

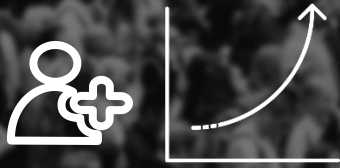


## New Generation Portable System

Z60/Z50 Product Introduction

Upstream Marketing Department, MIS BU

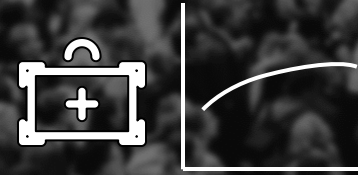




High population growth rate in low-income countries



Growing expectations for better performance



Limited medical resource

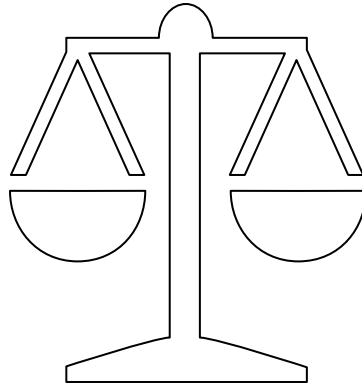


Economic growth slowed down notably

Primary Healthcare need to respond better and faster to the challenges of a changing world

# How do we balance?

- Limited budget
- Diagnostic confidence
- Mobile service
- ...



- Affordability
- Reliability
- Performance
- Portable
- ...

**All in One** Ultrasound System

# So here comes Mindray's New Generation Portable System:

Z60

Z50



# Product Strategy

*Internal confidential*



## Product Positioning

Value-range portable system with advanced functions

## Target Market

GI and primary OB/GYN clinic

## Release Time

CE: 15<sup>th</sup> July, 2019

## Comprehensive configuration for confident diagnosis

**Full solution for GI diagnosis:**  
Support ABD, SMP, VAS, URO, CAR and  
more

**Powerful OBG solution:**  
Inherited Mindray's smart solution



## Integrated and reliable design for multiple clinical scenarios

**Ergonomic design:**  
High mobility anywhere, anytime

**Reliable dependence:**  
Green and stable system

**Comprehensive  
configuration**

**Integrated and  
reliable design**

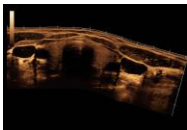
## Full solution for GI diagnosis

ABD



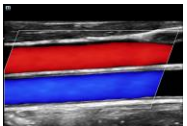
Transducer: **C6-2P\***

SMP



Transducer: **7L4BP\***  
Advanced feature: **iScape**

VAS



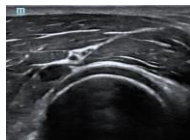
Transducer: **7L4BP\***  
Advanced feature: Auto **IMT**

URO



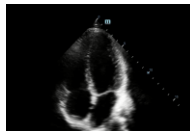
Transducer: **CB10-4P\***, **6LE7P\***

MSK



Transducer: **L14-6P\***,  
**10L24EA**  
Advanced feature: **iNeedle**

CAR



Transducer: **2P2P\***, **P7-3P\***  
Advanced feature: **Free Xros M**,  
**TDI**

