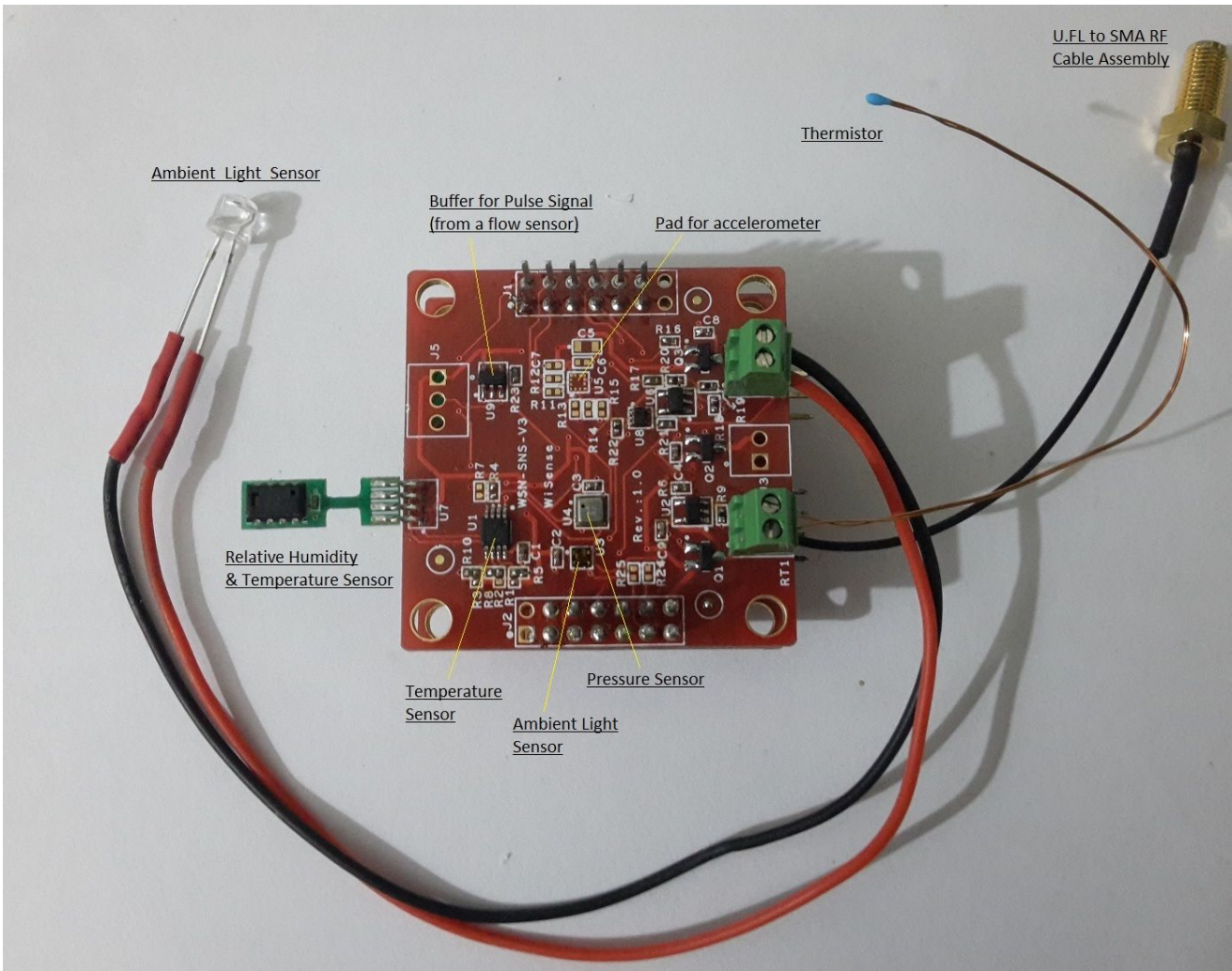


# WiSense Multi-Sensor Board (Version 3) WSN-SNS-V3



The WSN-SNS-V3 board has the same dimensions as the WiSense WSN1120L and WSN1101L nodes. This allows the sensor board to be mated to the latter boards two 2x7 board to board connectors.

<b>Dimensions</b>	42mm x 42mm
<b>PCB Thickness</b>	1.6 mm
<b>Finish</b>	ENIG (Gold)
<b>Mounting Holes</b>	4 (4 mm dia)

