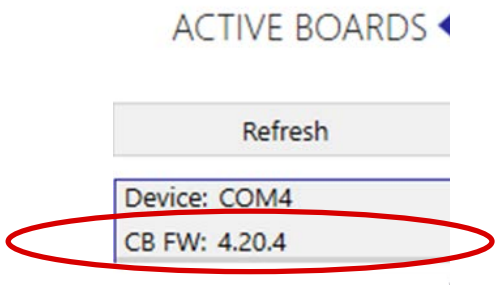
ZSSC3281 OWI-CL EVK

Communication Board (CB)

Ensure that the communication board (V4.1) is equipped with FW revision 4.20.4 or higher.



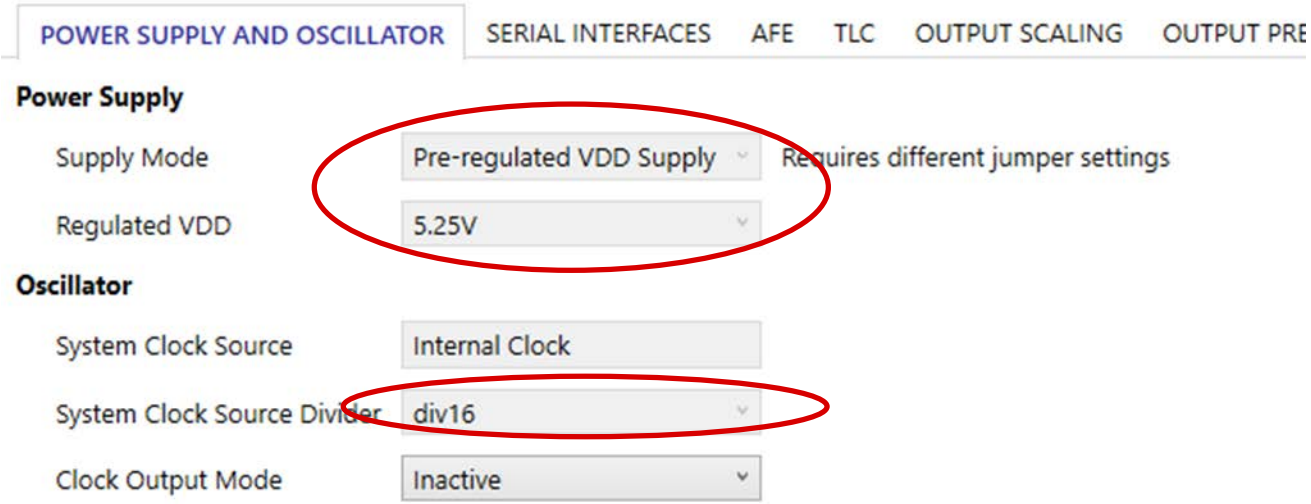
The latest FW is available at the following link (Software Downloads section):

SSC-CB - SSC Communication Board | Renesas

ZSSC3281 OWI-CL EVK

ZSSC3281 configuration (GUI required)

