

## Specificație tehnică completată

**Modelul: Logiq P9, Producător: GE Helthcare si GE ULTRASOUND KOREA; Țara: SUA si KOREA**

Specificarea tehnică deplină solicitată de către autoritatea contractantă	Specificarea tehnică deplină propusă de către autoritatea oferită
<p>Ecograf multidisciplinar staționar</p> <p>CARACTERISTICI GENERALE</p> <p>UNITATEA DE BAZA</p> <p>Aplicatii disponibile pe echipament</p> <p>Cardiologie</p> <p>Obstetrica</p> <p>Ginecologie</p> <p>Musculoscheletal</p> <p>Abdomen</p> <p>Vascular</p> <p>Parti moi</p> <p>Urologie</p> <p>Pediatrie</p> <p>Preseturi standard</p> <p>Cord adult</p> <p>Adnexa</p> <p>Aorta</p> <p>Arc aortic</p> <p>Arterial</p> <p>Abdomen</p> <p>Vezica urinara</p> <p>Intestine</p> <p>Sin</p> <p>Carotida</p> <p>Penetrare</p> <p>OB Trim 1</p> <p>OB Trim 2</p> <p>OB Trim 3</p> <p>Coloana</p> <p>Uter</p> <p>Venos</p> <p>Prostata</p> <p>Renal</p> <p>Tiroida</p> <p>Testicul</p> <p>Doppler transcranial</p> <p>Cord fetal</p> <p>Cap (neonatologie)</p> <p>Translucenta nucala</p> <p>Abdomen pediatrie</p> <p>Cord pediatrie</p> <p>Sold pediatrie</p> <p>Moduri de operare</p> <p>2D</p> <p>Doppler color</p> <p>Doppler pulsat</p> <p>Doppler continuu</p> <p>Power Doppler</p>	<p>Ecograf multidisciplinar staționar</p> <p>CARACTERISTICI GENERALE</p> <p>UNITATEA DE BAZA</p> <p>Aplicatii disponibile pe echipament</p> <p>Cardiologie</p> <p>Obstetrica</p> <p>Ginecologie</p> <p>Musculoscheletal</p> <p>Abdomen</p> <p>Vascular</p> <p>Parti moi</p> <p>Urologie</p> <p>Pediatrie</p> <p>Preseturi standard</p> <p>Cord adult</p> <p>Adnexa</p> <p>Aorta</p> <p>Arc aortic</p> <p>Arterial</p> <p>Abdomen</p> <p>Vezica urinara</p> <p>Intestine</p> <p>Sin</p> <p>Carotida</p> <p>Penetrare</p> <p>OB Trim 1</p> <p>OB Trim 2</p> <p>OB Trim 3</p> <p>Coloana</p> <p>Uter</p> <p>Venos</p> <p>Prostata</p> <p>Renal</p> <p>Tiroida</p> <p>Testicul</p> <p>Doppler transcranial</p> <p>Cord fetal</p> <p>Cap (neonatologie)</p> <p>Translucenta nucala</p> <p>Abdomen pediatrie</p> <p>Cord pediatrie</p> <p>Sold pediatrie</p> <p><b>Moduri de operare</b></p> <p>2D</p> <p>Doppler color</p> <p>Doppler pulsat</p> <p>Doppler continuu</p> <p>Power Doppler</p>

