



# Linear Correlating Infrared Touch Technology

Fully Impervious to Sunlight. Two-Touch.

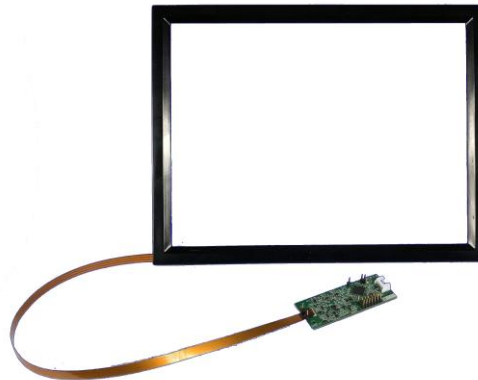
## Key Features

- ◆ IR Optical Touch Sensor
- ◆ 2-Touch
- ◆ 100% Optical Clarity
- ◆ Full Immunity to Sunlight
- ◆ Glove Compatible
- ◆ Negligible RF Emissions
- ◆ RFI Immune
- ◆ -40°C to +75°C operation
- ◆ ±0.06" (± 1.5mm) Touch Accuracy
- ◆ 12.1" Demo Kit Available
- ◆ 0.25" Wide 16" Long flex interconnect between Sensor and Controller
- ◆ Custom Sizes from 7" to 21"
- ◆ Common USB2.0 Controller and interconnect for all sizes.

A D Metro's solution for markets that require multi-touch but have difficulty integrating projected capacitive (PCAP) is recently developed (patent pending) Linear Correlating Infrared (LCIR) touch technology. Even when exposed to challenging environments such as strong radio frequency interference (RFI) and full sunlight interference, LCIR technology offers:

- 1) 100% optical clarity/maximum contrast due to the absence of substrate
- 2) Reliable two touch functionality
- 3) Glove and 5mm Stylus compatibility

Linear correlating technology can tolerate any sunlight exposure – even strobing sunlight such as in helicopters. LCIR has consistent performance across temperature and pressure extremes, having no moving parts or air gaps (like resistive touch screens) to limit performance.



## Applications

- ◆ Automotive Consoles
- ◆ Aviation Control Panels
- ◆ All Terrain Vehicles
- ◆ Nautical Displays
- ◆ Kiosks

A D Metro's LCIR touch screen is the recommended touch screen technology for critical user input in automotive, aviation and medical applications, and all markets where ultra reliable touch screen function is critical. Reliability in vehicle applications is particularly important as operator distraction due to glove removal, loss of touch response (in RF interference) and insufficient display contrast can cause accidents. LCIR's responsive and accurate single and two touch functions are perfect for navigation applications.

# Linear Correlating Infrared Touch Technology

## Datasheet

### Sensor Mechanical Specifications

Detection Type .....	Infrared Path
Screen Size Range .....	Customizable From 7" - 21"
Demonstration Kit Screen Size .....	12.1" (4:3)
Formats .....	Customizable Including 4:3, 5:4, 16:10, 16:9
Orientation .....	Landscape or Portrait
Sensor Thickness .....	0.1" (2.54 mm)
Required Sensor Installation Flatness .....	±0.5 mm
Cable Design .....	FPC
Cable Strength .....	1.5 kg

### Touch Parameters

Input .....	Solid Object >0.2" (> 5 mm)
Maximum Number of Touches .....	2
Palm Masking .....	Yes
Activation Force .....	0 g
Light Tolerance .....	>1413W/m <sup>2</sup> (>Full Sun, Any Angle)
Artificial Light Rejection .....	Yes
Touch Refresh Rate .....	>100 Screen Reads per Second
Response Time .....	<15ms

### Controller Specification

Sensor size compatibility .....	7" - 21"
Controller Dimensions .....	3.0"x 1.2"x0.3" (75 x 30 x 8 mm)

### Regulatory

RoHS .....	Yes
FCC and CE Class B Emissions .....	Yes
FCC and CE RF Immunity (>10V/m).....	Yes
IEC 60601 Medical Isolation .....	Conforms
MIL-STD-461G EMC Compliance .....	Conforms

### Interface

Controller Interface .....	USB-2.0
Power .....	USB

### Operation System Compatibility

Plug & Play .....	Windows 7, 8, 10
-------------------	------------------

### Sensor Environmental Specifications

Operating Temperature .....	-40 °C to +75 °C*
Operating Humidity .....	5 – 95% RH (non-condensing)



LCIR Controller



LCIR Touch Sensor



1390 Star Top Rd.  
Ottawa, ON, Canada K1B 4V7



Disclaimer: Technical specifications are provided for guidance and subject to change without notice. Specifications and performance may depend on sensor dimensions, selected options, installation and mounting. Please contact A D Metro for confirmation of the applicable specifications, individual sensor drawings, as well as installation and mounting best practices.

#### ABOUT US:

Established in 1988, A D Metro designs, manufactures and supplies innovative touch screen technology solutions for original equipment manufacturers (OEMs), system integrators and value added resellers. Everyday A D Metro's products are touched by millions of people around the world. Our ULTRA product line is the most durable resistive touch screen sensor available on the market and our projected capacitive (PCAP) touch screen solutions simplify design and accelerate time to market.

Contact us, for more information on our innovative touch screen products, enhancements and custom manufacturing solutions.