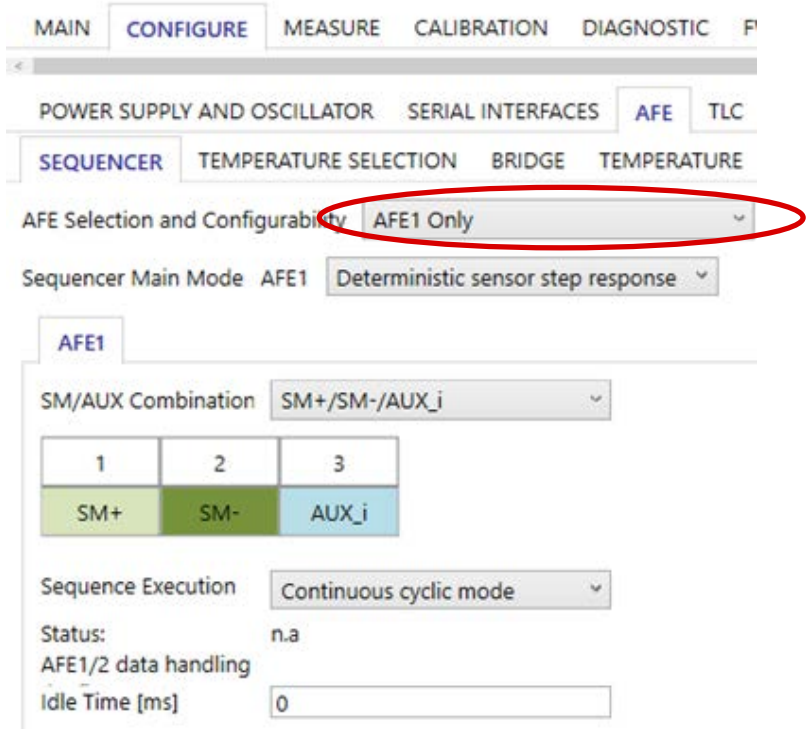
1 – Power supply and oscillator



ZSSC3281 OWI-CL EVK

ZSSC3281 configuration (GUI required)

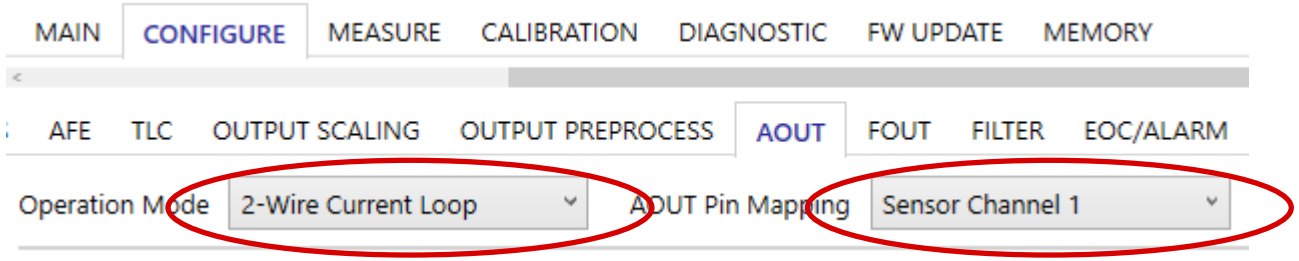
2 – Analog Front End



ZSSC3281 OWI-CL EVK

ZSSC3281 configuration (GUI required)

3 – Aout and Channel Mapping

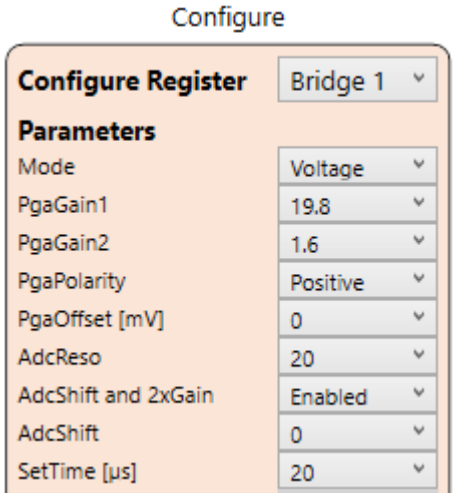


ZSSC3281 OWI-CL EVK

ZSSC3281 configuration (GUI required)

4 – AFE

For use with the Sensor Replacement Board V3, ensure that Bridge 1 is configured as shown below:

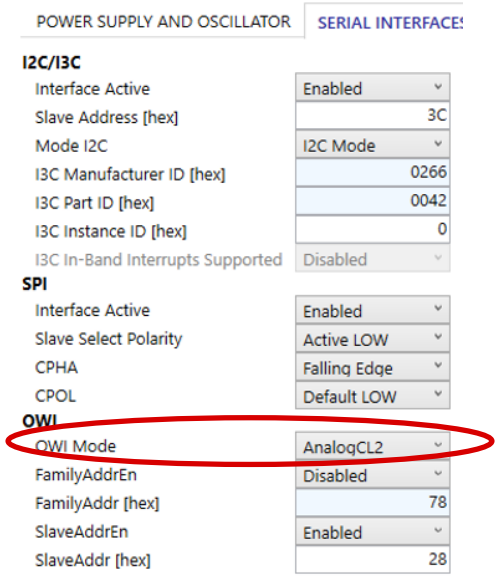


ZSSC3281 OWI-CL EVK

ZSSC3281 configuration (GUI required)