<p>Power Doppler direccional  Mod M  Mod M anatomic  Single/Dual/Quad  3D  4D  STIC (Spatio Temporal Image Correlation)  Doppler color tisular  Doppler pulsat tisular  Mod Elastografie  Moduri de vizualizare a imaginii  Imagine panoramica  Imagine trapezoidală  Mod de lucru ce usurează vizualizarea acului de biopsie și a traiectoriei acestuia  Mod imagine duală  Mod triplex  Mod quad  Consola sistemului  Unitate de bază de înaltă performanță, staționară, carucior încorporat cu roți orientabile și spații de plasare a perifericelor  Minim 4 porturi de sondă active  Timpul de schimbare a transductorilor din softul sistemului să fie de maxim 3 secunde  Sistem de blocare a celor 4 roți  Ecograful să dispună de spațiu pentru periferice  Suport cu încălzire pentru tubul de gel  Maner pentru deplasarea cu ușurință a echipamentului montat în partea din față  Maner pentru deplasarea cu ușurință a echipamentului montat în partea din spate  Memorie internă – minim 500 GB  Memoria RAM a sistemului să fie de minim 8Gb  Sistemul de operare să fie Windows 7 sau superior  Putere consumată (cu tot cu periferice) max 830VA  Iesire audio inclusă  Iesire video tip S-Video  Iesire video tip VGA  Iesire video tip HDMI  Minim 4 porturi USB  Iesire pentru rețea tip LAN  Port separat pentru microfon în cazul conectării sistemului într-un mediu virtual de telemedicină  Posibilitatea montării unei baterii reincarcabile încorporate pentru funcționarea sistemului fără energie electrică. Aceasta trebuie să ofere aceeași manevrabilitate sistemului fără limitarea transportului acestuia așa cum fac sursele suplimentare atasate lângă sistem tip UPS  Timpul minim de examinare/scanare prin intermediul acumulatorului să fie de minim 20 minute  Sistemul trebuie să dispună de mod « sleep » când rulează cu acumulatorul pentru o pornire cât mai rapidă  Monitor  Diagonala min 21 inch  Tehnologie LED sau superior  Rezoluție Full HD (1920 x 1080) 16.7 M culori</p>	<p>Power Doppler direccional  Mod M  Mod M anatomic  Single/Dual/Quad  3D  4D  STIC (Spatio Temporal Image Correlation)  Doppler color tisular  Doppler pulsat tisular  Mod Elastografie  Moduri de vizualizare a imaginii  Imagine panoramica  Imagine trapezoidală  Mod de lucru ce usurează vizualizarea acului de biopsie și a traiectoriei acestuia  Mod imagine duală  Mod triplex  Mod quad  Consola sistemului  Unitate de bază de înaltă performanță, staționară, carucior încorporat cu roți orientabile și spații de plasare a perifericelor  Minim 4 porturi de sondă active  Timpul de schimbare a transductorilor din softul sistemului să fie de maxim 3 secunde  Sistem de blocare a celor 4 roți  Ecograful să dispună de spațiu pentru periferice  Suport cu încălzire pentru tubul de gel  Maner pentru deplasarea cu ușurință a echipamentului montat în partea din față  Maner pentru deplasarea cu ușurință a echipamentului montat în partea din spate  Memorie internă – minim 500 GB  Memoria RAM a sistemului să fie de minim 8Gb  Sistemul de operare să fie Windows 7 sau superior  Putere consumată (cu tot cu periferice) max 830VA  Iesire audio inclusă  Iesire video tip S-Video  Iesire video tip VGA  Iesire video tip HDMI  Minim 4 porturi USB  Iesire pentru rețea tip LAN  Port separat pentru microfon în cazul conectării sistemului într-un mediu virtual de telemedicină  Posibilitatea montării unei baterii reincarcabile încorporate pentru funcționarea sistemului fără energie electrică. Aceasta trebuie să ofere aceeași manevrabilitate sistemului fără limitarea transportului acestuia așa cum fac sursele suplimentare atasate lângă sistem tip UPS  Timpul minim de examinare/scanare prin intermediul acumulatorului să fie de minim 20 minute  Sistemul trebuie să dispună de mod « sleep » când rulează cu acumulatorul pentru o pornire cât mai rapidă  Monitor  Diagonala min 21 inch  Tehnologie LED sau superior  Rezoluție Full HD (1920 x 1080) 16.7 M culori</p>
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<p>Posibilitate de reglare a luminozitatii Monitorul trebuie sa fie fixat pe un brat articulata care sa permita :</p> <ul style="list-style-type: none"> <li>- Rotire pe orizontala minim <math>\pm 155</math> grade</li> <li>- Rotire pe verticala minim <math>+20/-70</math> grade</li> <li>- Reglarea inaltimei minim 17 cm</li> </ul> <p>Panou de control Minim 6 taste configurabile de catre utilizator Minim 6 suporturi pentru sonde Inaltime reglabila de minim 17 cm Posibilitatea rotirii panoului de control in jurul axei proprii pe un interval de minim <math>\pm 25^\circ</math> Pentru simplificarea fluxului de lucru, ecograful trebuie sa dispuna de ecran tactil Ecran tactil Tehnologie LED Diagonala minim 10 inch Rezolutie minim 800 x 600 Tastatura alfa-nerica disponibila pe ecranul tactil Ecran tactil de tip capacitiv Transductori Echipamentul sa fie compatibil cu : Sonde liniare in gama totala de frecventa minim 2-15 MHz Sonde convexe in gama totala de frecventa minim 1-6 MHz Sonde micro-convexe in gama totala de frecventa minim 3-11 MHz Sonde endocavitare in gama totala de frecventa minim 3- 11 MHz Sonde phased array in gama totala de frecventa minim 1- 12 MHz Sonde abdominale volumetrice in gama totala de frecventa minim 1-5 MHz Sonde endocavitare volumetrice in gama totala de frecventa minim 3-10 MHz Sonda creion cu frecventa 2MHz <math>\pm 10\%</math> Sonda creion cu frecventa 6MHz <math>\pm 10\%</math> Sonda creion cu frecventa 9MHz <math>\pm 10\%</math> Sonda transesofagiana in gama totala de frecventa minim 2-8 MHz Caracteristici standard ale echipamentului Formator de unde digital Gama totala de frecventa acoperita min 1-18 MHz Minim 380.000 canale de procesare Adancime de scanare min 2 - 30 cm Minim 4 zone de focalizare Soft de imbunatatire a imaginii 2D prin intarirea contururilor si reducerea artefactelor - Reglabil in 4 trepte minim Soft de imbunatatire a imaginii 3D/4D prin intarirea contururilor si reducerea artefactelor - Reglabil in 4 trepte minim Minim 256 tonuri de gri Gama dinamica minim 270 dB Sistemul sa poata atinge un frame rate de minim 2500 fps in modul 2D Sistemul sa poata atinge un frame rate de minim 390 fps in modul</p>	<p>Posibilitate de reglare a luminozitatii Monitorul trebuie sa fie fixat pe un brat articulata care sa permita :</p> <ul style="list-style-type: none"> <li>- Rotire pe orizontala minim <math>\pm 155</math> grade</li> <li>- Rotire pe verticala minim <math>+20/-70</math> grade</li> <li>- Reglarea inaltimei minim 17 cm</li> </ul> <p>Panou de control Minim 6 taste configurabile de catre utilizator Minim 6 suporturi pentru sonde Inaltime reglabila de minim 17 cm Posibilitatea rotirii panoului de control in jurul axei proprii pe un interval de minim <math>\pm 25^\circ</math> Pentru simplificarea fluxului de lucru, ecograful trebuie sa dispuna de ecran tactil Ecran tactil Tehnologie LED Diagonala minim 10 inch Rezolutie minim 800 x 600 Tastatura alfa-nerica disponibila pe ecranul tactil Ecran tactil de tip capacitiv Transductori Echipamentul sa fie compatibil cu : Sonde liniare in gama totala de frecventa minim 2-15 MHz Sonde convexe in gama totala de frecventa minim 1-6 MHz Sonde micro-convexe in gama totala de frecventa minim 3-11 MHz Sonde endocavitare in gama totala de frecventa minim 3- 11 MHz Sonde phased array in gama totala de frecventa minim 1- 12 MHz Sonde abdominale volumetrice in gama totala de frecventa minim 1-5 MHz Sonde endocavitare volumetrice in gama totala de frecventa minim 3-10 MHz Sonda creion cu frecventa 2MHz <math>\pm 10\%</math> Sonda creion cu frecventa 6MHz <math>\pm 10\%</math> Sonda creion cu frecventa 9MHz <math>\pm 10\%</math> Sonda transesofagiana in gama totala de frecventa minim 2-8 MHz Caracteristici standard ale echipamentului Formator de unde digital Gama totala de frecventa acoperita min 1-18 MHz Minim 380.000 canale de procesare Adancime de scanare min 2 - 30 cm Minim 4 zone de focalizare Soft de imbunatatire a imaginii 2D prin intarirea contururilor si reducerea artefactelor - Reglabil in 4 trepte minim Soft de imbunatatire a imaginii 3D/4D prin intarirea contururilor si reducerea artefactelor - Reglabil in 4 trepte minim Minim 256 tonuri de gri Gama dinamica minim 270 dB Sistemul sa poata atinge un frame rate de minim 2500 fps in modul 2D Sistemul sa poata atinge un frame rate de minim 390 fps in modul</p>
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<p>Doppler Color</p> <p>Posibilitate de inversare a imaginii</p> <ul style="list-style-type: none"> <li>- Sus/jos</li> <li>- Stanga/dreapta</li> </ul> <p>Rotire a imaginii cu 90/180/270 grade necesara in masuratori pediatrice, ginecologie, obstetrică și prostată</p> <p>Mod de compunere a frecventelor</p> <p>Memorie CINE min 770 MB</p> <p>Optimizare automata a imaginii in scala de gri prin apasarea unui singur buton</p> <p>Timp de pornire a sistemului max 90 sec</p> <p>Minim 30 preseturi personalizabile de catre utilizator</p> <p>Baza de date pacienti</p> <p>Posibilitatea salvarii bazei de date</p> <p>Posibilitatea reincarcarii bazei de date de pe un dispozitiv extern</p> <p>Posibilitate de editare a meniului de pe ecranul tactil</p> <p>Minim 6 butoane configurabile de catre utilizator pe consola echipamentului</p> <p>Softuri disponibile optional pe sistem</p> <p>4D</p> <p>3D</p> <p>Softuri de prelucrare a volumului</p> <ul style="list-style-type: none"> <li>- Vizualizare a volumului in slice-uri 2D cu grosime reglabila</li> <li>- Vizualizare a unei sectiuni in volum definita dupa orice plan trasat de catre utilizator</li> </ul> <p>lucrare Volum in tehnica HD "High Definition" pentru vizualizarea cat mai realista a fetusului cu posibilitatea de a schimba sursa de lumina, din unghiuri gata presetate, sau ajustabile de catre utilizator</p> <p>Masurare automata a intimei medii</p> <p>Măsurarea circulație sangvine non doppler</p> <p>Soft de masuratori avansate dedicat aplicatiilor cardiologice – EF – Fractia de ejectie, TVI – Velocitatea tesutului cu Q-analiza DICOM 3.0</p> <p>Elastografie de tip Shear Wave</p> <p>Modul de exportare a imaginilor pe smartphone prin intermediul unei aplicatii disponibile pentru Android si IOS</p> <p>Mod de lucru ce usureaza vizualizarea acului de biopsie si a traiectoriei acestuia</p> <p>Imagine panoramica</p> <p>Masuratoare automata a translucenței nucleale dintr-un volum achizitionat</p> <p>Identificarea automata a planului sagital perfect pentru masuratoarea translucenței nucleale</p> <p>Masuratoare automata a foliculilor ovarieni dintr-o achizitie 3D a ovarului</p> <p>Masuratoarea translucenței nucleale automat in modul 2D</p> <p>STIC (Spatio Temporal Image Correlation ) – activ pentru sonda 3D/4D</p> <p>Strain (cardiologie)</p> <p>Soft de ecografie de stres</p> <p>Modul EKG</p> <p>Pedala pentru functii suplimentare</p> <p>Incalzitor de gel</p> <p>Modul 2D</p> <p>Steer 2D minim 3 unghiuri</p>	<p>modul Doppler Color</p> <p>Posibilitate de inversare a imaginii</p> <ul style="list-style-type: none"> <li>- Sus/jos</li> <li>- Stanga/dreapta</li> </ul> <p>Rotire a imaginii cu 90/180/270 grade necesara in masuratori pediatrice, ginecologie, obstetrică și prostată</p> <p>Mod de compunere a frecventelor</p> <p>Memorie CINE min 770 MB</p> <p>Optimizare automata a imaginii in scala de gri prin apasarea unui singur buton</p> <p>Timp de pornire a sistemului max 90 sec</p> <p>Minim 30 preseturi personalizabile de catre utilizator</p> <p>Baza de date pacienti</p> <p>Posibilitatea salvarii bazei de date</p> <p>Posibilitatea reincarcarii bazei de date de pe un dispozitiv extern</p> <p>Posibilitate de editare a meniului de pe ecranul tactil</p> <p>Minim 6 butoane configurabile de catre utilizator pe consola echipamentului</p> <p>Softuri disponibile optional pe sistem</p> <p>4D</p> <p>3D</p> <p>Softuri de prelucrare a volumului</p> <ul style="list-style-type: none"> <li>- Vizualizare a volumului in slice-uri 2D cu grosime reglabila</li> <li>- Vizualizare a unei sectiuni in volum definita dupa orice plan trasat de catre utilizator</li> </ul> <p>lucrare Volum in tehnica HD "High Definition" pentru vizualizarea cat mai realista a fetusului cu posibilitatea de a schimba sursa de lumina, din unghiuri gata presetate, sau ajustabile de catre utilizator</p> <p>Masurare automata a intimei medii</p> <p>Măsurarea circulație sangvine non doppler</p> <p>Soft de masuratori avansate dedicat aplicatiilor cardiologice – EF – Fractia de ejectie, TVI – Velocitatea tesutului cu Q-analiza DICOM 3.0</p> <p>Elastografie de tip Shear Wave</p> <p>Modul de exportare a imaginilor pe smartphone prin intermediul unei aplicatii disponibile pentru Android si IOS</p> <p>Mod de lucru ce usureaza vizualizarea acului de biopsie si a traiectoriei acestuia</p> <p>Imagine panoramica</p> <p>Masuratoare automata a translucenței nucleale dintr-un volum achizitionat</p> <p>Identificarea automata a planului sagital perfect pentru masuratoarea translucenței nucleale</p> <p>Masuratoare automata a foliculilor ovarieni dintr-o achizitie 3D a ovarului</p> <p>Masuratoarea translucenței nucleale automat in modul 2D</p> <p>STIC (Spatio Temporal Image Correlation ) – activ pentru sonda 3D/4D</p> <p>Strain (cardiologie)</p> <p>Soft de ecografie de stres</p> <p>Modul EKG</p> <p>Pedala pentru functii suplimentare</p> <p>Incalzitor de gel</p> <p>Modul 2D</p> <p>Steer 2D minim 3 unghiuri</p>
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<p>Chroma minim 11 harti  Afisare in mod dual 2D si Doppler Color in timp real  Minim 5 frecvente selectabile  Minim 12 harti de gri  Mod de lucru cu armonice fundamentale  Mod de lucru cu armonice cu inversie de faza  Posibilitate de reglare a densitatii de linii minim 3 pasi  Soft de reducere a artefactelor si intarire a contururilor  - Reglabil in minim 5 pasi  Compunere spatiala  - Reglabila in minim 3 pasi  Imagine trapezoidala  Reglare a unghiului de scanare minim 45-100%  Zoom  - Read zoom de minim 8 ori in dependeta de adincime si sonda sa  specifice sonda obligatooriu  sibilitatea maririi imaginii 2D intr-un interval de 75-100%  Modul M  Minim 11 harti de culoare  Chroma minim 11 harti  Posibilitate de reglare a vitezei de baleiere (sweep speed)  Mod M anatomic  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului gamei dinamice  Posibilitatea reglarii nivelului puterii  Reglarea modului M prin apasarea unui singur buton  Posibilitatea alegerii de catre utilizator a dimensiunii ferestrei si  pozitiei modului M versus modul 2D  Modul Doppler Color  Minim 11 harti de culoare  Harta separata de culoare tip « variance »  Posibilitate de reglare a sensibilitatii in minim 5 trepte  Gama PRF minim 0.2 KHz – 19 KHz  Inclinarea ferestrei doppler cu minim <math>\pm 30^\circ</math>  Filtru de perete reglabil in minim 4 pasi  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului sensitivitatii  Posibilitatea reglarii nivelului puterii  Modul Doppler pulsat  Harti de culoare minim 11  Gama PRF minim 1.5-22 kHz  Optimizare automata a spectrului prin ajustarea baseline- ului si  reglarea PRF-ului prin apasarea unui singur buton  Reglare a dimensiunii portii minim 0.5 – 25 mm  Corectie automata a unghiului de insonatie la 60 grade  Posibilitatea reglarii volumului  Posibilitatea reglarii filtrului in mai multi pasi  Modul Doppler Continuu  Gama PRF minim 2-56.5 kHz  Harti de culoare minim 11  Reglarea filtrului in cel putin 4 trepte  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului gamei dinamice  Posibilitatea reglarii volumului  Posibilitatea corectiei de unghi pe interval <math>\pm 60^\circ</math>  Posibilitatea reglarii vitezei anvelopei Doppler</p>	<p>Chroma minim 11 harti  Afisare in mod dual 2D si Doppler Color in timp real  Minim 5 frecvente selectabile  Minim 12 harti de gri  Mod de lucru cu armonice fundamentale  Mod de lucru cu armonice cu inversie de faza  Posibilitate de reglare a densitatii de linii minim 3 pasi  Soft de reducere a artefactelor si intarire a contururilor  - Reglabil in minim 5 pasi  Compunere spatiala  - Reglabila in minim 3 pasi  Imagine trapezoidala  Reglare a unghiului de scanare minim 45-100%  Zoom  - Read zoom de minim 8 ori in dependeta de adincime si sonda  sa specifice sonda obligatooriu  sibilitatea maririi imaginii 2D intr-un interval de 75-100%  Modul M  Minim 11 harti de culoare  Chroma minim 11 harti  Posibilitate de reglare a vitezei de baleiere (sweep speed)  Mod M anatomic  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului gamei dinamice  Posibilitatea reglarii nivelului puterii  Reglarea modului M prin apasarea unui singur buton  Posibilitatea alegerii de catre utilizator a dimensiunii ferestrei si  pozitiei modului M versus modul 2D  Modul Doppler Color  Minim 11 harti de culoare  Harta separata de culoare tip « variance »  Posibilitate de reglare a sensibilitatii in minim 5 trepte  Gama PRF minim 0.2 KHz – 19 KHz  Inclinarea ferestrei doppler cu minim <math>\pm 30^\circ</math>  Filtru de perete reglabil in minim 4 pasi  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului sensitivitatii  Posibilitatea reglarii nivelului puterii  Modul Doppler pulsat  Harti de culoare minim 11  Gama PRF minim 1.5-22 kHz  Optimizare automata a spectrului prin ajustarea baseline- ului si  reglarea PRF-ului prin apasarea unui singur buton  Reglare a dimensiunii portii minim 0.5 – 25 mm  Corectie automata a unghiului de insonatie la 60 grade  Posibilitatea reglarii volumului  Posibilitatea reglarii filtrului in mai multi pasi  Modul Doppler Continuu  Gama PRF minim 2-56.5 kHz  Harti de culoare minim 11  Reglarea filtrului in cel putin 4 trepte  Posibilitatea reglarii nivelului gain-ului  Posibilitatea reglarii nivelului gamei dinamice  Posibilitatea reglarii volumului  Posibilitatea corectiei de unghi pe interval <math>\pm 60^\circ</math>  Posibilitatea reglarii vitezei anvelopei Doppler</p>
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<p>Modul Power Doppler  Minim 11 harti de culoare  Posibilitatea reglarii nivelului gain-ului  Inversare a hartii de culoare (Power Doppler Directional)  Filtru de perete reglabil in minim 4 pasi  Posibilitatea reglarii sensivitatii in mai multi pasi  Gama PRF minim 0.2 KHz – 19 KHz  Inclinarea ferestrei doppler cu minim <math>\pm 30</math> grade  Minim 2 frecvente selectabile  Modul 3D/4D  Vizualizare tomografica a volumului in slice-uri 2D de grosime reglabila  Calcul automat al dimensiunilor foliculilor pornind de la o achizitie 3D a ovarului  Soft de reconstructie realista a tesurilor  - Posibilitate de reglare a unghiului de iluminare  - Posibilitate de reglare a culorii tesutului  Unelte de prelucrare a volumului (stergere, decupare pentru inlaturarea artefactelor sau a structurilor inutile), biblioteca diferiteri unghiuri de iluminare.  ROI Curve – posibilitate de curbare a boxului pentru reconstructia 3D/4D in zone cu putin lichid amniotic)  Posibilitate de reglare a unghiului de reconstructie pentru scurtarea timpului de achizitie  Echipamentul trebuie sa dispuna de software de elastografie de tip strain pe sonda liniara si endocavitara  Echipamentul trebuie sa dispuna de posibilitatea de upgrade de software cu sharewave elastografie.  Softul de elastografie sa dispuna de un indicator de calitate a achizitiei in timp real.  Minim 5 harti de culoare selectabile  Afisare in mod dual  Reglare a transparenteii hartii de culoare  Inversare a hartii de culoare  Reglarea densitatii liniilor  Posibilitatea reglarii frecventei de lucru  <b>CONFIGURATIE DE LIVRARE</b>  1. Unitatea de baza incluzand minim cerintele tehnice de la punctul A.  2. <b>Transductor Convex multifrecventa</b>  - banda de frecvențe de lucru acoperă in totalitate intervalul: nu mai mare de 1 MHz – nu mai mic de 6 MHz  - câmp vizual nu mai mic de 65°  - aplicatii: abdomen, obstetrica, ginecologie, musculoscheletal, pediatic, urologie, vascular  3. <b>Transductor Liniar multifrecventa</b>  - banda de frecvențe de lucru acoperă in totalitate intervalul: nu mai mare de 2 MHz – nu mai mic de 11 MHz  - câmp vizual de nu mai mic de 50 mm  - aplicatii: abdominale, vasculare, neonatale/pediatrice si parti moi.  - Posibilitate de atasare a unui ghid de biopsie  4. <b>Transductor micro-convex endocavital multifrecventa</b>  Banda de frecvente de lucru acopera in totalitatea intervalul</p>	<p>Modul Power Doppler  Minim 11 harti de culoare  Posibilitatea reglarii nivelului gain-ului  Inversare a hartii de culoare (Power Doppler Directional)  Filtru de perete reglabil in minim 4 pasi  Posibilitatea reglarii sensivitatii in mai multi pasi  Gama PRF minim 0.2 KHz – 19 KHz  Inclinarea ferestrei doppler cu minim <math>\pm 30</math> grade  Minim 2 frecvente selectabile  Modul 3D/4D  Vizualizare tomografica a volumului in slice-uri 2D de grosime reglabila  Calcul automat al dimensiunilor foliculilor pornind de la o achizitie 3D a ovarului  Soft de reconstructie realista a tesurilor  - Posibilitate de reglare a unghiului de iluminare  - Posibilitate de reglare a culorii tesutului  Unelte de prelucrare a volumului (stergere, decupare pentru inlaturarea artefactelor sau a structurilor inutile), biblioteca diferiteri unghiuri de iluminare.  ROI Curve – posibilitate de curbare a boxului pentru reconstructia 3D/4D in zone cu putin lichid amniotic)  Posibilitate de reglare a unghiului de reconstructie pentru scurtarea timpului de achizitie  Echipamentul trebuie sa dispuna de software de elastografie de tip strain pe sonda liniara si endocavitara  Echipamentul trebuie sa dispuna de posibilitatea de upgrade de software cu sharewave elastografie.  Softul de elastografie sa dispuna de un indicator de calitate a achizitiei in timp real.  Minim 5 harti de culoare selectabile  Afisare in mod dual  Reglare a transparenteii hartii de culoare  Inversare a hartii de culoare  Reglarea densitatii liniilor  Posibilitatea reglarii frecventei de lucru  <b>CONFIGURATIE DE LIVRARE</b>  1. Unitatea de baza incluzand minim cerintele tehnice de la punctul A.  2. <b>Transductor Convex multifrecventa C1-5- RS</b>  - banda de frecvențe de lucru acoperă in totalitate intervalul 1 MHz –6 MHz  - câmp vizual de 70°  - aplicatii: abdomen, obstetrica, ginecologie, musculoscheletal, pediatic, urologie, vascular  3. <b>Transductor Liniar multifrecventa L3-12-RS</b>  - banda de frecvențe de lucru acoperă in totalitate intervalul: nu 2 MHz – 11 MHz  - câmp vizual de nu mai mic de 51,2 mm  - aplicatii: abdominale, vasculare, neonatale/pediatrice si parti moi.  - Posibilitate de atasare a unui ghid de biopsie  4. <b>Transductor micro-convex endocavital multifrecventa E8c-RS</b>  Banda de frecvente de lucru acopera in totalitatea intervalul</p>
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<p>Nu mai mare de 3 MHz – nu mai mic de 10 MHz</p> <p>- câmp vizual nu mai mic de 175°</p> <p>- aplicatii:, obstetrica, ginecologie, urologie.</p> <p>5. Soft de reducere a artefactelor si intarire a contururilor pentru imbunatatirea imaginii 2D</p> <p>6. Soft de compunere spatiala pentru rezolutie superioara in modul 2D</p> <p>7. Imprimanta termica Integrată.</p> <p>8. Posibilitatea de conectare la oricare model de printer cu formatul minim A4</p> <p>9. Transfer de date DICOM pe orice Server sau calculator din cadrul institutii</p> <p>10. Pachet de analiza:</p> <p>    10.1. Elastografie de tip calitativ si Q-analiza</p> <p>    10.2. Elastografie de tip cantitativ sau strain.</p> <p>Perioada de garanție: minim 12 luni de la data recepției finale Transportul, montarea și punerea în funcțiune se realizează de către furnizor, costul acestor operații fiind incluse în preț Personal calificat instruit la producator pentru instalare, punere in funcțiune si instruire personal medical In vederea sustinerii activiattii de service se va face dovada existentei personalului calificat.</p> <p>Documente solicitate: orice document emis de producator din care sa rezulte ca personalul ofertantului a fost instruit de producator, document nu mai vechi de 24 de luni. Furnizorul sa detina autorizatie de distributie si service de la producator</p>	<p>3 MHz – 11 MHz</p> <p>- câmp vizual de 168°</p> <p>- aplicatii:, obstetrica, ginecologie, urologie.</p> <p>5. Soft de reducere a artefactelor si intarire a contururilor pentru imbunatatirea imaginii 2D <b>DA</b></p> <p>6. Soft de compunere spatiala pentru rezolutie superioara in modul 2D <b>DA</b></p> <p>7. Imprimanta termica Integrată. <b>DA</b></p> <p>8. Posibilitatea de conectare la oricare model de printer cu formatul minim A4 <b>DA</b></p> <p>9. Transfer de date DICOM pe orice Server sau calculator din cadrul institutii <b>DA</b></p> <p>10. Pachet de analiza:</p> <p>    10.1. Elastografie de tip calitativ si Q-analiza <b>DA</b></p> <p>    10.2. Elastografie de tip cantitativ sau strain. <b>DA</b></p> <p>Perioada de garanție: minim 12 luni de la data recepției finale. Transportul, montarea și punerea în funcțiune se realizează de către furnizor, costul acestor operații fiind incluse în preț Personal calificat instruit la producator pentru instalare, punere in funcțiune si instruire personal medical In vederea sustinerii activiattii de service se va face dovada existentei personalului calificat.</p> <p>Documente solicitate: orice document emis de producator din care sa rezulte ca personalul ofertantului a fost instruit de producator, document nu mai vechi de 24 de luni. Furnizorul sa detina autorizatie de distributie si service de la producator</p>
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## **ATTESTATION CE / EC CERTIFICATE**

