EVIDENT

Remote Visual Inspection Solutions

General Overview

Satisfying the Remote Visual Inspection Demands of Diverse Industries

We are a world-renowned leader in remote visual inspection (RVI) technology with a comprehensive portfolio of industrial video borescopes that facilitate accurate inspections of small, enclosed spaces. Our RVI solutions are used in a wide range of industries and applications.

Applications

Industries	Applications	
Aerospace	• Turbine blades • Combustion chamber	• Landing gear • Airframe
Power Generation	• Heat exchanger pipes • Turbine blades	• Power plant equipment • Wind gearboxes
Oil/ Gas/ Chemical Plants	• Process pipes • Heat exchanger pipes	• Boiler maintenance • Tanks
Automotive	• Engine parts • Assembled units	• Cast parts • R&D, quality assurance
Defense/Security	• Aircraft maintenance • Customs and border control	• Search and rescue • Police and special forces
Architecture/ Construction	• Water pipes • Gas pipes	• Ceiling and flooring • Elevator maintenance
Manufacturing	• Small parts • Drilled parts	• Production facilities • R&D, quality assurance
Infrastructure	• Bridge maintenance • Tunnel maintenance	• Railroad maintenance • Water (drain) pipe maintenance

Video Borescopes

Advanced and Feature-Packed Video Borescope

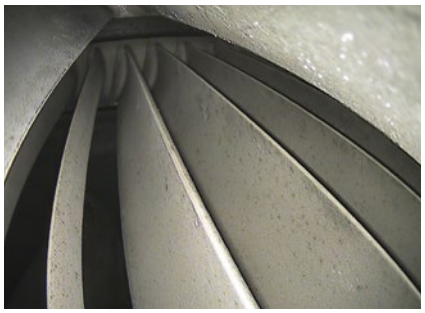
IPLEX™ NX

Diameter: 4.0 mm/6.0 mm/6.2 mm Lengths: 3.5 m to 7.5 m (11.5 to 24.6 ft)

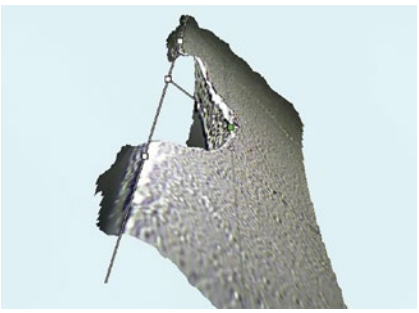
High-quality images and expanded measurement capabilities

Features

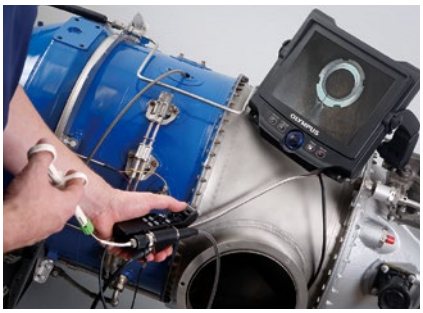
Intensely bright laser diode illumination



Measure with confidence using 3D modeling



Internal working channel scope



Long-Distance Video Borescope

IPLEX GAir

Diameter: 8.5 mm Lengths: 20.0 m to 30.0 m (65.6 to 98 ft)

Efficiently inspect complex piping systems up to 30 meters (98 ft)

Features

Precise articulation regardless of length

Clear wide-view images for faster inspections

See clearly from a safer distance

Versatile Video Borescope

IPLEX™ GX/GT

Diameter: 4.0 mm/6.0 mm Lengths: 2.0 m to 10.0 m (6.6 to 32.8 ft)

A good balance of portability, imaging capabilities, and ease of use

Features

Easy-to-use touch screen and hot key controls

Bright and clear images with smart video

Interchangeable scopes and light sources (white, UV, IR)

