High-Density Memory Targets RFID Applications

An RFID device from STMicroelectronics, a leader in communication and memory ICs, now allows technical equipment to 'talk back', with detailed information such as a full maintenance history, to speed up servicing and simplify record-keeping for OEMs and equipment operators.

The new chip, the LRiS64K, combines radio tagging (RFID) circuitry with a large 64-Kbit non-volatile EEPROM capable of storing extensive data, such as initial manufacturer details and complete records of repairs or upgrades. It delivers a unique combination of industry-standard wireless features, rich data storage, secure retention, and long-term reliability.

Engineers servicing equipment such as medical devices, industrial equipment, automotive controllers or avionics modules containing an LRiS64K can access important unit-specific information held directly on the device, by using a standard RFID reader. This on-board storage can eliminate any need to retrieve paper records or access an online database. The unit's service history can be updated in the LRiS64K memory for access during subsequent inspection or servicing. This feature can save downtime and help reduce MRO (Maintenance, Repair & Operations) costs in sectors such as healthcare, aviation, logistics, oil and chemicals, construction, and manufacturing.

The LRiS64K is a long-range 13.56MHz device, based on the international ISO 15693 and ISO 18000-3 mode 1 standards for RFID devices and capable of co-existing with other devices within range. Its integrated tuning capacitor simplifies connection to an external antenna. The memory can retain data for more than 40 years and withstand more than one million write/erase cycles.

Main features of the LRiS64K:
64-bit Unique Identifier (UID)
64-Kbit User Memory
13.56MHz carrier frequency, ISO15693 standard Multi-password protection 53-kbit/s wireless data rate 5.75ms typical memory programming time

The LRiS64K is starting in mass production now in bumped and sawn wafer suitable for Direct Chip Attachment (DCA).

Further information on ST can be found at www.st.com [1].

Links:
[1] http://www.st.com