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RAIN RFID Encoding Speed Test

Comparison of Write and Blockwrite commands on different ICs

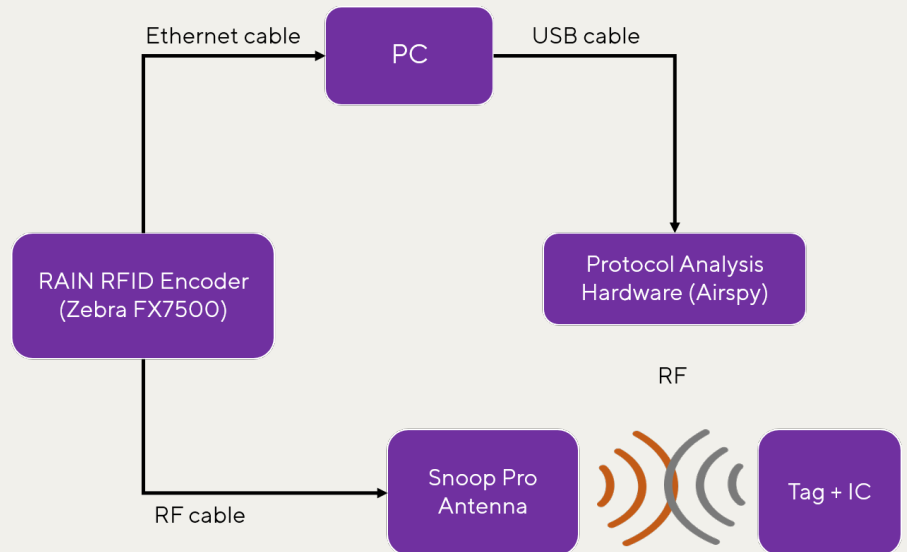
Test Setup

Equipment

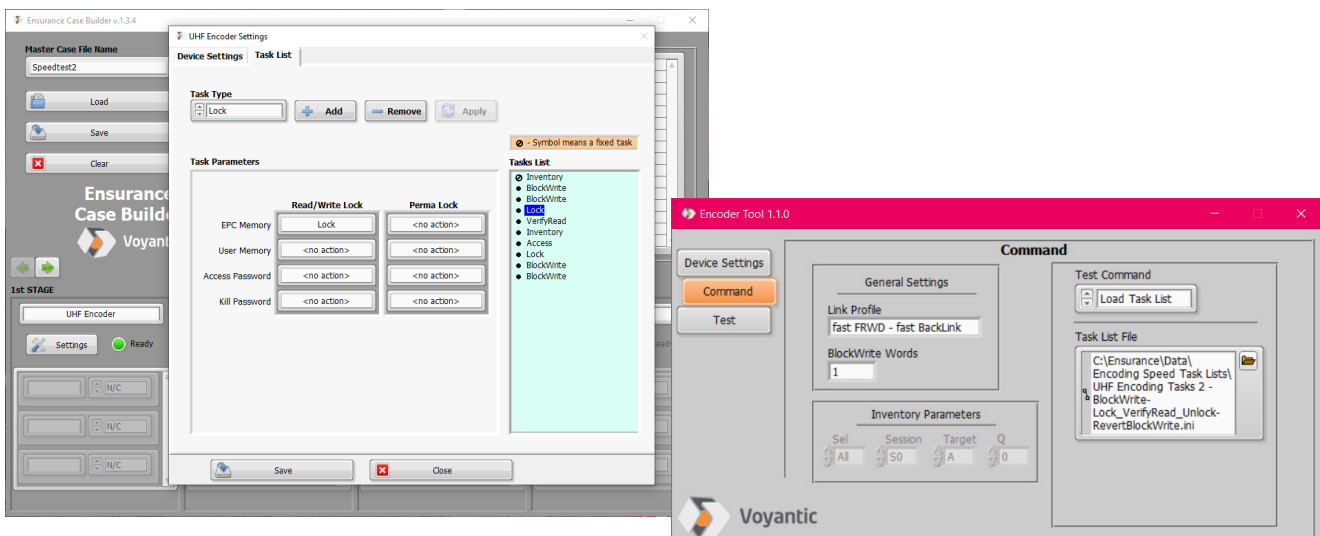
- PC
- Snoop Pro Antenna
- Protocol Analyzer
- RAIN RFID Encoder (Zebra FX7500, custom firmware)
- RAIN RFID labels with 8 different ICs
- Voyantic Ensurance software