The Portable, Powerful Video Borescope

IPLEX G Lite/G Lite-W

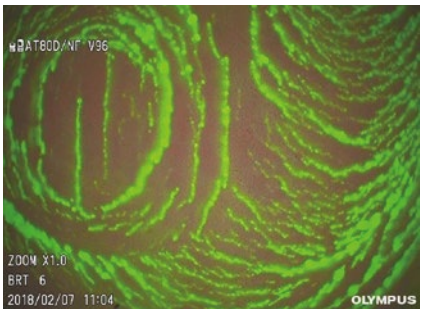
Diameter: 4.0 mm/6.0 mm (4.0 mm only for G Lite-W)
Lengths: 2.0 m to 10.0 m (6.6 to 32.8 ft) (G Lite-W available in 2 m only)

Small and tough enough to use almost anywhere

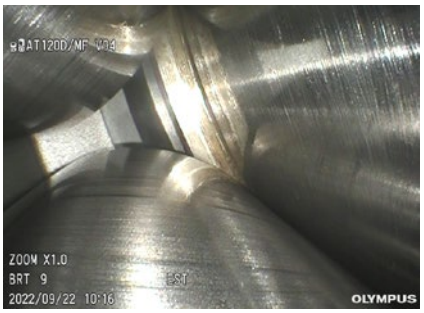
Features

Ergonomic and lightweight

Flexible UV and IR lighting options



IPLEX G Lite-W:
Tailored for wind tower inspections



Video Borescopes

Scopes up to 10 Meters (32.8 Feet) Long

Long Scopes

Diameter: 6.0 mm Lengths: 5.0 m to 10.0 m (16.4 to 32.8 ft)

Durable long insertion tubes with articulation

Features

- Various lengths, from 5.0 to 10.0 m (16.4 to 32.8 ft)
- Simple user interface
- Stereo measurement available
  (depending on the model; stereo tip adapter required)

Long Scopes General Specifications

	IPLEX NX	IPLEX GX/GT	IPLEX G Lite
Scope diameter	6.0 mm (0.24 in.)	6.0 mm (0.24 in.)	6.0 mm (0.24 in.)
Scope length	5.0 m / 7.5 m (16.4 ft. / 24.6 ft)	7.5 m / 10.0 m (24.6 ft. / 32.8 ft)	10.0 m (32.8 ft)
Monitor size	8.4 inch	8.0 inch	4.3 inch
Interchangeable scope unit	✓	✓	—
Illumination	Laser diode	LED	LED
Light source	White	White (standard) UV, IR (optional)	White (standard) UV, IR (optional)
Measurement	Stereo with 3D modeling Scalar	Stereo (optional, GX only) Scalar	Stereo (optional) Scalar

Options

Flexible guide tube*
(7.5 m and 10.0 m; 24.6 ft and 32.8 ft)

Increases the insertion tube's rigidness
*Only for IPLEX GX/GT/G Lite

Ultra-Thin Video Borescope

IPLEX™ TX II

Diameter: 2.2 mm for the flexible scope unit, 1.8 mm for the rigid scope unit
Length: 1.2 m (3.9 ft) for the flexible scope unit, 180 mm (0.59 ft) for the rigid scope unit

The video borescope's ultra-thin diameter enables efficient inspection of castings, molds, and other parts with small cavities and spaces

