Product Data Sheet

DC-4E

Tilt Compensated Attitude & Heading System



Description

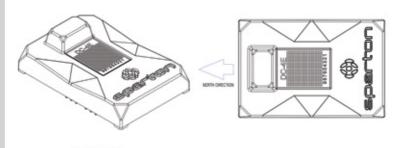
The Sparton DC-4E delivers superior performance by incorporating tri-axial magnetometers and accelerometers with highly optimized next generation software and advanced calibration algorithms. It offers best-in-class reliability, attitude and heading accuracy and provides 3-axis calibrated magnetic field measurements with full 360° tilt-compensated heading, pitch, and roll data. Proprietary adaptive in-field calibration algorithms provide accurate performance even in the presence of magnetic distortions due to ferrous objects positioned on the mounting platform. Furthermore, the DC-4E also incorporates the World Magnetic Model allowing it to provide a True North output at all locations around the globe.

Features

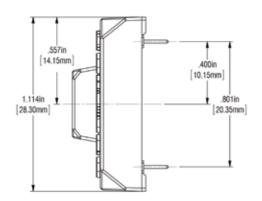
- 2D and 3D adaptive in-field calibration providing hard and soft magnetic interference compensation
- Simple 2-wire serial (UART) interface (3.3V logic level)
 with user-selectable baud rate
- Built-in World Magnetic Model for accurate True North
- Advanced sensing technology (3-axis magnetic, 3-axis MEMS acceleration)
- Magnetic and True North heading (yaw), pitch, and roll measurement
- Low power consumption and power management (Sleep Mode) functionality
- Powerful user programmable customizations via NorthTek™ Forth interpreter
- · Industry leading static accuracy and resolution
- Rugged (epoxy encapsulated) construction
- Supports multiple communication protocols
- Full 360° roll-over capability
- Small physical size
- In-field calibration point selection and distribution indicator
- Quality of in-field calibration indicator

Typical Applications

- Platform stabilization and positioning
- Pan and tilt, mapping and antenna pointing
- Heading and orientation
- Inclinometer



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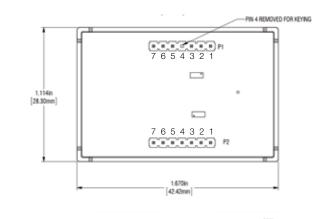