Approbation du Système Complet d'assurance Qualité/ Approval of full Quality Assurance System

**ANNEXE II excluant le point 4 Directive 93/42/CEE relative aux dispositifs médicaux**

*ANNEX II excluding section 4 Directive 93/42/EEC concerning medical devices*

**Pour les dispositifs de classe III, un certificat CE de conception est requis**

*For class III devices, a EC design certificate is required*

**Fabricant / Manufacturer**

**GE ULTRASOUND KOREA, Ltd.**

**9, Sunhwan-ro 214beon-gil, Jungwon-gu,**

**SEONGNAM-SI, GYEONGGI-DO, REPUBLIC OF KOREA**

**Catégorie du(des) dispositif(s) / Device(s) category**

**Dispositif ou système de diagnostic par ultrasons**

*Ultrasound diagnostic device or system*

Voir document complémentaire GMED / See GMED additional document

**n° 36988**

**GMED atteste qu'à l'examen des résultats figurant dans le rapport référencé P183396, P601203, le système d'assurance qualité - pour la conception, la production et le contrôle final - des dispositifs médicaux énumérés ci-dessus est conforme aux exigences de l'annexe II excluant le point 4 de la Directive 93/42/CEE.**

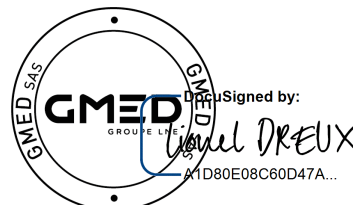
*GMED certifies that, on the basis of the results contained in the file referenced P183396, P601203, the quality system - for design, manufacturing, and final inspection - of medical devices listed here above complies with the requirements of the Directive 93/42/EEC, annex II excluding section 4.*

La validité du présent certificat est soumise à une vérification périodique ou imprévue

The validity of the certificate is subject to periodic or unexpected verification

**Début de validité / Effective date : March 17th, 2021 (included)**

**Valable jusqu'au / Expiry date : May 26th, 2024 (included)**

  
Signed by:  
**Lionel DREUX**  
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**Lionel DREUX**  
Certification Director



**Ce document complémentaire GMED n° 36988 rev. 1 atteste de la validité du certificat CE N° 7697 rev. 19 au regard des informations listées ci-dessous.**

*This GMED additional document n° 36988 rev. 1 attests to the validity of EC certificate N° 7697 rev. 19 with regard to the information listed below.*

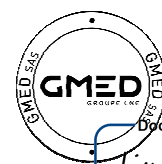
**Fabricant / Manufacturer: GE ULTRASOUND KOREA, Ltd.  
9, Sunhwan-ro 214beon-gil, Jungwon-gu,  
SEONGNAM-SI, GYEONGGI-DO, REPUBLIC OF KOREA**

**Identification des dispositifs / Identification of devices**

Désignation du dispositif / Accessoires marqués CE <i>Device designation / CE marked accessories</i>	Réf commerciale du dispositif ou code article <i>Device commercial reference or article code</i>	Classe du DM MD class
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ P7	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ P8	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ P9	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ P10	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON S6	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON S8	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON S8t	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON S10	Ila

**GMED 0459**

GMED - 36988 rev. 1  
Modifie le document n° 36988 rev.0



DocuSigned by:

*Lionel DREUX*

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**Lionel DREUX**  
Certification Director

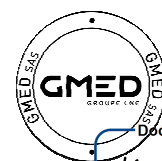
Désignation du dispositif / Accessoires marqués CE <i>Device designation / CE marked accessories</i>	Réf commerciale du dispositif ou code article <i>Device commercial reference or article code</i>	Classe du DM <i>MD class</i>
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON S10 Expert	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON P6	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON P8	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON SWIFT	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	VOLUSON SWIFT+	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ S8	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ S8 T1	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ S7 Expert	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ S7 Pro	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ S7 XDclear2.0	Ila
Dispositif ou système de diagnostic par ultrasons <i>Ultrasound diagnostic device or system</i>	LOGIQ E10s	Ila

### Site couvert et Activités / Location and Activities

Site / Location	Activités / Activities
<p>GE ULTRASOUND KOREA, Ltd. 9, Sunhwan-ro 214beon-gil, Jungwon-gu, Seongnam-si, Gyeonggi-do, REPUBLIC OF KOREA équivalent à <i>equivalent to</i> GE ULTRASOUND KOREA, Ltd. 65-1, Sangdaewon-dong, Jungwon-gu, Seongnam-si, Gyeonggi-do - 462-120 REPUBLIC OF KOREA</p>	<p>Conception, fabrication et contrôle final <i>Design, manufacture and final control</i></p>

**GMED 0459**

GMED - 36988 rev. 1  
Modifie le document n° 36988 rev.0



DocuSigned by:

Lionel DREUX

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**Lionel DREUX**  
Certification Director



## **EC Declaration of Conformity**

Following the provisions of the medical devices directive 93/42/EEC, Annex II and of the directive 2011/65/EU, directive 2012/19/EU, directive 2014/53/EU

Manufacturer:  
**GE Ultrasound Korea, Ltd.**  
**9, Sunhwan-ro 214beon-gil,**  
**Jungwon-gu, Seongnam-si,**  
**Gyeonggi-do Republic of Korea**

EU Authorized Representative:  
**GE MEDICAL SYSTEMS SCS**  
**283 RUE DE LA MINIERE**  
**78530 BUC**  
**FRANCE**

Equivalent to  
**65-1, Sangdaewon-dong,**  
**Jungwon-gu, Seongnam-si**  
**Gyeonggi-do 462-120 Republic of Korea**

*We hereby declare under our sole responsibility that the class **Ila** product:*

**LOGIQ P7, LOGIQ P9, General Purpose Ultrasound Imaging System** including accessories and components (ref: See Addendum)

GMDN Code: **40761**  
UMDNS Code: **15976**  
Classification rule (93/42/EC Annex IX): **Rule 10**

To which this declaration relates, is in conformity with the requirements of:  
The medical devices directive 93/42/EEC (MDD)  
The directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)  
The directive 2012/19/EU on the waste electrical and electronic equipment (WEEE)  
The directive 2014/53/EU on the radio equipment (RED)  
The Commission Regulation (EU) No 207/2012 of 9 March 2012 on electronic instructions for use of medical devices

This conformity is based on the following elements:

- Information included in the technical documentation ref.: **DOC1587707** /DHF ref.: **DOC1412680**, of the product to which this declaration relates.
- EC certificate: approval of full quality assurance system (Annex II of the medical devices directive 93/42/EEC) delivered by **GMED** (Notified Body N° **0459**) on Certificate Number N° **7697**.



- 
- List of harmonized standards applied for CE marking
    - EN 60601-1:2006/A12:2014 (Edition 3.1)
    - EN 60601-1-2:2015
    - EN 60601-1-6:2010/A1:2015
    - EN 60601-2-37: 2008/A1:2015
    - EN 62304:2006/AC: 2008
    - EN 62366:2008 + A1:2015
    - EN 1041:2008
    - EN ISO 15223-1: 2016

This EC declaration of conformity supersedes the previous declaration dated **26-Mar-2019**.

A handwritten signature in blue ink that reads 'Soyoung Park'.