Features

Improved image quality

Inspect in smaller spaces

Stay comfortable during long inspections

Video Borescope Comparison

Product image			
Product name		IPLEX NX	IPLEX GAir
Scope diameter	Scope length		
ø1.8 mm (0.07 in.)	0.18 m (0.59 ft)	—	—
ø2.2 mm (0.09 in.)	1.2 m (3.9 ft)	—	—
ø4.0 mm (0.16 in.)	2.0 m (6.6 ft)	—	—
	3.5 m (11.5 ft)	✓	—
	5.0 m (16.4 ft)	✓	—
ø6.0 mm (0.24 in.)	2.0 m (6.6 ft)	—	—
	3.5 m (11.5 ft)	✓	—
	5.0 m (16.4 ft)	✓	—
	7.5 m (24.6 ft)	✓	—
	10.0 m (32.8 ft)	—	—
ø6.2 mm (0.24 in.)	3.5 m (11.5 ft)	✓	—
ø8.5 mm (0.33 in.)	20.0 m (65.6 ft)	—	✓
	30.0 m (98.4 ft)	—	✓
Interchangeable scope unit		✓	✓
Articulation method		TrueFeel electronic scope tip articulation	Pneumatic articulation with built-in air compressor
Articulation direction		U/D/L/R	U/D/L/R
Articulation angles		130° (IV9435N/IV9450N) 180° (IV9635N/IV9650N) 150° (IV9675N)	90°
Dimensions (W × H × D)		320 mm × 310 mm × 180 mm (12.6 in. × 12.2 in. × 7.1 in.)	359 mm × 465 mm × 307 mm (14.1 in. × 18.3 in. × 12.1 in.)
Approx. weight		7.1 to 7.6 kg (15.7 to 16.8 lbs)	15.3 to 16.4 kg (33.7 to 36.2 lbs)
Monitor size (inches)		8.4	8.0
Touch screen		✓	✓
High temperature sensor		✓	✓
SmartTip adapter		✓	—
Oil clearing tip adapter (direct view only)		✓ (ø6.2 mm only)	✓
Illumination		Laser diode	LED
Light sources		White	White
Gain control (Auto, WiDER, Manual)		✓	✓
Measurement		Stereo with 3D modeling Scalar	Scalar
Spot Ranging		5 points	—
Constant video recording		—	✓
Bookmark on video		—	✓
Recording media		USB flash memory (still image recording only) SDHC	SDHC (Normal) microSDHC (constant video)
Still image recording	Resolution	H768 × V576 – 4 mm scopes H1024 × V768 – 6 mm scopes	H640 × V480
	Recording format	Compressed JPEG format	Compressed JPEG format
Video recording	Resolution	H768 × V576 – 4 mm scopes H1024 × V768 – 6 mm scopes	H640 × V480
	Recording format	MPEG 4 AVC/H.264 Windows Media Player 12 compatible	MPEG 4 AVC/H.264 conforms to Baseline Profile Windows Media Player 12 compatible
Audio recording		✓	✓
Video out		VGA	HDMI 1.4 Type A
Battery operation time (approx. minutes)		100	180
MIL-STD compliance		✓	—
IP standard		IP55	—
Image sharing/Live image streaming		Toshiba FlashAir Wireless LAN SD card for image sharing	Attach the recommended USB wireless LAN adapter to the Type A USB connector for live image streaming

*1 Extend the life of the battery by using the ECO mode lighting control

IPLEX GX	IPLEX GT	IPLEX G Lite	G Lite-W	IPLEX TX II	
				Flexible scope unit: IV10212TF	Rigid scope unit :IV10212TR
—		—		—	✓
—		—		✓	—
✓		✓		—	
✓		✓	—	—	
—		—		—	
✓		✓	—	—	
✓		✓	—	—	
—		—		—	
✓		—		—	
✓		✓	—	—	
—		—		—	
—		—		—	
—		—		—	
✓	Available between the same scope model	—		✓	
TrueFeel electronic scope tip articulation		TrueFeel electronic scope tip articulation		Angulation operation with angulation lever	—
U/D/L/R		U/D/L/R		U/D	—
130° (IV9420G/IV9435G) 150° (IV9620G/IV9635G) 120° (IV9675G) 110° (IV96100G)		130° (IV9420GL/IV9420GL-W/IV9435GL) 150° (IV9620GL/IV9635GL) 110° (IV96100GL)		120°	—
Main unit: 241 mm × 190 mm × 70 mm (9.5 in. × 7.5 in. × 2.8 in.) Scope unit: 97 mm × 188 mm × 158 mm (3.8 in. × 7.4 in. × 6.2 in.)		128 mm × 203 mm × 110 mm (5.0 in. × 8.0 in. × 4.3 in.)		Control unit (L x ø): 172 x 52 mm (6.77 x 2 in.)	
2.76 to 3.43 kg (6.1 to 7.6 lbs)		1.15 to 1.83 kg (2.5 to 4 lbs)	1.16kg(2.6 lbs)	Control unit : 350 g (0.77 lb) Flexible scope unit : 255 g (0.56 lb) Rigid scope unit : 180 g (0.4 lb)	
8.0		4.3		—	
✓		✓		—	
✓		✓		—	
—		—		—	
✓		✓		—	
LED		LED		LED	
White (standard), UV (option), IR (option)		White (standard), UV (option), IR (option)		White	
✓	Auto only	✓		Auto, Manual only	
Stereo (optional) Scalar	Scalar	Stereo (optional) Scalar	Scalar	—	
1 point	—	1 point		—	
✓	—	✓		—	
✓		✓		—	
SDHC (Normal) microSDHC (constant video)		SDHC (Normal) microSDHC (constant video)		—	
H768 × V576		H768 × V576		H500 × V500	
Compressed JPEG format		Compressed JPEG format		Compressed JPEG format	
H768 × V576		H768 × V576		H392 × V392	
MPEG 4 AVC/H.264 conforms to Baseline Profile Windows Media Player 12 compatible		MPEG 4 AVC/H.264 conforms to Baseline Profile Windows Media Player 12 compatible		MPEG-4 AVC/H.264	
✓		✓		—	
HDMI Type A		HDMI Type C		—	
150		90*1		—	
✓		✓		—	
IP65		IP65		Insertion tube : IPX7, Control unit : IP52	
Attach the recommended USB wireless LAN adapter to the Type A USB connector for live image streaming		Attach the recommended USB wireless LAN adapter to the Type A USB connector for live image streaming		—	

