AVVIGO™+
Multi-Modality Guidance System

Boston Scientific
Advancing science for life™

Make it clear with PCI Guidance Technology.

Imaging and physiology combined with the AVVIGO™+to guide the best patient outcomes.

PCI Guidance In-service presentation

AVVIGO™+
Multi-Modality Guidance System

Key Features

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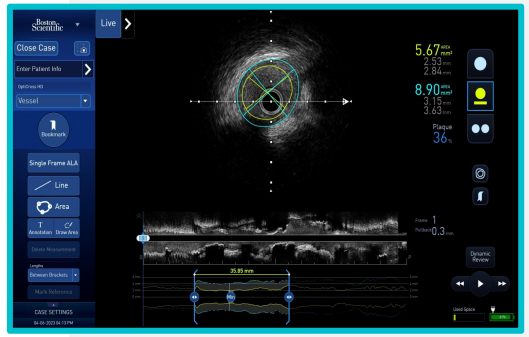


Automated Lesion Assessment (ALA™)

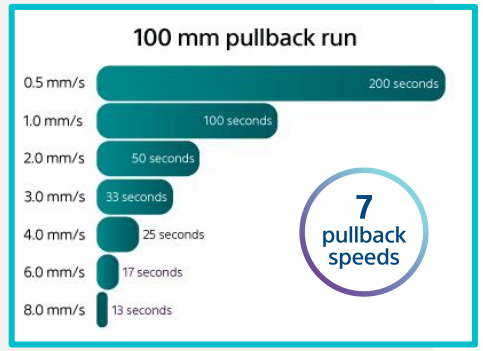
Precise Vessel Measurements[1]

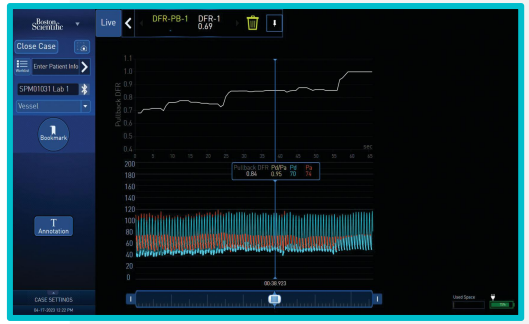
- AI-enhanced lumen and vessel borders
- Vessel profile
- Key frame markers

Fast Pullback §§

High quality images at the pullback speed you want

Automatic pullback now includes faster speeds up to 8 mm/s allowing for quicker vessel imaging





PhysioMap™

Enhanced DFR guidance*

Optimize your treatment decisions by **quickly locating** regions of pressure change during a pullback

Tableside Control §

Complete control from the sterile field

Operate IVUS and capture physiological measurements on your integrated system without leaving the sterile field

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*DFR or Diastolic hyperemia free ratio is a type of hyperemia free physiologic index
§Tableside Control is available on integrated systems only

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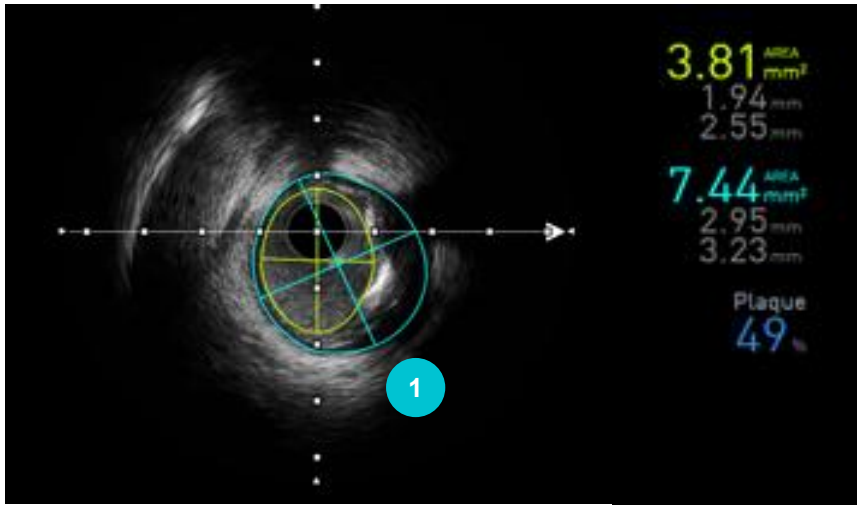
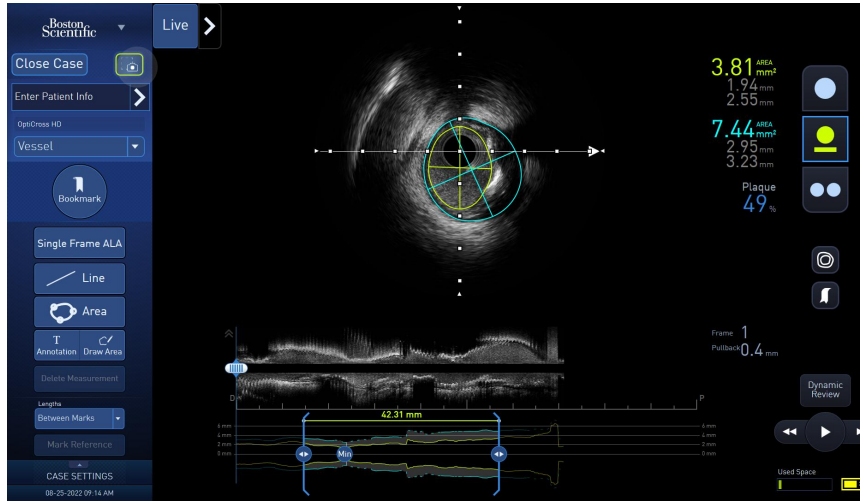
AVVIGO+ Automated Lesion Assessment (ALA)

