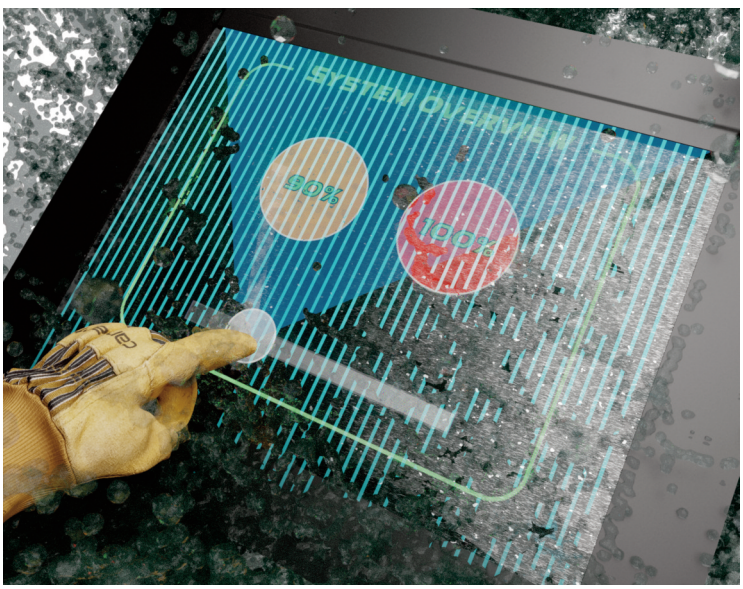
Outstanding in its Field

Neonode® zForce touch interaction gives you total control – even in the dirtiest conditions.

Add versatility and performance to your equipment by including zForce optical sensing technology to any display or surface—even in the most demanding environments.

Don't settle for ordinary touch controls or display panels when you can design in a reliable, rugged and economical zForce into your next product today!



Climate Independent
Outfit your display for bad weather or dirty environments with easily adjustable detection distance.

Gloves On!
Neonode Touch Sensors work with all gloved hands—regardless of glove material or thickness.

Light Resistant
Neonode Technology works in environments with intense or glaring light without any aging effect.

No Electromagnetic Interference (EMI)
Neonode Sensors provide reliable interaction without EMI issues in sensitive environments.

Temperature Robustness
Neonode Touch Sensors add interaction to any surface in hot or cold temperatures without degradation.

Over 60 million consumer products and 3 million carshave used zForce. Contact your regional Neonode Sales Representative to design zForce optical Sensors into your next application.

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Technical & Touch Performance Specifications

Technical Specifications

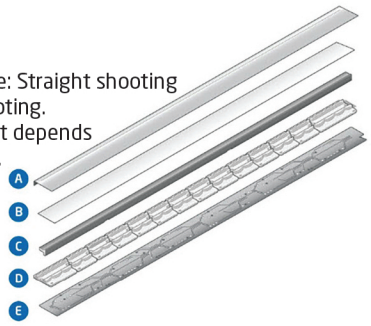
Item	Sensor Variant	Specifications	
Module Size (L x H x W)	0° Type	L x 3.46 x 14.5 mm	(L depending on product variant)
	90° Type	L x 3.46 x 15.45 mm	(L depending on product variant)
Power Consumption I2C Interface Active mode (100 Hz)	72 mm Sensor	57 mW	
	208.8 mm Sensor	80 mW	
	345.6 mm Sensor	104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

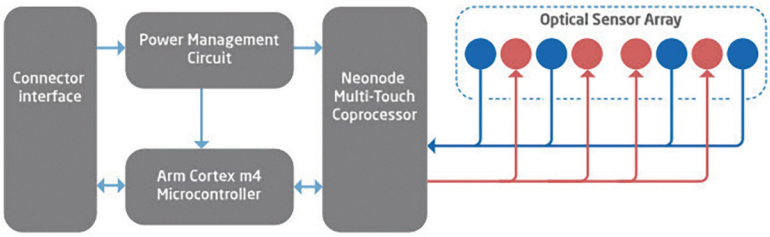
Touch Performance Specifications

Item	Specifications	
Input methods	Finger, hand or glove	
Minimum object size (diameter)	5 mm	
Number of touch objects	1,2, or more (depending on application)	
Touch accuracy	<5 mm for sensors >180 mm	<7.5 mm for sensors <180 mm
Touch Resolution	0.1 mm	
Touch activation force	0 N (No activation force required)	
Touch active area	Up to 345.6 x 327.7 mm. For details go to; https://support.neonode.com (introduction)	
Response time	~ 50 ms	10 ms (continuous tracking at 100 Hz in active mode)
Scanning frequency	Configurable up to 900 Hz, depending on product variant	

Parts of the zForce Sensor Module

A. Cover
B. Adhesive
C. Front Light Pipe: Straight shooting or 90 degree shooting.
D. Lenses: amount depends on Module length.
E. PCBA





Electrical Block Diagram

The PCBA is equipped with both active and passive components including: MCU, Co-processor (a Neonode proprietary scanning IC), Polycarbonate Optical Lenses, VCSELs, and Photo Diodes.

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