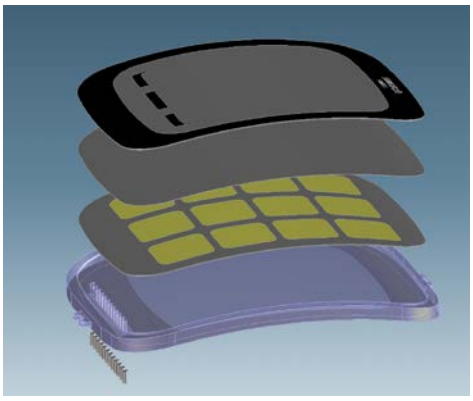

Design example: Touch sensitive front lens

Customer specific

EM's Touch Modules are customer specific designs. As such we will take your particular request and engineer a solution to meet your requirements.

Typical lead times for a new Touch Module

- 2 weeks to get the counter drawings
- 8 to 10 weeks to get the samples after drawing approval
- 9 to 12 weeks to get the first production after sample approval

EM's core strengths in capacitve touch screens are:

- Quality & Flexibility (use on any IC on the market)
- Lower price
- Flexible support
- Volume production
- Synergy (with ICs, modules)
- Technical know-how
- Technical support
- Special technologies
- Manufacturing Network
- European source
- Credibility (Swatch Group, networking)