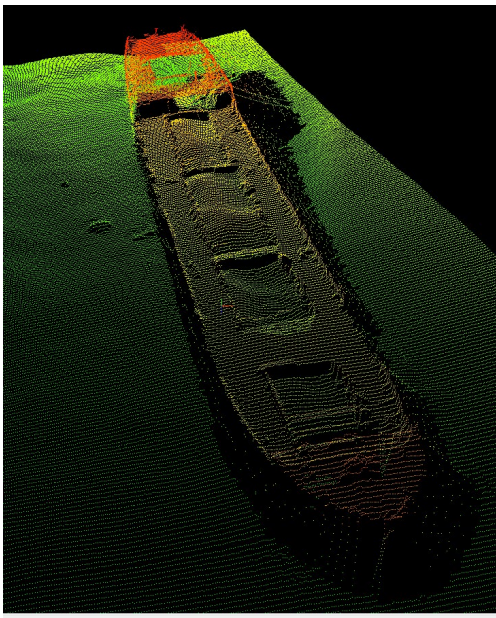
EM2042 feature

QuadSwath™

KONGSBERG

Boost your seafloor survey efficiency

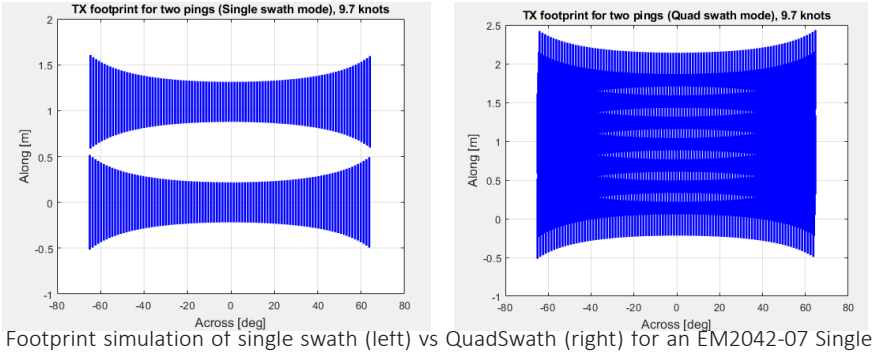


Kongsberg Discovery is introducing QuadSwath for the EM2042, the latest advancement in shallow water multibeam echo sounders.
QuadSwath takes the Dual Swath feature two steps forward, by allowing the EM2042 to increase the data density up to four times by transmitting four consecutive swaths within each ping cycle.

QuadSwath can work on top of the EM2042 multisector transmission, enabling yaw motion stabilization, and resulting in a more uniform sounding distribution across and along the seafloor. This innovative feature has been made possible through the EM2042 outstanding acoustic bandwidth and superior data processing capabilities.

Each sector within each swath utilizes distinct and optimized frequency slots across the acoustic spectrum, slightly offset from each other, to prevent interferences and inaccurate bottom detections. The result is an extreme high-rate of independent echo returns that is processed in real time to generate soundings for each swath.

QuadSwath significantly improves object detection and definition, while facilitating a full seafloor ensonification in high-speed surveys. It has been developed for the 300 kHz and 400 kHz bands in EM2042 single RX variations.



Footprint simulation of single swath (left) vs QuadSwath (right) for an EM2042-07 Single RX (0.7 x 0.7) at 50m depth, surveying at 10 kts (5 m/s)

QuadSwath™

- Optional feature for EM 2042 multibeams
- Increases sounding density up to 4 times
- Compatible with multisector transmissions
- Increases object detection capability
- Improves the overall survey efficiency