

# Tactilus<sup>®</sup> R-Series Sensor Specifications

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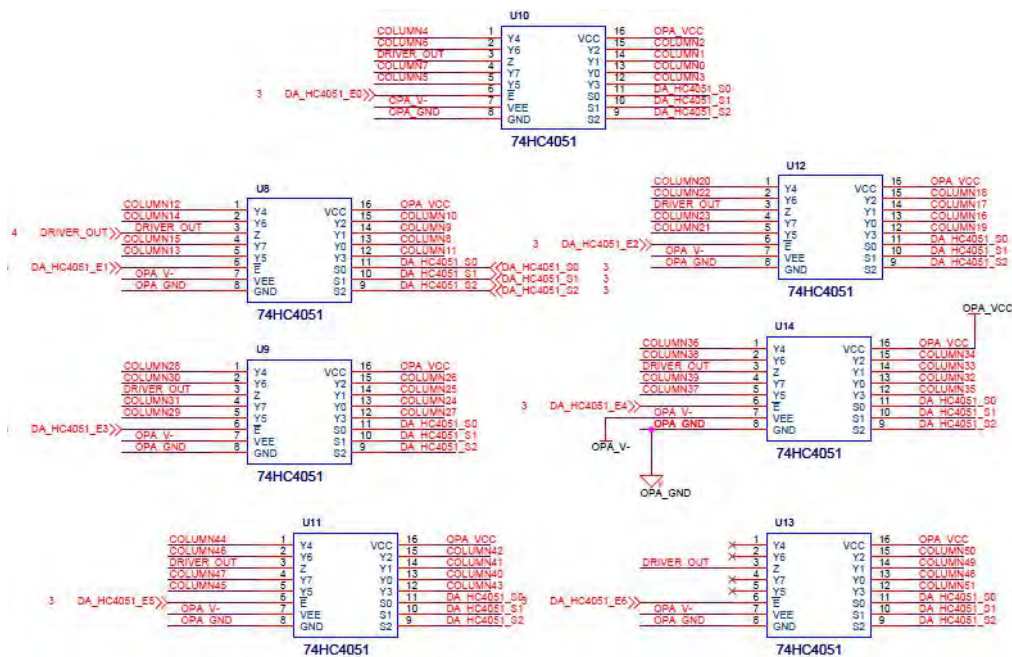
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## 1. Characteristics :

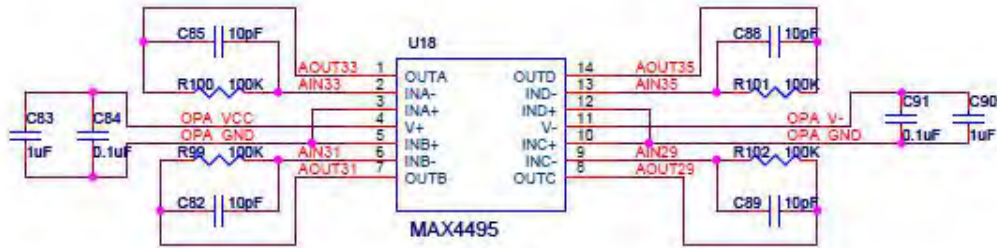
Feature	Typical performance	Notes
Actuation force *1	0.05 Kilo-grams	Force range is 1Kilo-grams
Force sensitivity range *1	0.05- 1 Kilo-grams	
Force resolution	Continuous	Analog output
Force repeatability	10%	Part to part
Non- actuated resistance	>1 Mega Ohms	
Substrate	Poly	Thickness is 0.05mm typical
Thickness	0.15 mm	
Stand-off resistance	>10 Mega ohms	Unloaded, unbent
Device rise time	<5 Microseconds	
Hysteresis	+10%	
Long term drift	<5% per Log10(time)	
Number of actuation(life time)	1 Million tested	Without failure
Operating temperature	-40°C~60°C	
Relative humidity	5%~90%	
Parasitic capacitance	30Pf one sensel	Variable

