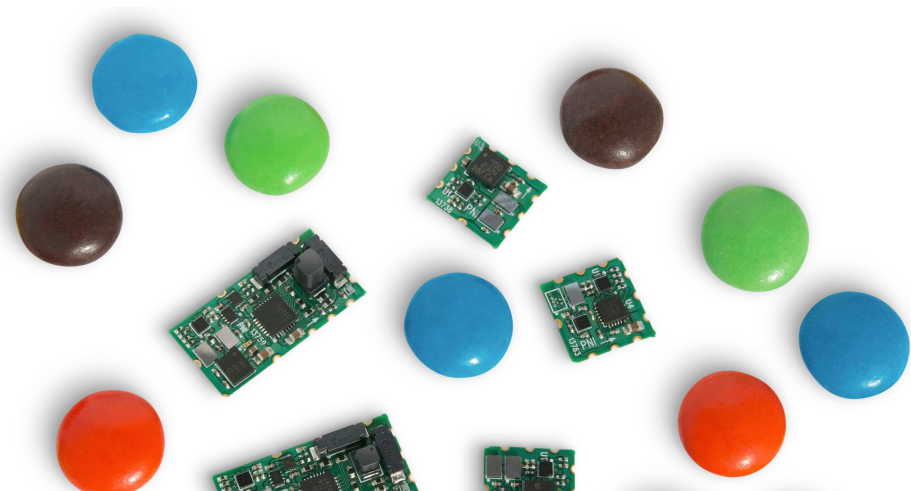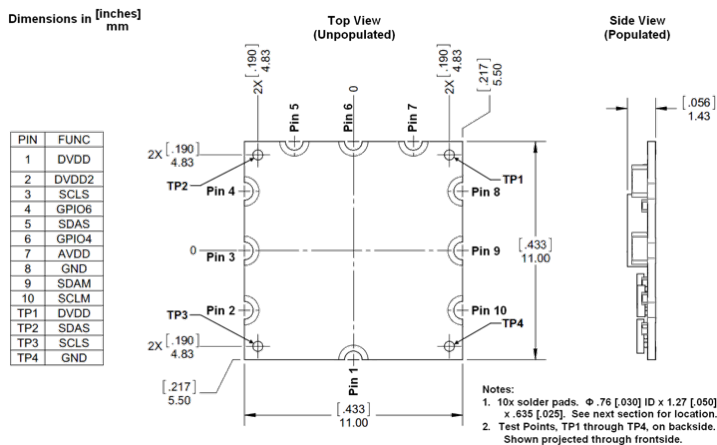# SENtral M&M
Motion & Measurement Modules

Do you want a module that has precise motion and heading measurements that can be simply dropped into your product? The solution is **PNI's SENtral M&M** modules: a range of supremely accurate, low-power, and ready-to-integrate motion measurement modules.

Unlike other IMU modules, which require unexpected and extensive sensor fusion algorithm development and sensor calibration work, the SENtral M&M modules are pre-engineered to provide the **highest accuracy motion tracking and heading measurement**. This unbeatable accuracy is ready to be integrated into your application at a fraction of the power of any other solution on the market.

PNI SENSOR CORPORATION

SENtral M&M
Motion & Measurement Modules

Parameter	Min	Typical	Max	Units
Digital Supply Voltage	1.71		AVDD	VDC
Analog Supply Voltage	2.4		3.6	VDC
Host I2C Data Rate			3400	kbits/sec
Sensor I2C Data Rate			1000	kbits/sec
Operating Temperature	-40	+25	+85	C

PIN	FUNC
1	DVDD
2	DVDD2
3	SCLS
4	GPIO6
5	SDAS
6	GPIO4
7	AVDD
8	GND
9	SDAM
10	SCLM
TP1	DVDD
TP2	SDAS
TP3	SCLS
TP4	GND

Dimensions in [inches] / mm

Notes:
1. 10x solder pads. Φ .76 [.030] ID x 1.27 [.050] x .635 [.025]. See next section for location.
2. Test Points, TP1 through TP4, on backside. Shown projected through frontside.

SENtral M&M Red, Green, & Yellow Mechanical Drawing

Item	Sensors	Part #
M&M White	None (SENtral Only)	13734
M&M Red	MPU6500+AK8963	13763
M&M Green	LSM330+AK8963	13736
M&M Yellow	LSM9SD0	13738
M&M Blue	LSM330+RM3100	13759
M&M Orange	BMI055+AK8963	13771

About PNI

PNI Sensor Corporation is the leader in the exacting science of producing pinpoint heading and orientation technology and algorithms for the consumer, military, scientific and oceanography communities. Building on decades of patented sensor development, PNI offers highly accurate magneto inductive sensor systems and 9-axis sensor fusion technology. Its products are used in consumer electronics, robotics, surveying, navigation and automotive applications across the globe. To learn more, please visit www.pnicorp.com.

PNI Sensor Corporation
2331 Circadian Way
Santa Rosa, CA 95407
Phone:
+1-707-566-2260

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