



sparton

## AHRS-M2 Hardware Interface Control Document

Rev C – 02/21/2019

*Empowering your Vision*

# Hardware Interface Control Document

Revision Level	Date	Items Changed	Author
A	10/01/2016	New	RSW
B	05/01/2018	Updated drawings for new bracket	DMC
C	02/21/2019	Clarify confusing connection descriptor	DMC

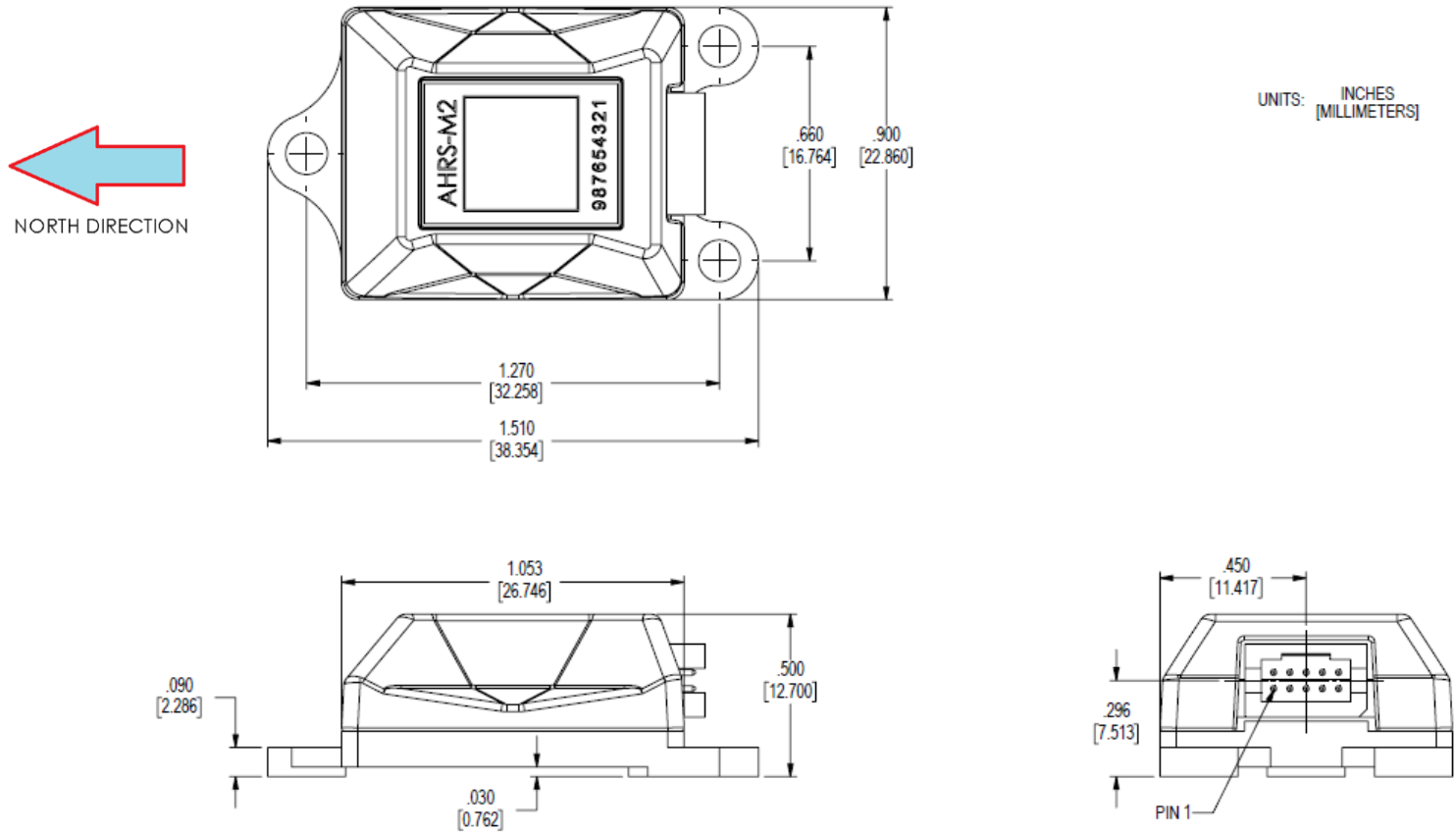
# AHRS-M2 Layout

AHRS-M2  
Layout

AHRS-M2  
Alignment

AHRS-M2  
Connections

The precision mounted Sparton AHRS-M2 inertial system provides accurate installation and alignment within the end product and reduces the need for installation specific bore-sight adjustments.



