

New Accelerometer for ATD Applications

- ★ Low Noise & Drift
- ★ High Level Output

A64C

Piezo-resistive Accelerometer for ATD, Headform, Legform and Vehicle Crash Testing

APPLICATIONS

- Automotive safety
- In-dummy/ATDs
- Injury biomechanics
- PMHS (cadaveric) testing
- Impact testing
- Injury investigation
- Pedestrian head & legforms
- Parachute deployment
- Package testing: truck, air, ship & rail
- Embedded monitoring
- Helicopter & aircraft
- Blast testing
- Ride & handling
- Sports & safety equipment
- Vibration testing
- Aerospace analysis
- Amusement ride testing

PRODUCTS

Diversified Technical Systems designs and manufactures data acquisition systems and sensors for experienced test professionals.



The miniature A64C measures acceleration up to ± 500 g and is designed for applications with tight space constraints. The A64C is a new MEMS sensor design with lower noise and better performance than competing accelerometers.

Key Features

- Industry standard package for installation in ATDs, headforms and legforms
- Low noise, high output: 3.75 mV/g (nominal)
- 4.9 to 14 V excitation, not proportional
- Shunt check compatible
- Temperature compensated
- Complies with SAE J211/J2570, ISO 6487, NHTSA and Euro NCAP recommended practices
- NIST traceable, ISO 17025 accredited re-calibration services available

The A64C is the newest sensor from DTS featuring a linear accelerometer in a rugged, industry standard enclosure. The A64C supports a wide range of excitation voltages and delivers high level outputs with low noise and drift. The A64C fits existing ATD mounting blocks and is ideal for a variety of testing environments including injury biomechanics, transit vibration testing, vehicle NVH and multi-axis vibration testing.



The A64C is ideal for acceleration measurements in all Global NCAP and NHTSA ATDs, Headforms, Flex and aPLI Legforms, and many other applications.



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DSH-040 (Rev 4.2021)

Specifications

PHYSICAL

Size:	See drawing below
Mass:	1.5 g (without cable)
Enclosure:	Anodized aluminum
Mounting Holes:	Thru-holes for two 0-80 bolts
Mounting Torque:	0.11 Nm (1.0 in-lbf) recommended

RESPONSE & ELECTRICAL

Range:	±500 g
Bandwidth:	0-5000 Hz, DC response
Linearity - % FS:	< 1%
Transverse Sensitivity:	±3% (typ), ≤ ±1% (option)
Damping Ratio:	0.7 nominal
Noise Density:	125 µg/√Hz
Nominal Sensitivity:	3.75 mV/g
Zero Output:	±3% FS (max)
Thermal Zero Shift:	±0.01% FS/°C (-40 to +85°C)
Thermal Sens. Shift:	±0.1 %/°C typ (-40 to +85°C)
Shunt Check:	3000 Ω equivalent bridge resistance
Excitation Voltage:	4.9-14 V, not proportional to excitation
Current:	2 mA nominal

ENVIRONMENTAL

Operating Temp.:	-40 to +85°C (-40 to +185°F)
Humidity:	99%, non-condensing
Shock:	10000 g, any direction
IP Rating:	IP67

