

# zForce Basic Principals, Performance & Technical Specifications

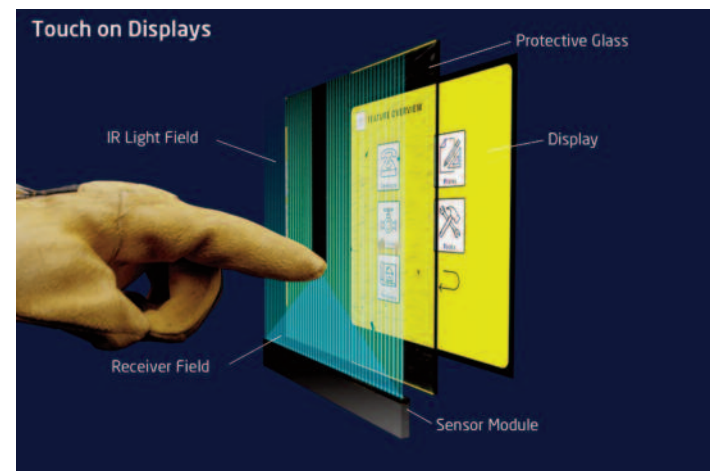
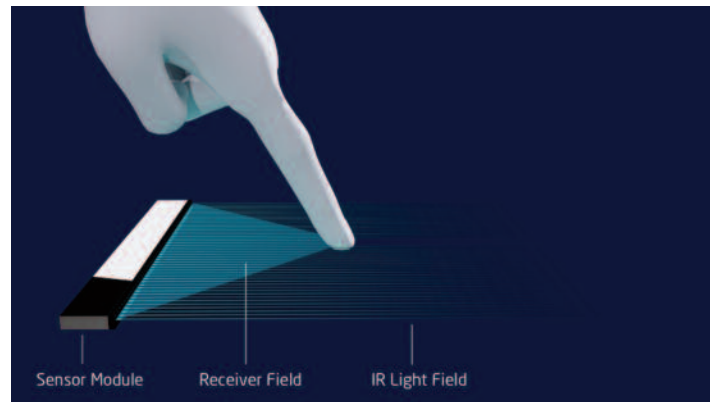
Neonode zForce (Zero-Force) optical reflective platform is based on light reflection technology, integrating optics and electronics in a thin strip along one side of an intended interactive area, creating a 2-dimensional interactive plane.

Neonode optical reflective technology interacts with the position and movement of any reflective object within its range.

It enables reliable touch interaction on any display or surface, with any overlay/protective front cover. Works with any input, including gloves, wet and greasy hands.

Designed for implementation in harsh environments, Neonode rugged solutions enables robust and reliable high speed touch sensing without EMI issues for ruggedized applications at a minimal system cost.

## zForce Sensor Touch Interaction



## Technical Specifications:

Item	Sensor Variant	Specifications	
<b>Module Size (L x H x W)</b>	0° Type	L x 3.46 x 14.5 mm	(L depending on product variant)
	90° Type	L x 3.46 x 15.45 mm	(L depending on product variant)
<b>Power Consumption</b> I2C Interface Active mode (100 Hz)	72 mm Sensor	57 mW	
	208.8 mm Sensor	80 mW	
	345.6 mm Sensor	104 mW	
<b>Power Consumption</b> I2C Interface Active mode (25 Hz)	72 mm Sensor	44 mW	
	208.8 mm Sensor	45 mW	
	345.6 mm Sensor	47 mW	

## Touch Performance Specifications

Item	Specifications
<b>Input methods</b>	Finger, hand or glove
<b>Minimum object size (diameter)</b>	5 mm
<b>Number of touch objects</b>	1,2, or more (depending on application)
<b>Touch accuracy</b>	<5 mm for sensors >180 mm      <7.5 mm for sensors <180 mm
<b>Touch Resolution</b>	0.1 mm
<b>Touch activation force</b>	0 N (No activation force required)
<b>Touch active area</b>	Up to 345.6 x 208.5 mm
<b>Response time</b>	16-46 ms (initial touch, at 36 Hz in idle mode)      10 ms (continuous tracking at 100 Hz in active mode)
<b>Scanning frequency</b>	Configurable up to 900 Hz, depending on product variant