Optical Tip Adapters for the IPLEX™ Series

IPLEX NX

		4.0 mm Optical Tip Adapters					4.0 mm Stereo Tip Adapters	
		AT80D/FF-IV94N	AT120D/NF-IV94N	AT120D/FF-IV94N	AT100S/NF-IV94N	AT100S/FF-IV94N	AT70D/70D-IV94N	AT50S/50S-IV94N
Optical system	Field of view	80°	120°	120°	100°	100°	70°/70°	50°/50°
	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	2 to 15 mm	8 to ∞ mm	5 to 200 mm	3 to 150 mm

		6.0 mm Optical Tip Adapters						6.0 mm Stereo Tip Adapters	
		AT50D/FF-IV96N	AT80D/FF-IV96N	AT120D/NF-IV96N	AT120D/FF-IV96N	AT120S/NF-IV96N	AT120S/FF-IV96N	AT90D/90D-IV96N	AT70S/70S-IV96N
Optical system	Field of view	50°	80°	120°	120°	120°	120°	90°/90°	70°/70°
	Direction of view	Forward	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	50 to ∞ mm	20 to ∞ mm	7 to 300 mm	19 to ∞ mm	4 to 150 mm	20 to ∞ mm	5 to 250 mm	4 to 250 mm

		6.2 mm Optical Tip Adapters					6.2 mm Stereo Tip Adapters	
		AT80D-IV96X1N	AT120D/NF-IV96X1N	AT120D/FF-IV96X1N	AT80S-IV96X1N	AT120S-IV96X1N	AT70D/70D-IV96X1N	AT60S/60S-IV96X1N
Optical system	Field of view	80°	120°	120°	80°	120°	70°/70°	60°/60°
	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side
	Depth of field*1	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	30 to ∞ mm	8 to ∞ mm	5 to 200 mm	3 to 150 mm
Oil Clearing		Available			—		—	

IPLEX GAir

		8.5 mm Optical Tip Adapters				
		AT120D/NF-IV98GA	AT120D/FF-IV98GA	AT120S/NF-IV98GA	AT120S/FF-IV98GA	AT220D-IV98GA
Optical system	Field of view	120°	120°	120°	120°	220°
	Direction of view	Forward	Forward	Side	Side	Forward
	Depth of field*1	4 to 190 mm	25 to ∞ mm	1 to 25 mm	6 to ∞ mm	1 to ∞ mm
Oil Clearing		Available		—		

IPLEX GX/GT, IPLEX G Lite

		4.0 mm Optical Tip Adapters					4.0 mm Stereo Tip Adapters		6.0 mm Stereo Tip Adapters	
		AT80D/FF -IV94G	AT120D/NF -IV94G	AT120D/FF -IV94G	AT100S/NF -IV94G	AT100S/FF -IV94G	AT50D/50D -IV94	AT50S/50S -IV94	AT60D/60D -IV96	AT60S/60S -IV96
Optical system	Field of view	80°	120°	120°	100°	100°	50°/50°		60°/60°	
	Direction of view	Forward	Forward	Forward	Side	Side	Forward	Side	Forward	Side
	Depth of field*1	35 to ∞ mm	2 to 200 mm	17 to ∞ mm	2 to 15 mm	8 to ∞ mm	5 to ∞ mm	4 to ∞ mm	5 to ∞ mm	4 to ∞ mm
Oil Clearing		Available			—		—			

