New Consumer Conveniences with Innovative Wireless Memory and NFC Technology

STMicroelectronics announced the strengthening of its position in the Near-Field Communication (NFC) market by extending user's ability to read, write and transfer information on ST's dual-interface Memory to a broad range of industrial and consumer applications.

ST's M24LR64 wireless memory has the unique ability to transmit and receive information from the heart of an application to a smartphone containing NFC technology or to an industrial RFID (Radio-Frequency Identification) reader, allowing for transactions, data exchange, object identification and tracking to occur rapidly. NFC is a short-range technology operating at 13.56MHz that is being implemented on smartphones to enable customers to make payments, such as for public transit and in convenience stores, using their mobile devices. The technology can also permit communication between NFC-enabled devices. Partnerships already announced between major US wireless carriers and credit-card companies will drive NFC technology into 30.5% of all handsets shipped in 2015, according to market-research firm IHS iSuppli.

A new App called Dual EE, which operates on the Android operating system, delivers full compatibility with ST's M24LR64 wireless memory. The app connects an NFC-enabled smartphone to a prototype temperature recorder featuring ST's unique M24LR64 wireless memory and demonstrates data transfer and storage. These capabilities are easily transferable to a broad range of products, including medical devices, home appliances, consumer electronic products and meters. Adoption of NFC technology and ST's innovative memory will cut the cord and grant users more freedom in saving and exchanging information wherever they want.

"The combination of this new Android app and our innovative dual-interface wireless EEPROM memory will allow users to communicate with a wide range of electronic devices via their NFC-enabled smartphones," said Benoit Rodrigues, General Manager of ST's Memories Division. "The introduction of the unique memory and the Android app is further evidence of ST's ability to develop new and innovative technologies and solutions for the fast-growing NFC market,

complementing our world-leading product portfolio for NFC, which also includes secure elements, SIM ICs and NFC controllers for mobile devices."

Together, the dual-interface EEPROM and Android app provide a launch pad for consumer-tech innovations offering users new types of benefits via NFC. The memory can also operate with RFID equipment used in the supply chain. The Dual EE app can be downloaded free of charge from the Android Market, and has already been validated on leading smartphones. The source code of this sample application is available on the ST website at www.st.com giving developers a head start to designing their own Android NFC applications that are able to communicate with dual-interface EEPROM products.

Further Information on NFC technology
NFC is a short-range wireless standard for communication over distances up to around 10cm that is supported natively in the Android operating system (from issue 2.3.3), and will enable enhanced services for users of NFC-enabled smartphones. These could include receiving coupons from retailers upon entering a store, or sharing contacts or photos, in addition to making mobile payments and collecting data from medical monitors, smart meters or other equipment containing ST's dual-interface EEPROM. ST offers a strong portfolio of solutions for NFC applications, including the ST21NFCA NFC controller and secure elements based on ST's ST33 secure MCU.

Further Information on ST's Dual-Interface EEPROM
ST's M24LR64 is a dual-interface EEPROM that can be connected directly to a wireless antenna as used in an RFID tag to transfer data through the energy in radio waves between the RFID or NFC reader and an electric tag attached to an object, allowing the equipment to be read or updated without being switched on. It is the only product of its type in the market able to communicate with RFID and ISO15693-capable NFC readers, as well as the system's own processor. This dual interface simplifies the design of products that provide new features for NFC users, and that can also be managed easily in the supply chain using RFID. ST's dual-interface EEPROM products also feature a 32-bit password data protection scheme, enabling control of wireless read-and-write memory access.

RFID is increasingly being used within supply chains and is especially useful in managing inventory, as it drastically reduces the amount of time used in the past to count items. Electronic products containing an ST wireless EEPROM such as the M24LR64 can be identified individually, activated on safe delivery, and updated with regional settings or new firmware at the point of sale. Since the tags can be read from inside the devices, all this can be carried out without opening packaging or breaking manufacturers' seals. These capabilities enhance security, control, flexibility and convenience for OEMs and retailers.

Major features of the M24LR64
• NFC/RFID compatible ISO15693 wireless interface operating at 13.56MHz
• Low-power wired I2C interface to MCU or chipset
• 64-Kbit memory density
• 32-bit password scheme

M24LR64 is available now priced at $0.72 for 1000 units. Alternative pricing options are available for larger quantities. ST plans to introduce additional members of its dual-interface EEPROM family in the fourth quarter of 2011.

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

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