Machine Learning to automate key IVUS measurements

1 Vessel and Lumen Borders

- Vessel and lumen borders on every frame
- Vessel area, lumen area and diameter measurements on every frame





2 Vessel Profile

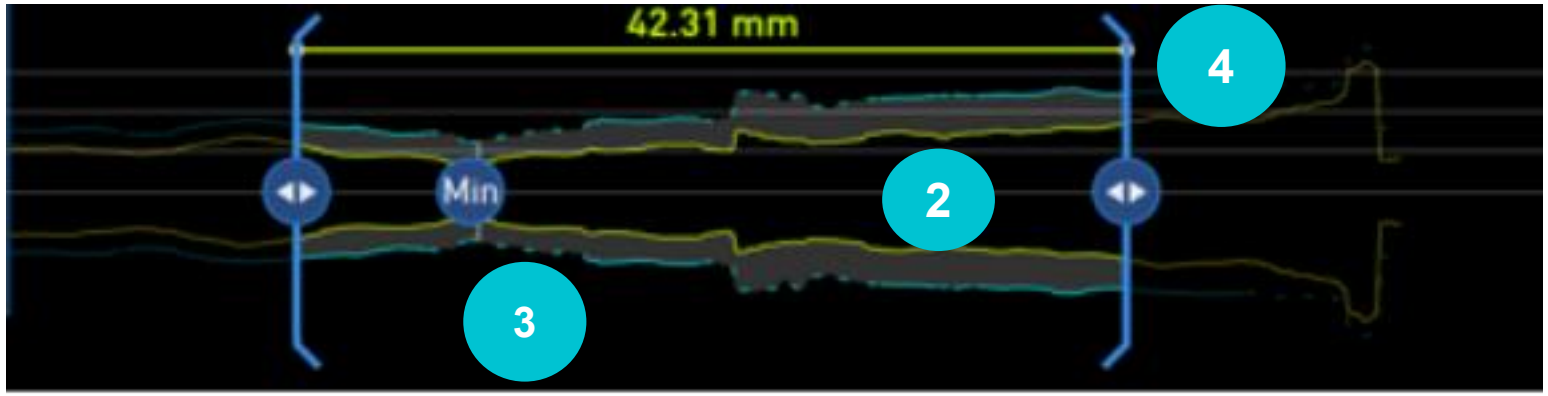
Graphical representation of the average vessel and lumen diameters

3 Min Key Frame marker

Minimum lumen area in IVUS run

4 Distal & Proximal Key Frame markers

Proximal and distal key frame markers represented at ≤50% plaque burden from minimum frame.



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Agreement of Machine Learning and ALA

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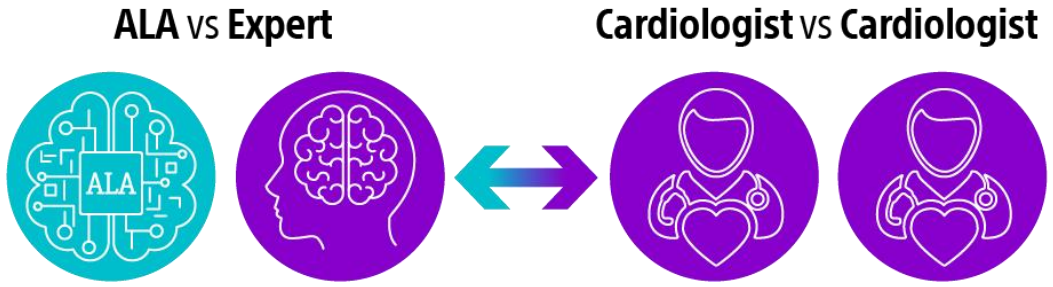
ALA was developed using 8,076 IVUS cross-sectional images from 234 patients

ALA performance was validated with an independent
437 IVUS cross-sectional images from 92 patients

Measurements of lumen and vessel areas between ALA and an expert, and between two cardiologists had a similarly good intraclass correlation coefficient.



