

SAFESHOTTM

Integrated, compact telemetry (TM) and flight safety system

L3Harris' SafeShot provides a cost-effective, compact and fully integrated telemetry and flight termination system (FTS) that enables weapons to be tested, qualified and put into the hands of warfighters faster than ever before.

LEADING THE INDUSTRY WITH A COMMON TM AND FTS SOLUTION

SafeShot is an off-the-shelf, standard TM and FTS solution that can be tailored to any platform and used across multiple programs. The cost-effective, scalable solution is an alternative to expensive legacy systems that are weapon-specific with no cross-platform reuse. Through standardization, SafeShot reduces cost and enables economies of scale through manufacturing and a reduced subcontract data requirements list.

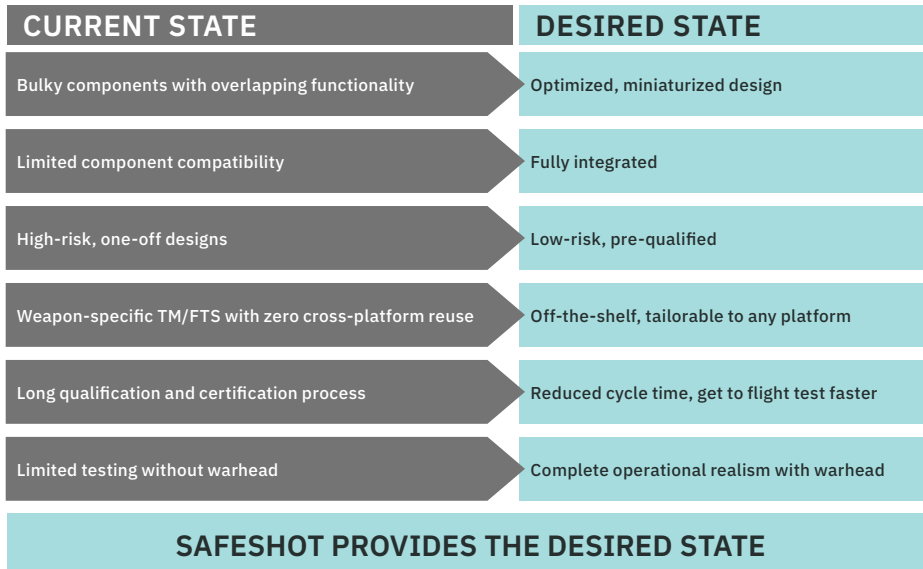
FULLY INTEGRATED, SCALABLE AND FLEXIBLE

SafeShot can scale independent of weapon platforms. The solution is compatible with multiple weapon interface control documents (ICD) and can be customized to meet individual and unique signal list requirements.

SafeShot reduces redundancy often found in bulky, box-based legacy systems that use high-volume components with overlapping functionality. SafeShot unites component functionality into a compact, integrated system that easily scales to accommodate antennas, batteries, beacons and other assemblies.

PROVIDING OPERATIONAL REALISM

With a 71% size reduction compared to legacy systems, SafeShot enables customers to test weapons with munitions intact. With enough room to leave the munition intact, customers can more accurately mimic real tactical applications, resulting in better quality performance data.



BENEFITS

- > Provides affordable, low-risk, fully integrated system
- > Offers 71% size reduction, 72% weight reduction and 42% power reduction compared to other industry solutions
- > Accelerates flight test, qualification and deployment cycle times
- > Scales easily without disrupting industry safety certifications

FEATURES

- > Range safety collaborative design
- > Secure encrypted digital (enhanced) flight termination
- > Miniaturized pulse code modulation (PCM) encoder for custom signals requirements
- > Ground test system/system integration lab for systems checkout and troubleshooting
- > Tri-services qualification plan design
- > NSA-approved Type 1 communications security

SAFESHOT SYSTEM FUNCTIONALITY

TELEMETRY SUBSYSTEM™

- > Global positioning system (GPS) module for Time-Space-Position Information (TSPI)
- > Pulse code module encoder and processor module
- > Encrypted telemetry (e.g. system health, TSPI, weapon data)
- > S-band transmitter
- > Tier 0, I and II

ENHANCED FLIGHT TERMINATION RECEIVER

- > Redundant safe and arm controllers and explosive interface modules (e.g. exploding foil initiator, interfacing with flexible confined detonating cord)

SAFE AND ARM CONTROLLER AND EXPLOSIVE INTERFACE MODULES

- > Redundant power conditioner and enhanced flight termination receiver modules

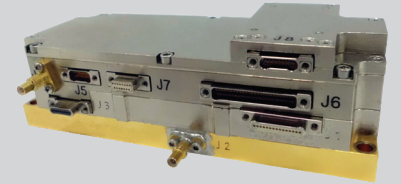
PCM400 MINIATURE DATA ACQUISITION

- > Expandable miniaturized data acquisition for additional data collection, two cubic inches per module

BASE SYSTEM

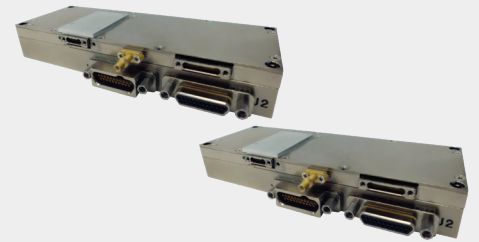
Designed to operate under extreme conditions, the base system (Telemetry System and redundant FTS) consists of five modules totaling less than 19 cubic inches for compact missile and munitions testing:

- > High vibration: Up to 42 root mean square acceleration
- > High shock: Up to 10k acceleration peak
- > Temperature extremes: -45 °C to +75 °C; FTS components have an additional +/- 10 °C margin



TELEMETRY SUBSYSTEM

3.50 inches long, 1.35 inches wide, 1.12 inches high



ENHANCED FLIGHT TERMINATION RECEIVER

4.07 inches long, 1.40 inches wide, 0.63 inches high



SAFE AND ARM CONTROLLER/EXPLOSIVE INTERFACE MODULES

2.50 inches long, 2.36 inches wide, 0.65 inches high



PCM400 MINIATURE DATA ACQUISITION

2.40 inches long, 1.40 inches wide, 0.60 inches high

SafeShot

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