

DSG-RICH R&D Meeting

Date: September 27, 2021

Time: 11:00 AM – 12:00 PM

Attendees: Aaron Brown, Peter Bonneau, Pablo Campero, Brian Eng, George Jacobs, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. Feedback on RMC parts received from PCB assemblers

Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen

1. Some parts are not in stock, so assembler asked for acceptable alternative parts
2. 10-uF power decoupling capacitor in design was not in stock; equivalent selected as an alternative
3. Schottky diode package in design not in stock; equivalent part selected as alternative
4. 34-pin RMC-to-Backplane connector was not in stock; equivalent part selected as alternative
5. For ease of assembly, individually packaged fuse holder replaced with identical part that is packaged on a tape

2. Backplane PCB ready for fabrication

Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen

1. Net list check complete and Gerber files created for fabrication
2. Procurement request submitted and signed for three-week PCB fabrication
3. Mindy Leffel will populate PCB when delivered

3. I²C clock signal with and without buffer driver

1. Measurement in progress with oscilloscope
 - Measurements will use 100 kHz clock speed
 - 100 kHz is maximum speed for I²C's "standard" mode
2. Signals will be measured at three points:
 - At sbRIO input to circuit
 - At RJ45 port before signals go to SHT35 sensor PCB
 - For measurement without buffer driver, this trace should be identical to result at sbRIO input to circuit
 - At SHT35 sensor PCB after passing through ~100-ft cable