

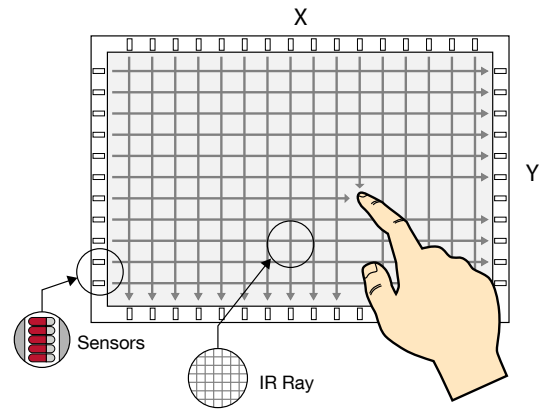
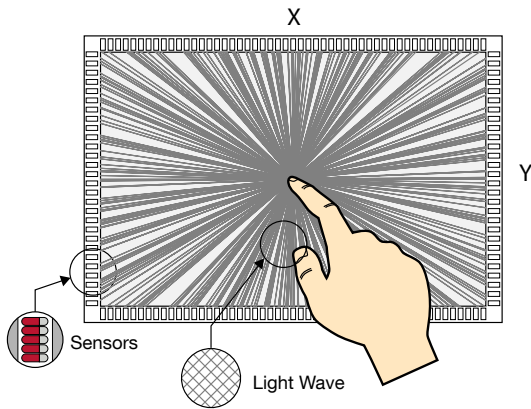
# SLW Touch Technology Overview

Surface Light Wave (SLW) Touch Technology utilizes a specific band of invisible light propagating in a dense network across the surface of the touch screen. This differs from traditional infrared (IR) touch technology which uses invisible light beams arranged in a grid pattern. SLW is more advanced & accurate – it’s able to sense a higher number of smaller simultaneous contacts – while maintaining full compatibility with the built-in support of Windows® 7 & Windows® 8 operating systems (no need for software driver installation or calibration routines).

## Comparison

### Surface Light Wave

### Infrared



Size (Diag.)	42"	46"	55"	65"	70"	84"
Touch Technology	Surface Light Wave 6pt touch					
Touch Activation Force	No pressure required					
Touch Method	Any opaque object, finger and stylus					
Touch Resolution	32767 x 32767					
Luminous Transmission	>92% (100% without glass)					
Operating Humidity	Up to 90% RH					
Operating Temperature	-25° ~40°					
Working Voltage	4.75V~5.25V					
Power Consumption	<1.5 Watts			<1.75 Watts		<2 Watts
Lifetime	60,000 hours					
Touch Response Time	≤ 10ms					
Touch Scan Rate	100FPS					
Min. Size recognition	2mm x 2mm					
Min. Movement recognition	1mm					
Fault Tolerance	Be able to work if less than 10% non-consecutive sensors are damaged					
Support OS	Windows 8, Windows 7, Windows Vista, Windows XP					
Software Interface Protocols	TUIO, TUIO Adobe Flash, Native Windows 7&8 Multi-touch HID Protocol					
Interface	USB					

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# SLW Touch Technology Comparison

	Surface Light Wave	Capacitive Touch	Resistive Touch	Infrared Touch	Optical Touch	SAW Touch
Activation	Zero Force Required	Zero Force Required	100 grams	Zero Force Required	Zero Force Required	30 grams
Transmissivity	Very good (> 92%)	Good (~ 88%)	Good (~ 75%)	Very good (> 92%)	Very good (> 92%)	Very good (> 92%)
Physical Resolution (max.)	1,414 x 798 *	1,000 x 1,000*	4,096 x 4,096*	300 x 200*	1,280 x 720	N/A
Report Resolution	32,767 x 32,767	4,096 x 4,096	4,096 x 4,096	4,096 x 4,096	4,096 x 4,096	4,096 x 4,096
Size Detection (min.)	2mm x 2mm *	4mm x 4mm	1mm x 1mm	5mm x 5mm	3mm x 3mm	3mm x 3mm
Movement Detection (min.)	1 mm	1 mm	1 mm	5 mm	3 mm	2 mm
Surface Hardness	7 H	6.5 H	3 H	7 H	7 H	7 H
Environmental Robustness	High Fault Tolerance	Sensitive to Scratch	Sensitive to Scratch	Very Low Fault Tolerance	Dead Zones due to Surface Contamination	Sensitive to Dust or Other Foreign Matter
Simultaneous Touch Points	Up to 48 Points	Up to 10 Points	2 Points (max.)	2 Points (max.)	90% of Area: 2 Points, 10% of Area: 1 Touch	2 Points (max.)
Calibration	No Drift	Recalibration due to Drift	Periodic Recalibration Required	No Drift	No Drift	Periodic Recalibration Required
Operating Current (typical)	< 275 mA	< 50 mA	< 100 uA	< 300 mA	< 300 mA	N/A
Response Time	≤ 10 ms	20 ms	10 ms	16 ms	12 ms	10.5 ms
Scan Rate	100 ~ 200 Frames/sec.	> 90 Frames/sec.	100 Frames/sec.	60 Frames/sec.	90 Frames/sec.	95 Frames/sec.
Interference Rejection	Immune to Sunlight & Static Charge	Degradation due to Temperature, Humidity, Wet Finger	Periodic Re-Calibration due to Drift	Degradation due to Sunlight , 30+ Degree Touch Angle needed	Degradation due to Ambient Light	Interference by Foreign Matter
Operational Life	Long	Long	Short	Long	Moderate	Moderate
Touch Method	Finger, Pen or Opaque Object	Finger Required	Finger, Pen or Opaque Object	Finger, Pen	Finger, Pen	Finger, Pen
Available Sizes	15 inch ~ 200 inch	< 21.5 inch	< 19 inch	19 inch ~ 100 inch	15 inch ~ 120 inch	10 inch ~ 32 inch