UCC25630-1EVM-291（IC changed to UCC256302） LLC load transient response evaluation

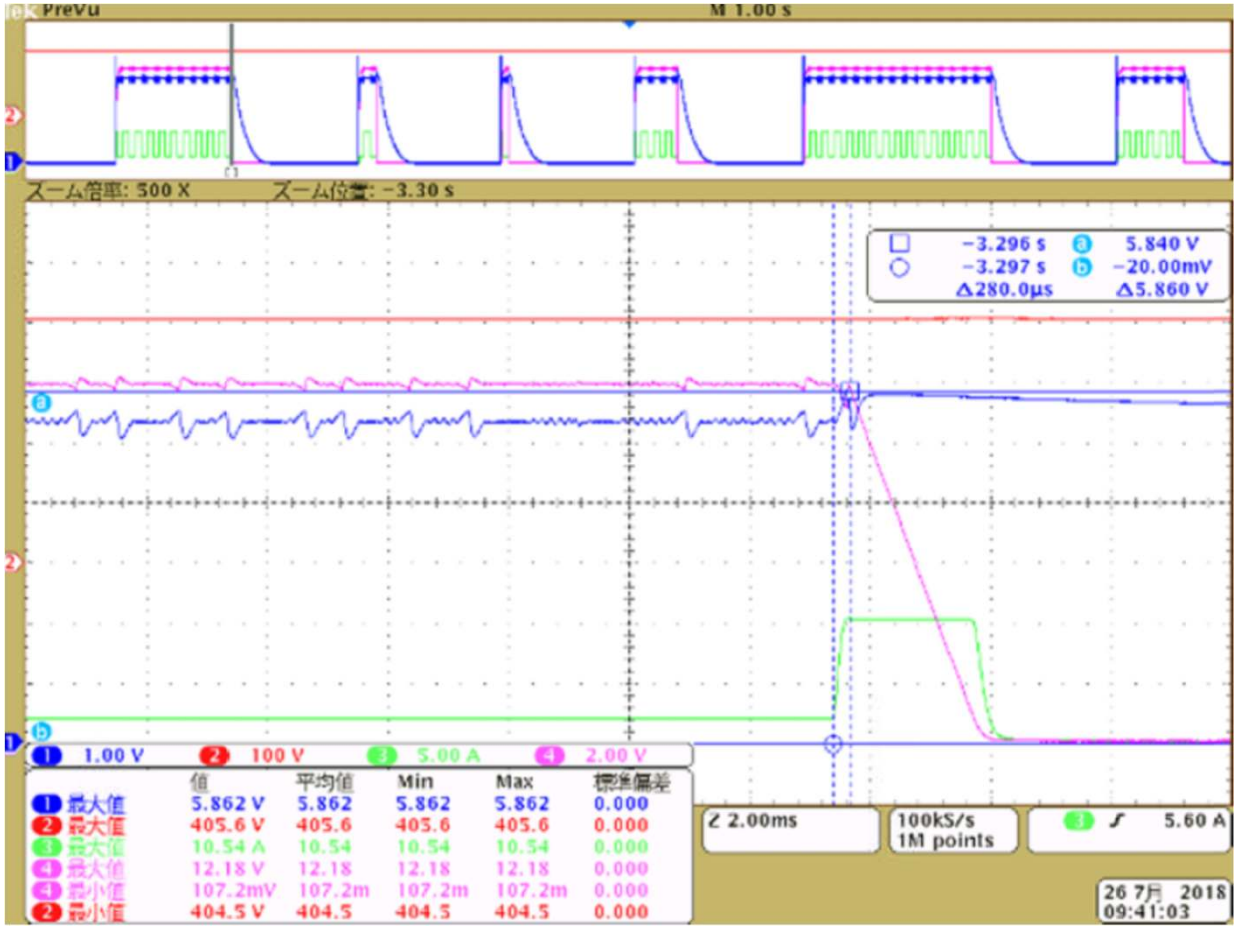
With the combination of PFC and LLC (input AC100 V, output DC 12 V 10 A condition),
LLC load transient response evaluation of load sudden change rate 0 ⇔ 100%,
duty 50%, **10 Hz** in CC mode and CR mode was done.
As a result, immediately after the LLC output suddenly changes from 0% load to 100% load,
the output was stopped.

I think this is malfunction of LLC evaluation board.
So the output transient response test was performed again only on the LLC evaluation board.
As a result, similar trouble symptoms occurred again, so I show the test conditions and
indicates a defect observed waveform.

When evaluating with only LLC, the problem of load fluctuation occurred in case of the input voltage
is higher than DC 390 V.
When I test it with PFC, I think that this symptom is likely to occur at the timing at the voltage rises
due to load fluctuation of PFC output.
This problem is caused by whether there is a problem in the circuit setting of the LLC evaluation board
or due to limit of IC ability.

What do you think about?