		6.0 mm Optical Tip Adapters									
		AT40D-IV96G	AT80D/NF -IV96G	AT80D/FF -IV96G	AT120D/NF -IV96G	AT120D/FF -IV96G	AT80S-IV96G	AT120S/NF -IV96G	AT120S/FF -IV96G	AT220D-IV76	AT100D/100S -IV76
Optical system	Field of view	40°	80°	80°	120°	120°	80°	120°	120°	220°	100°/100°
	Direction of view	Forward	Forward	Forward	Forward	Forward	Side	Side	Side	Forward	Forward/Side
	Depth of field*1	200 to ∞ mm	9 to ∞ mm	35 to ∞ mm	2 to 200 mm	19 to ∞ mm	15 to ∞ mm	1 to 25 mm	3 to ∞ mm	1.6 to ∞ mm	2 to ∞ mm
Oil Clearing		Available					—				

IPLEX G Lite-W

		4.0 mm Optical Specification
Optical system	Field of view	120°
	Direction of view	Forward
	Depth of field*1	4 to ∞ mm
Oil Clearing		Available

*1 Indicates the range over which the image can be viewed clearly.

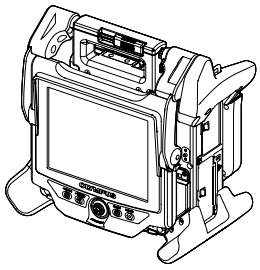
3DAssist™ Software for IPLEX Video Borescopes

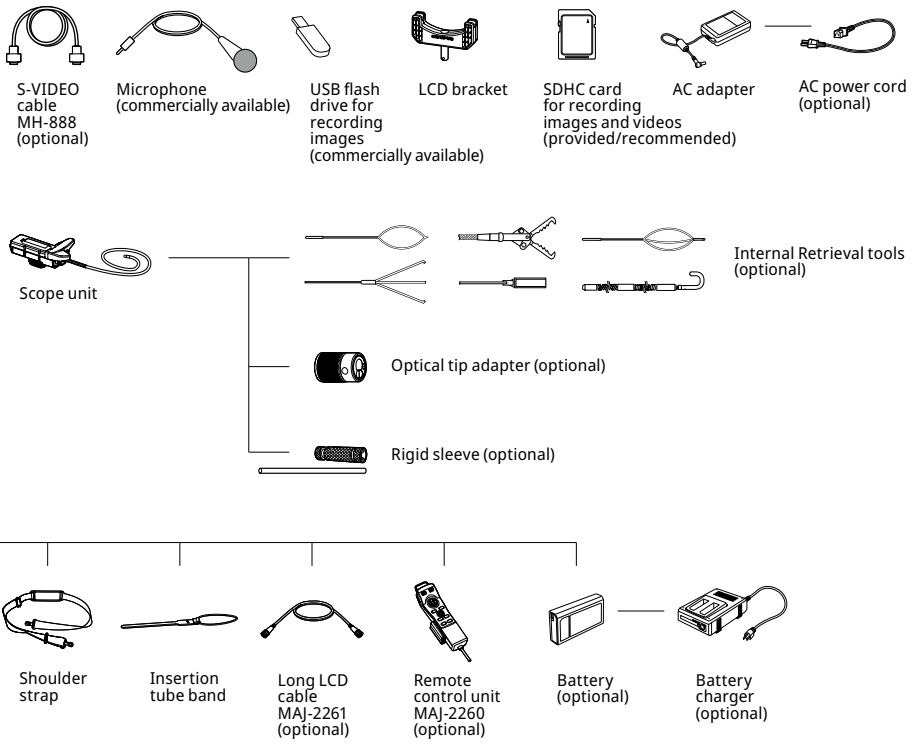
3DAssist software uses video captured with your IPLEX video borescope and creates a three dimensional model of the pipe or asset that you're inspecting. The software works on your PC, so you can spend time studying the model and make determinations from your office rather than the field.

