

# DIGITAL COMPONENT SENSOR DEVELOPMENT TOOLS



## WIRELESS DEMO AND DEVELOPMENT KITS



### Environmental Sensor Tag

Type	Humidity, Temperature, Pressure
Specifications	<ul style="list-style-type: none"> <li>• 0 - 100% RH</li> <li>• 300 to 1,200 mbar</li> </ul>
Communication Interface	Standard 2.4 GHz wireless communication
Application	iOS 7.0+ Android™ 4.3+
Operating Temp.	20°C to 85°C



### M5600

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 50 - 15K psi</li> <li>• Type G/S/C</li> </ul>
Communication Interface	Standard 2.4 GHz wireless communication
Application	iOS 7.0+ Android™ 4.3+
Operating Temp.	-20°C to 85°C



### U5600

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 2 - 10K psi</li> <li>• Type G/S/C/A</li> </ul>
Communication Interface	Standard 2.4 GHz wireless communication
Application	iOS 7.0+ Android™ 4.3+
Operating Temp.	-20°C to 85°C

## SHIELDS AND HATS



	<b>Arduino Weather Shield</b>	<b>Raspberry Pi™ Sensors Weather Hat</b>	<b>PicTail Plus</b>
<b>Type</b>	Humidity, Temperature, Pressure	Humidity, Temperature, Pressure	Humidity, Temperature, Pressure
<b>Sensors</b>	HTU21D, MS5637, MS8607, TSYS01*, TSD305	HTU21D, MS5637, TSYS01*, TSD305	HTU21DF, MS5637, TSYS01*, MS8607
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 0 - 100% RH</li> <li>• 20°C to 85°C</li> <li>• 300 to 1,200 mbar</li> </ul>	<ul style="list-style-type: none"> <li>• 0 - 100% RH</li> <li>• 20°C to 85°C</li> <li>• 300 to 1,200 mbar</li> </ul>	<ul style="list-style-type: none"> <li>• 0 - 100% RH</li> <li>• -20°C to 85°C</li> <li>• 300 to 1,200 mbar</li> </ul>
<b>Communication Interface</b>	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
<b>Partner Board</b>	Arduino / Genuino	Raspberry Pi™	Microchip Explorer 16

## WING BOARDS



	<b>HTU21D</b>	<b>MS5637</b>	<b>MS8607</b>	<b>TSYS01*</b>	<b>TSYS02D*</b>	<b>KMA36(A)</b>
<b>Type</b>	Humidity	Pressure	Pressure, Temperature, Humidity	Temperature	Temperature	Angular Position
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 0 to 100% RH</li> <li>• -40°C to 125°C</li> <li>• 3.3 to 5.5 V</li> </ul>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 1.5 to 3.6 V</li> </ul>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 0 to 100% RH</li> <li>• 1.5 to 3.6 V</li> </ul>	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 2.2 to 3.6 V</li> </ul>	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 1.5 to 3.6 V</li> </ul>	<ul style="list-style-type: none"> <li>• 0 to 360°</li> <li>• -25°C to 85°C</li> <li>• 2.9 to 6.0 V</li> </ul>
<b>Accuracy</b>	±3% RH	±2 mbar	±3% RH, ±2 mbar, ±1.0°C	±0.1°C	±0.2°C	±0.1°
<b>Communication Interface</b>	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C	I <sup>2</sup> C
<b>Compatibility</b>	Configured to operate with the Xplained Pro development platform	Configured to operate with the Xplained Pro development platform	Configured to operate with the Xplained Pro development platform	Configured to operate with the Xplained Pro development platform	Configured to operate with the Xplained Pro development platform	Configured to operate with the Xplained Pro development platform

\*Temperature System Sensor (TSYS)

## PERIPHERAL MODULES

Digilent Pmod™



### HTU21D

Type	Humidity
Specifications	<ul style="list-style-type: none"> <li>• 0 to 100% RH</li> <li>• -40°C to 125°C</li> <li>• 3.3 to 5.5 V</li> </ul>
Accuracy	±3% RH
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### MS5637

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 1.5 to 3.6 V</li> </ul>
Accuracy	±2 mbar
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### MS8607

Type	Pressure, Temperature, Humidity
Specifications	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 0 to 100% RH</li> <li>• 1.5 to 3.6 V</li> </ul>
Accuracy	±3% RH, ±2 mbar, ±1.0°C
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### TSYS01\*

Type	Temperature
Specifications	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 2.2 to 3.6 V</li> </ul>
Accuracy	±0.1°C
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### TSYS02\*

Type	Temperature
Specifications	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 1.5 to 3.6 V</li> </ul>
Accuracy	±0.2°C
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### KMA36(A)

Type	Angular Position
Specifications	<ul style="list-style-type: none"> <li>• 0° to 360°</li> <li>• -25°C to 85°C</li> <li>• 2.9 to 6.0 V</li> </ul>
Accuracy	±0.1°
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### MS5611

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 10 to 1,200 mbar</li> <li>• -40°C to 85°C</li> <li>• 1.5 to 3.6 V</li> </ul>
Accuracy	±2 mbar
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### MS5837

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 1.5 to 3.6 V</li> </ul>
Accuracy	±2 mbar
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### MS5805

Type	Pressure
Specifications	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 1.8 to 3.6 V</li> </ul>
Accuracy	±2 mbar
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections



### TSD305

Type	Temperature
Specifications	<ul style="list-style-type: none"> <li>• -10°C to +85°C</li> <li>• 1.68 to 3.6 V</li> </ul>
Accuracy	±1°C
Communication Interface	I <sup>2</sup> C
Compatibility	Development systems compatible with Digilent Pmod™ connections

## GROVE SYSTEM



<b>KMA36</b>	
<b>Type</b>	Angular Position
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 0 to 360°</li> <li>• -25°C to 85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±0.1°
<b>Comm. Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>TSYS01*</b>	
<b>Type</b>	Temperature
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±0.1°C
<b>Comm. Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>TSYS02*</b>	
<b>Type</b>	Temperature
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• -40°C to 125°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±0.2°C
<b>Comm. Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>MS5637</b>	
<b>Type</b>	Pressure
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±2 mbar
<b>Comm. Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>MS8607</b>	
<b>Type</b>	Pressure, Temperature, Humidity
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 0 to 100% RH</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±3% RH, ±2 mbar, ±1.0°C
<b>Comm. Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>HTU21D</b>	
<b>Type</b>	Humidity
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 0 to 100% RH</li> <li>• -40°C to 125°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±3% RH
<b>Communication Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>MS5611</b>	
<b>Type</b>	Pressure
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 10 to 1,200 mbar</li> <li>• -40°C to 85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±2 mbar
<b>Communication Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>MS5837</b>	
<b>Type</b>	Pressure
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±2 mbar
<b>Communication Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>MS5805</b>	
<b>Type</b>	Pressure
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• 10 to 2,000 mbar</li> <li>• -40°C to 85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±2 mbar
<b>Communication Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems



<b>TSD305</b>	
<b>Type</b>	Temperature
<b>Specifications</b>	<ul style="list-style-type: none"> <li>• -10°C to +85°C</li> <li>• 5.0 V</li> </ul>
<b>Accuracy</b>	±1°C
<b>Communication Interface</b>	I <sup>2</sup> C
<b>Compatibility</b>	Development platform compatible with grove systems