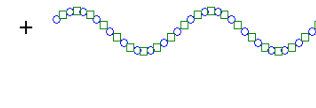
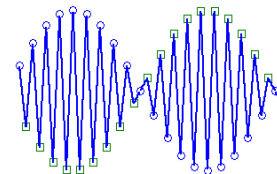
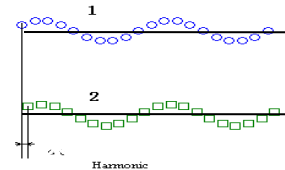
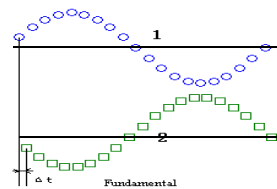
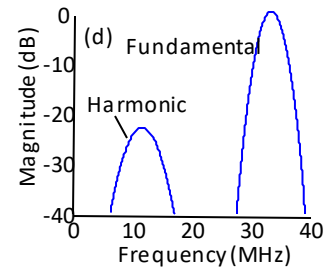
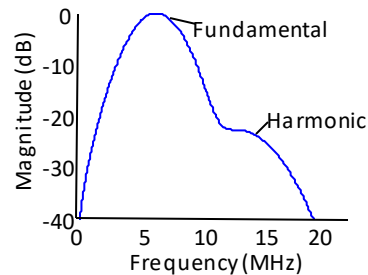
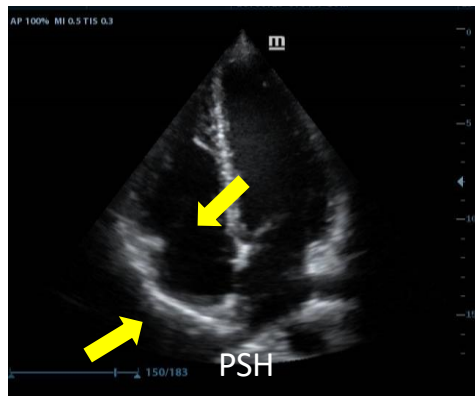
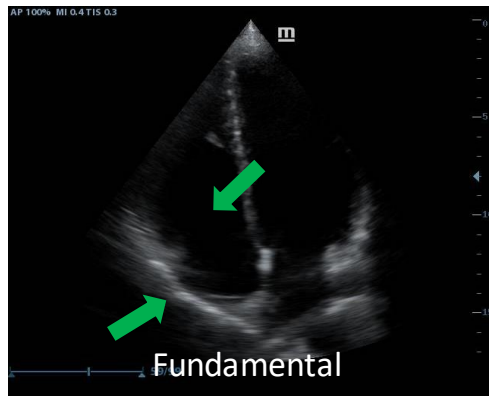
Note: \* items are only available on Z60

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## Full solution for GI diagnosis

### PSH (Phase Shift Harmonic)

- High S/N ratio to get better noise suppression
- Purified harmonic imaging for better contrast resolution





**Comprehensive  
configuration**

**Integrated and  
reliable design**

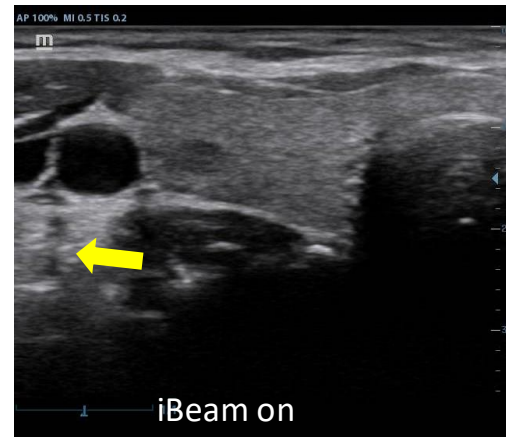
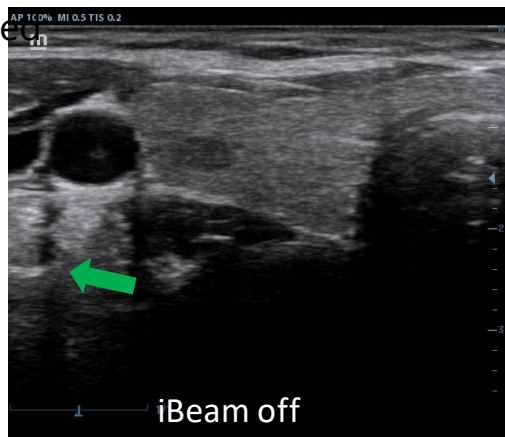
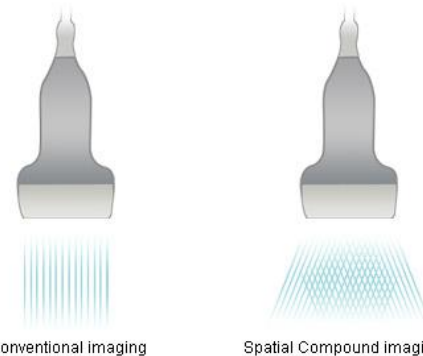
## Full solution for GI diagnosis

iBeam™ (Spatial Compound Imaging)

