星天海洋
STARTEST MARINE

GeoCom-0816U

Underwater Acoustic Modem

Product Overview

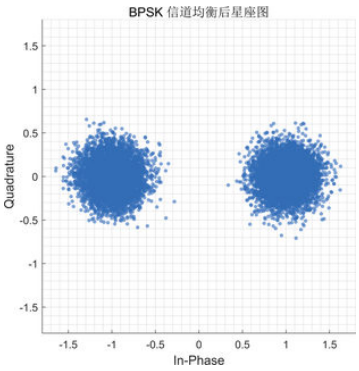
GeoCom-0816U hydroacoustic communication equipment, which is used as a deck unit for hydroacoustic communications equipment, has the advantage of being flexible in layout, control and use. The user configures and drives this type of equipment by installing on-board software (random) on laptops, combining USB to RS 485 threads and load cables. The 50 m heavy cable is mounted at 30 m underwater depth (4.5 MP a, the specialty field can pass over the fixed length of the heavy cable, which is now placed deeper). It has a 7Ah@24V battery with a single charging operation of approximately 8 hours (measured at 8 hours of reception, with a maximum power launch of 1 hour) and meets most of the operational requirements at sea. The hydroacoustic communication equipment is available at a distance of up to 10 km, with a maximum user rate of 4 kbps (in error rate)

10-4) robust water acoustic communication services.

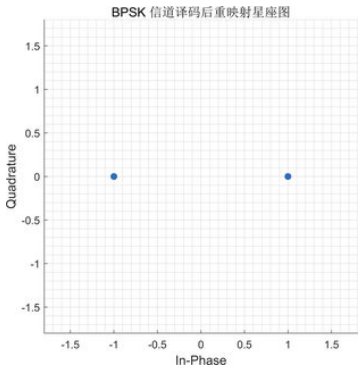


GeoCom-0816U

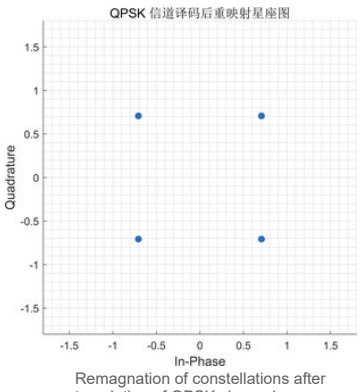
[Bit Error Rate Plots]



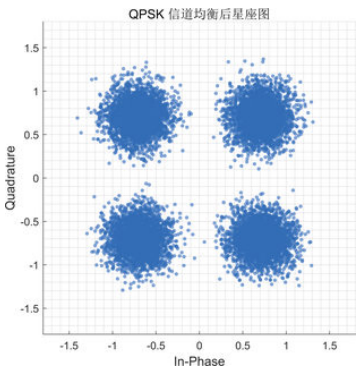
BPSK channel balance map



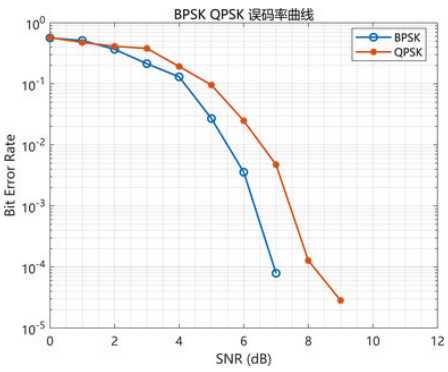
Remagnation of constellations after translation of BPSK channel