Correlation coefficients for lumen and vessel measurements

	ALA vs Expert	Cardiologist vs Cardiologist
Lumen area, mm^2	0.998	0.996
Vessel area, mm^2	0.993	0.996

IA Accuracy of IVUS-Based Machine Learning Segmentation Assessment of Coronary Artery Dimensions and Balloon Sizing JACC ADVANCES VOL. 2 NO. 7 , 2023 ; https://doi.org/10.1016/j.jacadv.2023.100564 (incl. supplement figures 1-3)

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Range of Pullback Speeds

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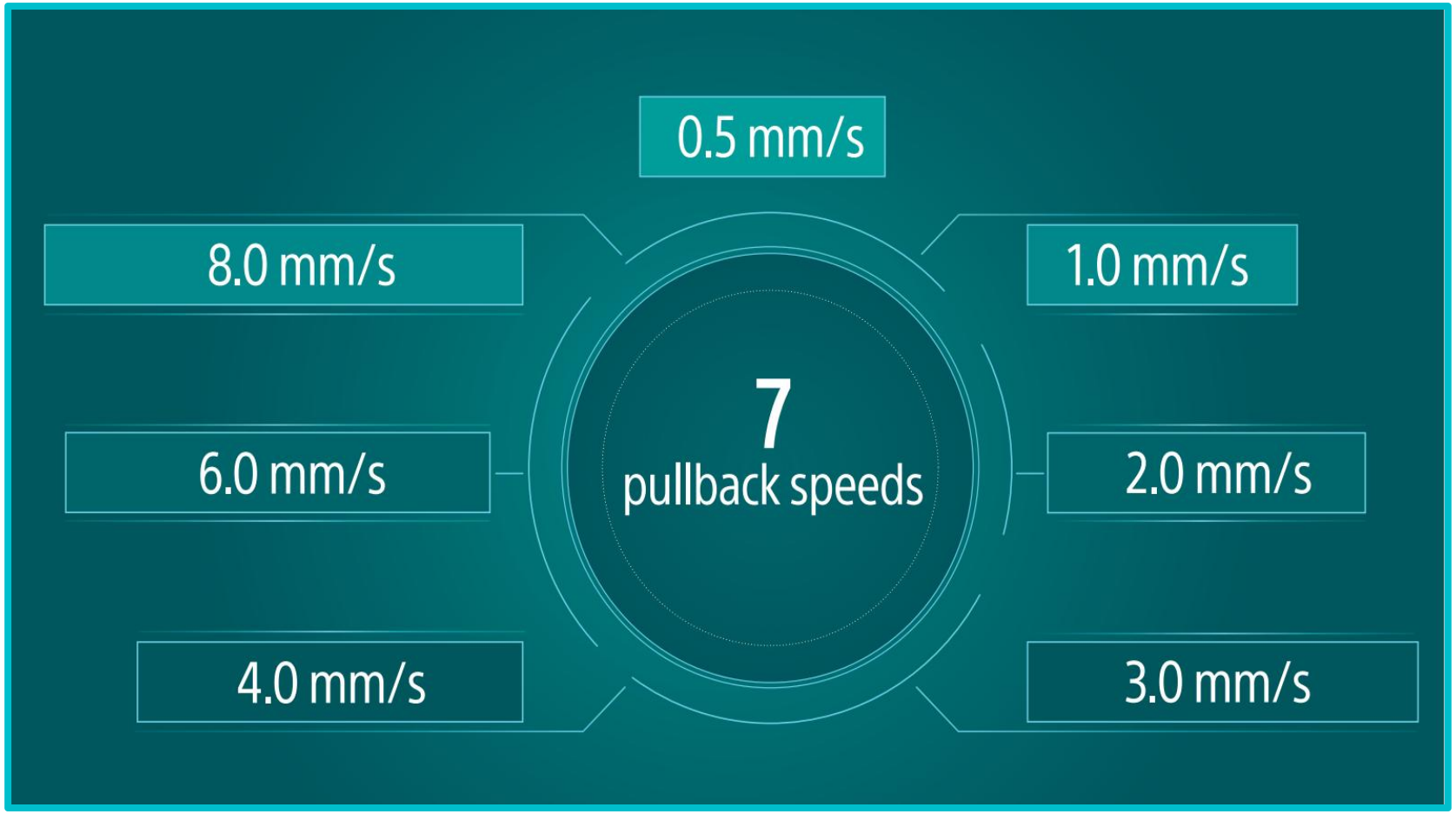