Park, Soyoung  
Regulatory Affairs Specialist

Date/Datum: 17-May-2019

GE Healthcare. GE Ultrasound Korea, Ltd.  
9, Sunhwan-ro 214beon-gil, Jungwon-gu, Seongnam-si,  
Gyeonggi-do Republic of Korea


**ADDENDUM TO THE EC DECLARATION OF CONFORMITY dated 17-May-2019**

- **GTIN#:**
  - ✓ LP7 R3 – 00840682141314
  - ✓ LP9 R3 – 00840682141246

Product Description	HCAT #
<b>Base Systems</b>	
LOGIQ P7 R3	H42872LA
LOGIQ P9 R3	H42872LB
<b>Probes</b>	
3Sc-RS Probe	H45041DL
6S-RS PROBE	H45021RP
12S-RS Probe	H44901AB
ML6-15-RS Probe	H40462LM
L3-12-RS Probe	H44901AP
L4-12t-RS Probe	H48062AB
L12n-RS probe	H48062AH
12L-RS Probe	H40402LY
L6-12-RS Probe	H48062AC
9L-RS Probe	H40442LL
L10-22-RS Probe	H48312AH
L8-18i-RS Probe	H40462LF
C1-5-RS Probe	H40462LA
4C-RS Probe	H4000SR
8C-RS Probe	H40402LS
E8C-RS Probe	H40402LN
E8Cs-RS Probe	H48062AF
IC9-RS Probe	H48691PJ
BE9CS-RS Probe	H40482LN
RAB2-6-RS Probe	H48681WR
RIC5-9A-RS Probe	H48701EJ
6Tc-RS Probe	H45551ZE
Doppler P8D Probe	H46312LZ
P6D	H4830JG
P2D	H4830JE
L3-9i-RS Probe	H46442LK
<b>Biopsy Options</b>	
3SP MULTI-ANGLE BIOPSY	H46222LC
9L BIO GUIDE STARTER KIT	H4906BK
12L-RS Biopsy Starter Kit	H40432LC
ML6-15 Biopsy Starter Kit	H40432LJ
12L TRANSVERSE BRACKET	H48392LL
INFINITE 12L BIOPSY KIT	H48392LT



L3-12-D Biopsy starter kit	H48302AA
C1-5 Biopsy Starter Kit	H40432LE
4C BIOPSY BRACKET	E8385NA
E721 STARTER KIT	E8385MJ
E8C E721 E8C-RS IC5-9H MTZ Biopsy Kit	E8333JB
E8C REUSABLE BIOPSY KIT	H40412LN
BE9CS Biopsy Kit 742-339	H42742LH
BE9CS Biopsy Kit 742-401	H42742LJ
Reusable Biopsy Needle Guide for GE BE9C Ultrasound Probe	E8387MA
Sterile Disposable Biopsy Needle Guide Kit for GE BE9C Probe	E8387M
IC9 reusable Biopsy	H48701MN
IC9 Biopsy Starter Kit	H48691YW
RAB6-D BIOPSY STARTER KIT	H48681ML
PEC63 BIOPSY KIT FOR RIC5-9	H46721R
RIC STERILE NEEDLE GUIDE	H48681GF
<b>TEE accessory</b>	
TEE Cleaning and Storage System	H45551NK
TEE Storage Rack	H45551NM
TEE Scan Head Protection Cover	H45521CK
TEE Clip-on Bite Guard Adult	H45511EE
TEE Clip-on Bite Guard Adult OR	H45521CB
Conventional Bite Guard Adult	H45521JH
Bite Hole Indicator	H45531HS
<b>Software options</b>	
LP7 and LP9 Advanced 3D	H42782LK
LP7 and LP9 Auto IMT	H42782LL
LP7-P9 R3 HD B-Flow	H42892LR
LP7-P9 R3 CEUS	H42892LS
LP7-P9 R3 HRes CEUS	H42892LT
LP7 and LP9 DICOM	H42782LR
LP7 and LP9 Elastography	H42782LS
LP7 and LP9 Elastography Quantification	H42782LT
LP7 and LP9 Flow Quantification	H42782LW
LP7 and LP9 LOGIQView	H42782LY
LP7 and LP9 Report Writer	H42782LZ
LP7 and LP9 Scan Assistant	H42792LA
LP7 and LP9 Stress Echo	H42792LB
LP7 and LP9 Tissue Velocity Imaging TVI	H42792LC
LP7 and LP9 B Steer+	H42792LD
LP7 and LP9 4D TUI Software	H42792LF
LP7 and LP9 VOCAL Software	H42792LG
LP7 and LP9 VCI Static Software	H42792LH
LP7-P9 STIC	H42822LZ
LP7-P9 Omniview	H42832LA



LP7-P9 R3 HDLive	H42892LW
LP7 and LP9 Auto EF	H42792LJ
LP7 and LP9 Meas Assist Breast	H42792LK
LP7 and LP9 Meas Assist OB	H42792LL
LP7 and LP9 Breast Prod	H42792LM
LP7 and LP9 Compare Assistant	H42792LN
LP7 and LP9 Thyroid Prod	H42792LP
LP7 and LP9 SWDVR	H42792LR
LP7 MSK Korea	H42762LF
LP7-P9 Cardiac Strain	H42822LY
LP7-P9 R2.5 Pinpoint GT option	H40292LC
LP7-P9 R3 Shear Wave Elastography	H42892LY
LOGIQ P Apps	H42892LZ
LOGIQ P Apps without Dongle	H42922LM
LOGIQ P7 R3 Advanced Probes Convex	H42922LN
LOGIQ P7 R3 Advanced Probes Linear	H42922LP
LOGIQ P7 R3 Advanced Probes Sector	H42922LR
LOGIQ P7 R3 Advanced Probes Specialty	H42922LS
<b>Hardware options</b>	
LP7-P9 R3 Card Reader Mounting Kit	H42792LZ
Art. Monitor Arm white	H42902LB
LP7-P9 R3 Rear handle	H42902LC
LP7 and LP9 OPIO tray	H42802LG
LP7 and LP9 Paper tray	H42802LE
LP7 and LP9 Side Tray	H42802LC
LP7-P9 R3 Cable Hook rear	H42902LD
LP7-P9 R3 Gel Warmer	H42902LE
LP7-P9 R3 4 port kit	H42912LF
LP7 and LP9 4D Kit	H42802LD
LP7 P9 CW HW Kit	H46432LN
LP7 P9 Pencil CW HW Kit	H42802LB
USB FOOTSWITCH 3 BUTTON	H46732LF
LP7 P9 W. LESS LAN KIT-J	H42812LD
LP7 P9 W. LESS LAN KIT	H42802LL
LP7 P9 UVC	H42832LJ
LP7 P9 UVC for Japan	H42832LK
ISOLATION TRANSFORMER	H48671WN
Pwr supply noise filter	H46162LH
Pinpoint GT Practice kit	H48672AB
Barcode reader	H48872LG
LP7-P9 R3 ODD Option	H42912LE
<b>ECG options</b>	
LP7 P9 ECG module only	H42792LS
LS8 ECG CABLE - AHA	H46102LW



LS8 ECG CABLE - IEC	H45302LZ
<b>Veterinary Use Only</b>	
Vet kit	H46832LC
Probe Vet Label	H48992LR
Vet probe caution label	H48492AW
<b>Peripherals</b>	
<b>Printers</b>	
UP-D898 BW Printer Kit	H46992LS
LP7 LP9 BW INSTALL KIT	H46432LP
UP-D25MD PRINTER	H44642LW
<b>Cabinet</b>	
LP7-P9 R3 HIGH CABINET	H42902LG
LP7-P9 R3 DRAWER	H42902LH
LP7-P9 R3 Low Cabinet	H42902LJ
<b>Accessories</b>	
LP7-P9 R3 Multi P. holder	H42902LK
LOGIQ S7 R3 Small Probe Holder	H46302LB
PROBE CABLE HANGER	H44412LA
<b>Batteries</b>	
LP7-P9 R2 Battery option	H42832LG
LP7-P9 R3 ext battery	H42902LM
<b>Power Cords</b>	
POWER CORD FIX BRKT 220V	H42812LJ
POWER CORD FIX BRKT 110V	H42812LK
<b>Destination Sets</b>	
DESTINATION SET UK	H46712LM
DESTINATION SET S AFRICA	H46712LN
DESTINATION SET ARGENTINA	H46712LP
DESTINATION SET ISRAEL	H46712LR
DESTINATION SET SWISS	H46712LS
DESTINATION SET DENMARK	H46712LT
DESTINATION SET US	H46712LW
DESTINATION KIT AUS_NZ	H46712LZ
DESTINATION SET CHINA	H46722LA
DESTINATION SET INDIA	H46722LB
DESTINATION SET ITALY	H46722LD
DESTINATION SET BRAZIL	H46752LW
DESTINATION SET Taiwan	H44512LY
DESTINATION SET JAPAN	H46712LY
<b>Keyboards and Key Cap Language Kits</b>	
AN Keyb. Greek black	H42902LR
AN Keyb. Norwegian black	H42902LS
AN Keyb. Russian black	H42902LT
AN Keyb. French black	H42902LW





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AN Keyb. Swedish black	H42902LY
AN Keyb. German black	H42902LZ
AN Keyb. English black	H42912LA
<b>Upgrade kit</b>	
LOGIQ P9 R2.5 to R3 SW conversion	H42922LK
LOGIQ P7 R2.5 to R3 SW conversion	H42922LL

## Notes:

[1] Catalog number identifies the device(s) in the manufacturer's catalog and is usually included on commercial documents like sales contract, order processing documents and shipping documents.

[2] Probes and accessories may carry the CE-mark and when applicable, the Notified Body number corresponding to the EC Declaration under which the products are CE-marked by their manufacturer. GE Ultrasound Korea Ltd. has verified the mutual compatibility of the devices in combination with LOGIQ P9 and LOGIQ P7 and included relevant information to users with the LOGIQ P9 and LOGIQ P7 instructions for use.

---

End of Document







## Certificate of Completion

*This certifies that*

**Ion Negru**

*has successfully completed*

**Proficient\_UL Service Training (DL)**

Completed on 3/26/2021  
(date format: mm/dd/yyyy )

---



## Certificate of Completion

*This certifies that*

**Ion Negru**

*has successfully completed*

**Proficient\_UL Exam (DL)**

Completed on 4/1/2021  
(date format: mm/dd/yyyy )

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# Certificate

The Certification Body of  
TÜV Rheinland LGA Products GmbH

hereby certifies that the organization

**GE ULTRASOUND KOREA, Ltd.**  
**9, Sunhwan-ro 214beon-gil, Jungwon-gu**  
**SEONGNAM-SI, GYEONGGI-DO**  
**Republic of Korea**

has established and applies a quality management system for medical devices  
for the following scope:

**(see attachment for scope and additional site included)**

Proof has been furnished that the requirements specified in

## EN ISO 13485:2016

are fulfilled. The quality management system is subject to yearly surveillance.

Effective Date: 2020-03-17  
Certificate Registration No.: SX 60146260 0001  
An audit was performed. Report No.: 32090188 001  
This Certificate is valid until: 2021-11-04

Certification Body



Deutsche  
Akkreditierungsstelle  
D-ZM-14169-01-02

Date 2020-03-17



*Balazs Bozsik*

Balazs Bozsik

**TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg**  
Tel.: +49 221 806-1371 Fax: +49 221 806-3935 e-mail: cert-validity@de.tuv.com <http://www.tuv.com/safety>

**TÜV Rheinland**  
**LGA Products GmbH**  
**Tillystraße 2, 90431 Nürnberg**

**Attachment to  
Certificate**

**Registration No.:** SX 60146260 0001  
**Report No.:** 32090188 001

**Organization:** GE ULTRASOUND KOREA, Ltd.  
9, Sunhwan-ro 214beon-gil, Jungwon-gu  
SEONGNAM-SI, GYEONGGI-DO  
Republic of Korea

**Scope:** Design and Development, Manufacture and Final Test of  
Ultrasound Diagnostic Devices and Systems

Site Included:  
GE Ultrasound Korea, Ltd.  
65-1, Sangdaewon-dong, Jungwon-gu  
Seongnam-si, Gyeonggi-do  
462-120 Republic of Korea

Design and Development, Manufacture and Final Test of  
Ultrasound Diagnostic Devices and Systems

**Certification Body**



**Date:** 2020-03-17

*Balk Balazs*  
**Balazs Bozsik**



# LOGIQ™ P9

MAKE IT EASY. MAKE IT YOUR OWN.

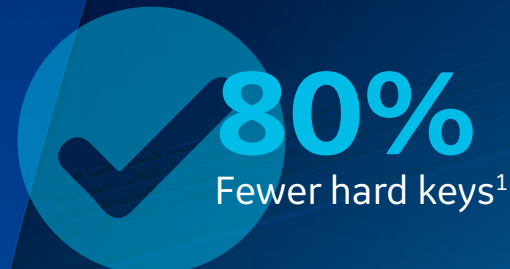
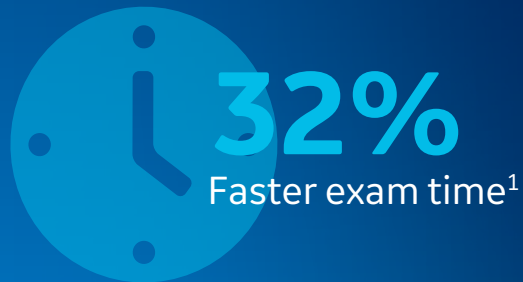






# YOU ASKED FOR SIMPLICITY. **We delivered.**

The LOGIQ™ P9 ultrasound system is ideal for the clinical and workflow demands of general imaging. From triage to comprehensive exams, the budget-friendly LOGIQ P9 delivers consistent image quality, comprehensive application coverage, and ease of use that enable timely, confident decisions.



# PERSONALIZED for customized workflow

Easy to learn and use, the LOGIQ P9 supports high efficiency for busy schedules.

**Touch Control** – Manipulate images on the touch panel with your fingertips, even when gloved. Zoom, magnify, freeze—all with a touch, similar to using a tablet or smartphone. Excellent cleanability as well.

**My Page** – Personalized digital user interface enables customization of workflow preferences and use case presets. Simply log in, select the appropriate exam type, and begin scanning.

**Photo Assistant App** – Integrates anatomical photos, taken from an Android™ device, into the ultrasound study to assist clinicians in confirming findings, documenting clinical symptoms, and reporting.



# PATIENT-CENTRIC for excellent care

The LOGIQ P9 supports your diagnostic confidence across a wide range of patient exams.

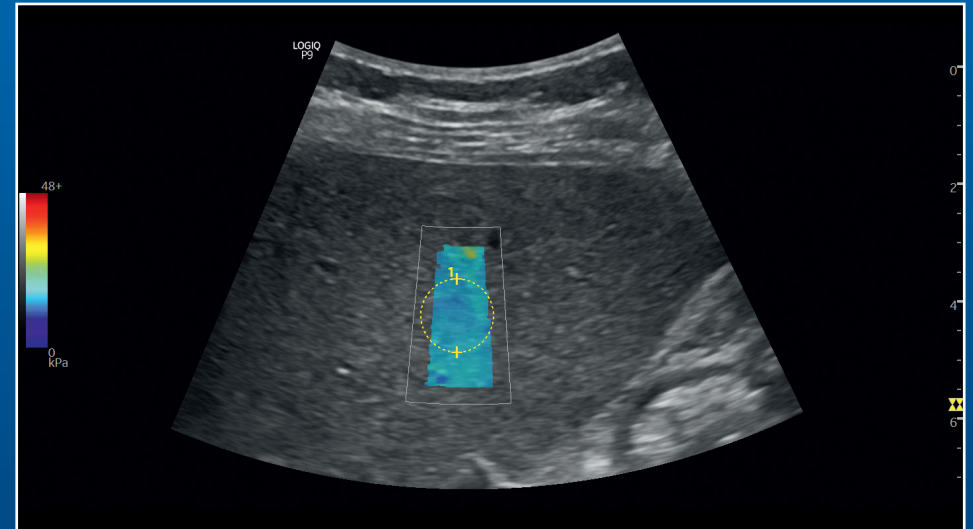
**Excellent image quality** with minimal tweaking required, and superb B-Mode spatial and contrast resolution.

