



High Resolution Vehicle Signatures:

- Detailed output signatures
 - Results in highly accurate speed, volume, occupancy, and vehicle length information
 - Capable of providing data for accurate vehicle *re-identification* not just classification
- Fast signature data output via USB

Compatible with IST Single-Slot Loops™:

- Produces more defined signature data
 - Detects wheel spikes for more accurate vehicle speed and length measurements
- Uniform data over entire lane of traffic, regardless of vehicle lateral offset within the lane
 - Doesn't miss turning or off-center vehicles like other loop technologies
- Easy to install – Single-Slot Loop™
- Also compatible with common wire loops

More Frequency Selections:

- Thousands of frequencies to choose from
- Onboard signal analyzer automatically selects optimal frequency
 - Analyzes individual loop performance characteristics
 - Analyzes proximity of other nearby detectors, radio stations, etc.
 - Avoids restricted bands for FCC compliance
 - Self tunes to pick best frequency
- Compatible with multi-lane instrumentation
- Meets or exceeds CALTRANS Standard Specifications

Reduces Crosstalk and Ambient Noise Interference:

- Other detectors typically have three to eight frequency selections and less than eight sensitivity selections which can cause crosstalk where many loops are close by and force their sensitivity to be set low, reducing reliability and producing bad traffic data.
- Crosstalk interference problems are greatly reduced in IST Core™ compliant products
 - Detectors have high sensitivity, increasing reliability and reducing false detection
 - Better data is produced with many loops in close proximity to one another
 - Freeways, arterials, and large intersections, etc.
- Mitigates some installation errors such as improper lead twisting or inadequate insulation
- Mitigates power line interference

Fast Sampling Rate:

- Up to 40 kS/s (Samples/sec) output to traffic controller
 - Includes bivalent outputs compatible with 1000 S/s sample rate of 2070 controllers
- More reliable and accurate output data with high speed traffic



IST Core™ Compliant

Premium Signature Output Comparison

Features	Others	IST-222
Signal Bandwidth (0.02%ΔL)	31Hz	Up to 20kHz
Controller Data Output Rate (0.02%ΔL)	63 S/s	Up to 40 kS/s
Adjustable Sampling Rate	No	Yes
Fully compatible w/ 2070 Controller	No	Yes
Frequency Selections	4 to 8	100+*
Frequency Selection Method	Manual	Auto
Sensitivity Selection Method	Manual	Auto
Required Installation Time/Knowledge	High	Low
Compatible w/ New IST Sensors	No	Yes
High Speed USB Data Connection	No	Yes

*Assumes 1200Hz channel bandwidth; Higher bandwidth reduces # of frequencies in band proportionally

Self Diagnostics:

- Measures loop impedance at multiple frequencies
- Detects open circuit, partial short and grounding faults
- Monitors ambient noise
- Automatically compensates for these situations

Connectivity:

- Firmware is field upgradeable
- USB port - Hot swappable
- Serial port
- IDE interface
- Legacy (TS-1/CALTRANS)



*This information applies to product(s) under development. Inductive Signature Technologies, Inc. reserves the right to change or discontinue these product(s), characteristics, and/or specifications without notice.