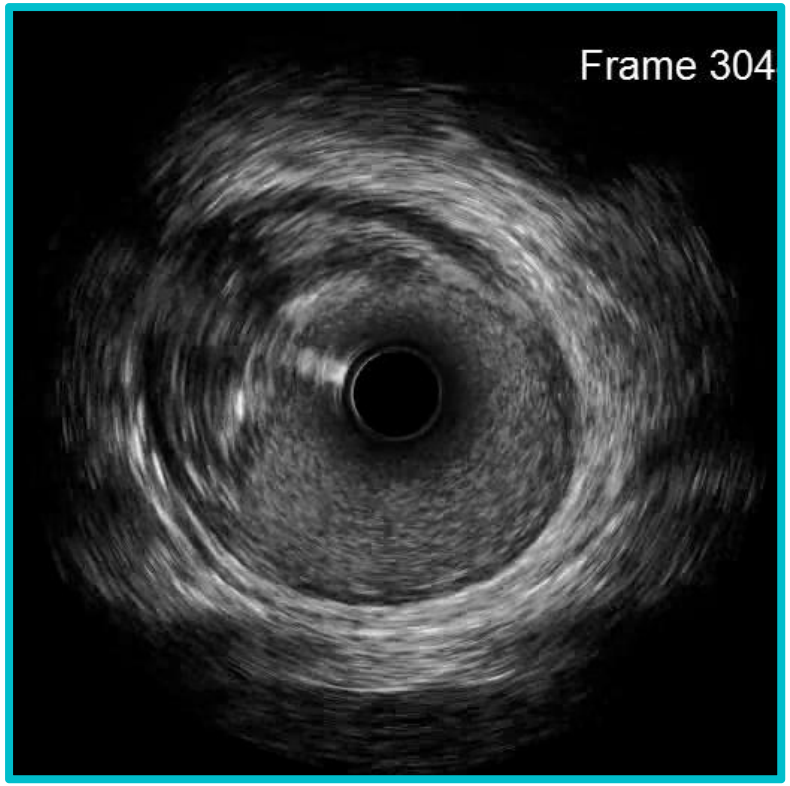

Experience same HD Image resolution
for any speed
Frame rate: 30 frames per second

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Range of Pullback Speeds

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Existing speeds | Additional speed options

SPEED	0.5 mm/s	1 mm/s	2 mm/s	3 mm/s	4 mm/s	6 mm/s	8 mm/s
FOR COMPLETING 100 MM OF AUTOMATIC PULLBACK							
TIME	200 seconds	100 seconds	50 seconds	33 seconds	25 seconds	17 seconds	13 seconds
FRAMES	6000	3000	1500	1000	750	500	375
DISTANCE b/w FRAMES	17 µm	33 µm	67 µm	100 µm	133 µm	200 µm	267 µm

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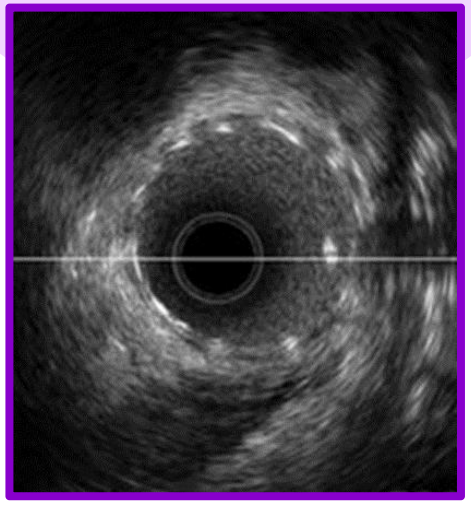
Frame rate: 30 frames per second



Why Automatic Pullback?
Manual pullback does not provide the longitudinal view of the vessel. Vessel profile view and lesion length related assessments cannot be done without longitudinal view.