5 – Serial Interfaces

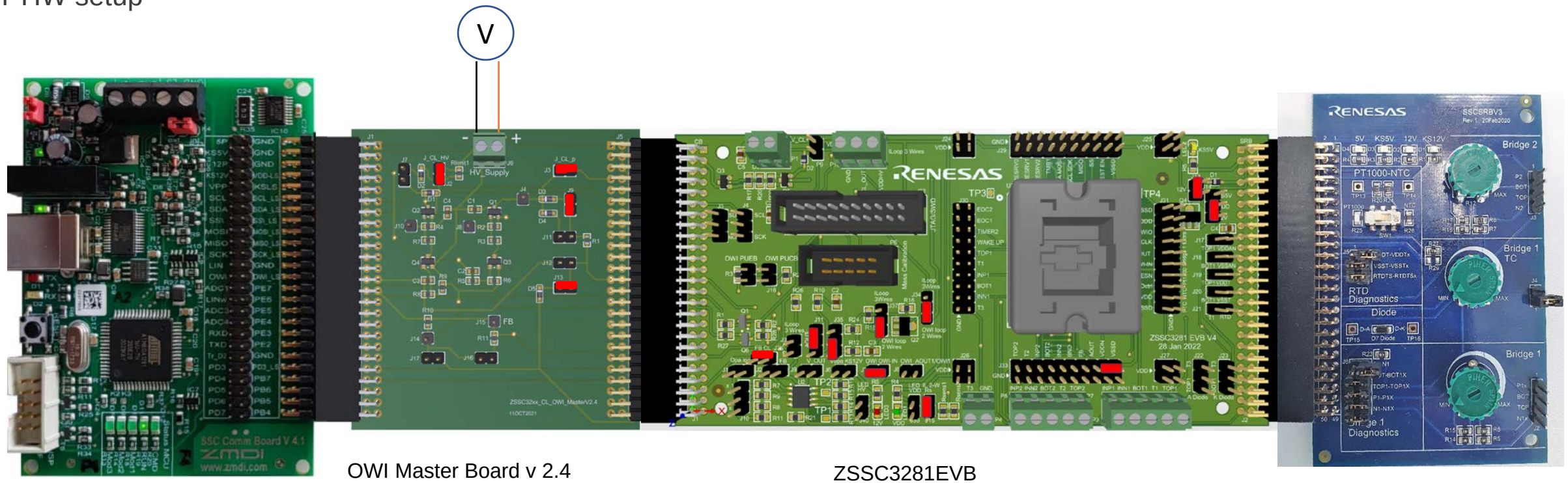
Set OWI mode to "AnalogCL2"



ZSSC3281 OWI-CL EVK

KIT HW setup

CL HV supply = 26V
(recommended current limit at 60mA)



Communication Board (CB)

OWI Master Board v 2.4
Jumpers to be set:
J2,J3,J9,J13

Note: For Current Loop measurement an amperometer can be connected on J3 (remove jumper)

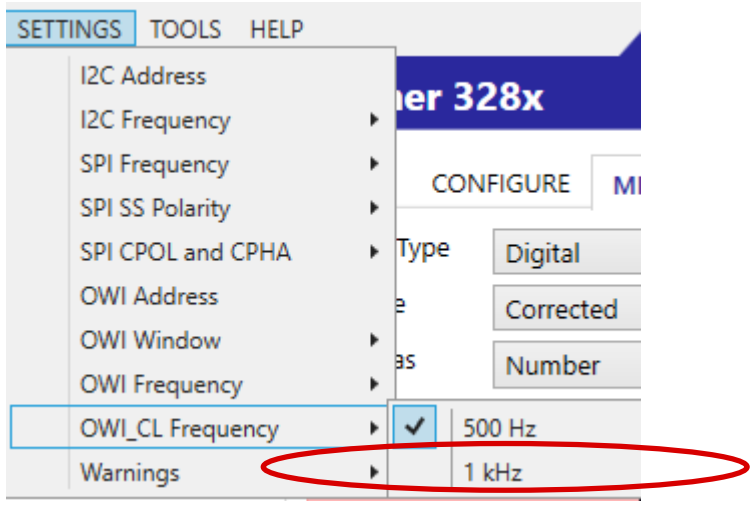
ZSSC3281EVB
Jumpers to be set:
J15,J7,J14 (2-3),J13, J34(1-2), J37(1-2),J35(1-2), J11(2-3)
J33(VDDN-VSSD),J36

