SmartReader R Series (G03113) with Sheep Auto Drafter (G05714) Antenna

The SmartReader R Series (G03113) is an RFID transmitter device that connects to a pair of built-in antennas in a Sheep Auto Drafter (G05714) assembly. The two antennas are connected in series through a cable that plugs into a unique socket in the SmartReader R Series. The RFID transmitter works only if the two antennas are connected together. It will not work if there is only one antenna connected as the inductance on one antenna alone is not capable to tune the RF transmitter and therefore, it will not operate.

SmartReader R Series has been certified previously under FCC ID: M5VG031504 using two independent antennas, i.e. the small panel antenna (BR600 600mm x 400mm Antenna Panel G03121) and large panel antenna (BR1300 1300mm x 600mm Antenna Panel G031424). The RFID transmitter device could operate using any of these antennas. These antennas connect to the RFID transmitter device through the same unique socket used to plug in the Sheep Auto Drafter antenna.

No changes on the RF circuitry except for the number of tuning capacitors. The old circuit use one tuning capacitor but in the new circuit, it has been broken into 2 x capacitors connected in series to reduce the voltage across each capacitor and has approximate similar value as the previous one if combined together. There is also an overlapping of GND layers to reduce the noise or emissions in the isolated RS232 circuit. The fundamental frequency of the transmitter stays the same and the field strength of the SmartReader R Series for the new product with the Sheep Auto Drafter antenna is higher as compared with the small and large panel antennas connected to this device but still within the limit. The Sheep Auto Drafter antenna is simply an additional antenna that is to be used with the certified RFID transmitter. There are also no changes in the functional capabilities of the SmartReader R Series device and no changes on the physical appearance of previously certified transmitter device.