## 2. Recommended Circuit

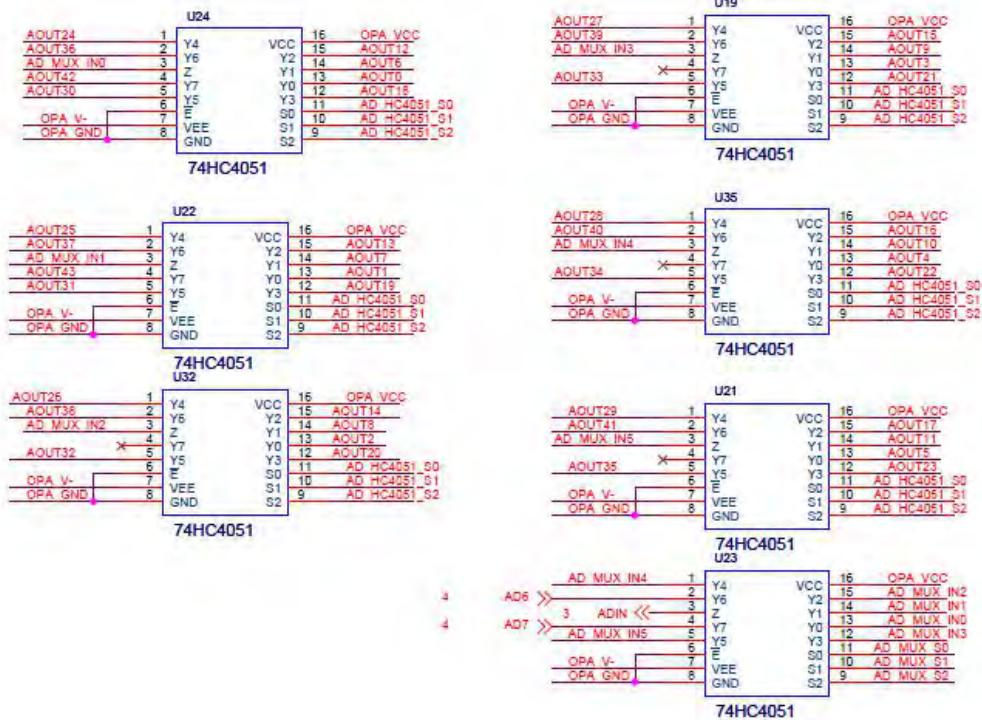
2.1: using MUX to select the drive path



## 2.2: Dual Power amplifier



## 2.3 Using MUX to select the voltage readout path.

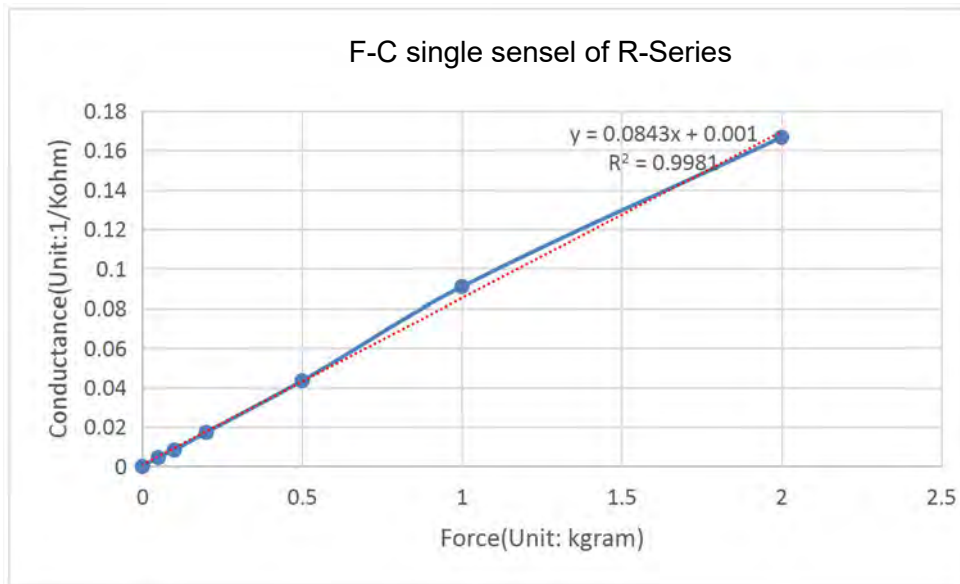


**3 : Typical F-R curve of the sensel**

Below is a typical curve, with a pressure range of 0~2Kg/cm<sup>2</sup>.

IMM00057 single sensel F-R-C

Resistance (Unit: Kohm)	Force (Unit: Kgram)	Conductance (Unit:1/Kohm)
1000	0	0
220	0.05	0.0045
120	0.1	0.0083
58	0.2	0.0172
23	0.5	0.0435
11	1	0.0909
6	2	0.1667



**4 . Contact information**

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