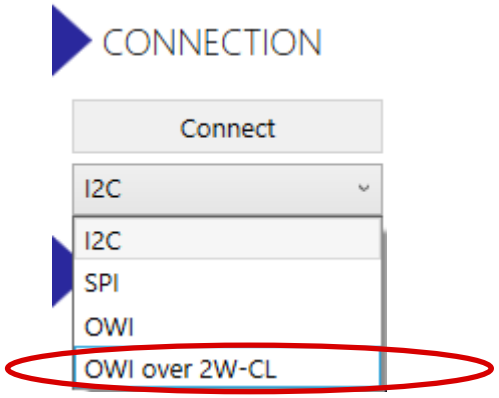
SRB V3
(Can be used for Current Loop verification)

ZSSC3281 OWI-CL EVK

After ZSSC3281 NVM configuration, KIT HW connection to the host PC with the USB, turn on the HV supply (26V)

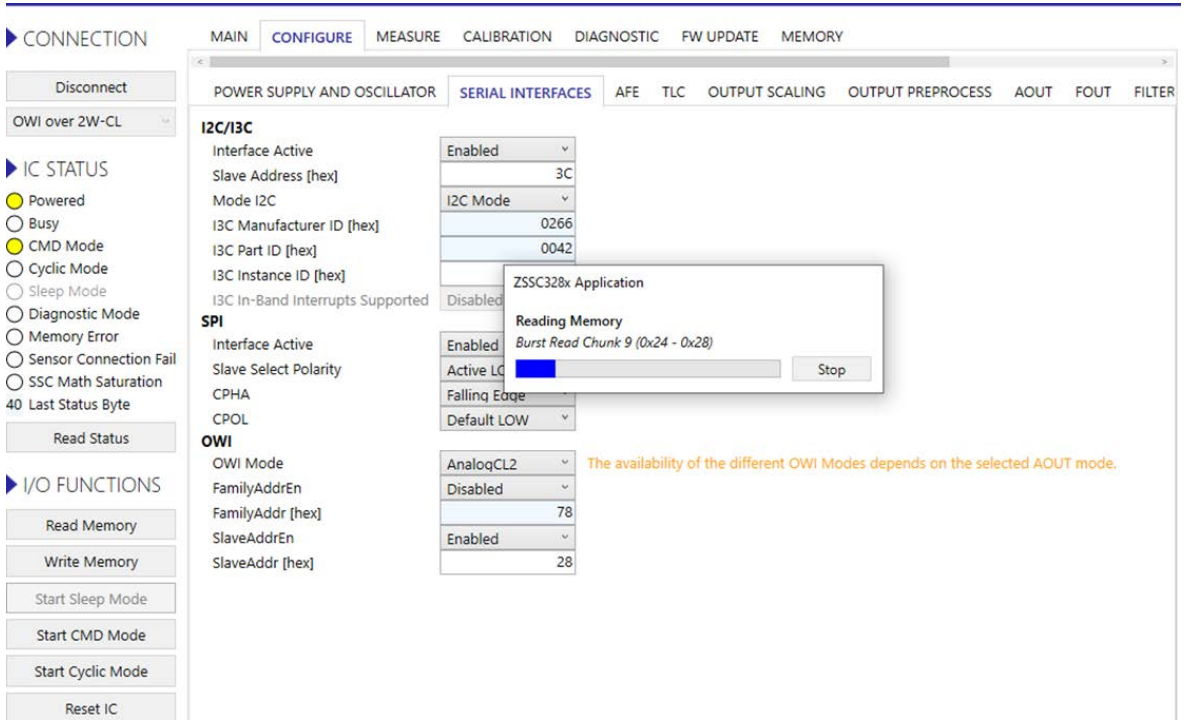
- Start the Graphical User Interface SW
- Connect to the device using the following options:





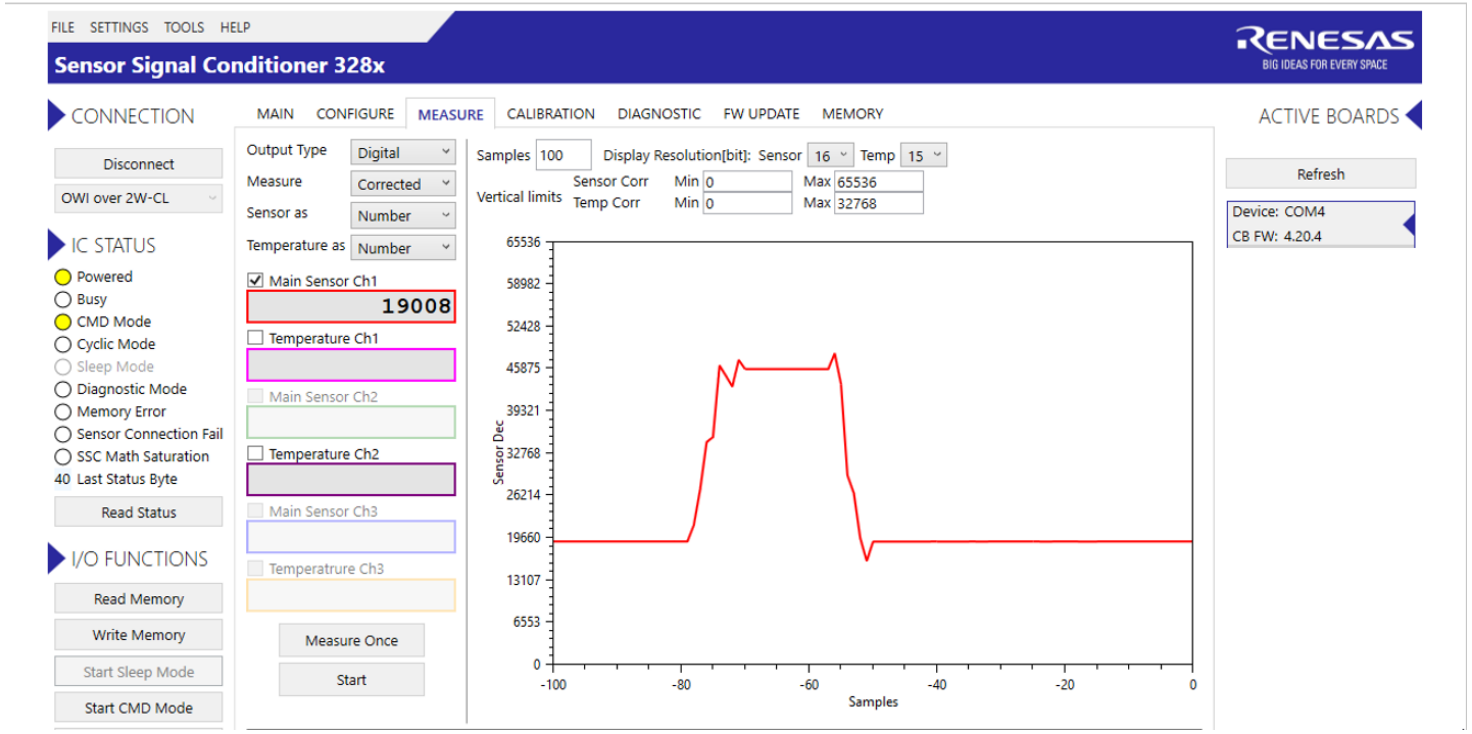
ZSSC3281 OWI-CL EVK

At the connection the OWI communication is running on the 2-wire current loop. The GUI will start to check the device NVM content, and after it, the system is ready to perform measurements, configuration changes, and most of the standard functionalities are available.