**Wide selection of high quality probes** for excellent exam coverage including abdominal, cardiac, OB/GYN, musculoskeletal, vascular, small parts, pediatrics, urology and intra-operative procedures.

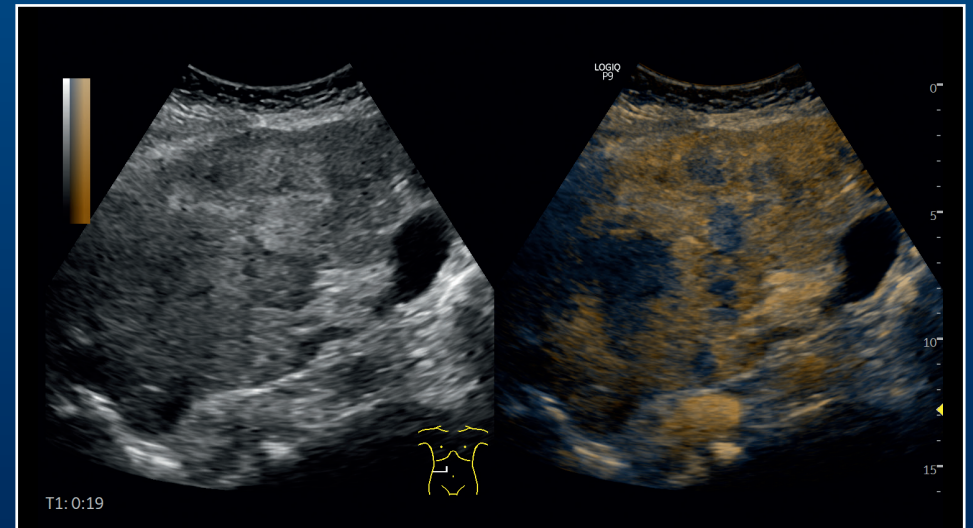
## Advanced imaging and visualization tools, including:

- B-Flow™
- HD Color
- 3D/4D
- HDlive™
- STIC/Omniview
- Strain and 2D Shear Wave Elastography
- Stress Echo
- TVI/TVD
- Cardiac Strain
- CEUS
- Enhanced B-Steer+
- Simultaneous display for urology

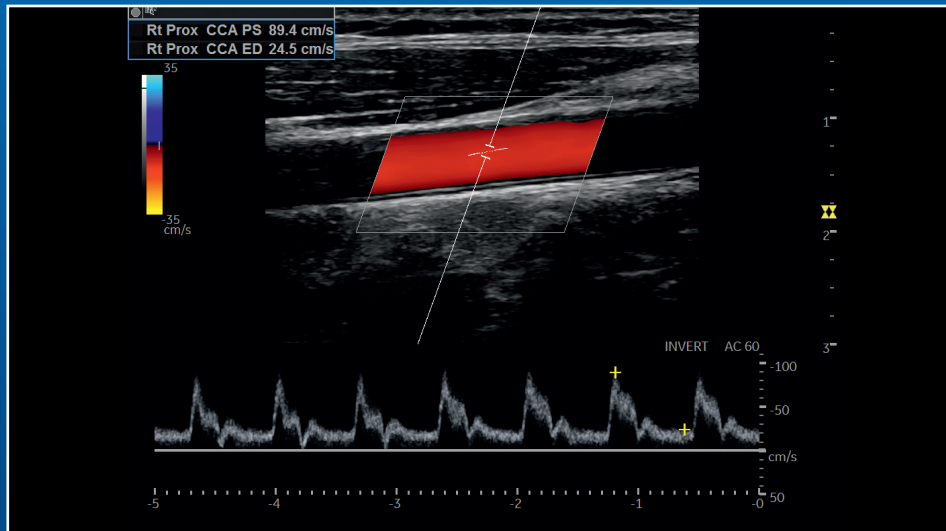
**Easily share and archive images** with Tricefy™ cloud-based storage, especially useful for OB imaging.



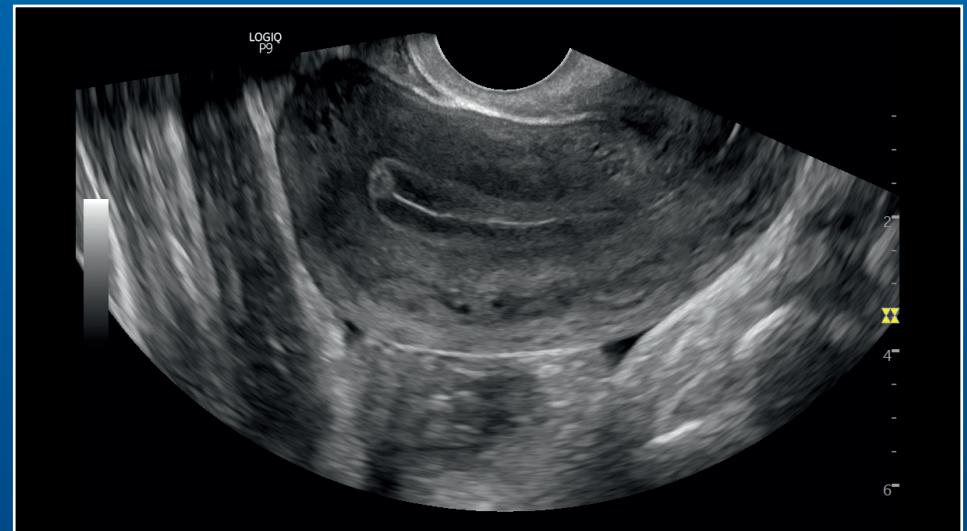
Liver Shear Wave Elastography, C1-5-RS



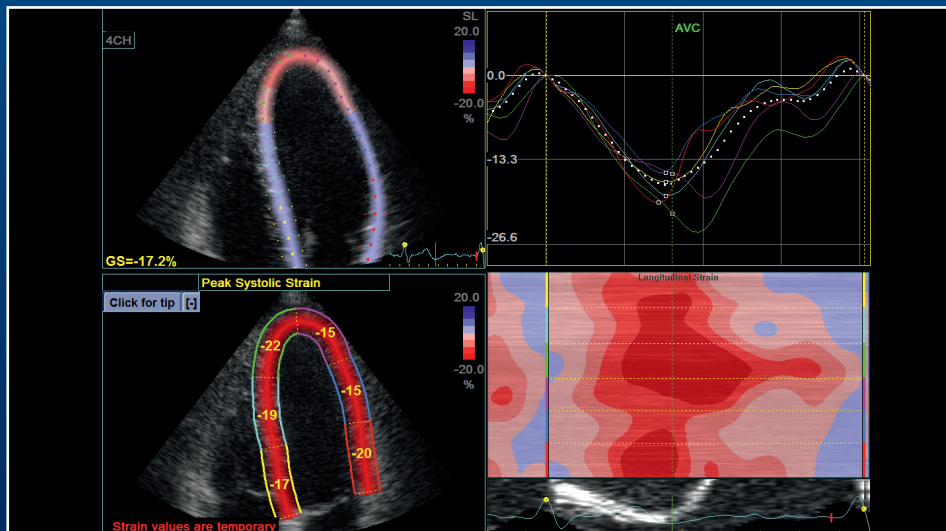
CEUS, C1-5-RS



Carotid Artery CF and PW, L4-12t-RS



Uterus B-Mode, IC9-RS



Cardiac Strain, 3Sc-RS



HDlive, RAB2-6-RS

# PRACTICAL for everyday and investment value

The LOGIQ P9 system easily adjusts to your working style, preferences and variable needs throughout your workday.



PRE-PROGRAMMED BUTTON PROBE



REMOTE CONTROL SCANNING

## AUTOMATED EFFICIENCY

- Remote Control App enables operation from an Android™ device with the LOGIQ Apps
- Automated tools include Auto TGC, Auto IMT, AutoEF, Measure Assistant, Compare Assistant, and Scan Assistant
- Pre-programmed L4-12t-RS button probe functions without accessing the touch panel to help preserve the sterile field

## DATA MANAGEMENT

- Easy data migration supported by DICOM®
- Volume Navigation Import to merge real-time ultrasound with CT and MR datasets

## ADVANCED ERGONOMICS

- + External battery enables up to one hour of offline scanning
- + Large 21.5-inch monitor and accessible 10.4-inch touchscreen
- + Simple operating panel design with fewer physical keys<sup>1</sup>
- + Fully articulating arm<sup>2</sup>, with up/down/swivel
- + Compact, lightweight design including wireless LAN and Power Assistant battery operation
- + Digital TGC and digital keyboard<sup>3</sup>

## STRONG SECURITY AND SUPPORT

- SonoDefense built on the Windows<sup>®</sup> 10 IoT operating system provides multi-layer security to protect system integrity and patient data privacy
- My Trainer on-board training modules help accelerate operational confidence
- LOGIQ Club website offers educational resources to help optimize system utilization
- Purchasable service agreement options<sup>2</sup> including remote service capabilities





# Now even more ADVANCED



**Touch Control** – Easily adjust imaging parameters on touch panel, even wearing gloves



**Photo Assistant App** – Combine anatomical photos and images in same report



**HD Color** – Sensitivity for visualizing small vessels and slow flow



**2D Shear Wave Elastography** – Quantitative estimate of tissue elasticity displayed in color-coded elastograms



**Remote Control App** – Operate the system from an Android phone or tablet



**SonoDefense** – Powerful data security features to help guard against costly breaches



**Personalized**  
Customizable workflow features deliver high efficiency your way

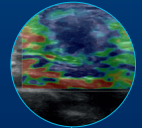


**Practical**  
Advanced automation and ergonomics enable fast exams and reliable results



## Patient-centric

Quality images and advanced tools support diagnostic confidence across a wide range of patient exams



*The LOGIQ P9 has been designed for compatibility with most commercially available ultrasound contrast agents. Availability of these agents is subject to government regulation and approval. Contrast imaging should be performed within the approved indications for use of the contrast agent used in the exam.*

## Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit [www.gehealthcare.com/promotional-locations](http://www.gehealthcare.com/promotional-locations).

Data subject to change.

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September 2018 JB60493XX 300-19-U001E

1. Internal GE engineering study using standardized protocols for an abdominal exam compared with prior version GE LOGIQ P6 ultrasound system.
2. Availability varies; please contact your GE Healthcare Representative for more information.
3. Optional physical keyboard.



# LOGIQ P9

Make it easy. Make it your own.

## Product description

The LOGIQ™ P9 is a workhorse for the demanding physician. Its flagship imaging engine is the foundation for finding the root of the patient's problem, even in difficult patients. Buttons on the transducer turn three-handed procedures into two-handed procedures, giving the physician more control. It all adds up to a system that's walk-up easy-to-use on day one and for the most challenging procedures.

The Pinpoint™ GT Needle Guidance Technology is used under license from C.R. Bard, Inc.





# General Specification

## Dimensions and Weight

Height	Articulating monitor arm 1320 mm ~ 1570 mm (52.0 in ~ 61.8 in)
Width	Keyboard: 430 mm (16.9 in) Foot cover: 495 mm (19.5 in) Monitor: 525 mm (20.7 in)
Depth	Foot cover: 685 mm (27.0 in) Rear handle: 740 mm (29.1 in)
Weight (max. load)	83 kg/183 lbs
Weight (min. load)	68 kg/150 lbs

## Electrical Power

Voltage	100 – 240 Vac
Frequency	50/60 Hz

Power consumption maximum of 500 VA with peripherals

## Console Design

4 active probe ports

Integrated solid state drive

Integrated DVD multi-drive (option)

On board storage for BW printer

Integrated speakers

Probe holders

Front handle

Gel warmer (option)

Rear handle (option)

Probe light

# User Interface

## Operator Keyboard

Ergonomic full size keyboard

Swivel-adjustable, height-adjustable

Digital TGC and digital A/N keyboard

Physical A/N keyboard (option)

10.4" LCD touch screen

## Monitor

21.5" widescreen LCD with high resolution

# System Overview

## Applications

Abdominal

Obstetrical

Gynecological

Breast

Small parts

Musculoskeletal

Vascular

Urological

Pediatric & neonatal

Intraoperative

Cardiac

Transcranial

Endocavitary (transvaginal, transrectal)

Transesophageal

## Scanning Methods

Electronic sector

Electronic convex

Electronic micro convex

Electronic linear

Real-time 4D volume sweep

## Transducer Types

Sector phased array

Convex array

Microconvex array

Linear array

Matrix array

Single CW (pencil) probes

Volume probes (4D)

## Operating Modes

B-Mode

Coded harmonic imaging

M-Mode

Color Flow Mode (CFM)

Power Doppler Imaging (PDI)

# System Overview *(cont.)*

## Operating Modes *(cont.)*

PW Doppler with high PRF

M-Color Flow Mode

Anatomical M-Mode

Curved anatomical M-Mode

B-Flow™/B-Flow color (option)

