Description of Application

Itron, Inc. ("Itron") holds an experimental license pursuant to Part 5 of the FCC's Rules (call sign KA2XMJ – latest action file No. 0163-EX-RR-2000), which authorizes Itron to test electronic meter reading systems in the 928 MHz, 952 MHz, 956 MHz, 959 MHz and 902-928 MHz band. Itron herein seeks modification of the subject license to include operations in several new frequency bands in which Itron intends to develop equipment, in addition to the frequencies for which it is already authorized. As explained in greater detail below, Itron requests access to the bands listed in order to develop and test new and innovative meter reading technologies and products.

Itron manufactures and markets radio-based, off-site meter reading ("OMR") systems that operate pursuant to Part 15, Part 90 and Part 101 of the FCC's Rules. Through the use of these products, utility companies have automated their meter reading activities, thereby increasing efficiency and reducing administrative costs. Itron continues to develop new and improve existing products to take advantage of new technology. As part of its normal product development processes, Itron must test these devices within its manufacturing facility and in the field to study performance of its OMR products under real world conditions.

Itron is also a global corporation, developing meter-reading products for use worldwide. Accordingly, Itron requests expansion of its experimental license in order to accommodate the development of equipment for foreign markets. Each band is discussed below. Itron's current authorization permits operation of OMR devices at both fixed and mobile locations throughout the United States. Itron requests similar authority for the frequency bands below. All antennas associated with such operation will be limited to less than 10 meters (33 feet) above ground level or above an existing structure, other than an antenna structure. Itron is familiar with FAA requirements for notification of antenna structures and will act accordingly.

183.5 – 188 MHz Band

This band is allocated to telemetry devices in the United Kingdom and Hong Kong. Both markets have expressed a desire for OMR and fixed meter reading products.

Itron is aware that this band is allocated to television broadcast services, channel 8. Itron will limit operation in this band to its manufacturing facility in Waseca, MN, Spokane, WA and areas where channel 8 is not in use. Itron also assures the Commission that it will protect channel 8 television receivers from harmful interference due to testing this equipment.

429 – 435 MHz Band

These frequencies are used in Europe and Asia and other parts of the world, along with Japan. This band is the most universal ISM around the world, except the US. In Europe it is the primary frequency band in use. In the US, the band is allocated to the Amateur radio service. Itron will protect Amateur operations from harmful interference while testing this equipment.

868 – 870 MHz Band

These frequencies have been allocated for new data telemetry, or Industrial Scientific and Medical ("ISM") operations in Europe. In the US, the band is allocated in the Land Mobile band for public safety operation. The band is also under consideration for "re-banding" by the Commission in an upcoming Notice of Proposed Rule Making. Incumbent systems will be protected from harmful interference and device testing will be coordinated with Public Safety entities in the vicinity of test sites.

1216 – 1217 MHz and 1252 - 1253 MHz Bands

These bands are new allocations in Japan for telemetry and low power data transmissions. In the US, the band is allocated to the federal government for radiolocation. Itron will take whatever steps necessary to protect Federal systems from harmful interference.

1392 – 1395 MHz, 1427 – 1432 MHz and 1432 – 1435 MHz

These channels have been reallocated from Federal Government use to the FCC in WT Docket # 02-08. Itron holds a nationwide license in the 1427 - 1432 MHz band, but seeks to develop equipment that operates in all portions of the "1.4 GHz bands."

Modification to 902 – 928 MHz Band

Itron is currently authorized under KA2XMJ to operate with a 5 MHz emission bandwidth. The instant application request modification of the emission bandwidth to 15 MHz to facilitate the development of spread spectrum technologies to operate in this band in the US and Canada. Itron also requests to increase the effective radiate power to one (1) watt.

Public Interest

Itron herein seeks modification of its experimental radio authorization to support Itron's testing, development, and demonstration of OMR products for worldwide markets.

Expanding Itron's authority to include the frequency bands listed on the instant application will allow Itron to understand how its OMR systems can improve the efficiency of utilities worldwide. Itron's OMR systems apply a high-technology communications methodology to persistent problems of utility energy consumption and unnecessary facility construction.

Specifically, Itron's technical evaluation, field testing and demonstrations for which modified authority is requested herein will allow Itron to:

- test the performance of its meter reading systems in different types of meters to ensure device compatibility;
- test the performance of its meter reading systems in different frequency bands (Itron will test propagation characteristics and develop operational guidelines for each frequency band);
- test the new technology's ability to overcome difficulties associated with the varying placement of utility meters;
- test the viability and demand for various ancillary data collection services; and
- evaluate the performance of the new equipment in very cold, very hot, very humid and very saline environments.

Determining the degree to which utilities in various situations (such as described in this application) find Itron's meter reading solutions useful in solving problems associated with data collection, and are willing to purchase accordingly, will aid Itron in tailoring the system before the final product design and commercial rollout.