SLICE HG

Miniature 3-Channel Data Recorder
High Sampling, Shock-Rated to 20,000 g

APPLICATIONS

- Blast testing
- Fuze validation
- Crash testing
- Gun launch
- Drop testing
- Missile/Ordnance
- Mining/VOD
- Parachute deployment

SLICE HG is a complete standalone, data acquisition system engineered to collect precision data in high shock environments. Shock rated to 20,000 g, SLICE HG samples up to 500 ksps/channel.

SLICE HG is a miniature, ultra-rugged data recorder designed to collect critical field and survivability data. The compact 3-channel DAQ module is engineered to be installed on or in the test article near the point of interest. Data direct-writes to non-volatile flash memory.

The system architecture is the Base+ SLICE (same as SLICE NANO & MICRO) which contains the microprocessor, memory and control circuits for managing the 3-channel Bridge SLICE. A simple interface provides power, trigger and communication signals for chaining multiple SLICE HG systems and connecting to a PC.

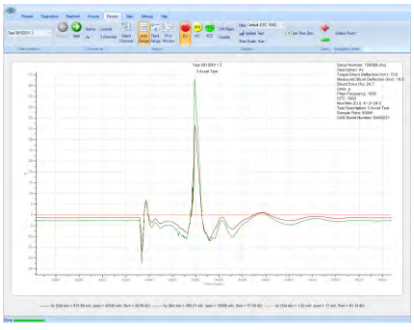
The ultra-small, 3-channel unit is designed to be embedded directly in or on the test article.

Features

- Compact enclosure, 31.75 mm DIA x 42.52 mm (1.250" DIA x 1.67")
- Rugged & reliable, 20,000 g shock rating
- Sampling rates up to 500 ksps/channel
- Supports a variety of external sensors interfaces including: 3- and 4-wire bridge, MEMS sensors, strain, load & voltage
- 16 GB flash memory, >4 hours of data storage time at max sampling rate
- Low power, 9-12 VDC, battery back-up
- Multiple sleep and trigger options
- Daisy-chain up to 12-channels of SLICE HG for higher channel count tests

Software

SLICEWare set-up and control software provides fast, easy-to-use tools for storing sensor information and performing data collection. Advanced features such as automatic sensor assignment, detailed channel diagnostics, and real-time data display support successful testing and quality data every time.



PRODUCTS

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

Specifications

PHYSICAL	
Size:	31.75 mm DIA x 42.52 mm (1.250" DIA x 1.674")
Weight:	85 g (3.00 oz.)
Connectors:	
Comm/Power/Chain:	Omnetics, circular locking, 12-pin
Sensors:	Omnetics, circular locking; 3 single-channel 7-pin or 1 three-channel 16-pin

ENVIRONMENTAL	
Operating Temp.:	0 to 60°C (32 to 140°F) Call to discuss extended temperature ranges
Humidity:	95% RH non-condensing
Shock:	20,000 g

DATA RECORDING	
Modes:	Recorder or circular buffer modes available
Memory:	16 GB non-volatile flash
Sample Rate:	Up to 500 ksps/channel

TRIGGERING	
Hardware Trigger:	Isolated contact closure & logic-level input
Level Trigger:	Software programmable from any channel

POWER	
Supply Voltage:	9-12 VDC; >11 VDC when charging back-up super capacitor
Current (Maximum):	250 mA including excitation voltage for sensors
Power Control:	Remote power control input for on/off
Protection:	Reverse current, ESD

BACKUP SUPER CAPACITOR	
Charge Status:	Backup super-cap charges when input voltage to Base SLICE is 12 VDC
Charge Time:	~1 min.
Backup Power:	~200 msec after main power lost

SIGNAL CONDITIONING	
Number of Channels:	3 differential, programmable
Input Range:	±2.4 V (2.5 V center)
Bandwidth:	DC to 40 kHz, programmable
Gain Range:	1.0-1280, programmable
Auto Offset Range:	100% of effective input range
Bridge Support:	Software switchable completion
Shunt Check:	Emulation method

ANALOG-TO-DIGITAL CONVERSION	
Type:	16-bit SAR, one ADC per channel

EXCITATION	
Method:	One 20 mA current-limited source/channel
Voltage:	5.0 V
On/Off Control:	Shut down when not armed or recording Opt. pulsed excitation for low sampling rates

ANTI-ALIAS FILTER	
Fixed Low Pass:	4-pole Butterworth, standard knee frequency of 40 kHz
Adjustable Low Pass:	5-pole Butterworth set under software control, 50 Hz to 40 kHz
Overall Response:	Both filters may be used together to achieve 9-pole effective response
SAE J211:	System exceeds SAE J211 response

SOFTWARE	
Control:	SLICEWare, API
Operating Systems:	Windows® 7/8/10 (32- and 64-bit) Communication: USB; optional Ethernet interface

SLICE HG uses the system architecture developed by DTS for the original SLICE NANO and SLICE MICRO modular data acquisition systems.

SERVICES

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

WORLDWIDE SUPPORT

HELP CENTER (24/7/365 Access)
DTS Technical Centers
Global Sales Partners

HEADQUARTERS

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