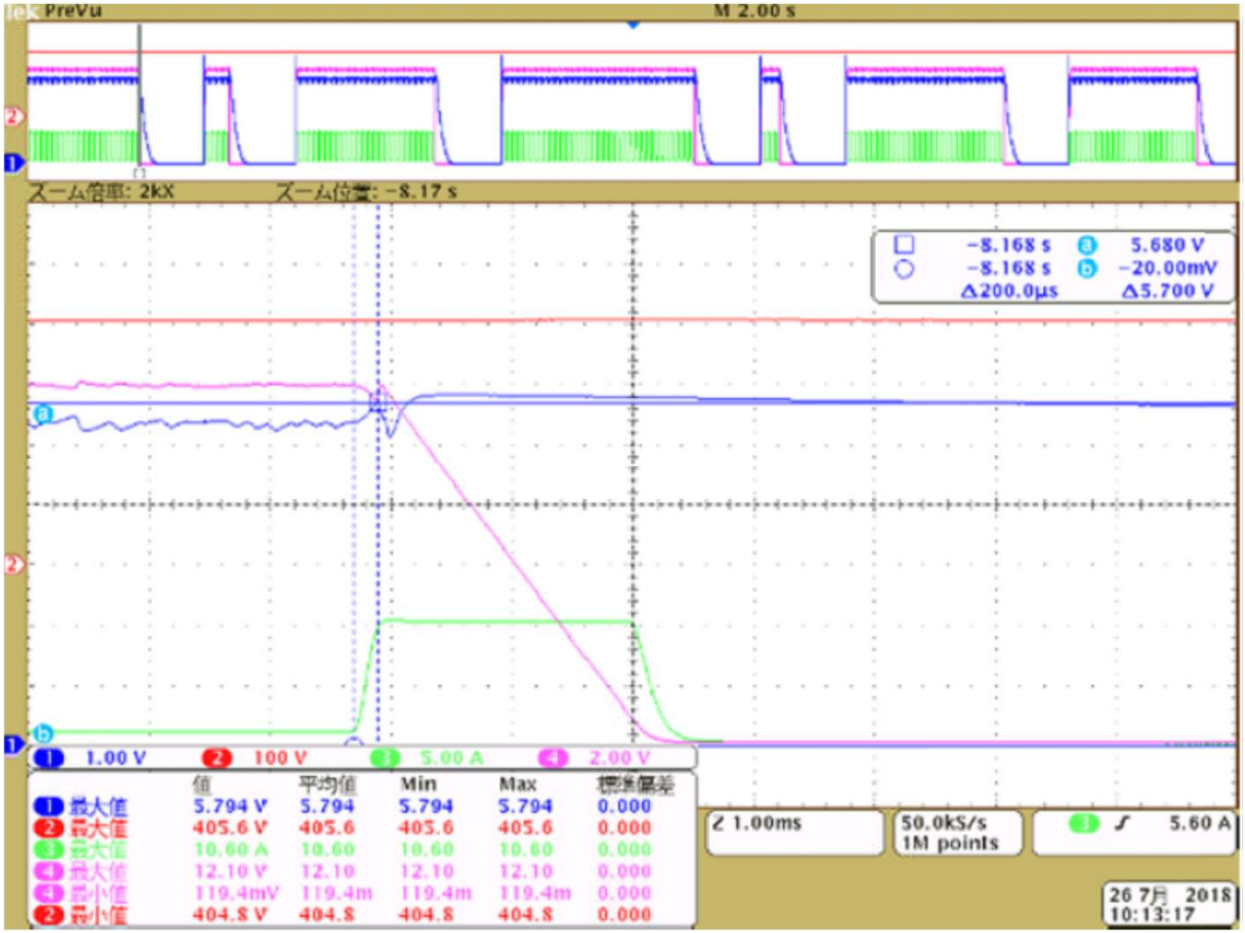
1. LLC load sudden change test 1 (when **R14 = 2 MΩ** mounted)
<Test condition> LLC input voltage _ **DC 405 V**, LLC output: DC 12 V 10 A (rated load)
12V output load sudden change: 2A (20%) ⇔ 12 A (100%), **sudden change cycle: 10 Hz**, duty: 50%



Blue FB voltage[1V/div]
Red LLC. vin[100V/div]
Green LLC. Io[5A div]
Pink LLC. Vout [2V/div]

H: [2msec (1sec)/div]

2. LLC load sudden change test 1 (when **R14 = 840kΩ** board **default** mounted)
<Test condition> LLC input voltage _ **DC 405 V**, LLC output: DC 12 V 10 A (rated load)
12V output load sudden change: 1A (10%) ⇔ 12 A (100%), **sudden change cycle: 10 Hz**, duty: 50%



Blue FB voltage[1V/div]
Red LLC. vin[100V/div]
Green LLC. Io[5A div]
Pink LLC. Vout [2V/div]

H: [1msec (2sec)/div]