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Pullback speed you want with the image quality you need

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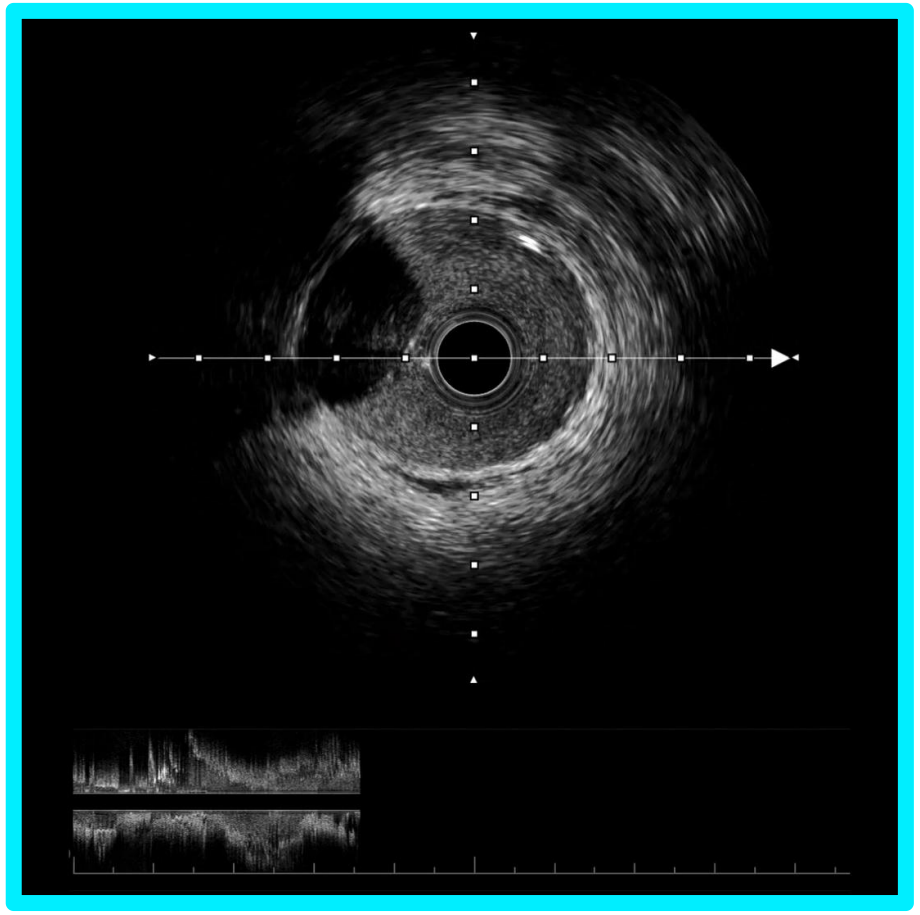
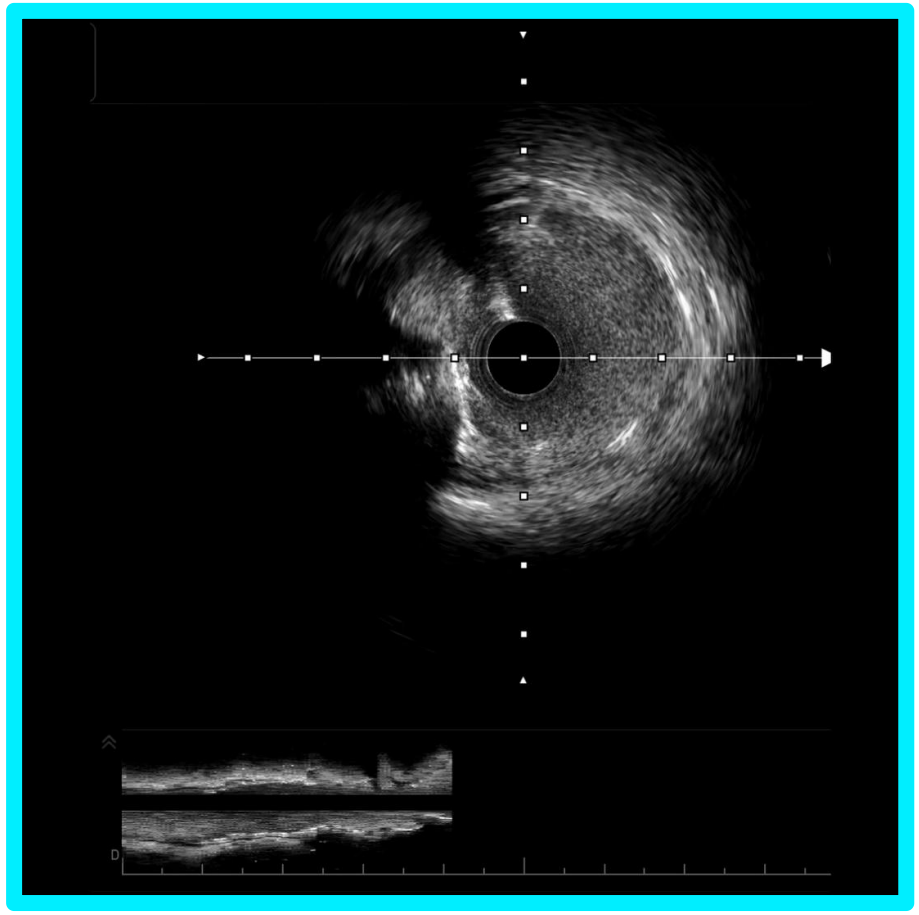
Experience same HD Image resolution for any speed