Extended Field of View (LOGIQView Option)

Coded Contrast Imaging<sup>2</sup> (option)

CW Doppler Mode (option)

TVI Mode (option)

Strain Elastography (option)

3D/4D Volume Modes (option)

Shear Wave Elastography (option)

HDLive™ (option)

## System Standard Features

Advanced user interface with high resolution 10.4" wide LCD touch screen

Automatic optimization

CrossXBeam™ compounding

Speckle Reduction Imaging (SRI-HD)

Fine angle steering

Coded harmonic imaging

Virtual convex

Advanced 3D (option)

Patient information database

Image archive on integrated CD/DVD (option) and SSD

Raw data analysis

Real-time automatic doppler calculations

OB calculations

Fetal trending

Email to MMS

Mytrainer+

Privacy and security

Qpath

Tricefy™

Multigestational Touch control

## System Standard Features *(cont.)*

InSite™ capability

IOTA (International Ovarian Tumor Analysis) LR2 worksheet

Vnav Import

## System Options

Auto IMT

Advanced 3D

Cable hook rear

Card reader mounting kit

Strain Elastography

Elastography Quantification<sup>3</sup>

DICOM® 3.0 connectivity

LOGIQView

B-Flow/B-Flow Color

CF/PDI quantification (FlowQA)

Breast productivity package

Thyroid productivity package

Measure assist OB

AutoEF

B Steer+

Stress echo

Tissue Velocity Imaging (TVI) with Q-Analysis

Scan assistant

Compare assistant

Report writer

Cardiac strain

STIC

OmniView

Guidance Technology (Pinpoint™ GT Needle Guidance Technology)

Shear Wave Elastography

LOGIQ P apps

HDLive

Coded Contrast (CEUS)

HRES CEUS

# System Overview *(cont.)*

## Peripheral Options

- Integrated options for
- Digital BW thermal printer
  - HDMI output available for compatible devices
  - S-Video output available for compatible devices
  - Wireless LAN card for wireless data transfer
  - External USB printer connection
  - Power Assistant (battery or extended battery option) for offline scanning

Digital color thermal printer

Foot switch with programmable functionality

Universal video converter

Barcode reader (for reading needle information)

LOGIQ P apps (Bluetooth)

## Display Modes

Live and stored display format: full size and split screen – both with “thumbnails” for still and Cine

Review image format: 4x4 and “thumbnails” for still and Cine

Simultaneous capability

B or CrossXBeam/PW

B or CrossXBeam/CFM or PDI

B/M

B/CrossXBeam

Real-time Triplex Mode (B or CrossXBeam + CFM or PDI/PW or CW (option))

Selectable alternating modes

B or CrossXBeam/PW

B or CrossXBeam + CFM (PDI)/PW(CW (option))

B/CW (option)

Multi-image (split/quad screen)

Live and/or frozen

B or CrossXBeam + B or CrossXBeam/CFM or PDI

Independent Cine playback

Timeline display

Independent dual B or CrossXBeam/PW display

CW

- Display formats
- Top/bottom selectable format
  - Side/side selectable format

## Display Modes *(cont.)*

Virtual convex

Timeline only

## Display Annotation

Patient name: first, last and middle

Patient ID

Alternate patient ID

Age, sex and birth date

Hospital name

Date format:  
3 types selectable

- MM/DD/YY
- DD/MM/YY
- YY/MM/DD

Time format:  
2 types selectable

- 24 hours
- 12 hours

Gestational age from

- LMP
- EDD
- GA
- BBT

Displayed acoustic output

- TIS: Thermal Index Soft Tissue
- TIC: Thermal Index Cranial (Bone)
- TIB: Thermal Index Bone
- MI: Mechanical Index

% of maximum power output

Probe name

Map names

Probe orientation

Depth scale marker

Lateral scale marker

Focal zone markers

Image depth

Zoom depth

B-Mode

Gain

Dynamic range

Imaging frequency

Frame averaging

Acoustic frame rate

Gray map

SRI-HD

M-Mode

## System Overview *(cont.)*

### Display Annotation *(cont.)*

Gain

Dynamic range

Time scale

Doppler mode

Gain

Angle

Sample volume depth and width

Wall filter

Velocity and/or frequency scale

Spectrum inversion

Time scale

PRF

Doppler frequency

Color Flow Mode

Line density

Frame averaging

Packet size

Color scale: 3 types

- Power
- Directional PDI
- Symmetrical velocity imaging

Color velocity range and baseline

Color threshold marker

Color gain

PDI

Inversion

Doppler frequency

TGC curve

Cine gage, image number/frame number

Body pattern: multiple human and animal types

Application name

Measurement results

Operator message

Biopsy guide line and zone

Heart rate

## General System Parameters

### System Setup

Pre-programmable categories

User programmable preset capability

Factory default preset data

Languages: English, French, German, Spanish, Italian, Portuguese, Russian, Greek, Swedish, Danish, Dutch, Finnish, Norwegian, Japanese (message only), Chinese (message only)

OB report formats including Tokyo Univ., Osaka Univ., USA, Europe, and ASUM

User defined annotations

Body patterns

Customized comment home position

Reset

### Complete User Manual Available On-Board Through Help (F1)

User manual and service manual are included on USB with each system. A printed manual is available upon request.

### CINE Memory/Image Memory

776 MB of Cine memory

Selectable cine sequence for Cine review

Prospective Cine mark

Measurements/calculations and annotations on Cine playback

Scrolling timeline memory

Dual image Cine display

Quad image Cine display

Cine gauge and Cine image number display

Cine review loop

Cine review speed

### Image Storage

On-board database of patient information from past exams

Storage formats

- DICOM – compressed/uncompressed, single/multiframe, with/without raw data
- Export JPEG, JPEG2000, WMV, MPEG 4 and AVI formats

Storage devices

- USB memory Stick: 64 MB to 4 GB (for exporting individual images/clips)
- CD-R storage: 700 MB
- DVD storage: -R (4.7 GB)
- Solid state drive image storage: ~345 GB

# General System Parameters *(cont.)*

## Image Storage *(cont.)*

Compare old images with current exam

Reload of archived data sets

## Connectivity & DICOM

Ethernet network connection

DICOM 3.0 (option)

Wireless LAN (option)

Verify

Print

Store

Modality worklist

Storage commitment

Modality Performed Procedure Step (MPPS)

Media exchange

Off network/mobile storage queue

Query/retrieve

Public SR template	<ul style="list-style-type: none"><li>• Structured reporting – compatible with vascular and OB standard</li><li>• Direct export DICOM SR and XML</li></ul>
--------------------	--

Remote capability InSite™ ExC

DICOM directory import

LOGIQ P apps

## Physiological Input Panel (Option)

Physiological input

ECG, 2 lead

Dual R-Trigger

Pre-settable ECG R delay time

Pre-settable ECG position

Adjustable ECG gain control

Automatic heart rate display

## Report Writer (Option)

On-board reporting package automates report writing

Formats various exam results into a report suitable for printing or reviewing on a standard PC

## Report Writer (Option) *(cont.)*

Exam result reports can include patient info, exam info, measurements, calculations, images, comments and physician diagnosis

Standard templates provided

Customizable templates

Thyroid reporting template

## Scanning Parameters

Displayed imaging depth: 0 – 33 cm

Minimum depth of field: 0 – 2 cm (zoom) (probe dependent)

Maximum depth of field: 0 – 33 cm (probe dependent)

Continuous dynamic receive focus/continuous dynamic

Receive aperture

Adjustable dynamic range

Adjustable Field of View (FOV)

Image reverse: right/left

Image rotation of 0°, 90°, 180°, 270°

## Digital B-Mode

Adjustable	<ul style="list-style-type: none"><li>• Acoustic power</li><li>• Dynamic range</li><li>• Gray scale map</li><li>• Line density</li><li>• B colorization</li><li>• Reject</li><li>• Suppression</li><li>• SRI-HD</li><li>• Edge enhance</li></ul>	<ul style="list-style-type: none"><li>• Gain</li><li>• Frame averaging</li><li>• Frequency</li><li>• Scanning size (FOV or angle – depending on the probe, see probe specifications)</li></ul>
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## Digital M-Mode

Adjustable	<ul style="list-style-type: none"><li>• Acoustic power</li><li>• Dynamic range</li><li>• Frequency</li><li>• M colorization</li><li>• Rejection</li></ul>	<ul style="list-style-type: none"><li>• Gain</li><li>• Gray scale map</li><li>• Sweep speed</li><li>• M display format</li></ul>
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## Anatomical M-Mode

M-Mode cursor adjustable at any plane

Can be activated from a Cine loop from a live or stored image

M and A capability

Available with Color Flow Mode

Curved Anatomical M-Mode

# General System Parameters *(cont.)*

## Digital Spectral Doppler Mode

Adjustable	<ul style="list-style-type: none"> <li>Acoustic power</li> <li>Dynamic range</li> <li>Transmit frequency</li> <li>PW colorization</li> <li>Sweep speed</li> <li>Sample volume length</li> <li>Spectrum inversion</li> <li>Baseline shift</li> <li>Time resolution</li> <li>Compression</li> <li>Trace sensitivity</li> </ul>	<ul style="list-style-type: none"> <li>Gain</li> <li>Gray scale map</li> <li>Wall filter</li> <li>Velocity scale range</li> <li>Angle correction</li> <li>Steered linear</li> <li>Trace method</li> <li>Doppler auto trace</li> <li>Trace direction</li> </ul>
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## Digital Color Flow Mode

Adjustable	<ul style="list-style-type: none"> <li>Acoustic power</li> <li>Gain</li> <li>Velocity scale range</li> <li>Wall filter</li> <li>Packet size</li> <li>Spatial filter</li> <li>Baseline shift</li> <li>Threshold</li> <li>Sample volume control</li> <li>Flash suppression</li> </ul>	<ul style="list-style-type: none"> <li>Color maps, including velocity-variance maps</li> <li>Line density</li> <li>Steering angle</li> <li>Frame average</li> <li>Accumulation mode</li> <li>Quantification (option)</li> </ul>
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## Digital Power Doppler Imaging

Adjustable	<ul style="list-style-type: none"> <li>Acoustic power</li> <li>Gain</li> <li>Velocity scale range</li> <li>Wall filter</li> <li>Packet size</li> <li>Spatial filter</li> <li>Frame average</li> <li>Accumulation mode</li> <li>Flash suppression</li> </ul>	<ul style="list-style-type: none"> <li>Color maps including velocity-variance maps</li> <li>Line density</li> <li>Steering angle</li> <li>Threshold</li> <li>Sample volume control</li> </ul>
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## Continuous Wave Doppler (Option)

Adjustable	<ul style="list-style-type: none"> <li>Acoustic power</li> <li>Dynamic range</li> <li>Transmit frequency</li> <li>CW colorization</li> <li>Sweep speed</li> <li>Angle correction</li> <li>Trace method</li> <li>Baseline shift</li> <li>Compression</li> <li>Trace direction</li> </ul>	<ul style="list-style-type: none"> <li>Gain</li> <li>Gray scale map</li> <li>Wall filter</li> <li>Velocity scale range</li> <li>Spectrum inversion</li> <li>Doppler auto trace</li> <li>Trace sensitivity</li> </ul>
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Available on the following probes: 3Sc-RS, 6S-RS, 12S-RS, 6Tc-RS, P2D, P6D and P8D

## Automatic Optimization

Optimize B-Mode image to improve contrast resolution

Selectable amount of contrast resolution improvement (low, medium, high)

Auto TGC

Auto-spectral optimize adjusts	<ul style="list-style-type: none"> <li>Baseline</li> <li>PRF (on live image)</li> </ul>	<ul style="list-style-type: none"> <li>Invert</li> <li>Angle correction</li> </ul>
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## Coded Harmonic Imaging

Available on all 2D and 4D probes

## B-Flow/B-Flow Color (Option)

Available on C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8CS-RS, BE9CS-RS, L3-12-RS and IC59-RS probes

Background: on/off

Sensitivity/PRI

Line density

Edge enhance

Frame average

Gray scale map

Tint map

Dynamic range

Rejection

Gain

Hybrid B-Flow	<ul style="list-style-type: none"> <li>Supported on C1-5-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS and L12n-RS</li> <li>B &amp; B-Flow simultaneous dual display</li> <li>B &amp; B-Flow overlay display</li> </ul>
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B-Flow Color (BFC)

B-Flow High Definition Color (HD Color)	Supported on C1-5-RS, 12L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS and L12n-RS
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Accumulation

## Coded Contrast Imaging (Option)

Available on C1-5-RS, 9L-RS, 3Sc-RS, IC9-RS and BE9CS-RS probes

2 contrast timers

Timed updates: 0.05 – 10 seconds

Accumulation mode, six levels

Maximum Enhance Mode

# General System Parameters *(cont.)*

## Coded Contrast Imaging (Option) *(cont.)*

Flash

Time Intensity Curve (TIC) Analysis

Auto MI control

The LOGIQ P9 is designed for compatibility with commercially available ultrasound contrast agents. Because the availability of these agents is subject to government regulation and approval, product features intended for use with these agents may not be commercially marketed nor made available before the contrast agent is cleared for use. Contrast related product features are enabled only on systems for delivery to an authorized country or region of use.