Permits use of multiple scanned angles to form a single image

Clinical Benefit

- Less shadow for more information
- Enhanced contrast resolution and improved visualization



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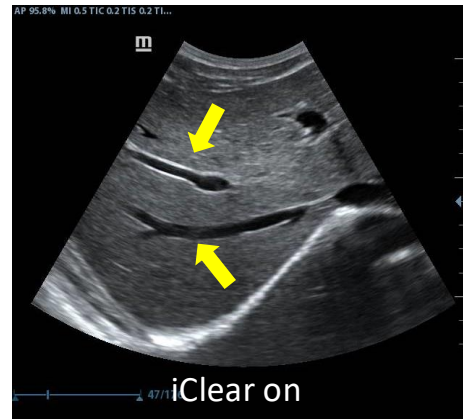
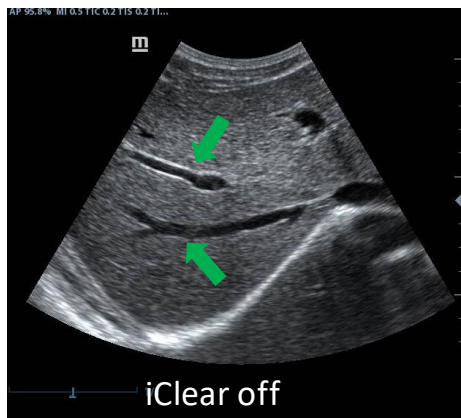
## Full solution for GI diagnosis

iClear™ (Speckle Reduction Imaging)

Reduced the image speckle and acquired clearer and sharper lesion contours

Clinical Benefit

- Sharper & Continuous Edges
- Cleaner “no echo areas”
- Smooth Uniform Tissues

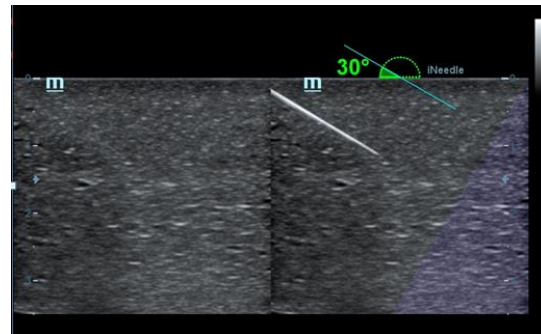
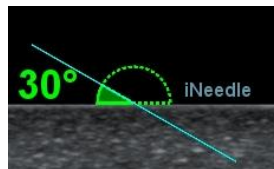


## Full solution for GI diagnosis

### iNeedle

High quality ultrasound guided biopsy for clear visualization of actual needle tips and shaft, easy needle approach to target and enhanced accuracy for guided procedures.

- Big adjustable steer angle to be as vertical as possible to the needle for optimal needle enhancement
- Max 30° angle adjustment (-20° ~ -50° , 20° ~ 50° )



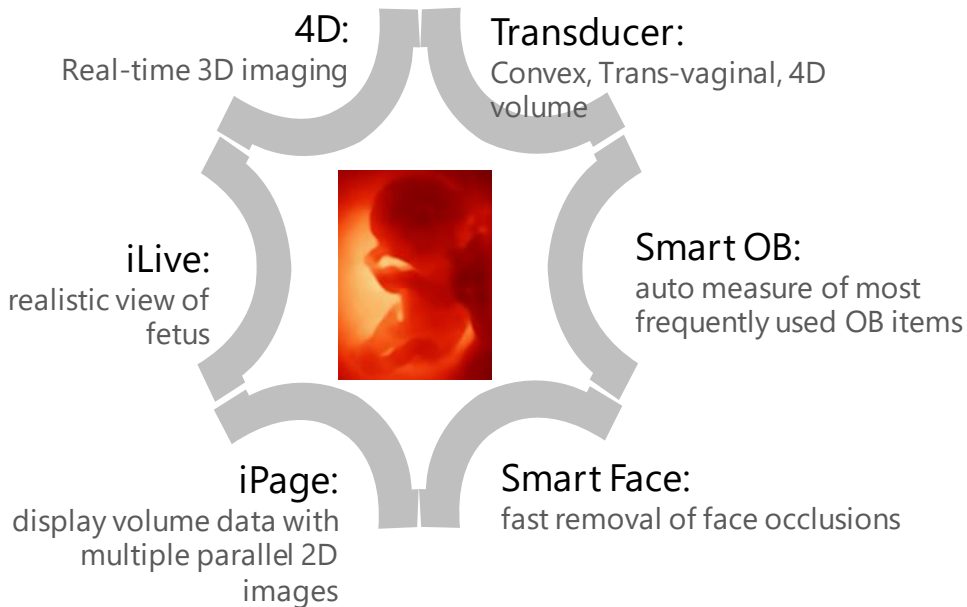
Note: Available on MSK mode of 7L4P and L14-6P in Z60