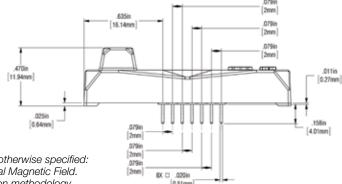


Specifications

Static Heading Accuracy 0.3° RMSJ Heading Repeatability 0.1° RMS Static Pitch/Roll Accuracy 0.2° RMS Pitch/Roll Repeatability 0.1° RMS Pitch/Roll Repeatability 0.1° RMS Pitch/Roll Range ± 90°, ± 180° Accelerometer Range +/- 4g (+/- 1g)¹ Configurable to +/- 8g Accelerometer Noise Density 126 µg/yHz Accelerometer Bias Stability 0.023 mg Accelerometer Velocity Random Walk 0.063 m/s Magnetic Range ± 1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ± 80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Yes Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 213B, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition I/C		
Static Pitch/Roll Accuracy Pitch/Roll Repeatability 0.1° RMS Pitch/Roll Range 4 ± 90°, ± 180° Accelerometer Range 4 +/- 4g (+/- 1g)² Configurable to +/- 8g Accelerometer Roise Density 126 µg/\Hz Accelerometer Bias Stability 0.023 mg Accelerometer Velocity Random Walk 0.063 m/s Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ± 80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Ves Operating Temp 40° to +85° C Storage Temp 40° to +85° C Humidity Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 30 G B Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) Input Power, Operating Mode (Typical @ 4V) Input Power, Operating Mode (Typical @ 4V) Input Power, Sleep Mode (Typical @ 4V) Input Power, Operating Mode (Typical @ 4V) Input Power, Sleep Mode (Typical @ 4V) Input Power, Operating Mod	Static Heading Accuracy	0.3° RMS¹
Pitch/Roll Repeatability Pitch/Roll Range	Heading Repeatability	0.1° RMS
Pitch/Roll Range ±90°, ±180° Accelerometer Range +/- 4g (+/- 1g)¹ Configurable to +/- 8g Accelerometer Noise Density 126 µg√\tau Accelerometer Bias Stability 0.023 mg Accelerometer Velocity Random Walk 0.063 m/s Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ±80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Yes Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G − Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G − Method 213B, Test Condition F Vibration Resistance .06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G − Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 14 mW 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes D In-Field Calibration Yes D In-Field Calibration Yes D In-Field Calibration Yes North Tek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Static Pitch/Roll Accuracy	0.2° RMS
Accelerometer Range	Pitch/Roll Repeatability	0.1° RMS
Accelerometer Noise Density Accelerometer Bias Stability O.023 mg Accelerometer Velocity Random Walk Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ± 80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Ves Operating Temp 40° to +85° C Storage Temp 40° to +85° C Humidity Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G − Method 213B, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G − Method 213B, Test Condition F Vibration Resistance 0.6 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G − Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 11 mW 3.3V Logic UART Interface 3D In-Field Calibration Yes 3D In-Field Calibration Yes Able To Maintain Function When Inverted Ves Ouaternion/Rotation Matrix Output True North Heading Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Pitch/Roll Range	± 90°, ± 180°
Accelerometer Bias Stability Accelerometer Velocity Random Walk Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ±80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Operating Temp 4-40° to +85° C Storage Temp 4-40° to +85° C Humidity Resistance 55%, 70° C, 240 hrs Meets MIL-STD-2026 − Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G − Method 213B, Test Condition F Vibration Resistance 0.6 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G − Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) 14 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 13.3V Logic UART Interface 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Accelerometer Range	+/- 4g (+/- 1g) ¹ Configurable to +/- 8g
Accelerometer Velocity Random Walk Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ±80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Yes Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1 ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance Vibration Resistance 0.6 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) 14 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 14 mW 3.3V Logic UART Interface 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Accelerometer Noise Density	126 µg/√Hz
Magnetic Range ±1.2 Gauss (±900 MGauss)² Maximum Magnetic Inclination (Dip) ±80°³ Update Rate (Samples/Sec) 10 Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Yes Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G − Method 103A, Test Condition A Shock Resistance 1500g, 1 ms Pulse, Half-Sine Wave Meets MIL-STD-202G − Method 213B, Test Condition F Vibration Resistance .06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G − Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 14 mW 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Yes	Accelerometer Bias Stability	0.023 mg
Maximum Magnetic Inclination (Dip) ### 80°3 Update Rate (Samples/Sec) ### 10 Baud Rate ### 10 Baud Rate ### 10 Dimensions L x W x H ### 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) ### 169 Encapsulated or Enclosure ### 169 ### 160 ##	Accelerometer Velocity Random Walk	0.063 m/s
Update Rate (Samples/Sec) Baud Rate 0.3, 1.2, 2.4, 4.8, 9.6, 19.2, 38.4, 57.6, 115.2 kbaud Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches) Mass 16g Encapsulated or Enclosure Yes Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 0.6 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) 132 mW Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output True North Tek*M User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Magnetic Range	±1.2 Gauss (±900 MGauss) ²
Baud Rate Dimensions L x W x H 42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches)	Maximum Magnetic Inclination (Dip)	± 80°3
Read	Update Rate (Samples/Sec)	10
Encapsulated or Enclosure Pes Operating Temp A0° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) 132 mW Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 14 mW 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 3D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Baud Rate	
Encapsulated or Enclosure Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Dimensions L x W x H	42 x 28 x 12 mm (1.66 x 1.11 x 0.43 inches)
Operating Temp -40° to +85° C Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Mass	16g
Storage Temp -40° to +85° C Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance 06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) 132 mW Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Encapsulated or Enclosure	Yes
Humidity Resistance 95%, 70° C, 240 hrs Meets MIL-STD-202G – Method 103A, Test Condition A Shock Resistance 1500g, 1ms Pulse, Half-Sine Wave Meets MIL-STD-202G – Method 213B, Test Condition F Vibration Resistance .06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G – Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Operating Temp	-40° to +85° C
Method 103A, Test Condition A Shock Resistance	Storage Temp	-40° to +85° C
STD-202G — Method 213B, Test Condition F Vibration Resistance .06 dB Power Spectral Density, 9.26 G RMS Meets MIL-STD-202G — Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) Input Power, Operating Mode (Typical @ 4V) Input Power, Sleep Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Humidity Resistance	
Meets MIL-STD-202G - Method 214A, Test Condition I/C Power Supply Input (Unregulated Voltage) +4 to +10V DC Input Power, Operating Mode (Typical @ 4V) 132 mW Input Power, Sleep Mode (Typical @ 4V) 14 mW 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Shock Resistance	,
Input Power, Operating Mode (Typical @ 4V) Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes True North Heading Output NorthTek TM User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating 114 mW 128 mW 14 mW 15 yes 15 yes 16 yes 17 yes 18 yes 18 yes 18 Meets MIL-G-45204 Type III Class 4	Vibration Resistance	Meets MIL-STD-202G – Method 214A, Test
Input Power, Sleep Mode (Typical @ 4V) 3.3V Logic UART Interface 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating 14 mW Yes Yes Yes Yes Wes Meets MIL-G-45204 Type III Class 4	Power Supply Input (Unregulated Voltage)	+4 to +10V DC
3.3V Logic UART Interface Yes 3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Input Power, Operating Mode (Typical @ 4V)	132 mW
3D In-Field Calibration Yes 2D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	Input Power, Sleep Mode (Typical @ 4V)	14 mW
2D In-Field Calibration Yes Able To Maintain Function When Inverted Yes Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek TM User Programmable Customizations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	3.3V Logic UART Interface	Yes
Able To Maintain Function When Inverted Quaternion/Rotation Matrix Output Yes True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Yes Meets MIL-G-45204 Type III Class 4	3D In-Field Calibration	Yes
Quaternion/Rotation Matrix Output Yes True North Heading Output Yes NorthTek™ User Programmable Customizations Yes Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	2D In-Field Calibration	Yes
True North Heading Output NorthTek™ User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Yes Weets MIL-G-45204 Type III Class 4	Able To Maintain Function When Inverted	Yes
NorthTek TM User Programmable Customizations Includes World Magnetic Model Pin Connectivity Gold Plating Yes Weets MIL-G-45204 Type III Class 4	Quaternion/Rotation Matrix Output	Yes
zations Includes World Magnetic Model Yes Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	True North Heading Output	Yes
Pin Connectivity Gold Plating Meets MIL-G-45204 Type III Class 4	9	Yes
	Includes World Magnetic Model	Yes
RoHS Compliant Yes	Pin Connectivity Gold Plating	Meets MIL-G-45204 Type III Class 4
	RoHS Compliant	Yes

