Dear Mr. Dayhoff,
Following is a copy of your e-mail and our responses after my conversation with you on Friday, December 8, 2000.

To: Judy Evans, TUV Product Service
From: Steve Dayhoff
sdayhoff@fcc.gov
FCC Application Processing Branch

Re: FCC ID MKRU519
Applicant: Single Chip Systems Corporation
Correspondence Reference Number: 17180
731 Confirmation Number: EA99257

TO PROCESS YOUR REPLY EXPEDITOUSLY, PLEASE UPLOAD THE REPLY AS A FILE INTO THE RF EXPOSURE INFO EXHIBIT TYPE (EXHIBIT 11) ON THE ADD ATTACHMENTS BUTTON.

1. Device may operate simultaneously with up to 9 antennas, please clarify if the measured output is at one of these outputs or a common location that feeds all the antennas. Note: The maximum peak conducted output authorized under 15.247 is 1.0 W peak.

**RESPONSE: The measurement is at a common location. Only one antenna is activated at a time, and the power is sequentially routed to each of the antennas, one at a time.**

2. The MPE estimates were performed using 708 mW output and 5.62 dBi antenna gain. There could be up to 9 antennas in this system, please clarify the antenna installation requirements, operating configurations, exposure conditions, and address RF exposure compliance accordingly.

**RESPONSE: The antennas and the RF ID transceiver is positioned by the end user in order for them to be able to read the tags. An important note will be included in the user's manual to warn the end user of RF exposure.**

3. The proposed RF exposure info in the manual indicates "Occupational/Controlled Exposure" limits should be applied to the operation of this system. This requires the users to have adequate training and to have the knowledge to control their exposure conditions and duration to satisfy the higher controlled exposure limits. Please provide copies of the applicable training information for this device to qualify for controlled exposure requirements.

**RESPONSE: The manual submitted is a draft. The manual will be revised with the following: IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied – the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.**

4. The proposed RF exposure info in the manual has applied incorrect RF exposure limits to this device. The applicable MPE limit at 900 MHz for controlled exposure is not 5 mW/cm^2 and the proposed separation distance does not agree with the MPE estimates. The manual also requires a tag to be closer than 5 inches (could be as close as 3 inches) to an antenna in order for it to be written correctly. With an antenna at less than 20 cm from persons, MPE limits are not applicable; compliance should be determined with respect to SAR requirements. Note: MPE limits are intended for far-field plane wave exposure conditions and are not applicable for estimating near-field exposure where SAR limit should be used.

**RESPONSE: The manual submitted is a draft. The manual will be revised with the following: IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied – the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.**

5. The manual info suggests users may spend 50% of their time at 3 inches from the antenna and the other 50% of the time at 5 inches to satisfy compliance, and also suggests operators to use their own judgements to limit their exposure. Please provide the supporting information to demonstrate these suggested distances and operating duty factor are applicable for the installation and operating configurations of this system for users to satisfy compliance. What would a user need to know to satisfy compliance for the many other exposure circumstances that are applicable for the operation of this system ? Please clarify.

**RESPONSE: The manual submitted is a draft. The manual will be revised with the following: IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied – the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.**

6. The manual info suggests a separation distance of 7 inches for bystanders to satisfy RF exposure compliance. In order for MPE limits to apply, a minimum separation distance of 20 cm or more is needed. Please clarify how would a bystander know that he or she has to maintain such distances. The supporting info for the applicable separation distance required to ensure bystander compliance for the antenna configurations should be submitted.

**RESPONSE: The manual submitted is a draft. The manual will be revised with the following: IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied – the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.**