**Comprehensive  
configuration**

**Integrated and  
reliable design**

## Powerful OBG solution

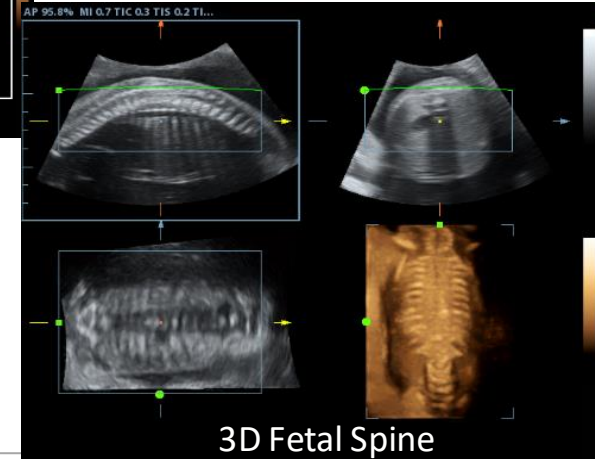
**Exclusive** portable system with **4D module** and **smart tools** in the same class, offering easier and informed diagnosis in primary OB/GYN



## Powerful OBG solution

### 4D Imaging

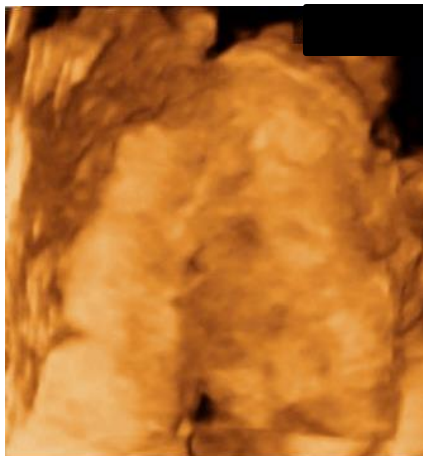
- Migrated from Mindray's premium 4D imaging technology
- Deliver practical 3D/4D function
- Rich rendering modes: Surface, Max, Min, X-ray
- Integrated advanced tool: iPage™



## Powerful OBG solution

Smart Face: **Exclusive** function in the same class

- One button for fast removal of face occlusions
- Structures such as limbs or umbilical cord can be easily recovered from the occlusion