## Sensor List

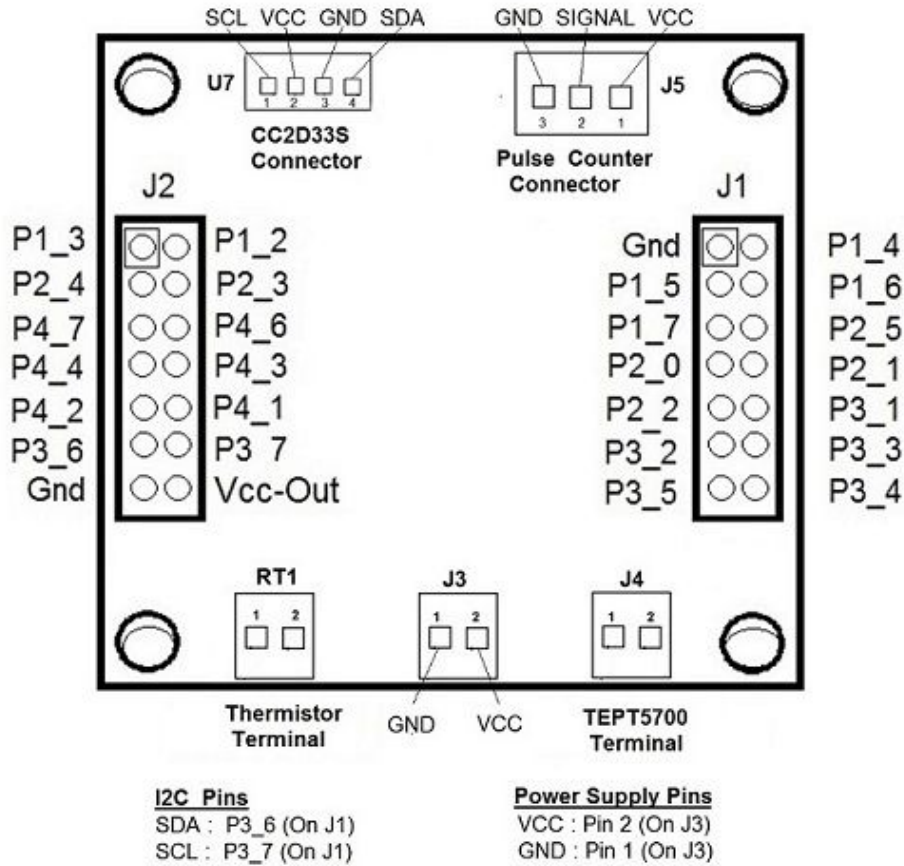
Sensor Part Number	Manufacturer	Description
<b>TEPT5700</b>	Vishay Semiconductors	<ul style="list-style-type: none"><li>● Ambient Light Sensor</li><li>● Analog</li><li>● Connects to PCB through 2 pin screw terminal</li><li>● Output available at pin P2_1 on connector J1</li><li>● Supply (2.3V to 5.5V)</li><li>● See schematics below</li></ul>
<b>LM75B</b>	NXP	<ul style="list-style-type: none"><li>● Temperature Sensor</li><li>● I2C (7 bit Address: 1001 000)</li><li>● Supply (2.8V to 5.5V)</li></ul>
<b>CC2D33S</b>	Amphenol advanced devices	<ul style="list-style-type: none"><li>● Relative Humidity / Temperature</li><li>● I2C (7 bit Address: 0101 000).</li><li>● Supply (2.7V to 5.5V)</li></ul>

<b>MS5637</b>	Measurement Specialities	<ul style="list-style-type: none"> <li>● Pressure Sensor / Altimeter</li> <li>● I2C (7 bit Address: 1110 110)</li> <li>● Supply (1.5V to 3.6V)</li> </ul>
<b>LIS2DH12</b>	ST	<ul style="list-style-type: none"> <li>● MEMS motion sensor / Accelerometer</li> <li>● I2C (7 bit address: 0011 000)</li> <li>● Supply (1.71V to 3.6V)</li> </ul>
<b>TSL45315CL</b>	AMS-TAOS	<ul style="list-style-type: none"> <li>● Ambient Light Sensor</li> <li>● I2C (7 bit address: 0101 001)</li> <li>● Supply (2.3V to 3.3V)</li> </ul>
<b>NXFT15XH103</b>	Murata	<ul style="list-style-type: none"> <li>● 10K Thermistor (Temperature Sensor)</li> <li>● Analog</li> <li>● Connects to PCB through 2 pin screw terminal</li> <li>● Op-amp buffered/divided analog output available at pin P2_0 on connector J1</li> <li>● Supply (2.3V to 5.5V)</li> <li>● See schematics below</li> </ul>

