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FCC Application Processing Branch

RE: Correspondence Reference Number 22895

FCC ID: MKRS512-C 731 Confirmation Number EA386289

Our intent was to certify a derivative product that is practically the same as the MKRS512. The difference is that the MKRS512-C discards the separate receive antennas by including a circulator. The block diagrams below illustrate.

I guess I misinterpreted 2.1043(d). It states, "... If the characteristics required to be reported are not changed the abbreviated procedure of 2.933 may be used." In fact, all of those characteristics have not changed.

Given that the reportable characteristics remain the same, can we add a new product with a new FCC Identifier MKRS512-C? What is the alternative? Can we market the product with a new model number but the old FCC Identifier?

You asked:

- (1) In the original application (FCC ID: MKRS512) do both transmit antennas transmit simultaneously?

No. In neither the MKRS512 nor the proposed MKRS512-C do both transmit antennas transmit simultaneously. In both units, the RF is switched from one antenna to the other. Only one antenna radiates at a time. This allows spacial diversity for powering and communicating with passive RFID tags.

- (2) Submit a block diagram for the new configuration.

What I have done is draw a block of the difference between the two units.

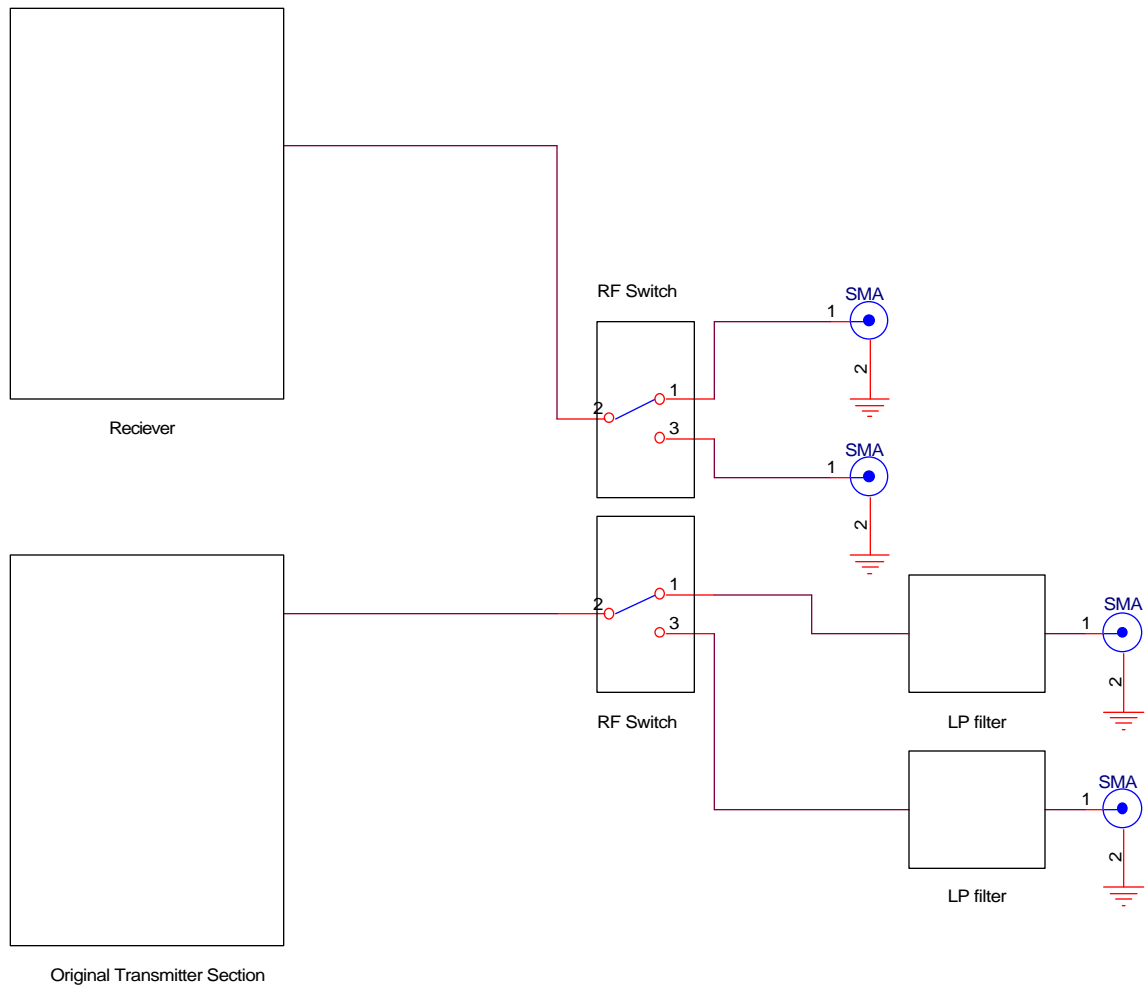
In the case of the MKRS512, the output of the final amplifier section is applied to an RF switch and then to one of the transmit antennas. In the case of the MKRS512-C, the output of the final amplifier section is applied through a circulator and then to the RF switch and one of the transmit antennas.