Smart Face Off

## Powerful OBG solution

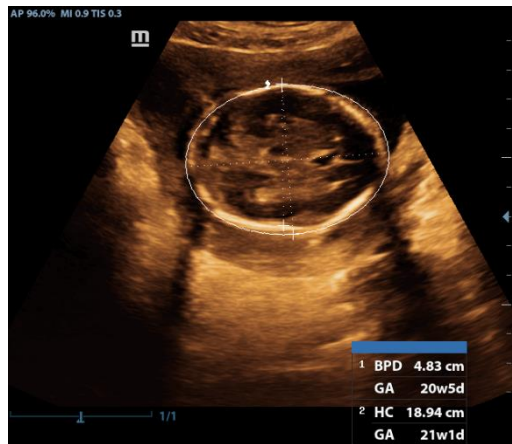
Smart OB

Accurate auto measurements of most

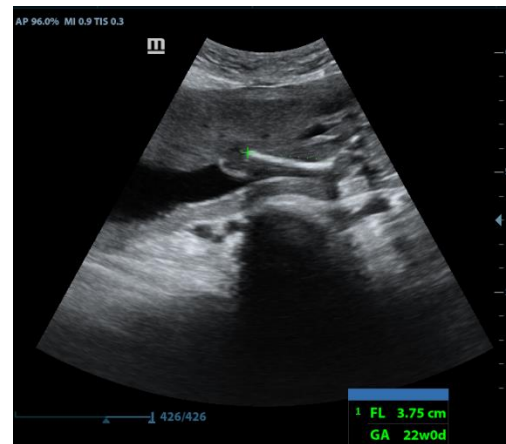
frequently examined parameters on a  
single click.

Clinical benefit

- Obtained the BPD/HC/FL/AC/OFD/**HUM** Value with efficiency and accuracy
- Greatly reduce repetitive key strokes and increase productivity



Smart OB – HC/BPD



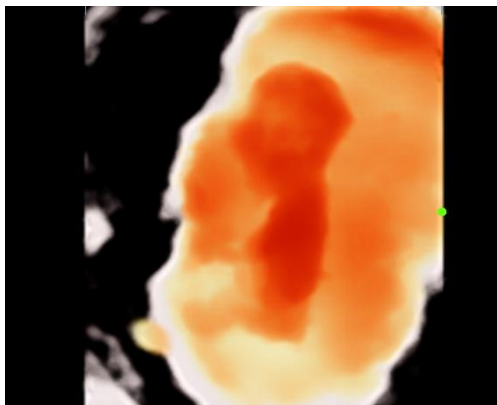
Smart OB - FL

## Powerful OBG solution

iLive : **Exclusive** function in the same class

A revolutionary way to obtain the amazingly realistic view of fetus with human skin like color

- New virtual light source integrated
- Light source adjustment



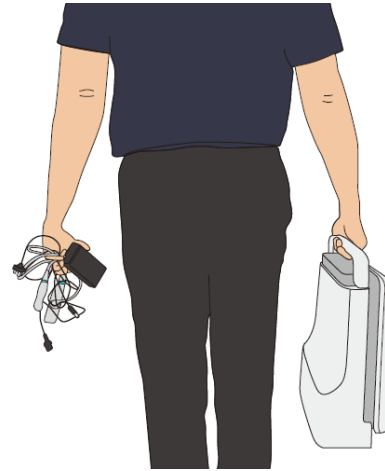


## Carry and go

Integrated design with internal AC power adapter for easily carry and go



Integrated design with  
internal AC power adapter



Separating design with  
external AC power  
adapter

Comprehensive  
configuration

Integrated and  
reliable design

## Seeing clearly by Full Screen

- 15 inch with Full Screen design
- Advanced screen technology ensuring high definition and noise suppression for crystal image
- Anti-glare process on screen
- Full screen for easy cleaning



Comprehensive  
configuration

Integrated and  
reliable design

## Compact design for extreme portability

- Max 3 transducer connectors



- 60 degree tilting angle
- Slim and stable main unit



- Integrated design:  
available with one  
power cable



- 500GB hard disk
- 1.5h battery

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## Proven Reliability



Green  
ultrasound system

Class B Power Supply  
Requirement

Higher compatibility  
of power supply



EMC Certificate with Class B approval

- The higher radiation safety level assurance
- Against electromagnetic interference

- Works under not only hospital power supply condition(Class A), but city power supply condition(Class B)
- System reliability under instable voltage or suddenly power lost
- 100-220V wide-band voltage compatibility
- Works under high/low temperature and humidity

# Key Strength of Z60/Z50

## GI

- High performance C6-2P\* and 7L4BP \*
- Advanced functions:
  - Full range of application package
  - Tender superiority: Elastography\*, Contrast\*
- Smart design
  - Integrated design for carry and go
  - 3 transducer connectors, 1.5h removable battery, 60° angle adjustable Full Screen

