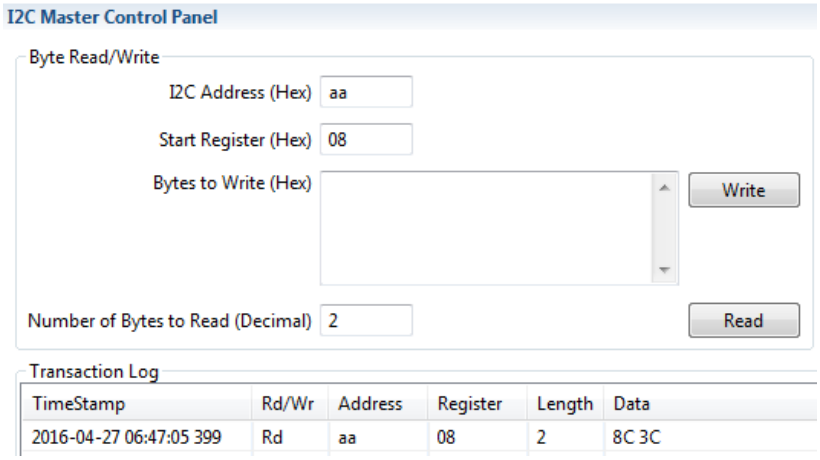
Standard I2C Commands

We will use the Voltage as an example. Its command code is 08/09.

Use the I2C Master Control Panel section to read the flash.

Start Register 08, Number of Bytes to Read 2



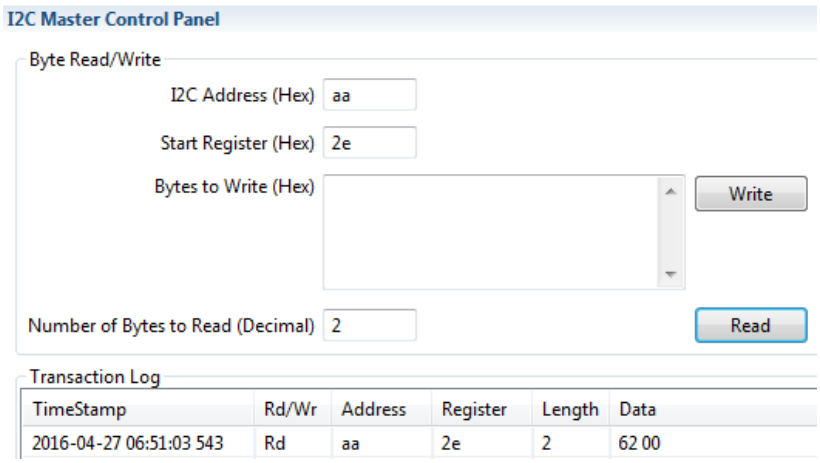
This is the data that is returned. You have to byte swap it and convert it to decimal. 3C8C is 15500mV.

Extended I2C Commands

Just read these like Standard Commands. We will use the State-of-Health as an example. Its command code is 2e/2f.

Use the I2C Master Control Panel section to read the flash.

Start Register 2e, Number of Bytes to Read 2



This is the data that is returned. You have to byte swap it and convert it to decimal. 0062 is 98% SOH.

Control Subcommands

Example 1:

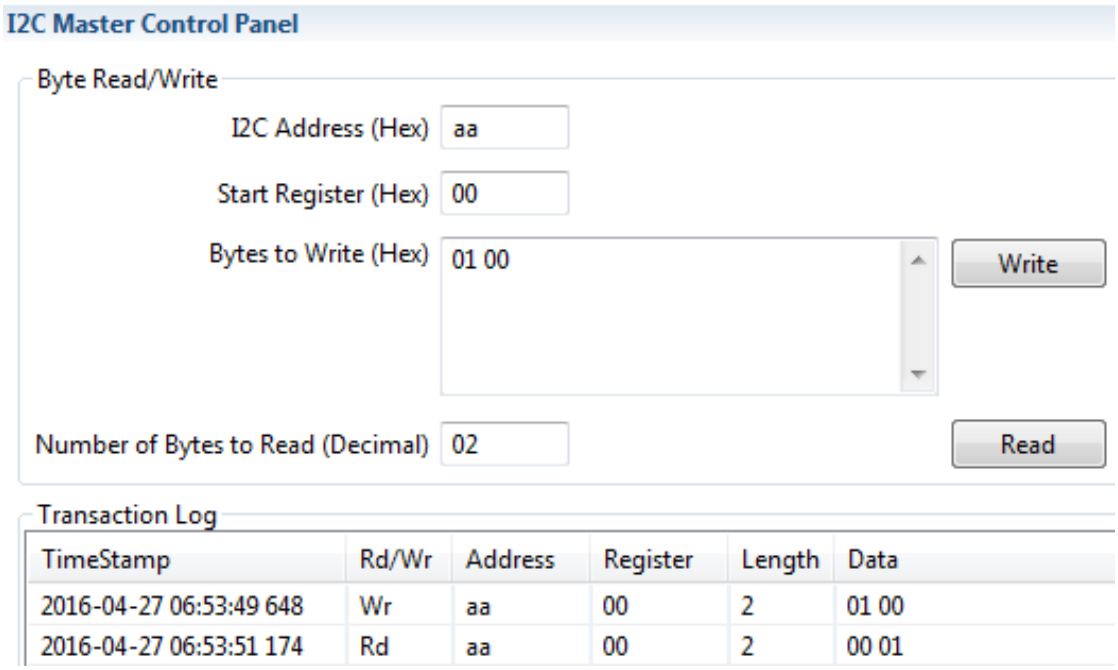
DEVICE_TYPE Control() Subcommand 0001 and the correct answer is 0100 for the bq34z100-G1.

Use the I2C Master Control Panel section to read the flash.

Enter Start Register 00, Bytes to Write 0100 press “Write” button
(The scope waveforms occur in this order. AA, 00, 01, 00)

Enter Start Register 00, Number of Bytes to Read 2 press “Read” button
(The scope waveforms occur in this order. AA, 00, AB, 00, 01)

The GUI returns 0001, which is Little Endian for 0100. This is the DEVICE_TYPE for the bq34z100-G1.



Example 2:

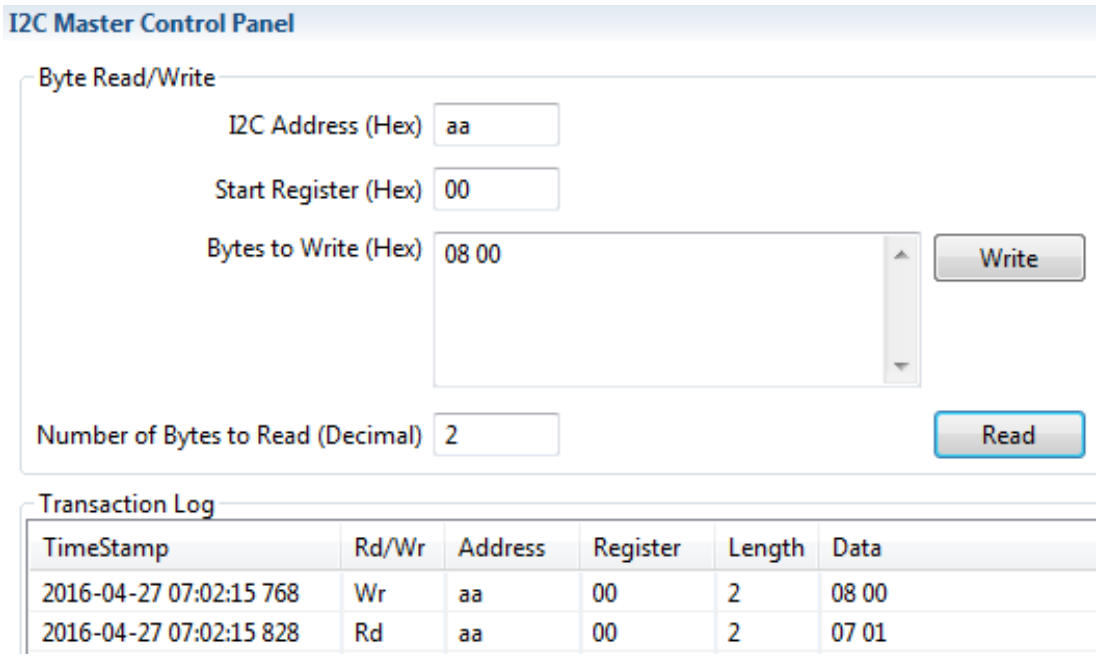
CHEM_ID Control() Subcommand 0008 and the correct answer is 0107 for the bq34z100-G1.