0.5 mm/s



8.0 mm/s

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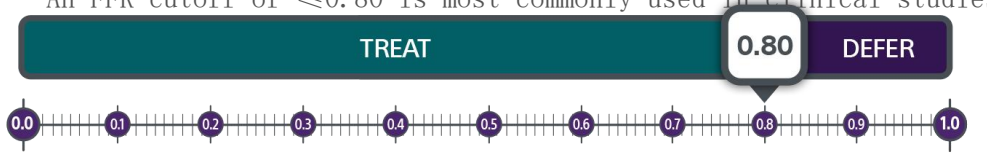
*Click to play video

Note - Pullbacks are done for two different vessels

FFR & DFR™ Flexibility

FFR

- Perform FFR procedure with Zero-to-negligible drift using COMET II Pressure Guidewire
- An FFR cutoff of ≤0.80 is most commonly used in clinical studies.

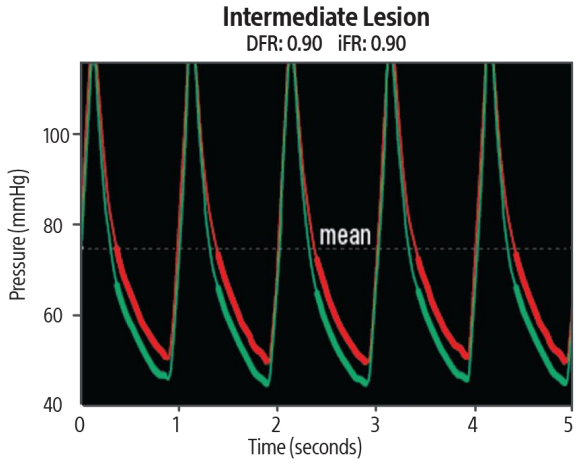


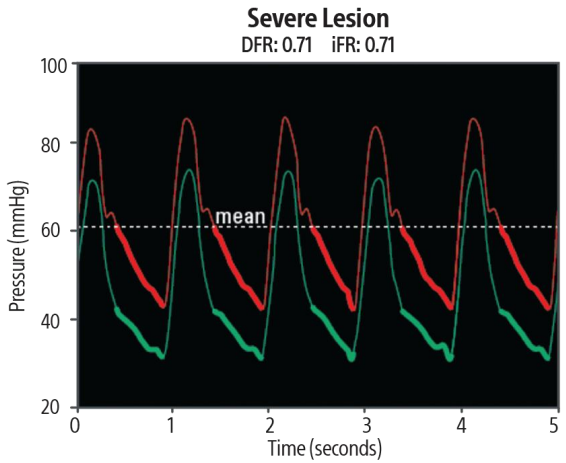
DFR™

Diastolic Hyperemia-Free Ratio™

- A new option in resting coronary physiology. FFR, DFR, and Pd/Pa – with the COMET™ II Pressure Guidewire, designed for workhorse performance.
- A DFR cutoff of ≤ 0.89 is most commonly used in clinical studies.

Pooled Analysis from VERIFY 2 and CONTRAST Showed:
DFR™ and iFR™ are Numerically Identical





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PhysioMap™

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PhysioMap™ allows for continuous DFR measurements across a vessel

DFR Trendline
4 Beat Maximum DFR plotted on solid line

Focal or Diffuse lesion
Physiologic profile of the vessel

Single Cycle DFR Trendline
(Optional) Single cycle DFR dotted line

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Tableside Control (TSC)