## Primary OBG

- Advanced functions:
  - 4D+iLive+iPage
  - OB 'Smart' solution: Smart Face, Smart OB
- Smart design
  - Integrated design for carry and go
  - 3 transducer connectors, 1.5h removable battery, 60° angle adjustable Full Screen

Note: \* items are only available on Z60

# DP-50Expert

Experience **Color** in your diagnosis

Powerful platform supporting upgrade possibility with **Color/Power**

## Complete advanced functions

- **PW and auto trace**
- **3D/4D**
- **iLive**
- **iPage**
- **Smart Face**
- **Smart OB**
- **IMT**
- **iScape**
- **Smart Bladder**
- **iWorks**

## Exceptional ergonomics by design

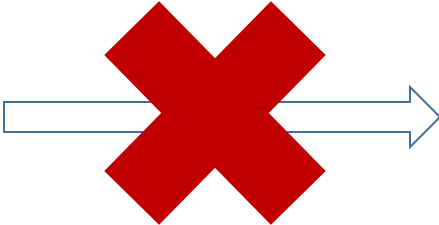
- 15 inch Full Screen design
- 60 degree tilting angle monitor
- 2 universal transducer connectors
- 500GB hard disk
- 1.5h battery



DP-50Expert is a new system, not a upgrade from DP-50



DP-50



DP-50Expert

# The difference between Z60 and Z6, Z50 and Z5

	Items	Z60	Z6	Z50	Z5
Transducer	Main convex	C6-2P: enhanced IQ, highly recommended 3C5P	3C5P	35C50EA 35C50EB	35C50EA
	4D Volume	D6-2P	D6-2P	D6-2EA	/
	Microconvex	6C2P	6C2P	65C15EA 35C20EA	65C15EA 35C20EA
	Transvaginal	6CV1P: straight handle V10-4BP: bent handle	6CV1P: straight handle V10-4BP: bent handle	65EC10EA 65EC10EB	65EC10EA
	Endo-rectal bi-plane	CB10-4P	CB10-4P	/	/
	Main linear	7L4BP: enhanced IQ, highly recommended 7L4P	7L4P	75L38EA 75L38EB	75L38EA
	Wide linear	7L5P	7L5P	/	/
	High frequency linear	L14-6P	L14-6P	10L24EA	10L24EA
	Intra-operative linear	7LT4P	7LT4P	/	/
	Endo-rectal linear	6LE7P	6LE7P	/	/



# The difference between Z60 and Z6, Z50 and Z5

	Items	Z60	Z6	Z50	Z5
GI function	Auto IMT	Y	Y	Y	Y
	iScape	Y	Y	Y	Y
	Free Xros M	Y	Y	/	/
	TDI	Y	Y	/	/
	iWorks	Y	Y	Y	/
	iNeedle	Y	Y	/	/
	Natural Touch Elastography	Y	Y	/	/
	UWN Contrast Imaging	Y	/	/	/
OBG function	Smart 3D	Y	Y	Y	Y
	4D	Y	Y	Y	/
	iLive	Y	Y	Y	/
	iPage	Y	Y	Y	/
	Smart Face	Y	/	Y	/
	Smart OB	Y	/	Y	/

# The difference between DP-50Expert and DP-50

	Items	DP-50Expert	DP-50
Transducer	Main convex	35C50EA	35C50EA
	4D Volume	D6-2EA	/
	Microconvex	65C15EA 35C20EA	65C15EA 35C20EA
	Transvaginal	65EC10EA: straight handle 65EC10ED: bent handle	65EC10EA: straight handle 65EC10ED: bent handle
	Endo-rectal bi-plane	65EB10EA	65EB10EA
	Main linear	75L38EA	75L38EA
	Wide linear	75L53EA	75L53EA
	High frequency linear	10L24EA	10L24EA
	Intra-operative linear	75LT38EA	75LT38EA
	Endo-rectal linear	65EL60EA	65EL60EA