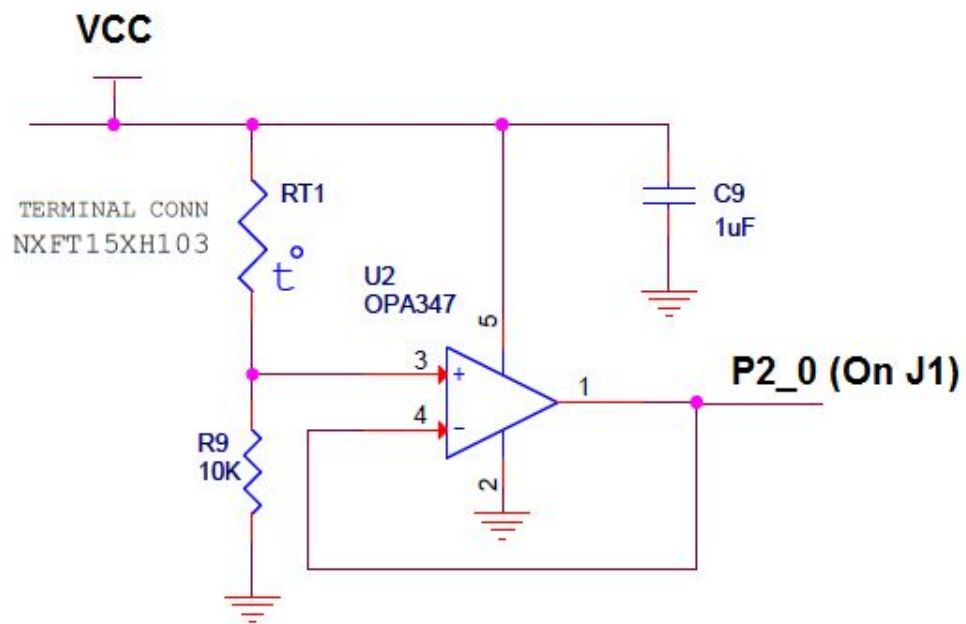
<b>SN74LVC1G12 5DBVR</b>	TI	<ul style="list-style-type: none"><li>● Single Gate Buffer IC for interfacing with a device generating pulse output such as a water meter.</li><li>● Input on Pin 2 (J5)</li><li>● Output on P4_7 (J2)</li><li>● Supply (1.65V to 5.5V)</li></ul>
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Note that the PCB has pads for two resistors (R24 and R25) which can be used to pull up the I2C lines (SCL and SDA) to VCC. These resistors are not populated by default since the I2C signals on WSN1120L and WSN1101L are pulled up. The pull-up resistors should be 4.7K in 0402 package.

# Pin Out

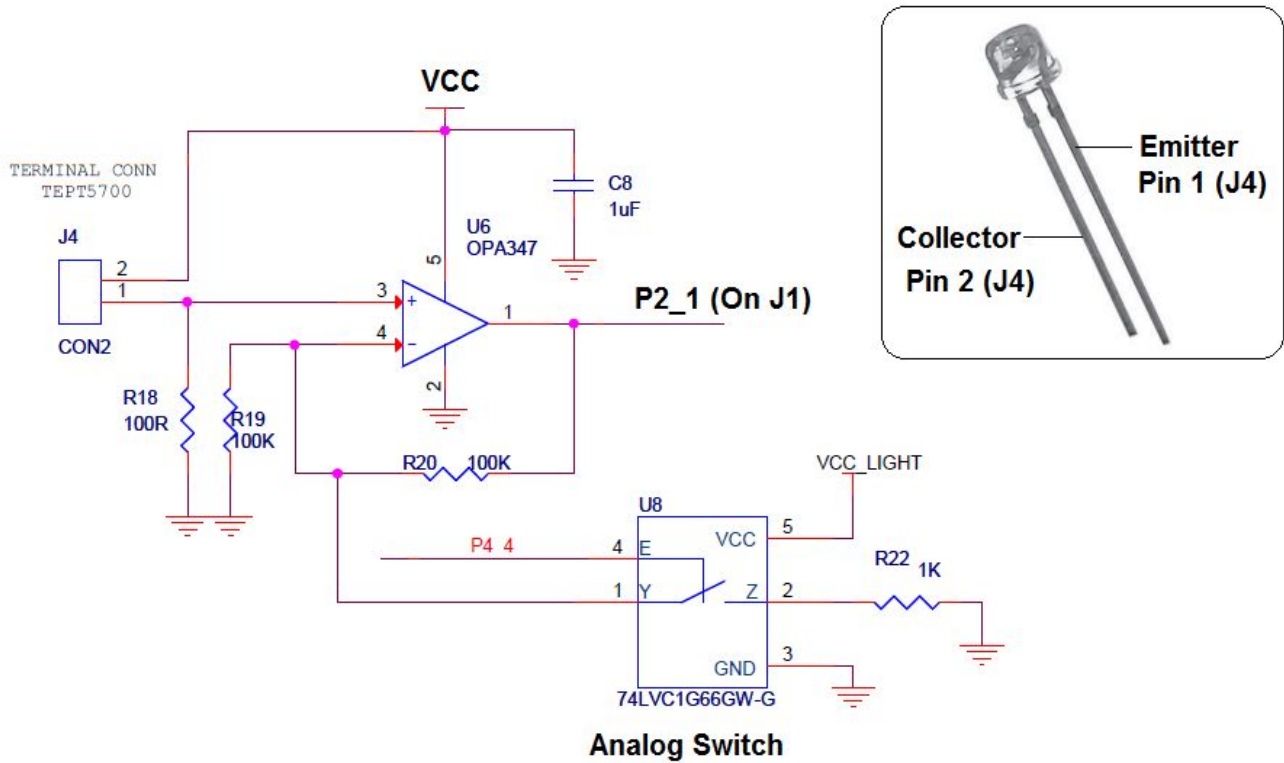


# NXFT15XH103 Signal Conditioning



THERMISTER SECTION

# TEPT5700 Signal Conditioning





# Pulse Signal Interface