(Specifications subject to change without notice)

# AHRS-M2 Alignment

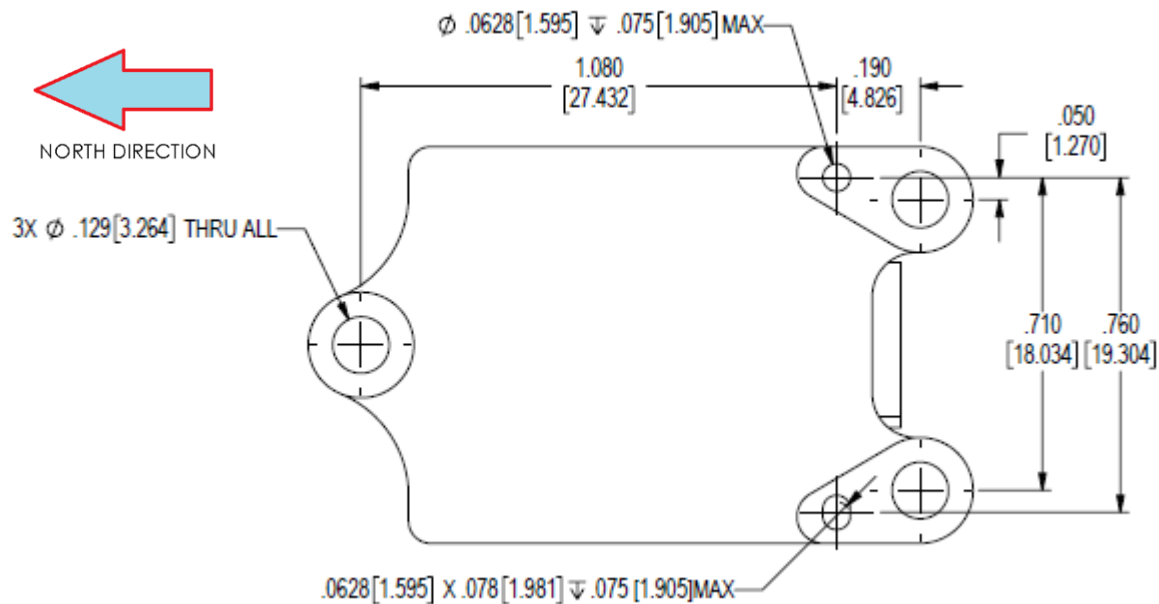
AHRS-M2  
Layout

AHRS-M2  
Alignment

AHRS-M2  
Connections

The precision mounted Sparton AHRS-M2 inertial system provides accurate installation and alignment within the end product and reduces the need for installation specific bore-sight adjustments.

UNITS: INCHES  
[MILLIMETERS]



(Specifications subject to change without notice)



**sparton**  
NAVIGATION AND EXPLORATION

# AHRS-M2 Connections

AHRS-M2  
Layout

AHRS-M2  
Alignment

AHRS-M2  
Connections

- Mating Connector
  - SAMTEC - ISDF-05-D-L (TIGER EYE™ 0.50 pitch)
- Digital Interface

Parameter	Conditions	Typical	Units
UART	8 Data Bits, 1 Stop Bit, No Parity	115.2K Factory Default	Baud
		1200 – 115.2K	
UART: USER_RXD	Input	Logic 0: 0	V
		Logic 1: 3.3	
UART: USER_TXD	Output	Logic 0: 0	V
		Logic 1: 3.3	

Connector Pin #	Pin Name	I/O	Function
P1-1	GND	O	System Ground
P2-1	GPIO1	I/O	RESERVED
P1-2	TXD	O	3.3 V logic TXD
P2-2	GPIO2	I/O	RESERVED
P1-3	RXD	I	3.3 V logic RXD
P2-3	#RESET	I	3.3V logic, active-low reset input (the pin has a weak pull-up)
P1-4	V+	I	+4 to +10 DC power supply input
P2-4	UART1_TXD	O	RESERVED
P1-5	#EINT0	I	3.3V logic, active-low interrupt input (the pin has a weak pull-up) Used for programming purposes
P2-5	UART1_RXD	I	RESERVED

(Specifications subject to change without notice)



**sparton**  
NAVIGATION AND EXPLORATION