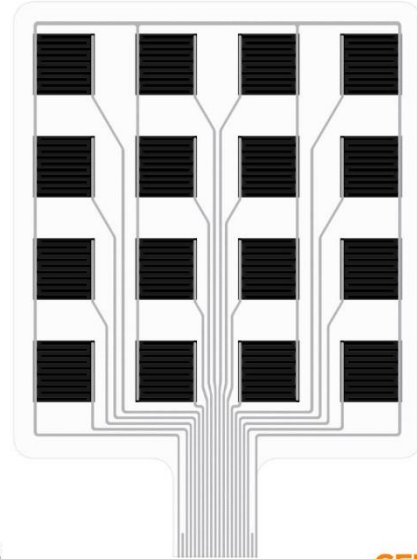


**Multi-zones force sensor
16 discrete array sensor
Shunt Mode**

TRX1S
Datasheet

Features

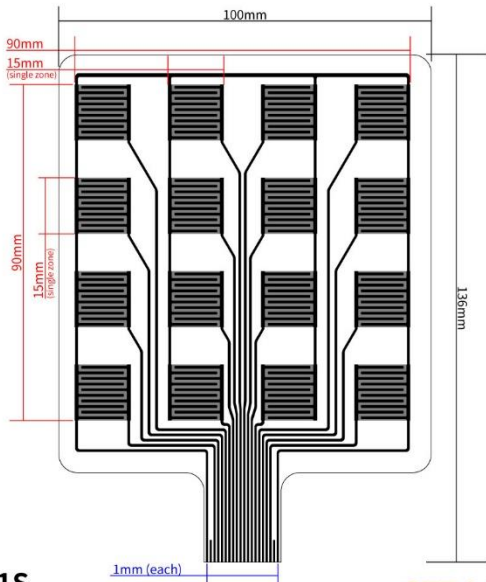
- 4x4 discrete sensing zone
- Flexible and lightweight
- Ultra-thin
- Instant responding sensitivity
- Low actuation force
- Low power consumption
- Easy to integrate



TRX1S
Discrete array sensor - 16 zone



Technical specifications



Technical dimension

TRX1S
Discrete array sensor - 16 zone



Sensor	TRX1S
Length	136mm
Width	100mm
Active area	90mm x 90mm
Sensing cell (count)	16 (4 x 4 zone)
Sensing cell (single)	15mm x 15mm
Pin spacing	1mm
Nominal thickness	0.35mm
Substrate	PET
Sensor style	Close
Connector	FPC-20P 1.0mm

Note: Ceradex offer customize sensor solution for application-specific integration. Including the sensor’s dimension, single-zone or multi-zone sensing area, connector options, waterproofs, humidity tolerance, and heat tolerance. Contact us for more information.

Characteristics

Sensor type	Shunt mode
Force sensing range	200 g - 10 kg
Actuation force	≤ 200 g
Force resolution	Continuous (analog)
Force repeatability	Single part ± 10%
Non-actuated resistance	> 10M Ω (Ohm)
Response time	< 40 ms
Operation temperature	-20°C - +60°C

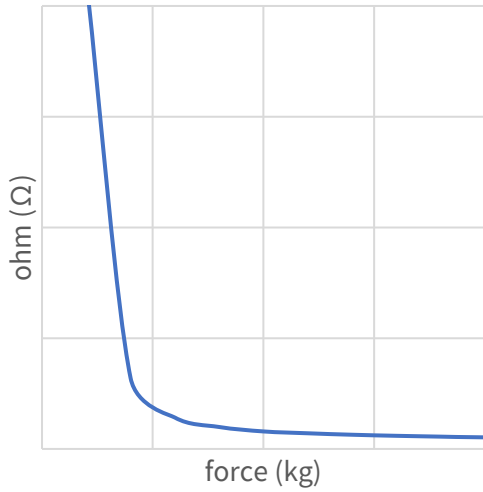
Durability

Tap durability	1kg/1Hz > 10M actuation
Standing load durability	2.5kg/24hr < 5%
Operating temperature performance	
Cold	-40°C/1hr < 5%
Hot	+60°C/1hr < 15%
Storage temperature performance	
Cold	-40°C/1hr < 10%
Hot	+60°C/1hr < 15%

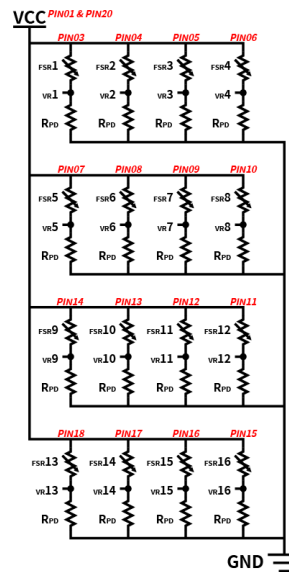
Safety

Maximum driving power	< 240mW
Electromagnetic interference (EMI)	No
Electrostatic discharge (ESD)	No

Response curve



Electrical layout



$$VR = \frac{R_{PD} \times VCC}{FSR + R_{PD}}$$

Note: Force sensing range, response curve, and actuation force can be modified in Ceradex’s customized sensor solution.

Applications

Interactive applications

Integrated within interactive devices that connected with Apps.

Electronic instrument

Detecting stroke and impact and output corresponding data (sound).

User Interface

Can be operated under glove-wearing conditions and detects touch/press control as trackpad.

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