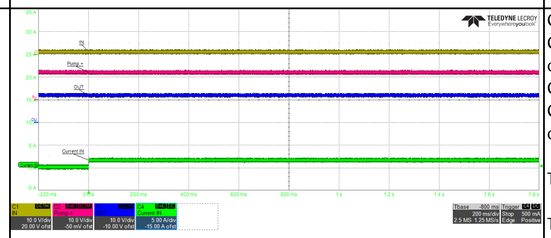
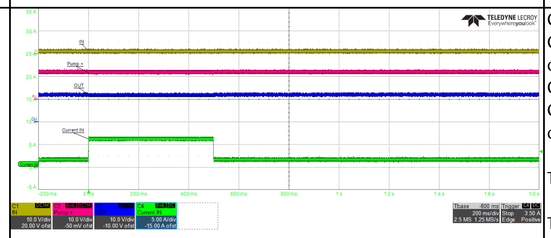
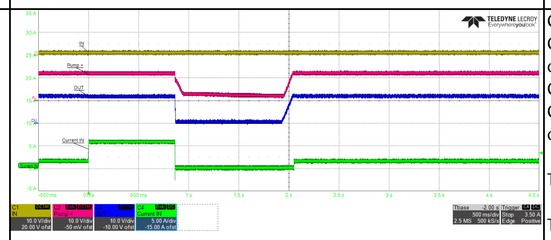
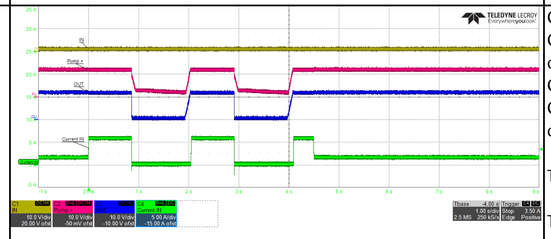
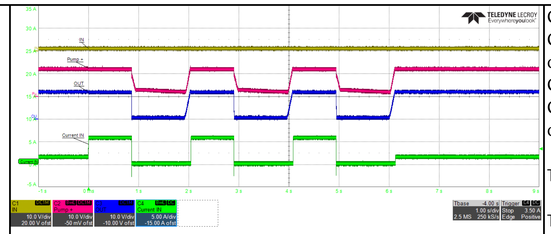
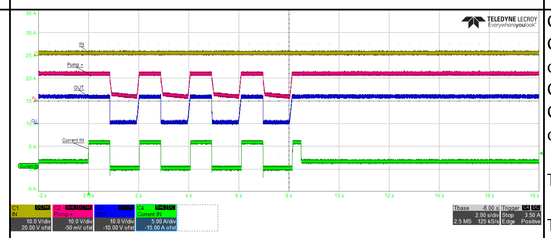
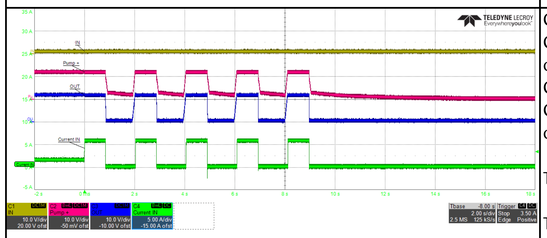
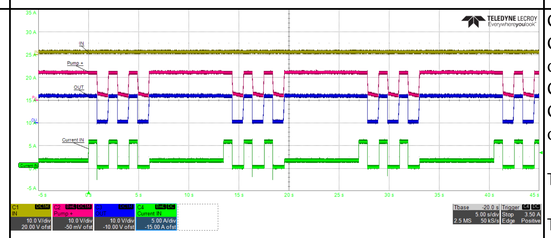
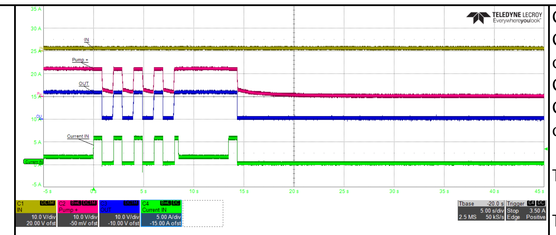
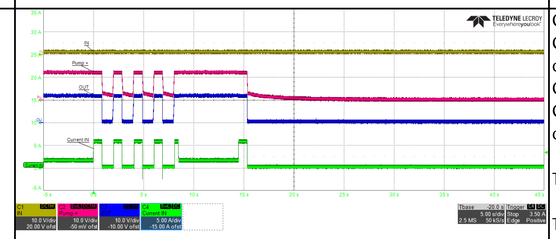
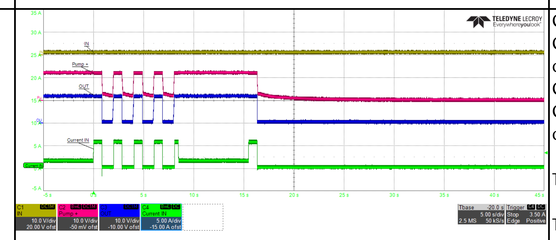
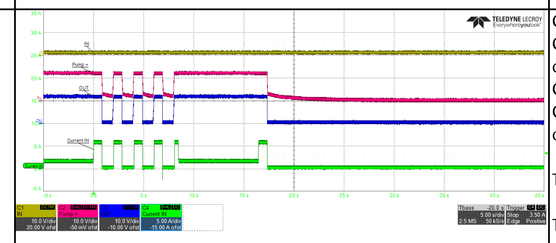
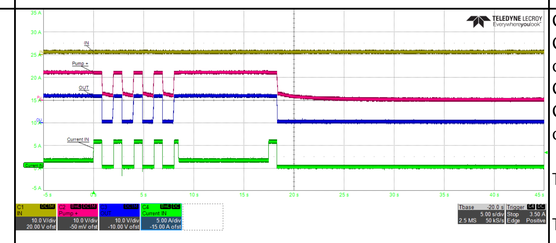
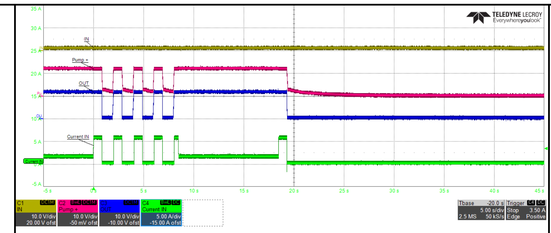
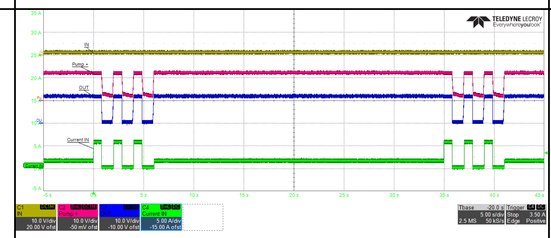
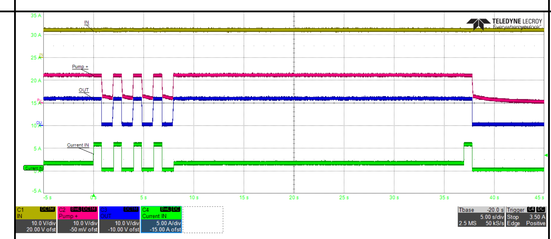
Overcurrent						
Preparation	connect electronic load Connect DSO (CH1 --> IN [TP11], CH2 --> Pump + [TP34], CH3 --> OUT [TP13], CH4 --> Current IN) Set power supply 12V @ 10A					
turn on Power supply			no unexpected behaviour no scope	ok		
turn on load			Current (CH4) rises to 1.5A IN (CH1), Pump + (CH2) and OUT (CH3) no unexpected behaviour	ok		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 500mA, Positive Edge Tbase: 200ms/div, -800ms offset
set load 6A, wait 0.5s, set load 1.5A	use CR		Current (CH4) rises to 6A for 0.5s then falls back to 1.5A IN (CH1), Pump + (CH2) and OUT (CH3) no unexpected behaviour	ok		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 200ms/div, -800ms offset
set load 6A, wait 1.5s, set load 1.5A	use CR		Current (CH4) rises to 6A for 1s then drops to 0A, 1s after turn off --> retry to 1.5A Pump + (CH2) turns off (0V) after 1s, 1s later turns back on (12V) IN (CH1) and OUT (CH3) no unexpected behaviour	ok		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 500ms/div, -2s offset
set load 6A, wait 4.5s, set load 1.5A	use CR		Current (CH4) rises to 6A for 1s then drops to 0A for 1s, at 6A for 1s (retry 1), at 0A for 1s, at 6A for 0.5s (retry 2) then at 1.5A Pump + (CH2) turns off (0V) after 1s, 4s later turns back on (12V) IN (CH1) and OUT (CH3) no unexpected behaviour	ok		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 1s/div, -4s offset

