Belmont test
software architecture
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• GNSS communication
  • Tested with I2C communication (yes)

• Audio communication
  • SPI communication, recording and playback

• Modem communication
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  • Sensor SW implementation

• Control menu to the software
  • Menu SW implementation
GNSS Communication

- Pulls NMEA message through I2C
- Dumps NMEA to console
- Transfers ASCII (NMEA) from console to GPS using I2C
- Compatible with Sony PC test SW.
- Uses Sony GPS config
- GPS flashing tested using debug UART
Audio communication

Audio test
- Records audio
- Playback same audio
- Used Ogg-Vorbis
  (mono left, 16kHz, 1024 byte frame)
- Hex dump Ogg-Vorbis to console
Modem communication

Modem test
- Pass-through UART test
- Supports sending AT commands from console with answer.
Sensor Communication

Sensor test
- Dumps sensor register data to console
- No control currently.

- Due to the lack of Belmont boards sensor communication has not been verified yet with real sensors.
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Write '?' for menu

--- Menu ------------------
1 ..... Reset GNSS
2 ..... Read GNSS version
3 ..... Write GNSS commands
4 ..... Pipe GNSS traffic
5 ..... Reset LTE
6 ..... Pipe LTE traffic
7 ..... Accelerometer id
8 ..... Accelerometer test
9 ..... Accelerometer register write/read
A ..... audio test
B ..... GPIO test
C ..... GPIO write/read
D ..... Ambient light sensor test
E ..... Humidity & Temperature sensor test

Few tests are “stay” type – e.g. LTE.
Contact us.

www.bittium.com
james.harper@bittium.com