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CommScope Technologies OneCell® Radio Module RPM-A5A11-B66

Items

Part-1

The power amplifier, Skyworks, AWB7227, used in radio module RPM-A5A11-B66, Original Grant, FCC ID QHYRPM-A5A11-B66, is going end of life. The proposed replacement part, Qorvo, QPA9421, is a pin compatible component that can be implemented onto the radio module PCB without any artwork changes required. The power amp specifications are embedded below.



AWB7227



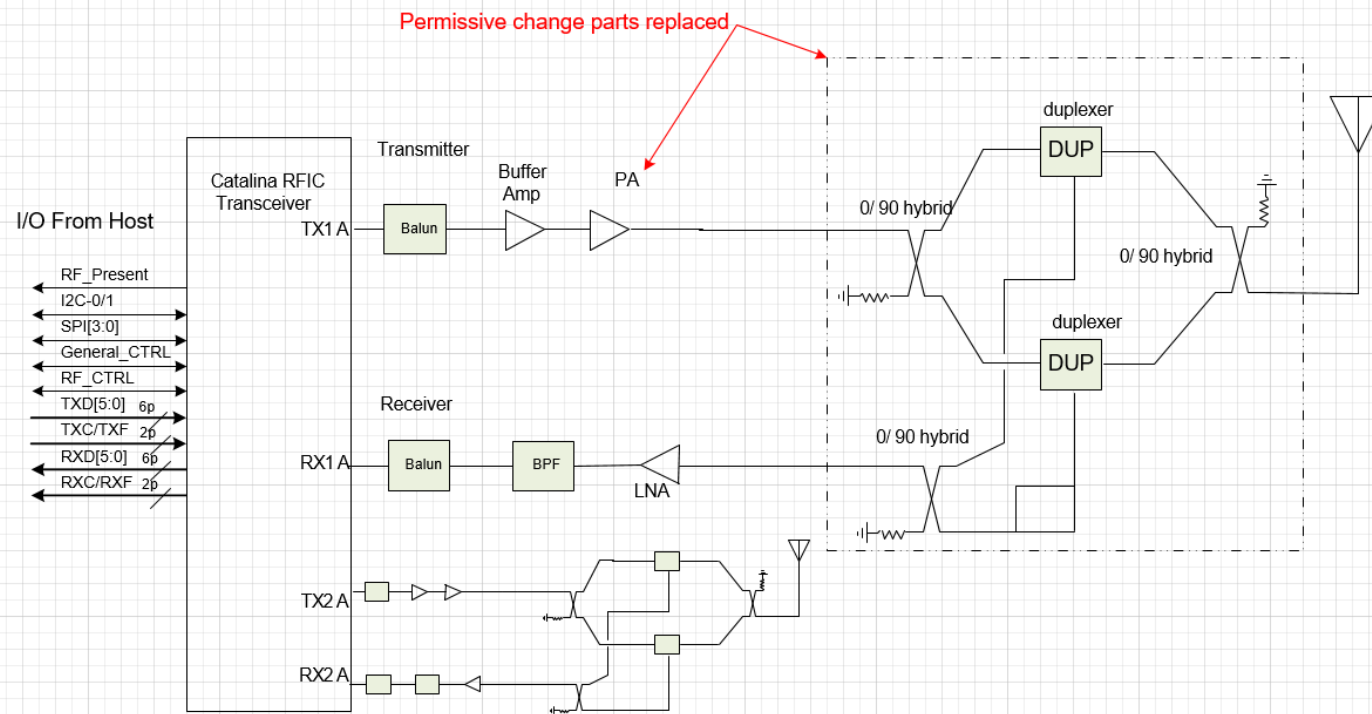
QPA9421

Part-2

The SAW duplexer, Qualcomm-B39222B8206P810, / hybrid, Anaren-X3C19F1-03S is **part of the circuit** is being replaced by a Ceramic duplexer, CTS-CER0569E.