The backscattered signal from an RFID tag is routed to the receiver through another RF switch in the case of the original unit. In the case of the proposed new unit, the received signal is routed through the circulator to the receiver.

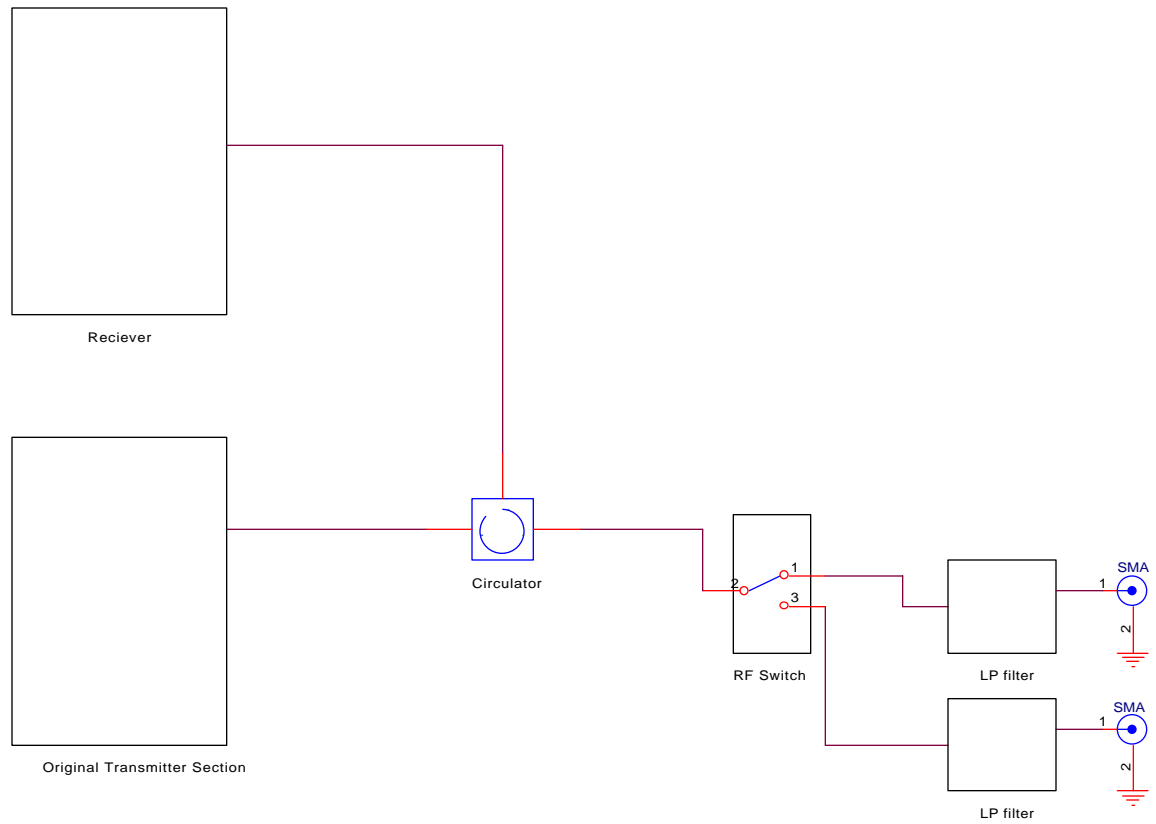
If I can provide additional help or information, I am also available at 858-485-9196 x109.

Regards,

Gary Bann



This is a block diagram of the pertinent parts of the Original MKRS512



This is the equivalent block diagram for the New MKRS12-C