First-in-Class Dual Modality Intravascular Imaging System
The TVC Imaging System™ is a first-in-class intravascular imaging system with the unique ability to assess vessel composition and structure via integrated NIRS (near infrared spectroscopy) lipid core plaque detection and enhanced IVUS imaging technology.

**The First and Only FDA-Cleared Device for the Detection of Lipid Core Plaques**

The TVC Imaging System is the only system that enables accurate and reproducible identification of lipid core plaque, as well as quantification of the vessel's lipid core burden, at the point of care. With IVUS, it also provides for quick assessment of the lumen, vessel wall, and plaque structure.

- Lipid core plaques (LCP) are known to complicate coronary stenting and research shows that detecting LCP is key to identifying patients at risk for periprocedural events.¹
- New studies indicate that a NIRS signature LCP can be specifically identified in the culprit lesion in STEMI patients² and may hold utility for predicting future adverse coronary events.
- TVC Imaging System technology is supported by extensive scientific validation, both in laboratory specimens and patients, using histology as the gold standard for detection of LCP by NIRS.³

In a single pullback of the dual-modality TVC Insight™ Catheter, the TVC Imaging System enables true vessel characterization to reveal what you need to know.

First-in-Class Interventional Cardiology Imaging System

With the only catheter that utilizes NIRS and IVUS simultaneously, the TVC Imaging System provides unmatched visibility of vessel composition and structure and brings unprecedented capability to the catheterization lab.

**TVC Composite™ Image**

The simultaneous, co-registered NIRS and IVUS image display provides true vessel characterization.

- A high resolution IVUS image and NIRS Chemogram to support decision making at the point of care.
- Easy to use measurement tools and automated quantification to help you optimize risk assessment, stent sizing and placement.
**TVC Insight™ Catheter**

High fidelity ultrasonics and laser-based near infrared spectroscopy work in combination to deliver clear, crisp, structural and compositional images.

- Rapid, reproducible plaque characterization with NIRS automated lipid core plaque detection.
- Accurate and reliable lesion assessment with superior image quality of 40MHz high frequency rotational IVUS.
- Rapid assessment of stent placement and expansion with Live IVUS.
- Access tight anatomy with polished, tapered atraumatic tip.

**TVC Imaging System™ Console**

Access advanced NIRS and IVUS technology in any cath lab with a mobile platform designed to provide:

- Visibility and flexibility with high definition, adjustable dual displays.
- Optimized workflow with intuitive touch-screen operator’s interface.
- Flexible archiving and reporting options for operational efficiency.
- Enhanced x-ray system integration in the cath lab with optional video export and table-side control.

**TVC Nexus™ Controller**

- Provides the physician with exceptional pullback control during an interventional procedure, with easy to use Start, Stop, Mark and Image Review functions.
- Access Live IVUS imaging controls directly from the TVC Nexus Controller.

See for yourself the difference that TVC-guided stenting can make. Request a demonstration from your Infraredx representative.
Today’s leading interventional cardiologists need advanced imaging technologies that provide a more accurate and complete assessment of the vessel than is possible from angiography alone.

A complete assessment of the vessel requires looking deeper than the lumen to understand both plaque composition and structure.

This complete assessment also requires identifying those clinically significant lipid core plaques (LCP) which are associated with acute coronary syndromes and other coronary events.

**True vessel characterization** - the accurate, reliable, rapid and simultaneous assessment of both composition and structure - can identify high-risk, lipid core plaques known to complicate stenting and associated with most coronary events.

The TVC Imaging System from Infraredx can provide you with sound insights for clinical decision-making.

**True vessel characterization holds value in:**
- Improved stenting therapy
- More informed diagnosis and treatment strategies
- Detailed risk stratification
- Clearer adjustment of pharmacologic therapy

Because information available to you at the point of care can make a meaningful difference.

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**Angiography (Left):** Angiogram from a 67 year old female with positive family history but no personal history of CAD demonstrates only a focal 75% diameter stenosis in mid segment of a large caliber RCA. A more advanced imaging technology would have the potential to reveal additional information that could help shape diagnosis and treatment strategies.

**Co-registered NIRS/IVUS Image (Right):** The IVUS data showing a blockage is dominated by superficial calcium. The calcium shadow artifact conceals the nature of the plaque, but the NIRS Chemogram™ reveals the lipid pool hidden from the physician’s view. Both IVUS and NIRS are necessary to fully characterize the blockage.
Backed by Full Infraredx Service & Support

The TVC Imaging System is supported by a comprehensive training and service program.

- On-site system training for physicians and staff that includes didactic and hands-on modules administered by Infraredx clinical specialists.
- Multimedia-based system training and quick reference tools.
- Dedicated customer service phone support.

Technical Specifications

TVC Imaging System™

- Operating System: Win7 Embedded
- Processor: Intel Quad Core i7
- RAM: 4GB RAM
- Hard Drive Capacity: 500 GB (1000+ scans)
- Digital Archiving Options: PACS, USB, DVD-R, local hard drive
- Digital Archiving Formats: DICOM, AVI, PDF, BMP, Binary
- DICOM Services Supported: DICOM Store
- Image Acquisition Modes: Live IVUS (Manual) or Automated Pullback (0.5mm/s)

TVC Insight™ Intravascular Imaging Catheter

- Minimum Guide Catheter: 6 French (2mm)
- Maximum Guide Wire: 0.014” (0.36mm)
- Crossing Profile: 3.2 French (1.1mm)
- Maximum Imaging Diameter: 16mm
- Catheter Working Length: 120 mm
- Operating Frequency: 40MHz

Catalog Number

- TVC-MC8
- TVC-C195-20
- TVC-MC8-A1
- TVC-MC8-VCE

Description

- TVC Imaging System Console
- TVC Insight Catheter
- Sterile Accessory Kit
- TVC Video & Control Export Panel (optional)

To learn more about the TVC Imaging System™ or to place an order, please contact your Infraredx representative at 888-680-REDX.