## LOGIQ View (Option)

Extended Field of View imaging

Available on the following probes: C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8C-RS, E8CS-RS, IC9-RS, BE9CS-RS, RIC5-9A, 6Tc-RS, RAB2-6-RS, 3SC-RS, 6S-RS, 12S-RS

For use in B-Mode

CrossXBeam is available on linear probes

Auto detection of scan direction

Pre or post-process zoom

Rotation

Auto fit on monitor

Measurements in B-Mode

## 3D

Allows unlimited rotation and planar translations

3D reconstruction from Cine sweep

## Advanced 3D (Option)

Acquisition of color data

Automatic rendering

3D landscape technology

3D movie

## Real-time 4D (Option)

Acquisition modes	<ul style="list-style-type: none"><li>• Real-time 4D</li><li>• Static 3D</li></ul>
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## Real-time 4D (Option) *(cont.)*

Visualization modes	<ul style="list-style-type: none"><li>• 3D rendering (diverse surface and intensity projection modes)</li><li>• Sectional planes (three section planes perpendicular to each other)</li><li>• Volume contrast imaging-static (option)</li><li>• Tomographic ultrasound imaging (option)</li></ul>
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Render mode	Surface texture, surface smooth, max-, min- and X-ray (average intensity projection), mix mode of two render modes
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Curved 3 point render start

3D movie

Scalpel: 3D cut tool

Display format	<ul style="list-style-type: none"><li>• Quad: A-/B-/C-Plane/3D</li><li>• Dual: A-Plane/3D</li><li>• Single: 3D or A- or B- or C-Plane</li></ul>
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Automated Volume Calculation – VOCAL II (option)

Betaview

Auto sweep

STIC (option)

HDLive (option)

Omniview (option)	VCI OmniView
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## Scan Assistant (Option)

Factory programs

User defined programs

Steps include image annotations, mode transitions, basic imaging controls and measurement initiation

## Shear Wave Elastography (Option)

Available on the following probes: C1-5-RS, L3-12-RS

User programmable measurement display in kPa and meters per sec.

Single and dual view display

## B Steer+ (Option)

Available on the following probes: C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L3-12-RS, L12n-RS, RAB2-6-RS

# General System Parameters *(cont.)*

## Strain Elastography (Option)

Available on C1-5-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L4-12t-RS, L12n-RS, E8CS-RS, BE9CS-RS, L3-12-RS and IC9-RS probes

Semi-Quantification<sup>2</sup>

## TVI (Option)

Myocardial doppler imaging with color overlay on tissue image

Available on the sector probes

Tissue color overlay can be removed to show just the 2D image, still retaining the tissue velocity information

Curved anatomical M-Mode: free (curved) drawing of M-Mode generated from the cursor independent from the axial plane

Q-Analysis: multiple time motion trace display from selected points in the myocardium

## Stress Echo (Option)

Advanced and flexible Stress Echo examination capabilities

Provides exercise and pharmacological protocol templates

8 default templates

Template editor for user configuration of existing templates or creation of new templates

Reference scan display during acquisition for stress level comparison (dual screen)

Baseline level/previous level selectable

Raw data continuous capture

Over 100 sec. available

Wall motion scoring (bulls-eye and segmental)

Smart stress: automatically set up various scanning parameters (for instance, geometry, frequency, gain, etc.) according to same projection on previous level

## Scan Assistant (Option)

Factory programs

User-defined programs

Steps include image annotations, mode transitions, basic imaging controls and measurement initiation

## Compare Assistant (Option)

Allows side-by-side comparison of previous ultrasound and other modality exams during live scanning

## Power Assistant (Option)

Allows moving the system without a complete system shutdown and boot-up power cycle

Extended battery for off line scanning (option) provides battery powered live scanning

## Breast Productivity Package (Option)

Worksheet summary includes measurements and locations for nodule, parathyroid and lymph node

Feature assessment

BI-RADS<sup>®</sup> assessment

User editable

## Thyroid Productivity Package (Option)

Worksheet summary includes measurements and locations for nodule, parathyroid and lymph node

Feature assessment

User editable

## Auto EF (Option)

Allows semi-automatic measurement of the global EF (Ejection fraction)

User editable

## Cardiac Strain (Cardiac AFI) (Option)

Allows assessing the left ventricle with all segments at a glance by combining three longitudinal views into one comprehensive bulls-eye view

2D strain based data moves into clinical practice

## Virtual Convex

Provides a convex Field of View

Compatible with CrossXBeam

Available on all linear and sector transducers

## SRI-HD

Speckle Reduction Imaging

Provides multiple levels of speckle reduction

Compatible with side-by-side DualView display

Compatible with all linear, convex and sector transducers

Compatible with B-Mode, color, contrast agent and 3D imaging



# General System Parameters *(cont.)*

## CrossXBeam

Provides 3, 5, 7 or 9 angles of spatial compounding

Live side-by-side DualView display

Compatible with

- Color Mode
- SRI-HD
- Virtual convex
- PW
- Coded harmonic imaging

Available on C1-5-RS, 8C-RS, L6-12-RS, 12L-RS, 9L-RS, ML6-15-RS, L8-18i-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, L12n-RS, E8C-RS, E8CS-RS, BE9CS-RS, RIC5-9A-RS, IC9-RS, L3-12-RS and RAB2-6-RS probes

## Controls Available While “Live”

Write zoom

B/M/CrossXBeam Mode

Gain

TGC

Dynamic range

Acoustic output

Transmission focus position

Transmission focus number

Line density control

Sweep speed for M-Mode

Number of angles for CrossXBeam

PW-Mode

Gain

Dynamic range

Acoustic output

Transmission frequency

PRF

Wall filter

Spectral averaging

Sample volume gate

- Length
- Depth

Velocity scale

Color Flow Mode

CFM gain

CFM velocity range

Acoustic output

## Controls Available While “Live” *(cont.)*

Wall echo filter

Packet size

Frame rate control

CFM spatial filter

CFM frame averaging

CFM line resolution

Frequency/velocity baseline shift

## Controls Available on “Freeze” or Recall

Automatic optimization

SRI-HD

CrossXBeam – display non-compounded and compounded image simultaneously in split screen

3D reconstruction from a stored Cine loop

B/M/CrossXBeam Mode

Gray map optimization

TGC

Colorized B and M

Frame average (loops only)

Dynamic range: Anatomical M-Mode

Max read zoom to 8x: baseline shift

Sweep speed

PW Mode

Gray map

Post gain

Baseline shift

Sweep speed

Invert spectral wave form

Compression

Rejection

Colorized spectrum

Display format

Doppler audio

Angle correct

Quick angle correct

Auto angle correct

# General System Parameters *(cont.)*

## Controls Available on “Freeze” or Recall *(cont.)*

Color flow

Overall gain (loops and stills)

Color map

Transparency map

Frame averaging (loops only)

Flash suppression

CFM display threshold

Spectral invert for Color/Doppler

Anatomical M-Mode on Cine loop

# Measurements/Calculations

## General B-Mode

Depth and distance

Circumference (ellipse/trace)

Area (ellipse/trace)

Volume (ellipsoid)

% Stenosis (area or diameter)

Angle between two lines

## General M-Mode

M-Depth

Distance

Time

Slope

Heart rate

## General Doppler Measurements/Calculations

Velocity

Time

A/B ratio (velocities/frequency ratio)

PS (Peak Systole)

ED (End Diastole)

PS/ED (PS/ED ratio)

ED/PS (ED/PS ratio)

AT (Acceleration Time)

## General Doppler Measurements/Calculations *(cont.)*

ACCEL (Acceleration)

TAMAX (Time Averaged Maximum Velocity)

Volume Flow (TAMEAN and vessel area)

Heart rate

PI (Pulsatility Index)

RI (Resistivity Index)

## Real-time Doppler Auto Measurements/Calculations

PS (Peak Systole)

ED (End Diastole)

MD (Minimum Diastole)

PI (Pulsatility Index)

RI (Resistivity Index)

AT (Acceleration Time)

ACC (Acceleration)

PS/ED (PS/ED ratio)

ED/PS (ED/PS ratio)

HR (Heart Rate)

TAMAX (Time Averaged Maximum Velocity)

PVAL (Peak Velocity Value)

Volume Flow (TAMEAN and vessel area)

## OB Measurements/Calculations

Gestational age by

- GS (Gestational Sac)
- CRL (Crown Rump Length)
- FL (Femur Length)
- BPD (Biparietal Diameter)
- AC (Abdominal Circumference)
- HC (Head Circumference)
- APTD x TTD (Anterior/Posterior Trunk Diameter by Transverse Trunk Diameter)
- FTA (Fetal Trunk cross-sectional Area)
- BD (Binocular Distance)
- HL (Humerus Length)
- FT (Foot Length)
- OFD (Occipital Frontal Diameter)
- TAD (Transverse Abdominal Diameter)
- TCD (Transverse Cerebellum Diameter)
- THD (Thorax Transverse Diameter)
- TIB (Tibia Length)
- ULNA (Ulna Length)

# Measurements/Calculations *(cont.)*

## OB Measurements/Calculations *(cont.)*

Estimated fetal weight (EFW) by

- AC, BPD
- AC, BPD, FL, HC
- AC, FL, HC
- BPD, APTD, TTD, FL
- AC, BPD, FL
- AC, FL
- AC, HC
- BPD, APTD, TTD, SL

Calculations and ratios

- FL/BPD
- FL/AC
- FL/HC
- HC/AC
- CI (Cephalic Index)
- AFI (Amniotic Fluid Index)
- CTAR (Cardio-Thoracic Area Ratio)
- MCA PS (Middle Cerebral Artery Peak Systolic Velocity)
- MCA CP (Middle Cerebral Artery Pulsatility Index Over Umbilical Artery Pulsatility Index Ratio)
- MCA PI (Middle Cerebral PI)
- MCA RI (Middle Cerebral RI)
- UmbArt PI (Umbilical artery PI)
- UmbArt RI (Umbilical artery RI)
- UtArt PI (Uterine artery PI)
- UtArt RI (Uterine artery RI)

Measurements/calculations by: ASUM, ASUM 2001, Berkowitz, Bertagnoli, Brenner, Campbell, CFEF, Chitty, Eik-Nes, Ericksen, Goldstein, Hadlock, Hansmann, Hellman, Hill, Hohler, Jeanty, JSUM, Kurtz, Mayden, Mercer, Merz, Moore, Nelson, Osaka University, Paris, Rempen, Robinson, Shepard, Shepard/Warsoff, Tokyo University, Tokyo/Shinozuka, Yarkoni

Fetal graphical trending

Growth percentiles

Multi-gestational calculations (4)

Fetal qualitative description (anatomical survey)

Fetal environmental description (biophysical profile)

Programmable OB tables

Over 20 selectable OB calculations

Expanded worksheets

## GYN Measurements/Calculations

Right ovary length, width, height

Left ovary length, width, height

Uterus length, width, height

Cervix length, trace

Ovarian volume

ENDO (Endometrial Thickness)

Ovarian RI

## GYN Measurements/Calculations *(cont.)*

Uterine RI

Follicular measurements

Summary reports

IOTA (International Ovarian Tumor Analysis) LR2 worksheet

## Vascular Measurements/Calculations

SYS DCCA (Systolic Distal Common Carotid Artery)

DIAS DCCA (Diastolic Distal Common Carotid Artery)

SYS MCCA (Systolic Mid Common Carotid Artery)

DIAS MCCA (Diastolic Mid Common Carotid Artery)

SYS PCCA (Systolic Proximal Common Carotid Artery)

DIAS PCCA (Diastolic Proximal Common Carotid Artery)

SYS DICA (Systolic Distal Internal Carotid Artery)

DIAS DICA (Systolic Distal Internal Carotid Artery)

SYS MICA (Systolic Mid Internal Carotid Artery)

DIAS MICA (Diastolic Mid Internal Carotid Artery)

SYS PICA (Systolic Proximal Internal Carotid Artery)

DIAS PICA (Diastolic Proximal Internal Carotid Artery)

SYS DECA (Systolic Distal External Carotid Artery)

DIAS DECA (Diastolic Distal External Carotid Artery)

SYS PECA (Systolic Proximal External Carotid Artery)

DIAS PECA (Diastolic Proximal External Carotid Artery)

VERT (Systolic Vertebral Velocity)

SUBCLAV (Systolic Subclavian Velocity)

Automatic IMT

Summary Reports

## Urological Calculations

Bladder volume

Prostate volume

Left/right renal volume

Generic volume

Post-void bladder volume

# Probes

## LOGIQ P9

C1-5-RS, 8C-RS, E8C-RS, E8CS-RS, BE9CS-RS, 9L-RS, 12L-RS, L8-18i-RS, L6-12-RS, L4-12t-RS, L10-22-RS, L3-9i-RS, ML6-15-RS, L12n-RS, 3Sc-RS, 6S-RS, 12S-RS, RAB2-6-RS, RIC5-9A-RS, P6D, P8D, L3-12-RS, IC9-RS, 6Tc-RS, P2D

## C1-5-RS

Convex probe

Applications	Abdomen, Vascular, OB/GYN, Urology
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LE)

## 8C-RS

Micro convex probe

Applications	Neonatal, Pediatrics
Biopsy guide	No

## E8C-RS

Endocavitary micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

## E8CS-RS

Endocavitary micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)

## IC9-RS

Endocavitary micro convex probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy Guide	Single-angle, disposable with a disposable bracket (H48691YW), single-angle, reusable bracket (H48701MN)

## BE9CS-RS

Endocavitary micro convex probe

Applications	Urology, Transrectal
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## BE9CS-RS (cont.)

