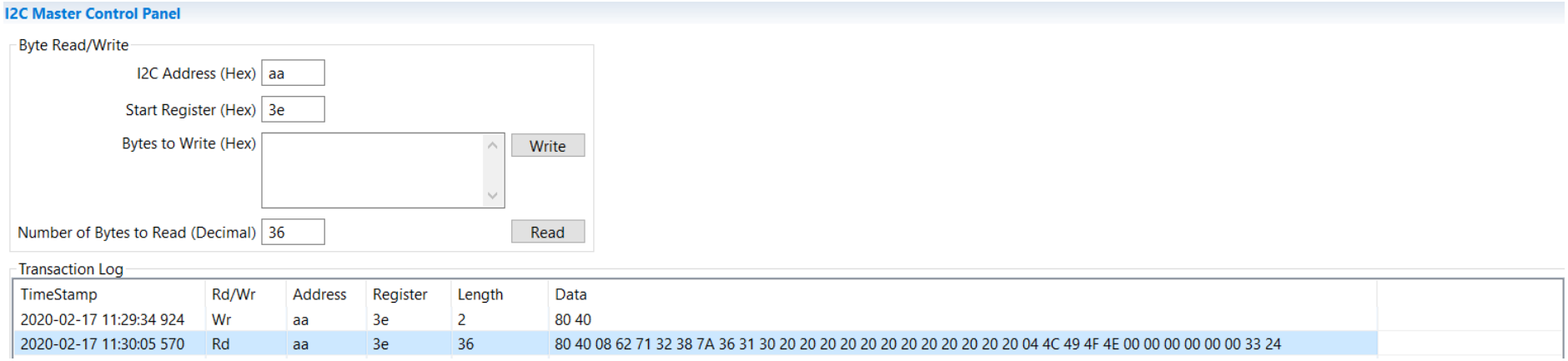
Physical Start Address of Device Name

Name	Private	Value	Unit	Physical Start Addr...	Data Length	Row Number	Row Offset	Native Units
Data								
Manufacture Date		1980-1-1	date	0x4067	2	3	7	date
Serial Number		0001	hex	0x4069	2	3	9	hex
Manufacturer Name		Texas Instruments	-	0x406b	21	3	11	-
Device Name		bq28z610	-	0x4080	21	4	0	-
Device Chemistry		LION	-	0x4095	5	4	21	-

How to Read Device Name

1. I2C Write, start address = 0x3E. Data sent = 80 40 (physical address of Device Name; Data must be sent in Little Endian).

1. I2C Read, start address = 0x3E, length = 36 bytes.
   a) The first two bytes “80 40” is the physical address of Device Name
   b) The next byte “08” is the length of the Device Name string.
   c) The following 8-byte “62 71 32 38 7A 36 31 30” (“bq28z610”) block is the actual Device Name.
   d) The last two bytes “33 24” is the checksum and length. The length in this case is 36 (0x24). The length and checksum can be used to validate the block response.



How to Update Device Name

1. Read Device Name (See detailed steps in the previous slide) and store the results in a local buffer.

2. Update the length of Device Name and the actual Device Name.

3. Write to 0x3E the MAC address (little endian) followed by the data to write.

4. Write to 0x60 (*MacDataChecksum*) the checksum.

5. Write to 0x61 (*MacDataLength*) the total number of bytes written including the MAC address, data bytes, checksum, and MACDataLength itself.

6. Read Device Name to verify.

Example (1 / 3)

1. Read Device Name. The following results are received.
   - 80 40 08 62 71 32 38 7A 36 31 30 20 20 20 20 20 20 20 20 20 20 20 04 4C 49 4F 4E 00 00 00 00 00 00 33 24
   - The first two bytes “80 40” is the physical address of Device Name
   - The next byte “08” is the length of the Device Name string. The following 8-byte “62 71 32 38 7A 36 31 30” (“bq28z610”) block is the actual Device Name.
   - The last two bytes “33 24” is the checksum and length. The length in this case is 36 (0x24).