Remagnation of constellations after translation of QPSK channel

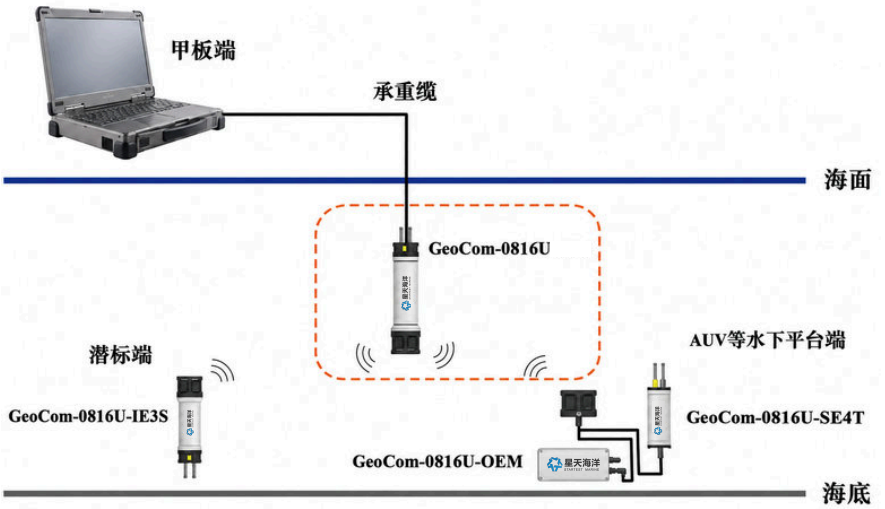


QPSK channel balance map

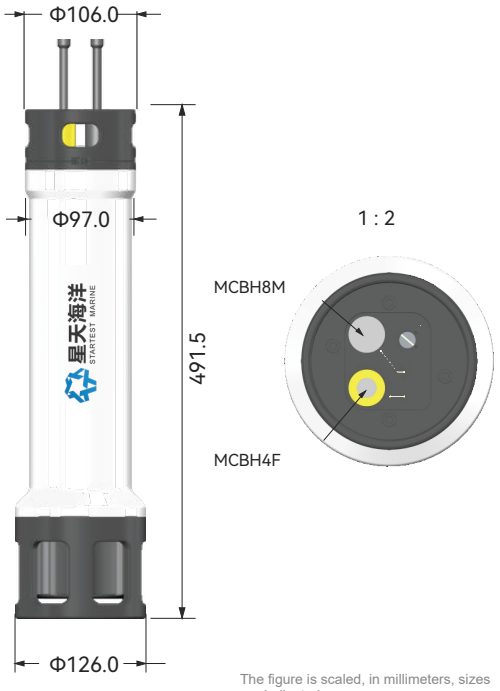


Errorrate Curve

[Application Diagrams]



Application Diagrams



Size graphs

[Technical Specifications]

Communication frequency1	8kHz-16kHz
Communication distance 2	Maximum 10km
Communication rate 3	100bps-4kbps
Communication error rate	10^{-4}
Working mode	Launch/receipt mode
Mode of communication	Half-difference.
Communication formula	MASS and SC-MPSK Double Model
Control interface 5	RS485

[Physical Specifications]

Max. Depth 4	300m (more than 2 times the design residual)
Internal Battery Capacity	7Ah@24V
Outer Dimensions	120 mm in diameter x 450 mm
Weight 6	12kg (air) 7kg (water)

Notes to the manual

1 Communications bands are co-engineered energy exchanger bands, within which the actual communication signal bands vary according to the pattern and parameters of communication. Communications distance varies depending on the environment in which they are used and the channel. This type of equipment can reach more than 10 km of communication distance in scenarios such as surface acoustic channels, winter shallow waters, reliable acoustic pathways, deep-sea vertical channels and arctic axes, when used as a deck unit, attention is paid to the effects of the compatibility of self-noise, such as a water surface ship host, with other acoustic equipment. 3 Communication speeds can be configured through top-up software. When GeoCom-0816U is used as a deck unit, the bottom supports handshake-style adjustments to achieve communication rate switching. 4 Designed to be 300 m working depth with a maximum of 600 m water depth pressure. RS485 interfaces are used when used as deck units, and RS232 or RS422 interfaces can be made available according to user needs. 6 The weight is estimated and there is a 10 per cent deviation from the actual product, whichever is actual.

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