Use the I2C Master Control Panel section to read the flash.

Enter Start Register 00, Bytes to Write 0800 press “Write” button
(The scope waveforms occur in this order. AA, 00, 08, 00)

Enter Start Register 00, Number of Bytes to Read 2 press “Read” button
(The scope waveforms occur in this order. AA, 00, AB, 07, 01)

The GUI returns 0701, which is Little Endian for 0107. This is the default CHEM_ID for the bq34z100-G1.



Data Flash Access

Find the SubClass and Offset for the data that you want to read. We will use Serial Number for this example. SubClass 48, Offset 04 and it occupies 2 bytes.

Convert the SubClass HEX. 48 = 30H

Use the I2C Master Control Panel section to read the flash.

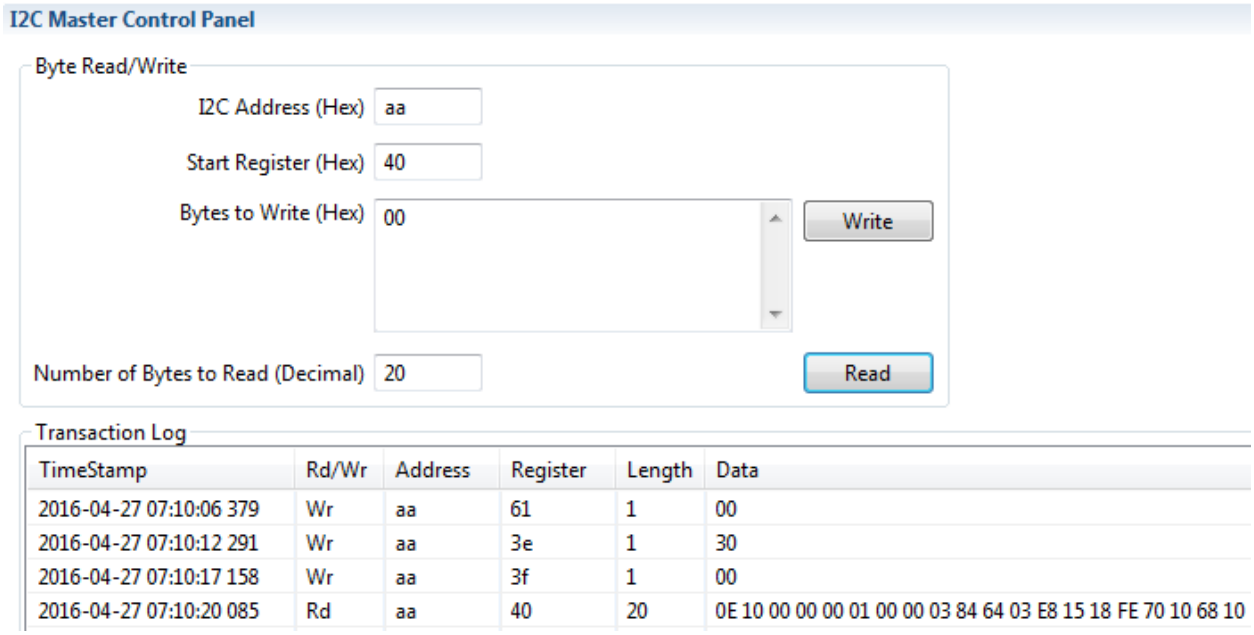
Start Register 61, Bytes to Write 00 (Enable Flash x'fer command)

Start Register 3E, Bytes to Write 30 (SubClass address)

Start Register 3F, Bytes to Write 00 (Enable General Purpose Block)

Start Register 40, Number of Bytes to Read 20

This is the data that was returned. The Serial number starts in the 5th byte. (0 is the first byte) The Serial Number is 0001 in this example.



To read offset greater than 31, you will have to go to the next page.

e.g. I2C Command 3F, Byte 01