Protocol Settings

- DATARATE 160b/s
- BLF 320 kb/s
- Tari = 12μs
- MODULATION M2
- 2 words with BLOCKWRITE



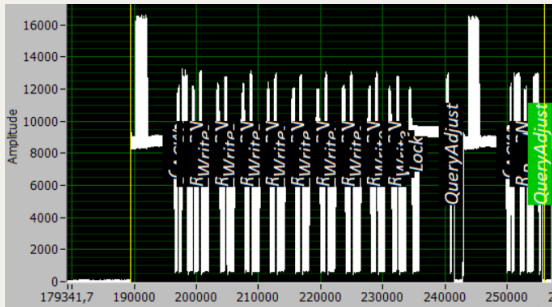
Voyantic Ensurance Case Builder & Encoder Tool



Test Sequence

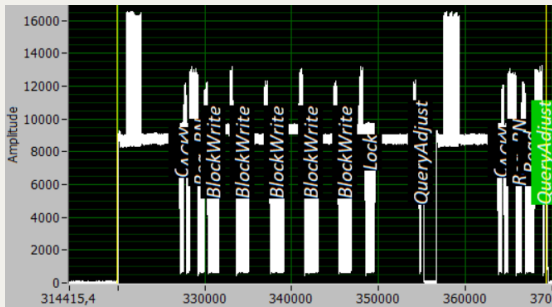
1. Build the task list in Ensurance Case Builder
2. Load the task list to Encoder Tool
3. Start sending the commands
4. Start Protocol Analyzer
5. Record the waveform

Protocol Analyzer View Example



Write

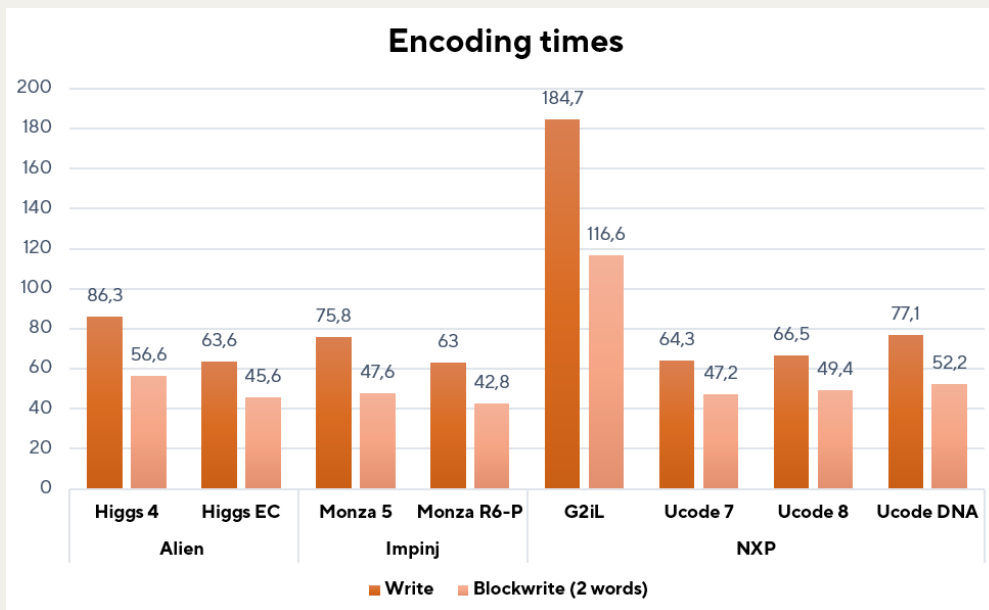
Inventory
Write PC
6 x ReqRN + Write EPC
ReqRN + Write Access PW
ReqRN + Write Access PW
Lock
Power Reset
Inventory
Read (Verify EPC)



Blockwrite

Inventory
Blockwrite PC, 1 word
3 x Blockwrite EPC, 2 words
Blockwrite Access PW, 2 words
Lock
Power Reset
Inventory
Read (Verify EPC)

Encoding Times (ms)



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Voyantic solutions are designed to speed up development, improve production quality, and increase sales of RFID technology. We have a proven track record with hundreds of solutions delivered to more than 30 countries around the globe. We continuously invest in R&D and improve the technology. Our distributor network brings our products & support to customers worldwide.

Learn more about RFID Encoding Solutions at
www.voyantic.com/ensurance