System Charts

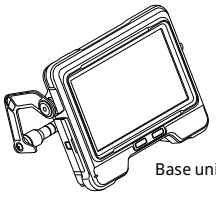
Video Borescopes

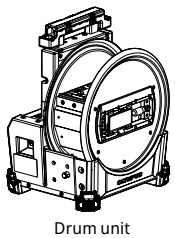
IPLEX™ NX

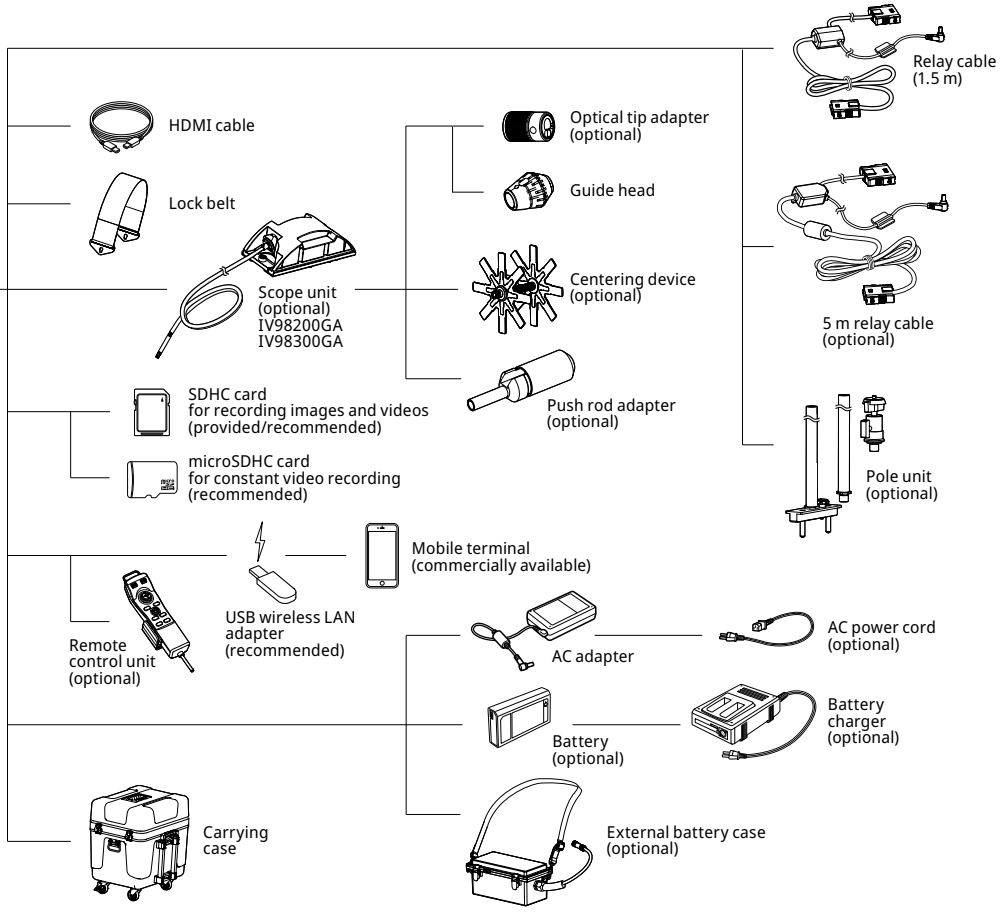




IPLEX GAir

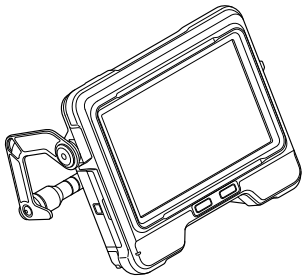






System Charts

IPLEX GX/ IPLEX GT



HDMI cable

Relay cable

Scope unit

Scope case
MAJ-2339 (optional)

Optical tip adaptor
(optional)

Rigid sleeve
(optional)