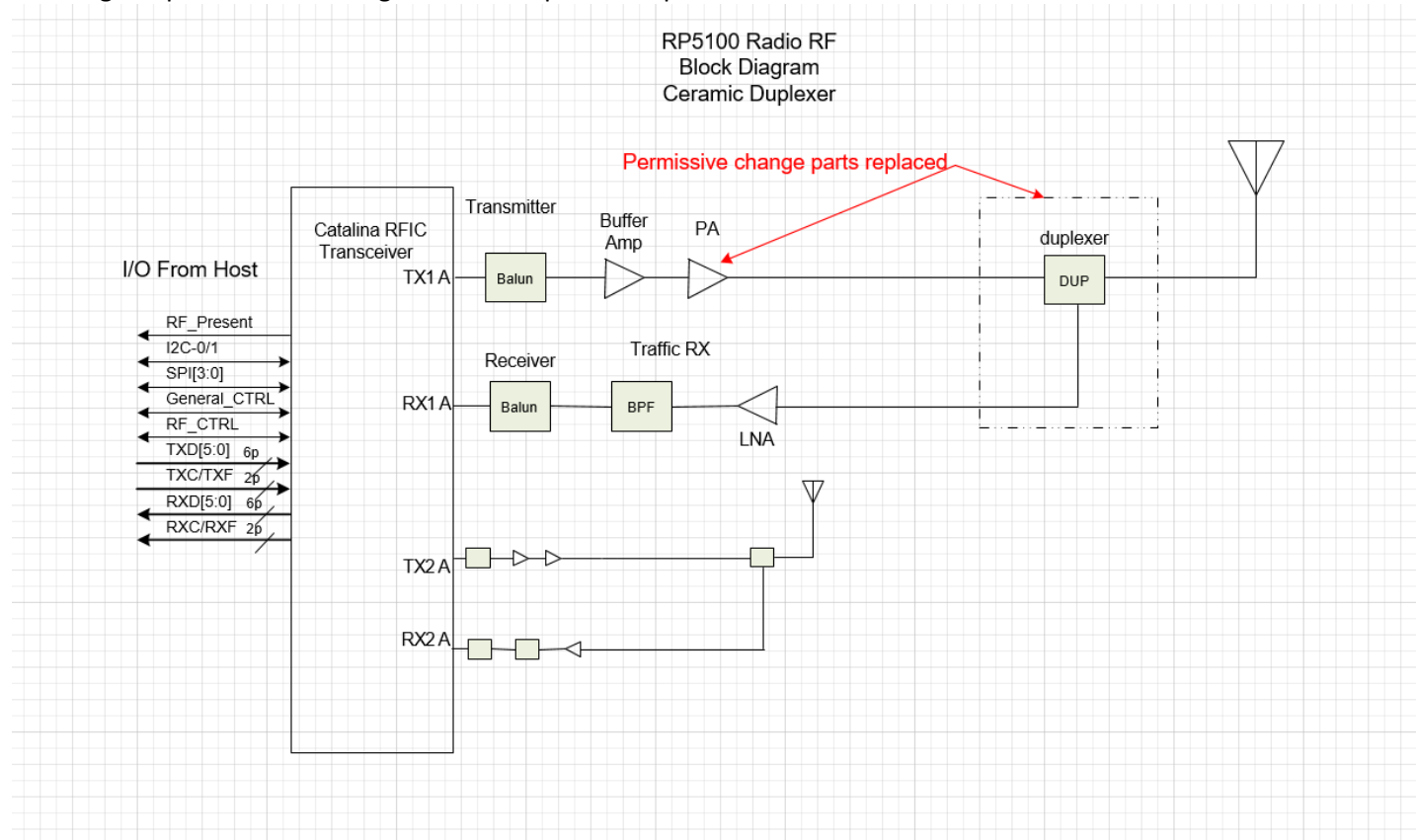
The block diagram below shows the original design. The design used a hybrid to split the RF signal, to reduce the overall power that the SAW duplexer would see, route the RF signal through 2 SAW duplexers, and then use another hybrid to recombine the RF signal.

RP5100 Radio RF
Block Diagram

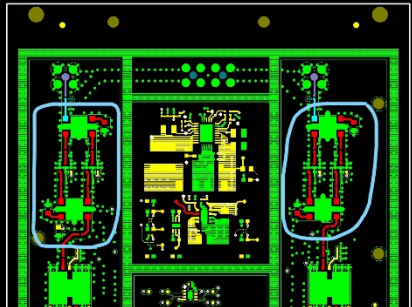

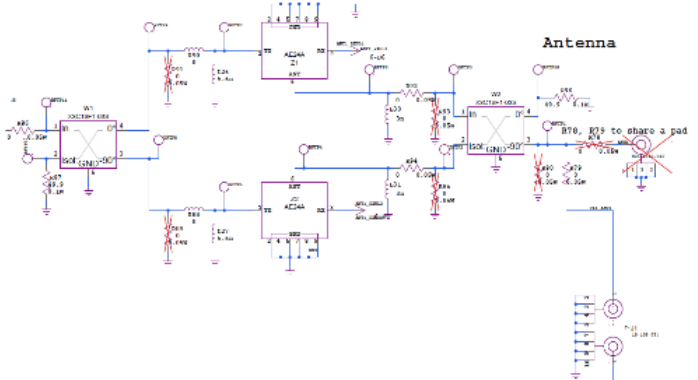
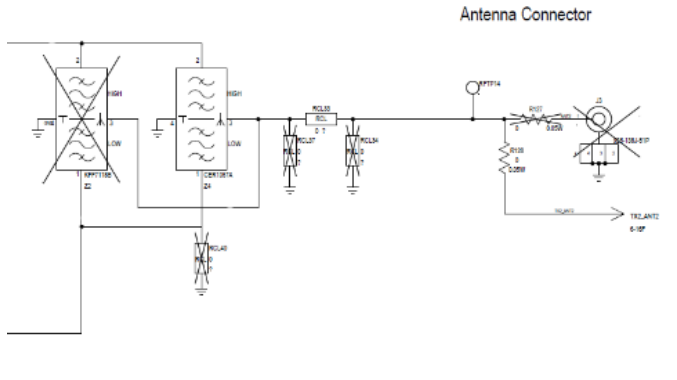


The block below diagram shows the replacement design. The SAW duplexers/hybrids are replaced by a ceramic duplexer capable of handling the power of the RF signal from the power amplifier.

by a ceramic duplexer capable of



The figure below shows the comparison of the original design and the replacement design.

REF - 178919 D01 Permissive Change Policy v06, Section D, Paragraphs 2, 3 & 4	Original Design	Replacement Design
<p>PCB Artwork</p> <p>The area outlined in Blue is the area of replacement</p>		
<p>Schematic</p> <p>Note: Items with X are not populated on the PCB</p>	 <p>Antenna</p>	 <p>Antenna Connector</p>