MEETS SPECIFICATIONS FOR
EU & US NCAP TESTING
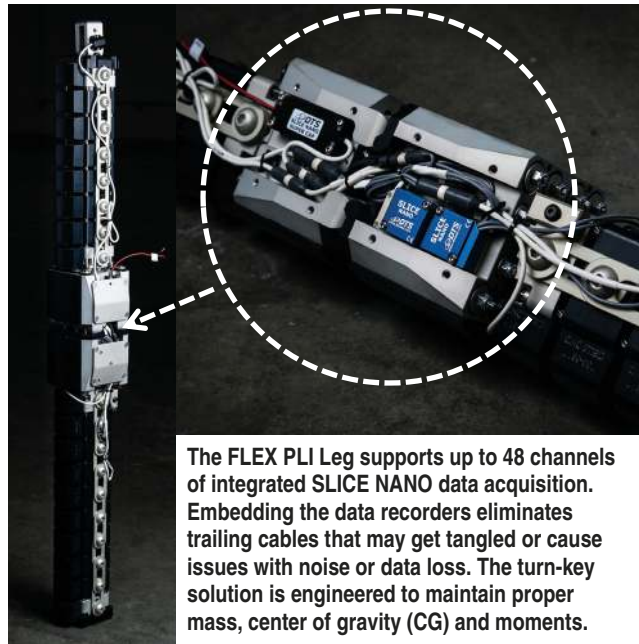
SLICE Flexible Pedestrian Legform Impactor
Integrated Data Acquisition for Cable-Free Operation

APPLICATIONS

- **Flexible Pedestrian Legform Impactor**

SLICE NANO also works with Free Motion and Pedestrian Headforms

The FLEX PLI Leg supports up to 48 channels of integrated SLICE NANO data acquisition. Embedding the data recorders eliminates trailing cables that may get tangled or cause issues with noise or data loss. The turn-key solution is engineered to maintain proper mass, center of gravity (CG) and moments.

The SLICE Flexible Pedestrian Legform Impactor integrates the ultra-small SLICE NANO data acquisition system into a cable-free solution for pedestrian safety testing. Offering the ultimate in flexibility and reliability, the legform is armed via a PC, disconnected, then powered and launched any time without trailing cables. The system can be triggered with a level trigger or contact closure and data writes directly to flash memory. A quick-charging super capacitor ensures reliable data capture and storage during the launch event.

Features

- Cable-free operation
- Engineered to assure proper mass, CG and moments
- Level trigger or contact closure
- Supports up to 48 channels of SLICE NANO data acquisition
- Super capacitor powered during launch
- Data writes directly to 16 GB flash memory
- Intuitive, easy-to-use software
- Complies with ISO 6487 and SAE J211 recommended practices, as well as NHTSA and FAA requirements

Software

DTS offers two powerful software options for the SLICE legform. SLICEWare provides fast, easy tools for storing sensor information, performing data collection, viewing and exporting data. DataPRO is a fully-featured software package with a comprehensive database and user interface for tracking sensor information, creating test objects and test setups, performing diagnostic routines, and conducting tests. Both software packages offer the most advanced self-diagnostics, plus support for EQX, ISO MME and many other data exchange file formats.

PRODUCTS

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

/ PEDESTRIAN SAFETY TESTING

FLEX PLI Legform

www.dtsweb.com
DSH-022 (Rev 08.2017)

Specifications

BASE+ SLICE NANO
One (1) required per stack – system microprocessor & memory

Size:	26 x 31 x 6.5 mm (1.02 x 1.22 x 0.26")
Weight:	14.2 g (0.50 oz)
Connectors:	Omnetics, circular locking, 12-pin

BRIDGE SLICE NANO
Three (3) inputs for external sensors

Size:	26 x 31 x 5.5 mm (1.02 x 1.22 x 0.22")
Weight:	13.8 g (0.49 oz)
Connectors:	Omnetics, circular locking; 3 single-channel 7-pin or 1 three-channel 16-pin

SUPERCAP+
Designed specifically for the Pedestrian Legform

Size:	55 x 15 x 22 mm (2.2 x 0.6 x 0.87")
Weight:	27 g (0.95 oz)
Charge Time:	~2 minutes
Discharge Rate:	>3 seconds for 12 channels
	>1.5 seconds for 24 channels

SIGNAL CONDITIONING

Number of Channels:	3 differential, programmable
Input Range:	±2.4 V (2.5 V center)
Bandwidth:	DC to 35 kHz, programmable
Gain Range:	1.0-1280, programmable
Auto Offset Range:	100% of effective input range
Bridge Support:	Software controlled half-bridge completion
Shunt Check:	Emulation method, automatically calculated
Sensor ID:	Maxim Integrated (Dallas) silicon serial number
Linearity (typical):	≤0.2% (gain 1 to 320), ≤0.5% (gain >320)
Accuracy:	0.5% including reference uncertainty

ANALOG-TO-DIGITAL CONVERSION

Type:	16-bit SAR (Successive Approximation Register) ADC, one per channel, simultaneous sample of all channels

EXCITATION

Method:	Independent regulator for each channel
Voltage:	5.0 V, up to 20 mA, short circuit safe
Power Management:	Shutdown when not armed or recording

ANTI-ALIAS FILTER

Fixed Low Pass:	4-pole Butterworth, standard knee frequency at 40 kHz
Adjustable Low Pass:	5-pole Butterworth set by software from 1 Hz to 35 kHz
Response:	Meets SAE J211/ISO6487 response corridors

SOFTWARE

Control:	SLICEWare, DataPRO
Operating Systems:	Windows® 7/8/10 (32- and 64-bit)
Communication:	USB

Ordering Information

The DTS Flexible Pedestrian Legform Impactor kit can be customized for specific requirements – see available options below. Contact sales@dtsweb.com for more information.

Choose FLEX System Kit	DTS Part Number	Description +
	13000-40070	SLICE NANO 12-channel FLEX System Kit
	13000-40080	SLICE NANO 15-channel FLEX System Kit
	13000-40090	SLICE NANO 18-channel FLEX System Kit
	13000-40100	SLICE NANO 24-channel FLEX System Kit
Kit Includes: SLICE NANO BASE, NANO Bridges, Supercap+, NANO Stack Extender, SLICE FLEX quick-release bracket, sensor connector assemblies		

Choose Launcher integration kit	DTS Part Number	Description
	13000-40110	SLICE FLEX Launcher Integration Kit, USB
	13000-40130	SLICE FLEX Launcher Integration Kit, Ethernet
Kit Includes: SLICE USB or Ethernet Interface, SLICE UI/EI NANO chain, SLICE FLEX quick release, SLICE FLEX latching chain		

+ Add Software (if not already owned)	DTS Part Number	Description
	10920-03002	SLICEWare
	10920-04010	DataPRO

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