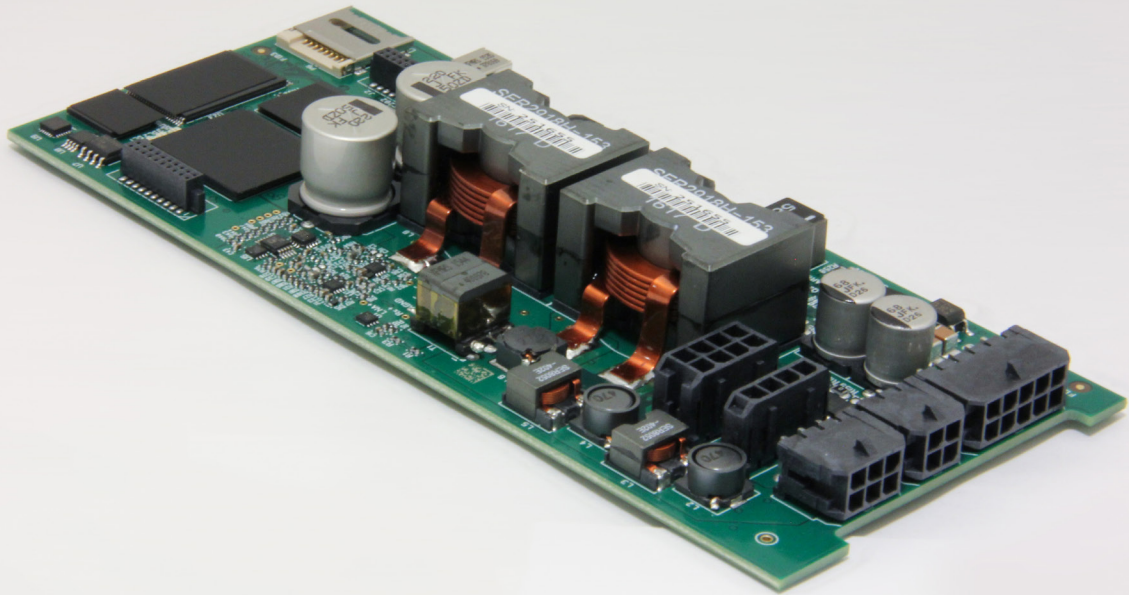


cNODE[®] Modem Embed



KONGSBERG



cNODE[®] Modem Embed 33-80V

The cNODE Modem Embed electronics board, together with a transducer and external power, functions as a modem and transponder. Designed for integration into custom subsea housings the transponder is fully compatible with HiPAP, cPAP and μ PAP positioning systems.

The cNODE Modem Embed provides flexibility to integrate KONGSBERG modem electronics into a custom pressure housing. This provides advantages to reduce size, weight and the need for subsea interface cabling.

A variety of flush mount and remote transducers are available, to provide optimal performance in shallow, deep water or horizontal modem and positioning applications for AUVs, ROVs, gliders, towed fish or nodes.

The same SSBL, LBL and telemetry capability is featured on the board as per a standard cNODE providing the same performance when positioning the modem with any HiPAP SSBL or cPAP LBL system.

Operating in the Medium Frequency 20kHz to 30kHz band, both FSK and Kongsberg Cymbal navigation codes are available. Cymbal wideband offers 560 unique navigation codes and range accuracies of better than 2cm, are achievable.

The modem utilizes Cymbal acoustic protocol.

FEATURES

- Cymbal wideband codes (560+)
- HPR 400 (FSK) channels
- 21 – 31 kHz band (MF)
- Responder and transponder functions
- Telemetry for sensor and LBL data
- SSBL positioning mode
- LBL positioning mode
- Interfaces to a variety of transducers
- Internal tilt sensor $\pm 90^\circ$

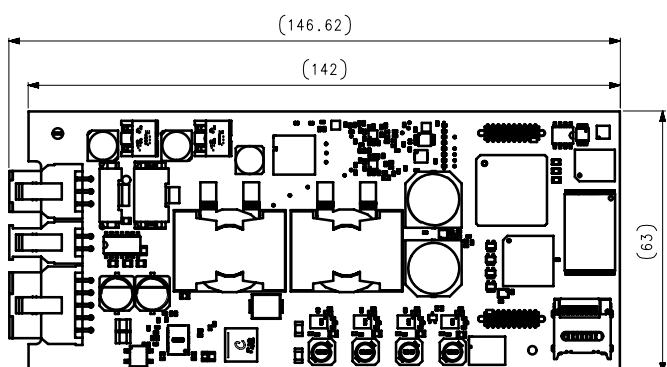
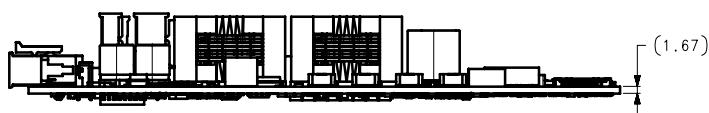
TECHNICAL SPECIFICATIONS

KM ITEM NUMBER	428604
REQUIRED EXTERNAL POWER SUPPLY	22.5 - 29.5 VDC, 24 V Nom
STANDBY POWER	< 100 mW
TRANSMITTING POWER (MAX)	250 W
TRANSMITTING POWER SETTINGS	Max, High, Low, Min (6 dB steps)
MAX TRANSMITTING SOURCE LEVEL	203 dB
DATA INTERFACES	RS-232 and 1-wire
PCB DIMENSIONS L x W x H	142 mm x 63 mm x 22 mm
ADDITIONAL EXTERNAL CAPACITORS (2 OFF)	18 mm x 5 mm x 10.5 mm
ADDITIONAL TRANSFORMER H x Ø	32 mm x 42 mm
INTEGRATED TILT SENSOR	± 90°
RESPONDER TRIGGER SIGNAL	5 V to 25 V positive logic pulse (2 ms - 6 ms)
OPERATING TEMPERATURE	-5 °C to +55 °C
TRANSDUCER DEPTH RATING	3000 m

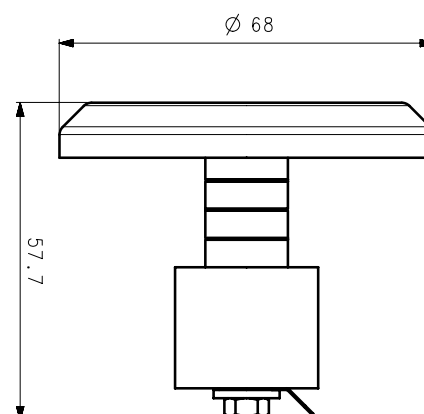
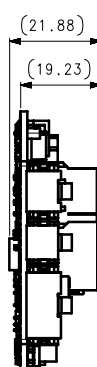
MODEM

FREQUENCY BAND	21 - 31 kHz
ACOUSTIC SPEED, CYMBAL	Up to 6,0 kbit/s, selectable for adaption to acoustic channel conditions
DATA INTERFACE	RS-232, RS-485 or RS-422 (isolated)
CONFIGURATION SOFTWARE	TTC Light software
ACTIVE CONTROL DURING OPERATION	Kongsberg Link User Protocol

OUTLINE DIMENSIONS



Printed Circuit Board



Transducer TD80V Low – for flush mount

Specifications subject to change without any further notice.

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