

# Makoto™

## NIRS+IVUS Imaging System

A dual-modality intravascular imaging device with the ability to assess vessel structure and plaque composition.

### Mechanism of operation

### NIRS (Near-Infrared Spectroscopy) & HD-IVUS (Rotational)

### Specifications

IVUS Frequency Range: **35-65 MHz, 60% Bandwidth**  
IVUS Axial Resolution: **20 μm\***

Pullback Speed: 0.5, 1.0, 2.0 mm/s

Live IVUS Speeds: 0.0, 2.0, 10.0 mm/s, Bi-directional motion

CDSCO, FDA, CE, KFDA, PMDA

### Indications for Use:

- Ultrasound Examination of Coronary Intravascular Pathology
- Detection of Lipid-Core Plaques of Interest (LCP)
- Assessment of Coronary Artery Lipid Core Burden
- Identification of patients and plaques at increased risk of MACE.

### Product Approval and Indication



# Dualpro™ NIRS+IVUS Catheter

Intravascular Imaging catheter for detection of **Lipid Core Plaques (LCP)** and assessment of vessel structure.

## HD-IVUS

for plaque structure  
visualization

## NIRS

for plaque  
composition analysis

Mechanism of operation	NIRS, Near-Infrared Spectroscopy & HD-IVUS, 35-65 MHz Rotational	
Specifications	160 cm 150 mm 16 mm 16 mm	Working Length Imaging Range Tip to IVUS Image Distance IVUS Image Diameter
Features	6F 0.014" 3.2F	Interventional Guide Compatible Guide Wire Compatible Crossing Profile
	Tracking Reinforcement Sleeve (TRS) Dual Layer Hydrophilic Coating Extended Bandwidth IVUS transducer (XB)	



# Extended Bandwidth IVUS: HD-IVUS with Depth

Nipro's Dualpro™ is the only HD-IVUS designed to bring high resolution **CLARITY AND DEPTH** of penetration.

Accept **fewer tradeoffs** with **Extended Bandwidth** ; take the benefits of both high and low IVUS frequency.