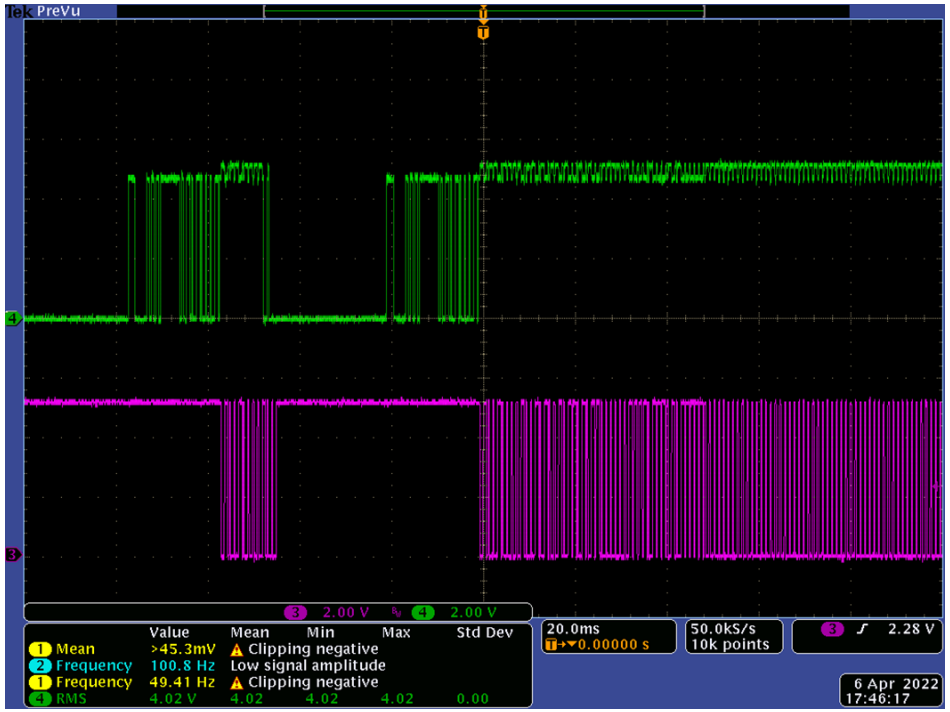
ZSSC3281 OWI-CL EVK

For example, the measurment for Main Sensor Ch1 is displayed as follows:



ZSSC3281 OWI-CL EVK

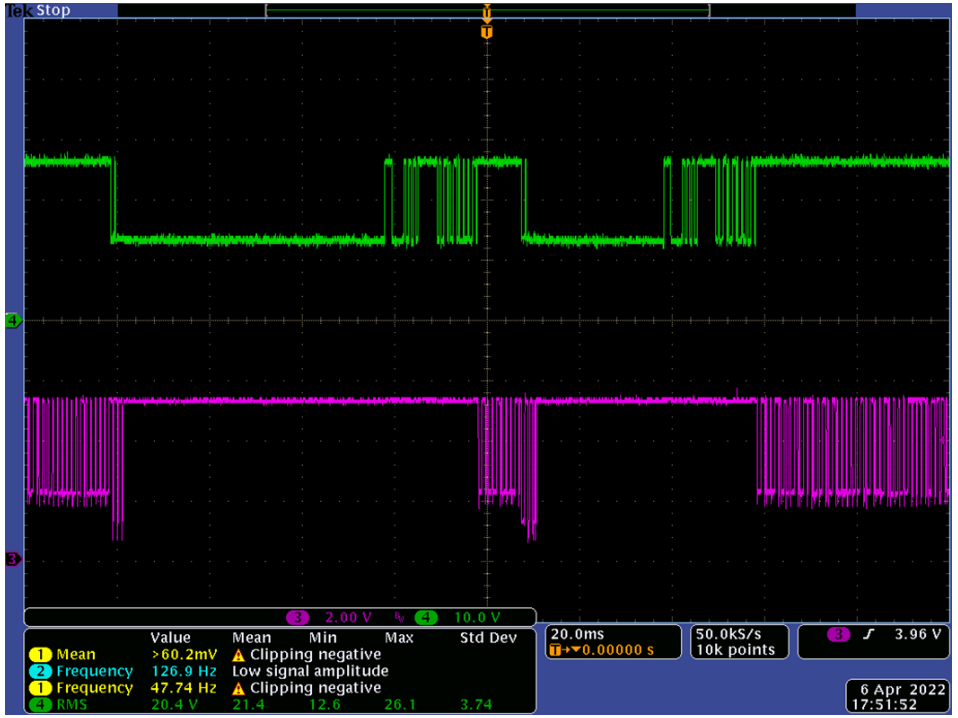
Electrical levels (referred to the Vss of the ZSSC3281) of the key signals are displayed in the following plot:



CH3 = Aout
CH4 = OWI-IN
GND = VSS

ZSSC3281 OWI-CL EVK

Electrical levels (referred to the GND of the CB) of the key signals are displayed in the following plot:



CH3 =J15 FB OWI Master board
CH4 = J4 OWI Master board
GND= GND CB

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