



C SERIES

MIPI CSE Analysis License

Integrated CSE packet generation and analysis license for Introspect Technology C Series Products

Verify Critical Security and Functional Safety Features of Your Next-Generation Products

The MIPI CSE Analysis License is a dedicated, hardware-locked application that runs on the Introspect Technology SV5C MIPI Generator and Analyzer products. Covering message-based and frame-based data service protocols, this application enables the generation of encrypted packets and payload data when operated on an SV5C MIPI Generator, and it enables decoding and authenticating data when operated on an SV5C MIPI Analyzer. Thus, it represents a complete, golden-standard solution for validating Functional Safety (FuSa) and Security (Sec) data protection services in safety-critical imaging and vision applications.

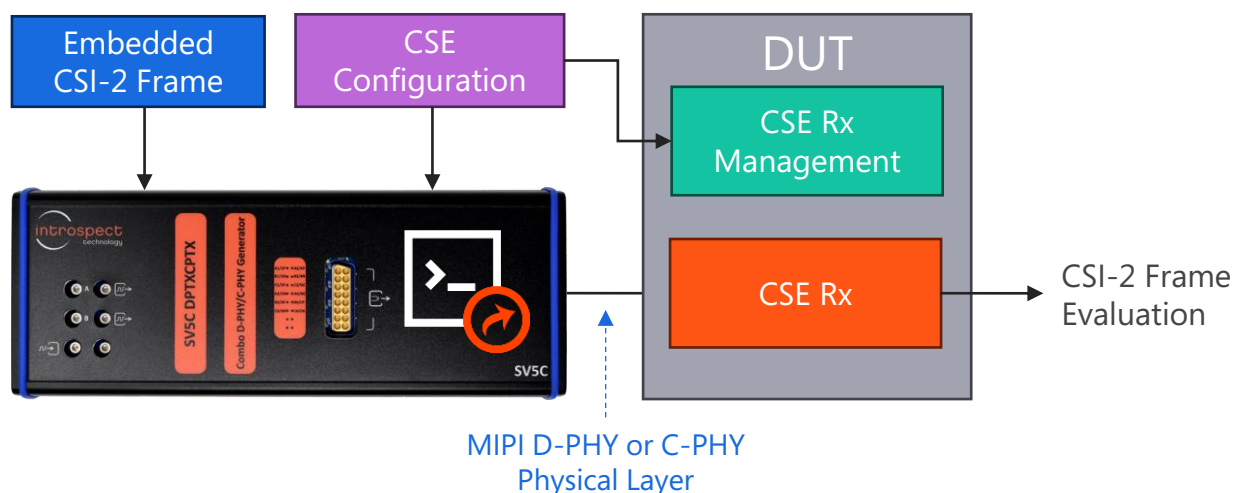
KEY FEATURES:

- **User-Configurable CSE Management Options:** create any combination of security services or functional safety services
- **CRC and Message Authentication Options:** generate and analyze compliant and non-compliant SEP and FSED packets
- **Replay Protection:** generate unique frame counts and detect frame replay errors

KEY BENEFITS:

- **Verify Your CSE Framework:** create a golden set of inputs and outputs for verifying the MIPI CSE framework
- **100% Compatible:** use with the existing Introspect tools and workflow
- **Automate Testing and Verification:** leverage Pinetree™ to automate tests and rapidly qualify all data services supported by the CSE specification

Achieve a Golden-Standard Methodology for Testing Security



Automatically Embed Any CSI-2 Frame into a MIPI CSE v2.0 Transmission and Confirm Verification Within the Device Under Test

General Specifications

PARAMETER	VALUE	DESCRIPTION
Services Supported	Security, FuSa	Includes CRC generation/checking and message authentication testing
Data Service Protocols	SEP, FSED	Provides customizable features for each protocol
Customizable CSE Parameters	Initial Frame Count, Initial Accumulated Frame Count, Payload Descriptor, Source ID	Enables testing multiple scenarios and conditions
Security Tag Modes	SEP_Sec_TM_1b, SEP_Sec_TM_1c, SEP_Sec_TM_1d, SEP_JTM_1a, FSED_JTM_2a, FSED_JTM_2b	Supports long-term development roadmaps
FuSa Tag Modes	FSED_JTM_2a, FSED_JTM_2b, SEP_FuSa_TM_1, SEP_FuSa_TM_2, SEP_JTM_1a	Supports long-term development roadmaps
Message Authentication Parameters	Security Variants, Traffic Keys, MAC Sizes, Encryption Keys	Enables deep security verification

View Your CSE Validation Data Using the Standard Pinetree Viewer

CPHY DataCapture: TV_6_1 / csiDataCapture1

File Tools

burst mode: 9 bursts, 9 CSI packets, 28 lpStates, 18 lpEvents, 1 frame

lane 1 lane 2 lane 3 lane 4

GO TO: Timestamp...

Times: relativeToStart

HS Bursts CSI Packets LP States LP Events Frames

Packet#	Time (ms)	Burst	VC	DT	DT Name	Header CRC	WC	Short	Payload CRC	Frame	Notes
0	33.12268	0	6	0x3E	sep	0x8A42	30		0x9C5D	0	CSE: Successful validation
1	33.12341	1	6	0x3E	sep	0xC190	36		0xBD2A	0	CSE: Successful validation
2	33.15340	2	6	0x3E	sep	0xC190	36		0xE719	0	CSE: Successful validation
3	33.18340	3	6	0x3E	sep	0x3361	48		0x4684	0	CSE: Successful validation
4	33.21340	4	6	0x3E	sep	0x3361	48		0x6C22	0	CSE: Successful validation
5	33.24340	5	6	0x3E	sep	0x3361	48		0x6218	0	CSE: Successful validation
6	33.27340	6	6	0x3E	sep	0xC190	36		0xC752	0	CSE: Successful validation
7	33.30339	7	6	0x3E	sep	0xC190	36		0x094C	0	CSE: Successful validation
8	33.33339	8	6	0x3E	sep	0x8A42	30		0xCF41	0	CSE: Successful validation

Selected Packets

First Packet: Last Packet: Time:

Packet detail CSE Info

Packet 2 Detail

No Errors Detected

eVc	0x6	afResetRequest	0	sepId	1
eDt	embeddedData	sourceId	0x39	headerCrc	
payloadDescriptor	0x0	sepFusaMc		mac	
payloadLength	0x18	sepSecMc	2	fullCrc	
fmcValid		columnId		rxMaintainedFc	22095
ctrlId	0x1	rowId		rxMaintainedAfc	4346433
afcSync	1	userEPH4			

Embedded CSI-2 Frame Data is Automatically Extracted and Displayed for Easy Verification and Debugging

TO LEARN MORE, SEND US AN EMAIL AT [INFO@INTROSPECT.CA](mailto:info@introspect.ca)