Operate AVVIGO+ on your integrated system without leaving the sterile field

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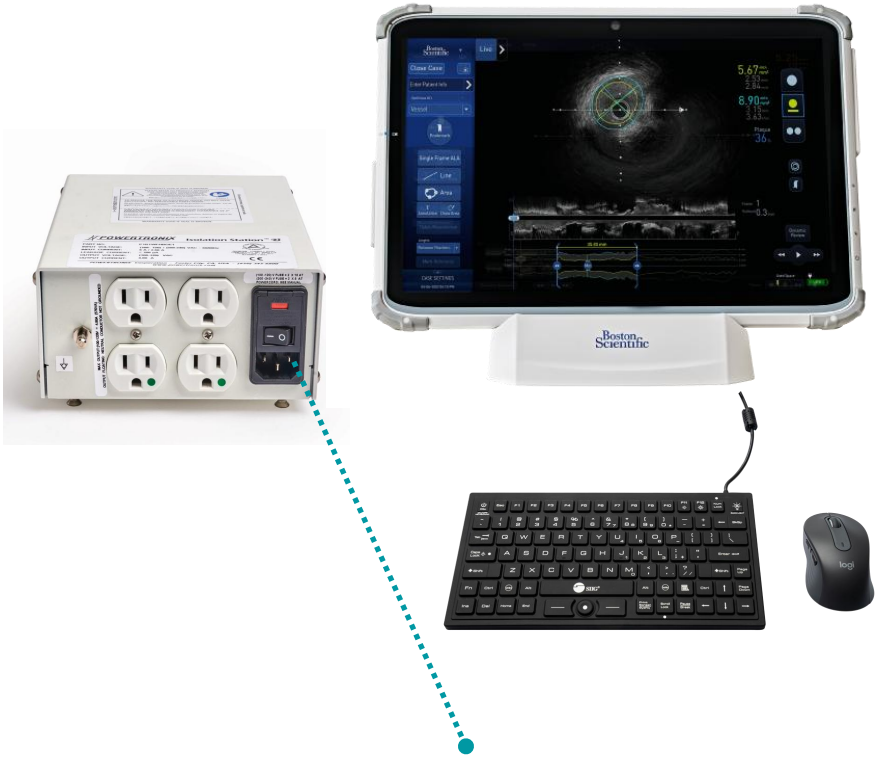
CATH LAB

15” Capacitive Touch
Aspect Ratio: 16:9
Bedside rail mounted
Covered by sterile drape

Acq PC & MDU Storage
Floor or Boom Mount options

CONTROL ROOM



Isolation Transformer Power Button to operate the entire system

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FPB Components Overview

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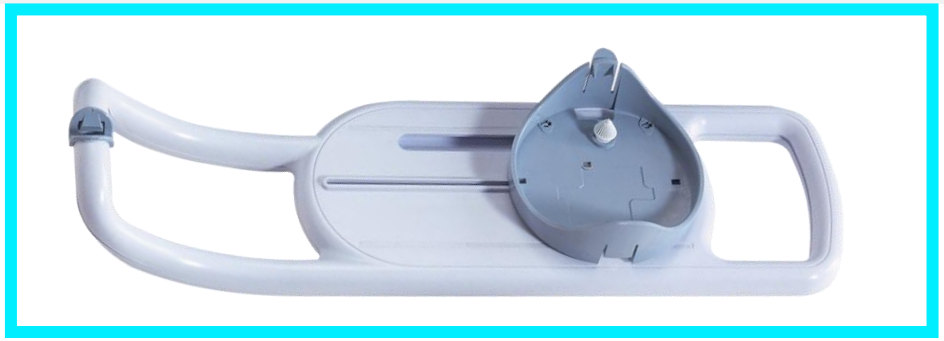


Disposable Sled

Permanent Sled

Legacy MDU

FPB MDU

Legacy MDU is also compatible with permanent sled

All AVVIGO+ hospitals must switch to permanent sleds for all systems including iLab, Polaris & AVVIGO II

