Dear Rashmi,

The purpose of this letter is to request OET's concurrence that devices employing Keyssa's technology, as described below, qualify as Class B unintentional radiators under the Part 15 rules. Keyssa has developed a novel "contactless" connector technology for very high speed communications between various types of electronic devices.

Keyssa's contactless technology uses very low power transceiver ICs operating in EHF bands to replace the assortment of mechanical connectors used in mobile phones, tablets, laptops and similar devices, and in their associated cables. The technology requires the use of "mating structures" that guide and contain emissions from the transceiver chips; minimal air gap separation between two components or devices (e.g. a tablet and a docking station) between which signals are transmitted (the air gap separation should be less than 0.5 mm to reduce cross-talk and signal degradation that could result in a non-functional link); precise alignment; and pogo pins, magnets, magnetic switches or other alignment interlock mechanisms to ensure that signaling will not take place if the transceiver chips are improperly aligned.

Keyssa believes that the mating structure with signal containment features required by its contactless design constitutes an "artificial guide" (i.e. a waveguide) for electromagnetic waves as defined by the Part 2 rules (and ITU regulations) and thus, negates an intent to "emit RF energy by radiation." Accordingly, the Keyssa design meets the Part 15 definition of an unintentional radiator in the same way as mechanical connectors; however, because Section 15.33(b) does not provide for unintentional radiator testing above 40 GHz, Keyssa proposes that devices incorporating its "artificial guide" design be tested for compliance to the frequency range limits set forth in Rule 15.33(a)(3). In all other respects, Keyssa believes that the ANSI C63.4 and C63.10 procedures, as applicable, should be used for compliance testing of devices employing its design, with specific attention paid to the signal containment and termination features described above.

Would you please confirm that devices or systems with the signal containment and virtual waveguide features found in the Keyssa design are considered "Class B unintentional radiators" under the Part 15 rules? Thank you for your attention to this matter.

Best regards,

Terry