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Pin #	Pin Name	I/O	Function
P1-1	V_TEST	0	3.3V regulator output for test purposes (factory use only)
P1-2	DEBUG_RXD	I	3.3V logic RXD Input to Debug Port (factory use only)
P1-3	DEBUG_TXD	0	3.3V logic TXD Output from Debug Port (factory use only)
P1-4		N/A	Pin removed for keying
P1-5	#WP_EE- PROM	I	3.3V logic, active-low EEPROM write protect (the pin has $10k\Omega$ pulldown)
P1-6	Factory Use	1	Do not connect (factory use only)
P1-7	GND	N/A	System Ground
P2-1	V+	I	+4 to +10V DC power supply input Max load = 33mA
P2-2	USER_RXD	1	3.3V logic RXD input to User Com Port
P2-3	USER_TXD	0	3.3V logic TXD output from User Com Port
P2-4	#RESET	I	3.3V logic, active-low reset input (the pin has a weak pull-up)
P2-5	#EINTO	I	3.3V logic, active-low interrupt input (the pin has a weak pull-up) Used for programming purposes
P2-6	GND	N/A	System Ground
P2-7	GND	N/A	System Ground







Performance data applies under the following conditions unless otherwise specified: 23°C, 0° Pitch/Roll, 300mGauss Horizontal and 0mGauss Vertical Magnetic Field.

Specifications in parentheses represent current limits of calibration methodology.
 Performance at maximum dip angle will be degraded.

Specifications subject to change without notice.

Performance data applies to 23°C, 0° for Pitch/Roll unless otherwise specified.

For more information and detailed specifications scan QR code.

For support, please e-mail: productsupport@sparton.com