CABLE & CONNECTORS

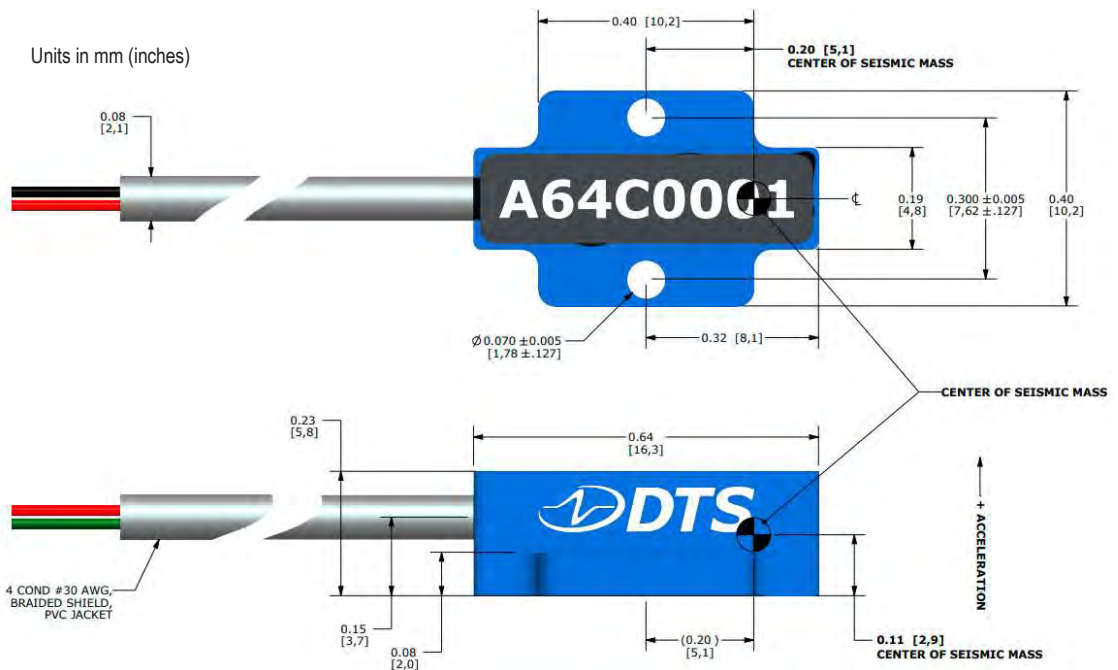
Cable Type:	Four conductor with overall shield, 30 AWG Element and shield isolated from enclosure
Length:	25 ft (7.6 m) standard
Termination:	Pigtail termination standard
Color Code:	
Black:	-Excitation
Red:	+Excitation
Green:	+Signal
White:	-Signal
Connectors:	SLICE6 Sensor Interface, LEMO, Omnetics, Tajimi, or others per request. Delivered with Sensor ID installed in connector.

CALIBRATION – ISO 17025 ACCREDITED

Acceleration:	NIST-traceable shock, half-sine
Calibration:	Re-calibration services available

SERVICES

24/7 Worldwide Tech Support
ISO 17025 (A2LA) Calibration
On-site Calibration & Training
Application Support
Software Integration
OEM/Embedded Applications



WORLDWIDE SUPPORT

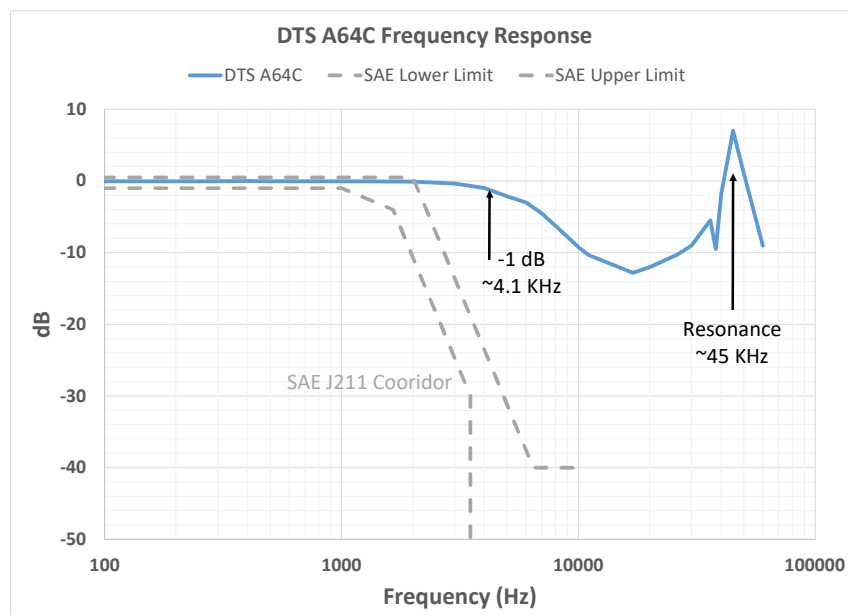
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The A64C mounts on standard triaxial accelerometer mounting blocks and locations. Also works with all SLICE6 in-dummy DAS solutions!

DTS
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Specifications subject to change without notice.
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