Kongsberg cNODE

Software release note

KONGSBERG

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This software release is valid for medium frequency cNODE Maxi/Midi/Mini/Explorer transponders and modems. Software version 7.21 is released with FPGA version 4.48. Most functions in version 7.21 are supported by previous FPGA version 4.46. Requirements for FPGA version newer than 4.46 is noted.

Release 7.21

- Common SW for both transponders and modems
- Multi-Reply navigation mode
- Supports combined depth and tilt sensor during navigation
- Supports altimeter sensor (requires sensor module with SIO-P board)
- Supports Sensor Logger Client using sensor module with SIO-P board (Baseline measurements requires FPGA 4.48 or later)
- Supports interface to Teledyne Workhorse ADCP (requires modem option and FPGA 4.47 or later).

Improvements

- Explorer modem: Programmable maximum range for UTP transponder ranging
- Improved performance in Power Save mode

Release 6.10

- Added 500+ channels. FPGA version 4.46 or newer is required.
- Added functionality for Power Save. FPGA version 4.46 or newer is required. The minimum ping rate for Power save is 3 seconds.
- Added new functionality to handle Modem and Hugin AUV requirements.
- Added sensor data in the navigation data reply for beacon mode.
- Initialized to vertical transducer during start up for all transducers.
- Additional information added to Read status reply telegram. Extended channels and Power save status is available.
- Added Sensor data for Responder positioning. Sensor must be enabled.
- Added new Release functionality (several release outputs).
- Added MGC attitude sensor.
- Added Strain sensor.

Improvements

- Correction in Cymbal wideband detection method used in FSK navigation.
- Correction in fragment handling for Cymbal.
- Added LF functionality for Acoustic test.
- Correction of FSK beacon mode. Bug caused by telemetry receives which blocked the beacon.

- Improvement of serial line communication.
- Correction in the Responder trig functionality. The cNODE had to go to sleep mode when going from SSBL mode to Responder mode the second time.
- Improved internal tilt measurement. Vector calculations implemented instead of using accelerometer values.

Release 5.07

- Added support for Octans sensor, both in FSK and Cymbal mode
- Added support for Lithium EX batteries. The maximum power setting for transponders with EX batteries will be limited to high Improvements
- Correction for Compass sensor in FSK pulse positioning

Release 5.03

Improvements

- Corrections for automatic test during manufacturing

Release 5.02

- Added multiuser LBL in both FSK and Cymbal mode
- Added functionality for MSM multi-sensor module
- Added sensor data in replies from a beacon transponder
- Added support for MSM multi-sensor module when transponder is master in LBL TP positioning
- Added Cymbal LF functionality
- LBL mode is disabled if transponder receives a disable command

Improvements

- Improved responder trigger detection on noisy trigger lines
- Improved/updated battery lifetime calculations

Release 4.12

Improvements

- The transponder is initialized to minimum TX power upon startup
- Improved startup sequence of the transponder, certain conditions could result in a hang-up earlier

Release 4.07

- Added functionality for sensor logging in SIO Modules

Improvements

- Improved FSK telemetry
- Improved battery lifetime calculation

Release 3.11

Improvements

- Corrected transducer signal delay
- Increased robustness to interfering telemetry

Release 3.10

- Implemented LBL TP positioning

  Added functionality to change between Cymbal and FSK
- Increased maximum number of baseline measurements from 8 to 32 in one measurement set

Improvements

- Corrected the FSK RX gain reported after the transponder had been in sleep mode. It was always reported High, independent of the actual setting
- Improved pulse positioning for current sensors in FSK mode

Release 3.08

- Added function to read the product information (serial numbers) of the internal components of the transponder via acoustics and serial line
- Internal tilt sensor available both in Cymbal and FSK mode

Improvements

- Corrected the lock horizontal function for 30V30H transducers