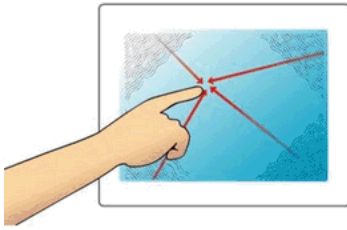
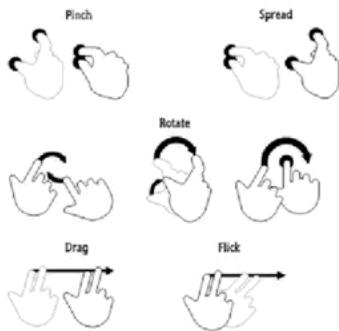


Technology Leadership



Projected Capacitive Touch (PCap)

- Uniform conductive coating applied to glass panel
- Electrodes around the edges evenly distribute a low voltage across the conductive layer
- A touch draws current from each corner and the controller chip calculates the finger position
- Advantages:
 - Enables multi-touch capability
 - Can operate in demanding retail environments
 - No user calibration
 - High resolution and image clarity
 - Sealed from liquid, no moving parts to wear over time
 - Touch inputs from finger, lightly gloved finger or passive stylus



- High user familiarity & comfort
- Common interaction found in many consumer devices
- Supports up to 10-point touch
- Offers additional software-based interaction possibilities



Market Trends – Current State of Touch Technology

	Resistive (4-wire, 5-wire)	Surface Capacitive	Surface Acoustic Wave	Acoustic Pulse Recognition	Optical	IR	Projected Capacitive
Ruggedized for public		+	+	+	+	+	+
Drift free over time			+	+	+	+	+
Performance	+	+	+			+	+
Stylus Independent	+			+	+	+	+
Display Clarity		+	+	+	+	+	+
Multi-touch (3+)					+		+
Flat-Front / Bezel-less			+	+			+
Cost/Value	+		+	+	+	+	+