# The difference between DP-50Expert and DP-50

	Items	DP-50Expert	DP-50
GI function	PW	Y	Y
	Color/Power	Y	/
	Auto IMT	Y	Y
	iScape	Y	/
	Smart Bladder	Y	Y
	iWorks	Y	/
OBG function	Smart 3D	Y	Y
	4D	Y	/
	iLive	Y	/
	iPage	Y	/
	Smart Face	Y	/
	Smart OB	Y	Y

# Trolley solution



UMT-160  
New PN number(045-000739-01) for better fitting in the new design main unit



UMT-150  
New PN number(045-000629-01) for better fitting in the new design main unit



New trolley compatible with new DP and Z series

Release time: end of 2019

# Printer compatible solution



- 2 connection with ultrasound system: power and network cable
- 6 USB ports for max. 6 printers

- Easy to install, simple compatibility for printer
- **Only sell with main unit**
- **Only sell to the following countries:**
  - Asia: Sri Lanka, Thailand, Vietnam, India, Bangladesh
  - Africa: Tunisia, Egypt, South Africa, Morocco, Costa Rica, Algeria, Sudan
  - CIS: Ukraine, Uzbekistan, Kyrgyzstan, Moldova
  - Latin America: Mexico, Argentina, Colombia, Cuba, Peru, Panama, Uruguay, Nicaragua, Guatemala

# Mindray Z60 vs SonoScape E3/E2

## General Information

- Release time: 2016 (E3) / 2017 (E2)
- Positioning: entry-level portable Color Doppler system
- Slogan: Exactly to Your Needs
- Main selling point:
  - 15.6" wide screen, about 6Kg
  - 3 transducer connectors
  - Qualified convex & linear image quality

## Competitive Strategy of Mindray

Z60 advantage:

- Same level performance with E3 by C6-2P and 7L4BP, with same level price as E2
- Integrated design without external AC power adapter
- 4D
- OB 'Smart' solution



E3



E2

# Mindray Z60 vs SonoScape E3/E2

	Z60	E3/E2	How to beat?
Advanced functions	<ul style="list-style-type: none"> <li>• 3D/4D, iLive, iPage</li> <li>• Smart Face, Smart OB</li> <li>• Elastography, Contrast</li> <li>• CW, TDI, Free Xros M, Auto IMT</li> <li>• iScape, iNeedle, iWorks</li> </ul>	<ul style="list-style-type: none"> <li>• CW (only E3), TDI, Anatomic M, Auto IMT</li> <li>• Panoramic imaging, Vis-Needle</li> </ul>	Z60 has abundant advanced functions: <ul style="list-style-type: none"> <li>• 3D/4D</li> <li>• OB 'Smart' solution</li> <li>• Tender superiority with Elastography and Contrast</li> </ul>
Transducer	Convex, 4D Volume, Linear, TV, Endo-rectal, intra-operative, sector	<ul style="list-style-type: none"> <li>• No 4D Volume</li> <li>• Not compatible with SonoScape S series</li> </ul>	Z60 has complete and compatible transducer types: <ul style="list-style-type: none"> <li>• 4D Volume</li> <li>• Better compatible with other Mindray's system</li> </ul>
Image Quality	Clear and stable 2D and Color IQ	2D IQ decreased sharply with Color	<ul style="list-style-type: none"> <li>• Same level Convex and Linear IQ</li> <li>• Z60 has stable Color image</li> </ul>
Screen	15" Full Screen	15.6"	Z60 has stable and robust screen <ul style="list-style-type: none"> <li>• High quality material and technology</li> <li>• Anti-dust and easy to clean</li> <li>• Same image area</li> </ul>
Weight	about 8Kg (without battery)	6Kg (without battery) External AC power adapter	Z60's integrated design without external adapter, for easily carry and go
Transducer Connector	Max 3 connectors	E2: only support 2 connectors, the 3 <sup>rd</sup> cannot be active	

# Mindray Z50 vs SonoScape E1

## General Information

- Release time: 2017
- Positioning: high-end BW system
- Main selling point:
  - 15.6" wide screen
  - PW Doppler