Biopsy guide	Single-angle, disposable with a disposable bracket (E8387M, H42742LH, H42742LJ), single-angle, reusable bracket (E8387MA)
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## RAB2-6-RS

Convex volume probe

Applications	Abdomen, OB/GYN, Urology
Biopsy guide	Multi-angle, disposable with reusable bracket (H48681ML)

## RIC5-9A-RS

Endocavitary micro convex volume probe

Applications	OB/GYN, Urology, Transvaginal, Transrectal
Biopsy guide	Single-angle, disposable with a disposable bracket (H48681GF), single-angle, reusable bracket (H46721R)

## 9L-RS

Linear probe

Applications	Vascular, Small Parts, Pediatric, Abdomen
Biopsy guide	Multi-angle, disposable with a reusable bracket (H4906BK)

## 12L-RS

Linear probe

Applications	Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC)

## L8-18i-RS

Linear probe

Applications	Vascular, Small Parts, Neonatal, Pediatrics, Intraoperative
Biopsy guide	No

## L6-12-RS

Linear probe

Applications	Abdomen, Vascular, Small Parts, Pediatrics, Neonatal, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC)

# Probes *(cont.)*

## L12n-RS

Linear probe

Applications	Interventional Guidance, Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket. Infinite-angle (in plane biopsy kit), disposable with a reusable bracket. 4 configurable buttons to support various operation.

## L4-12t-RS

Linear probe

Applications	Small Parts, Vascular, Pediatrics, Neonatal, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LC). Single-angle, disposable with a reusable bracket (H48392LT: free hand, H48392LL: transverse)

## L10-22-RS

Linear probe

Applications	Small Parts, Musculoskeletal, Neonatal
Biopsy guide	N/A

## L3-9i-RS

Linear probe

Applications	Small Parts, Vascular, Musculoskeletal, Intraoperative
Biopsy guide	N/A

## ML6-15-RS

Matrix array linear probe

Applications	Small Parts, Vascular, Neonatal, Pediatrics, Musculoskeletal
Biopsy guide	Multi-angle, disposable with a reusable bracket (H40432LJ)

## L3-12-RS

Linear Probe

Applications	Vascular, Small Parts, Neonatal, Pediatrics, Abdomen
Biopsy Guide	Multi-angle, disposable with a reusable bracket (H48302AA)

## 3Sc-RS

Phased array sector probe

Applications	Cardiac, Transcranial, Abdomen
Biopsy guide	Multi-angle, disposable with a reusable bracket (H46222LC)

## 6S-RS

Phased array sector probe

Applications	Cardiac Neonatal, Pediatrics
Biopsy guide	No

## 12S-RS

Phased array sector probe

Applications	Pediatrics, Neonatal
Biopsy guide	N/A

## 6Tc-RS

TEE Sector (Trans-esophageal) Probe

Applications	Cardiac (Transesophageal)
Biopsy Guide	None

## P6D

CW split crystal probe

Applications	Cardiac, Vascular
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## P8D

CW split crystal probe

Applications	Cardiac, Vascular
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## P2D

CW Split Crystal Probe

Applications	Cardiac, Vascular
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## Inputs and Outputs

HDMI out

Ethernet network (RJ45)

S-video out

Composite video out

USB (2x in front (USB 3.0), 3x in rear, 2x monitor)

AC power input

# Pinpoint™ GT Needle Guidance Technology

## Needle Guidance Technology – Optional

Accurate magnetic needle tracking ( $\pm 1.45$  mm)

Pinpoint™ GT Needle Guidance Technology practice kit

Application with Pinpoint™ GT Needle Guidance Technology

Anesthesia, Musculoskeletal, Nerve Block

Flexible needle selection

- From list manually
- From label with Barcode Reader automatically

Comprehensive multi-view

- Front View
- Side View
- Top View

## Safety Conformance

Classified to ANSI/AAMI ES60601-1 2005 R1 2012 Medical Electrical Equipment, Part 1: General Requirements for Safety by a Nationally Recognized Test Lab

Certified to CSA CAN/CSA-C22.2 NO. 60601-1:14 General requirements for safety

CE Marked to Council Directive 93/42/EEC on Medical Devices Conforms to the following standards for safety:

IEC/EN 60601-1 2nd Edition Medical electrical equipment – Part 1: General requirements for safety

IEC/EN 60601-1 3.1 Edition. Medical electrical equipment – Part 1: General requirements for basic safety and essential performance

IEC/EN 60601-1-1 Medical electrical equipment – Part 1-1: General requirements for safety – Collateral Standard: Safety requirements for medical electrical systems

IEC/EN 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for safety – Collateral Standard: Electromagnetic compatibility – requirements and tests

IEC/EN 60601-1-4 Medical electrical equipment Part 1- 4: General requirements for safety – Collateral Standard: programmable electrical medical systems

IEC/EN 60601-1-6 Medical electrical equipment Part 1 -6: General requirements for basic safety and essential performance – Collateral Standard: Usability

IEC/EN 60601-2-18 Medical electrical equipment – Part 2-18: Particular requirements for the basic safety and essential performance of endoscopic equipment

IEC/EN 60601-2-37 Medical electrical equipment – Part 2-37: Particular requirements for the safety of ultrasonic medical diagnostic and monitoring equipment

IEC/EN 62366 Application of usability engineering to medical devices

IEC/EN 62304 Software Life Cycle Processes

IEC/EN 62359 Ultrasonic – Field characterization – Test methods for the determination of thermal and mechanical indices related to medical diagnostic ultrasonic fields

EN ISO 15223-1: Symbols to be used with medical device labels, labelling and information to be supplied

ISO 10993-1 Biological evaluation of medical devices – Part 1 Evaluation and testing

NEMA UD2 Acoustic output measurement standard for diagnostic ultrasound equipment

NEMA UD3 Standard for real time display of thermal and mechanical acoustic output indices on diagnostic ultrasound equipment (MI, TIS, TIB, TIC)

EMC Emissions Group 1, Class B device requirements as per Sub clause 4.2 of CISPR 11

WEEE (Waste Electrical and Electronic Equipment)

ROHS according to 2011/65/EU Including national deviations

1. The LOGIQ P9 is a highly mobile and easy to use, performance multi-purpose color Doppler imaging system, designed for Abdominal, Small Parts, Musculoskeletal, Breast, Vascular, Cardiology, Transcranial, Urology, Pediatric, Neonatal, Obstetrics and Gynecology applications.
2. Contrast Enhanced Ultrasound is available in the U.S. for characterization of focal liver lesions and left ventricle opacity only.
3. Elastography with semi-Quantification (Elastography Quantification) described in this material has not been cleared by the U.S. FDA and is not available for promotion or sale in the United States.

### Imagination at work

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24.09.2021

### Manufacturer's Authorization Form

To: **I.M.S.P. Centrul de Sanatate Durlesti**  
Tender: **21043240 - Ecograf multidisciplinar stationar**

WHEREAS we, **GE Healthcare**, reputable manufacturers respectively suppliers of the offered  
LOGIQ P9

do hereby guarantee the quality and the performances of the offered products and authorize **Intermed SRL, ,  
64/2, Albisoara Street, 2005 Chisinau, Republic of Moldova**, to submit a bid and subsequently negotiate  
and sign the Contract with you against a.m. tender, organized by IMSP Centrul de Sanatate Durlesti, for the  
above goods manufactured respectively supplied by us.

Also, Intermed SRL is the authorized company to provide service for the GE products on the territory of the  
Republic of Moldova.

 Name: _____ Title: <b>Mikko Kauppinen</b> Date: <b>Financial Controller</b>	 Name: _____ Title: <b>Jorma Seppälä</b> Date: <b>Accounting Manager</b>
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# LOGIQ™ P9/P7

## Probe Guide



The LOGIQ P9/P7 is a highly capable ultrasound system that provides excellent image quality and productivity through easy to use tools across a wide range of applications in a portable, ergonomic, budget-friendly system design.

	Description	Applications	FOV	Bandwidth	Biopsy Guide	System
<b>Convex Array</b>						
	Wideband convex array probe	Abdomen, OB/GYN, Urology, Vascular	70°	1 – 6 MHz	Multi-angle, disposable with a reusable bracket (H40432LE)	LOGIQ P9
	Wideband convex array probe	Abdomen, OB/GYN, Urology, Vascular	58°	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (E8385NA)	LOGIQ P7
<b>Micro-convex Array</b>						
	Wideband micro-convex array probe	Neonatal, Pediatrics	132°	3 – 11 MHz	No	LOGIQ P9 LOGIQ P7
	Wideband micro-convex intra-cavitary array probe	OB/GYN, Urology, Endocavity	132°	3 – 11 MHz	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), Single-angle, reusable bracket (H40412LN)	LOGIQ P9 LOGIQ P7
	Wideband micro-convex intra-cavitary array probe	OB/GYN, Urology, Endocavity	168°	3 – 11 MHz	Single-angle, disposable with a disposable bracket (E8385MJ, E8333JB), single-angle, reusable bracket (H40412LN)	LOGIQ P9 LOGIQ P7
	Wideband micro-convex intracavity array probe	OB/GYN, Urology, Endocavity	168°	2 – 11 MHz	Single-angle, disposable with a disposable bracket (H48691YW), Single-angle, reusable bracket (H48701MN)	LOGIQ P9 LOGIQ P7
	Wideband micro-convex intra-cavitary bi-plane array probe	Urology, Transrectal	127° x 2	3 – 12 MHz	Single-angle, reusable (E8387MA), disposable (E8387M), disposable starter kit (H42742LH), disposable starter kit (H42742LJ)	LOGIQ P9 LOGIQ P7
<b>Linear Array</b>						
	Wideband linear matrix array probe	Small Parts, Vascular, Neonatal, Pediatrics, Musculoskeletal	50 mm	4 – 15 MHz	Multi-angle, disposable with a reusable bracket (H40432LJ)	LOGIQ P9
	Wideband Linear Array Probe	Vascular, Small Parts, Neonatal, Pediatrics, Abdomen	51.2 mm	2 – 11 MHz	Multi-angle, disposable with a reusable bracket (H48032AA)	LOGIQ P7 LOGIQ P9
	Wideband linear array probe	Small Parts, Neonatal, Musculoskeletal	13 mm	7 – 20 MHz	No	LOGIQ P9

	Description	Applications	FOV	Bandwidth	Biopsy Guide	System
<b>Linear Array (cont.)</b>						
	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Musculoskeletal	38 mm	3 – 12 MHz	Multi-angle, disposable with a reusable bracket (H40432LC)	LOGIQ P9
	Wideband linear array probe	Interventional Guidance, Vascular, Small Parts, Neonatal, Pediatrics, Musculoskeletal	38 mm	3 – 12 Mhz	Multi-angle, disposable with a reusable bracket (H40432LC), multi-angle, disposable with a reusable bracket (H48392LL), multi-angle, disposable with a reusable bracket (H48392LT)	LOGIQ P9 LOGIQ P7
	Wideband linear array probe	Small Parts, Vascular, Pediatric, Neonatal, Musculoskeletal	38 mm	3 – 12 MHz	Multi-angle, disposable with a reusable bracket (H40432LC), multi-angle, disposable with a reusable bracket (H48392LL), multi-angle, disposable with a reusable bracket (H48392LT)	LOGIQ P9 LOGIQ P7
	Wideband linear array probe	Vascular, Small Parts, Pediatrics, Abdomen	44 mm	2 – 8 MHz	Multi-angle, disposable with a reusable bracket (H4906BK)	LOGIQ P9 LOGIQ P7
	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Abdomen	38.4 mm	5 – 11 MHz	Multi-angle, disposable with a reusable bracket (H40432LC)	LOGIQ P9 LOGIQ P7
	Wideband linear array probe	Small Parts, Vascular, Pediatrics, Neonatal, Intraoperative	25 mm	4 – 15 MHz	No	LOGIQ P9
	Wideband linear array probe	Small Parts, Vascular, Musculoskeletal, Intraoperative	38 mm	2 – 9 MHz	No	LOGIQ P9
<b>Sector Array</b>						
	Wideband sector array probe	Cardiac, Abdomen, Transcranial	120°	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (H46222LC)	LOGIQ P9 LOGIQ P7
	Wideband sector array probe	Cardiac, Neonatal, Pediatric	90°	2 – 8 MHz	No	LOGIQ P9 LOGIQ P7
	Wideband sector array probe	Pediatric, Neonatal	90°	4 – 12 MHz	No	LOGIQ P9 LOGIQ P7

Description	Applications	FOV	Bandwidth	Biopsy Guide	System	
<b>Sector Array (cont.)</b>						
 6Tc-RS H45551ZE	TEE probe	Cardiac	90°	2 – 8 MHz	No	LOGIQ P9
<b>Real-time 4D</b>						
 RAB2-6-RS H48681WR	Wideband real-time 4D probe	Abdomen, OB/GYN, Urology	66° (B), 85° (Volume scan)	1 – 5 MHz	Multi-angle, disposable with a reusable bracket (H48681ML)	LOGIQ P9 LOGIQ P7
 RIC5-9A-RS H48701EJ	Wideband real-time 4D intra-cavitary probe	Endocavity, OB/GYN, Urology	146° (B) 120° (Volume angle)	3 – 10 MHz	Single-angle, reusable bracket (H46721R), Single-angle, disposable (H48681GF)	LOGIQ P9 LOGIQ P7
<b>Specialty</b>						
 P8D H46312LZ	CW split crystal pencil probe	Cardiac, Vascular	N/A	8 MHz	No	LOGIQ P9 LOGIQ P7
 P6D H4830JG	CW split crystal pencil probe	Cardiac, Vascular	N/A	6 MHz	No	LOGIQ P9 LOGIQ P7
 P2D H4830JE	CW split crystal pencil probe	Cardiac, Vascular		2 MHz	No	LOGIQ P9 LOGIQ P7

### Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit [www.gehealthcare.com/promotional-locations](http://www.gehealthcare.com/promotional-locations).

Data subject to change.

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