Ramses

Next-generation long baseline medium frequency and low frequency positioning systems

RAMSES is an acoustic synthetic baseline positioning system with self-contained computing, for simple real-time sparse array subsea navigation. Tightly coupled with **iXBlue** inertial navigation system (INS), it delivers extreme precision and robustness in challenging acoustic operational environment. Available in MF and LF versions (medium frequency for most applications and low frequency for ultra-long range applications), **RAMSES** is part of **iXBlue INERTIAL-ACOUSTIC SOLUTIONS** for underwater positioning and navigation. The solution combines **RAMSES** system with GAPS and POSIDO-NIA **iXBlue** ultra-short baseline (USBL) positioning systems.

FEATURES

- Sparse array positioning functionality and self-calibration capability
- All in one self-contained system, including real-time position computation
- Decimeter range measurement accuracy
- Open solution environment: operates with **iXBlue** and third party transponders

BENEFITS

- Quick deployment, reduced number of transponders, and calibration-free
- Requires no top-side computer and no umbilical, enabling immediate and simplified mobilization
- Highest precision navigation, smooth and drift free positioning
- Operable within existing deployment fields, reducing operation costs

APPLICATIONS
• High precision AUV/ROV subsea navigation • Subsea construction • Metrology • Site survey • Oil and gas • Marine construction • Scientific • Defense

IXBLUE
DEEP INSIGHT. SHARPER SENSES.

RAMSES
TECHNICAL SPECIFICATIONS

PERFORMANCE / CHARACTERISTICS

Performance / characteristics	RAMSES 6000 (LF band)	RAMSES (MF band)
Operating frequency	8 – 17.5 kHz	20 – 30 kHz
Distance measurement accuracy[1]	< 10cm	< 10 cm
Maximum range[1]	10 000 m	4 000 m
Position accuracy (INS aided, 2 transponders)	10 cm	10 cm
Depth rating	6 000 m	6 000 m
Transponders	iXBlue OCEANO LF range	iXBlue OCEANO MF range Compatibility mode [2]
USBL Compatibility	With iXBlue POSIDONIA	With iXBlue GAPS
Interfacing	iXBlue web-based MMI Ethernet, Serial	iXBlue web-based MMI Ethernet, Serial
Power supply	External 12 / 36 Vdc / 9W	External 12 / 36 Vdc / 9W
Construction	Titanium	Duplex Stainless Steel
Weight (air / water) kg	11 / 5.5	18 / 12
Size (OD x length) mm	505 x 126	505 x 126

Typical iXBlue inertial-acoustic solution configurations
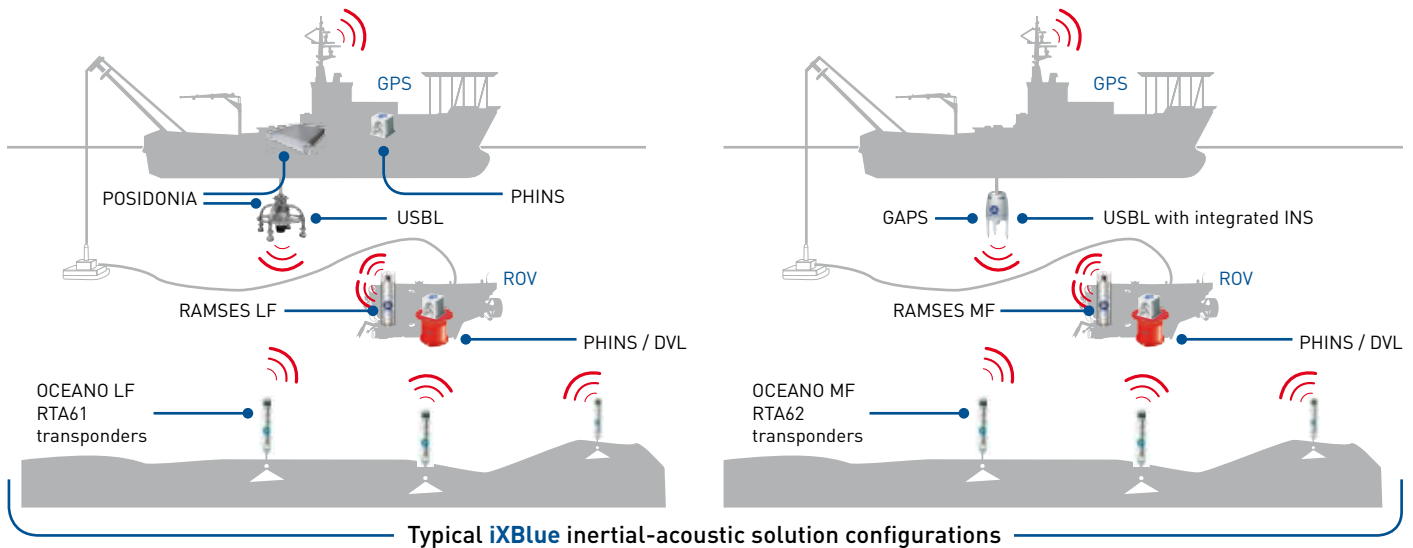
1 Depends on environment condition and propagation
2 RAMSES MF

IXBLUE
DEEP INSIGHT. SHARPER SENSES.

2014-02-PS-RAMSES