FPB MDU must not be used with disposable sled

AVVIGO+ reduces Procedural Workflow vs. Polaris

AVVIGO+ has a

62%

REDUCTION

in procedural workflow time when compared to Polaris*

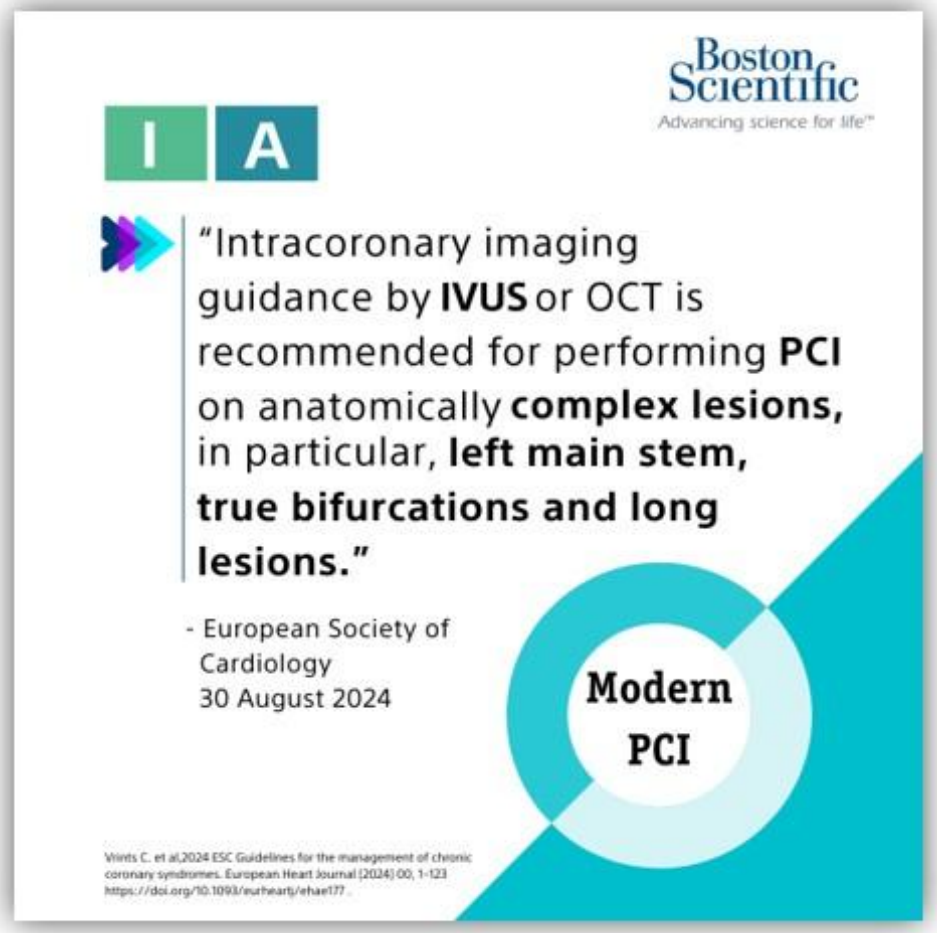
Workflow reduction occurs during:

- System boot up
- Bagging the MDU
- IVUS pullback time
- IVUS image assessment
- Disposable sled used on Polaris
- Permanent sled used on AVVIGO+

*Boston Scientific Bench Data 2023

Guidelines Update on Intravascular Imaging

2024 ESC Guidelines for the Management of Chronic Coronary Syndromes (CCS)



	2024 ESC Guidelines for Management of CCS[1]		
Defining lesion severity, procedural guidance & post-procedural outcomes	**IVUS or OCT** is recommended for performing PCI on anatomically complex lesions, in particular left main stem, true bifurcations and long lesions.	I	A

1. Vrints C., et al. European Heart Journal (2024) 00, 1-123 https://doi.org/10.1093/eurheartj/ehae177

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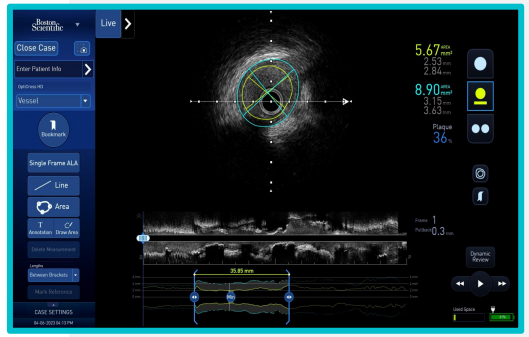

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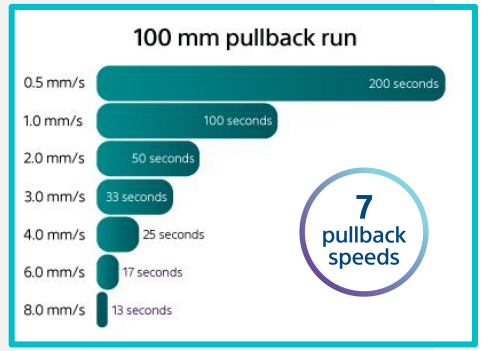

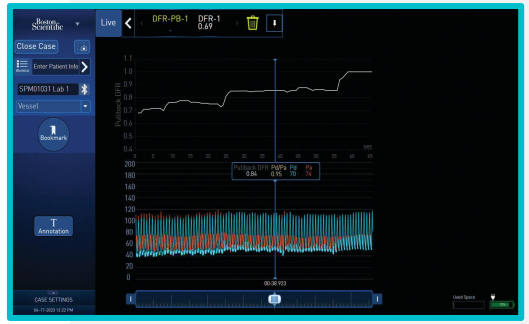

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