set load 6A, wait 5.5s, set load 1.5A	use CR		Current (CH4) rises to 6A for 1s then drops to 0A for 1s, at 6A for 1s (retry 1), at 0A for 1s, at 6A for 1s (retry 2),, at 0A for 1s then at 1.5A Pump + (CH2) turns off (0V) after 1s and stays off IN (CH1) and OUT (CH3) no unexpected behaviour	ok		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 1s/div, -4s offset
turn off load			no scope			
turn off Power supply			no scope			
Exploring special case (Independet fail logic)						
			Same as above but with 4 retries with the 4th successful	retries for 4 times with 1s overcurrent with each retry		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 2s/div, -8s offset
			Same as above but with 4 retries with all failing			CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 2s/div, -8s offset
			No expected results because just testing what happens with different Overcurrent and pause times	5s OC, 8.5s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset

			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 5s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 6s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 7s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 8s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 9s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset

			No expected results because just testing what happens with different Overcurrent and pause times	8.5s OC, 10s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	5s OC, 30s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset
			No expected results because just testing what happens with different Overcurrent and pause times	7s OC, 30s pause		CH1 - IN, 10V/div, 20V offset CH2 - Pump +, 10V/div, -50mV offset CH3 - OUT, 10V/div, -10V offset CH4 - Current IN, 5A/div, -15A offset Trigger: CH4, 3.5A, Positive Edge Tbase: 5s/div, -20s offset