Guide tube (optional)
7.5 m type MAJ-2341
10 m type MAJ-2342

LED unit
White light type MAJ-2336
UV light type MAJ-2337 (optional)
IR light type MAJ-2338 (optional)

Insertion tube
fastening strap

AC adapter

AC power cord
(optional)

SDHC card
for recording images and videos
(provided/recommended)

microSDHC card
for constant video recording
(recommended)

USB wireless
LAN adapter
(recommended)

Mobile terminal
(commercially available)

Carrying case

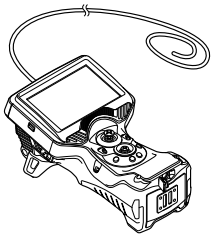
Battery

Battery charger (optional)

Upgrade kit GT to GX
MAJ-2366 (optional)

Upgrade kit GX to Measurement
MAJ-2367 (optional)

IPLEX G Lite/IPLEX G Lite-W



Hand strap

Insertion tube
fastening strap

HDMI cable

LED unit
White light type MAJ-2336
UV light type MAJ-2337 (optional)
IR light type MAJ-2338 (optional)

Optical tip adaptor
(optional)*

Rigid sleeve (optional)

Guide tube (optional)
10 m type MAJ-2342*

LED Guide tube MAJ-2353 (optional)

Upgrade kit G Lite to Measurement
MAJ-2368 (optional)*

SDHC card
for recording images and videos
(provided/recommended)

microSDHC card
for constant video recording
(recommended)

USB wireless
LAN adapter
(recommended)

Mobile terminal
(commercially available)

AC adapter

AC power cord
(optional)

Carrying
case

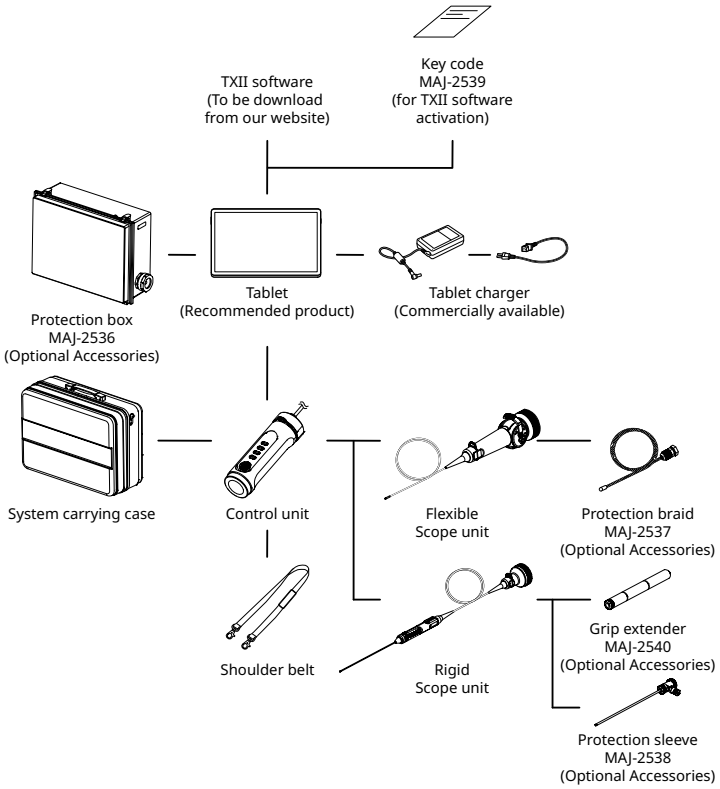
Battery

Battery charger (optional)
N4164200 BCH-1

*Applicable to IPLEX G Lite only.

System Charts

IPLEX TX II



The IPLEX NX video borescope is equipped with a laser light source.

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EVIDENT CORPORATION is ISO14001 certified.
For details on certification registration, visit olympus-ims.com/iso.
EVIDENT CORPORATION is ISO9001 certified.

- The EMC performance of these products is designed for use in industrial environments. Using them in a residential environment may affect other equipment in the environment.
- All company and product names are registered trademarks and/or trademarks of their respective owners.
- Images on the PC monitors are simulated.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.