## Competitive Strategy of Mindray

Z50 advantage:

- Color Doppler system to compete with E1
- Same price level with E1
- Integrated design without external AC power adapter
- 4D
- OB 'Smart' solution



E1



# Mindray Z50 vs SonoScape E1

	Z50	E1	How to beat?
Advanced functions	<ul style="list-style-type: none"> <li>• 3D/4D, iLive, iPage</li> <li>• Smart Face, Smart OB</li> <li>• Color M, Auto IMT</li> <li>• Color/Power, PW, iScape, iNeedle, iWorks</li> </ul>	<ul style="list-style-type: none"> <li>• PW</li> <li>• Auto IMT</li> <li>• Panoramic imaging</li> <li>• Vis-Needle</li> </ul>	Z50 is a Color Doppler system with abundant advanced functions: <ul style="list-style-type: none"> <li>• Color/Power</li> <li>• 3D/4D</li> <li>• OB 'Smart' solution</li> </ul>
Transducer	4D volume	<ul style="list-style-type: none"> <li>• No 4D Volume</li> <li>• Not compatible with SonoScape S series</li> </ul>	Z50 has 4D Volume, and better compatible with other Mindray's system
Screen	15" Full Screen	15.6"	Z50 has stable and robust screen <ul style="list-style-type: none"> <li>• High quality material and technology</li> <li>• Anti-dust and easy to clean</li> <li>• Same image area</li> </ul>
Weight	about 8Kg (without battery)	6Kg (without battery) External AC power adapter	Z50's integrated design without external adapter, for easily carry and go
Transducer connector	Max 3 connectors	Only support 2 connectors, the 3 <sup>rd</sup> cannot be active	

# Mindray DP-50Expert vs SonoScape E1

## General Information

- Release time: 2017
- Positioning: high-end BW system
- Main selling point:
  - 15.6" wide screen
  - PW Doppler

## Competitive Strategy of Mindray

DP-50Expert advantage:

- Huge Mindray BW installation base
- Competitive price vs E1
- Integrated design without external AC power adapter
- 4D
- OB 'Smart' solution



E1

# Mindray DP-50Expert vs SonoScape E1

	DP-50Expert	E1	How to beat?
Advanced functions	<ul style="list-style-type: none"> <li>• 3D/4D, iLive, iPage</li> <li>• Smart Face, Smart OB</li> <li>• Color/Power, PW</li> <li>• Color M, Auto IMT</li> <li>• iScape, iNeedle, iWorks</li> </ul>	<ul style="list-style-type: none"> <li>• PW</li> <li>• Auto IMT</li> <li>• Panoramic imaging</li> <li>• Vis-Needle</li> </ul>	DP-50Expert has abundant advanced functions: <ul style="list-style-type: none"> <li>• 3D/4D</li> <li>• OB 'Smart' solution</li> <li>• Color/Power</li> </ul>
Transducer	DP-50Expert: up to 11 types, including 4D volume	<ul style="list-style-type: none"> <li>• Only 7 types</li> <li>• No 4D Volume</li> <li>• Not compatible with SonoScape S series</li> </ul>	DP-50Expert has complete and compatible transducer types: <ul style="list-style-type: none"> <li>• 4D Volume</li> <li>• Better compatible with other Mindray's system</li> </ul>
Screen	15" Full Screen	15.6"	DP-50Expert has stable and robust screen <ul style="list-style-type: none"> <li>• High quality material and technology</li> <li>• Anti-dust and easy to clean</li> <li>• Same image area</li> </ul>
Weight	about 8Kg (without battery)	6Kg (without battery) External AC power adapter	DP-50Expert's integrated design without external adapter, for easily carry and go



**THANK YOU**

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# Take Home Message

- High performance C6-2P and 7L4BP on Z60
- Advanced functions:
  - 3D/4D
  - iLive, iPage
  - Smart Face, Smart OB
  - iNeedle, Auto IMT, iScape
- Smart design
  - Integrated design for carry and go
  - 3 transducer connectors, 1.5h removable battery, 60° angle adjustable Full Screen, 500GB hard disk