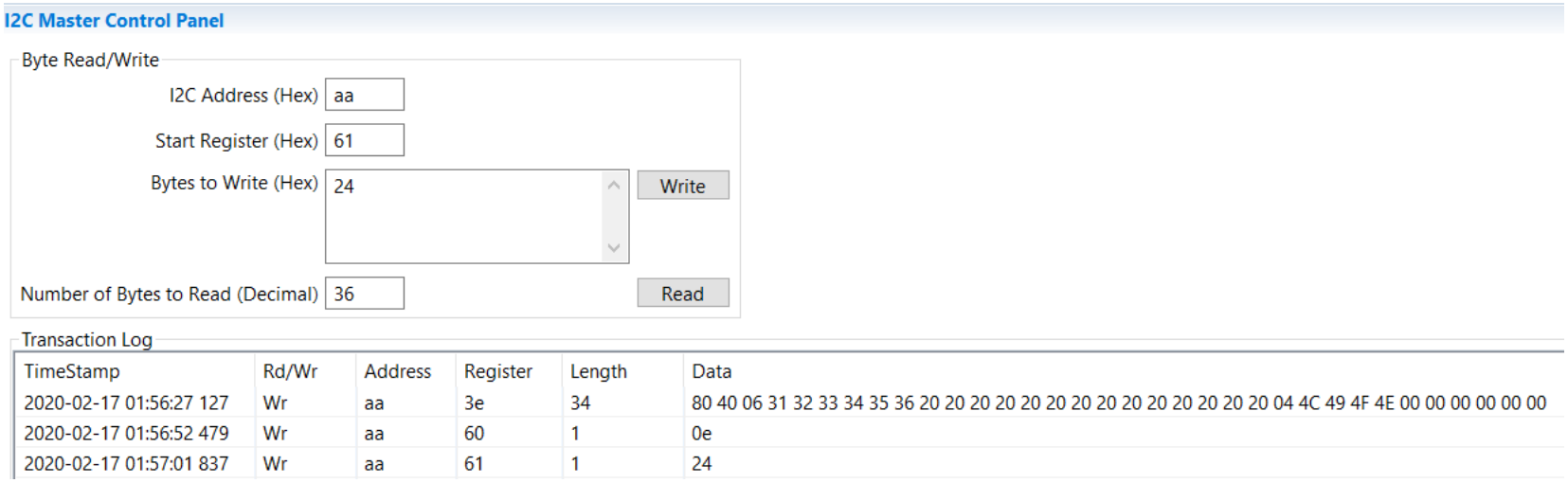
2. Update the length of Device Name and the actual Device Name.
   - Update the length of Device Name to 06.
   - Update the Device Name to “31 32 33 34 35 36 20 20” (“123456 ”).
   - 80 40 06 31 32 33 34 35 36 20 20 20 20 20 20 20 20 20 20 20 20 04 4C 49 4F 4E 00 00 00 00 00 00 33 24

3. Write to 0x3E the MAC address (little endian) followed by the data to write.
   - Write to 0x3E with the following data. (Note that the checksum and length are not included).
   - 80 40 06 31 32 33 34 35 36 20 20 20 20 20 20 20 20 20 20 20 20 04 4C 49 4F 4E 00 00 00 00 00 00

Example (2 / 3)

4. Write to 0x60 (*MacDataChecksum*) the checksum.
   - 80 40 06 31 32 33 34 35 36 20 20 20 20 20 20 20 20 20 20 20 20 20 20 04 4C 49 4F 4E 00 00 00 00 00 00
   - Checksum = 0xFF – (0x80 + 0x40 + 0x06 + … + 0x00) & 0xFF = 0x0E
   - I2C Write, start address = 0x60, data sent = 0x0E.

5. Write to 0x61 (MacDataLength) the total number of bytes written including the MAC address, data bytes, checksum, and MACDataLength itself.
   - I2C Write, start address = 0x61, data sent = 0x24.
   - This length must include the MAC address, data bytes, checksum, and MACDataLength itself.



Example (3 / 3)

6. Read Device Name to verify. The Device Name has been changed to “123456”.

Name	Private	Value	Unit	Physical Start Addr...	Data Length	Row Number	Row Offset	Native Units
Data								
Manufacture Date		1980-1-1	date	0x4067	2	3	7	date
Serial Number		0001	hex	0x4069	2	3	9	hex
Manufacturer Name		Texas Instruments	-	0x406b	21	3	11	-
Device Name		123456	-	0x4080	21	4	0	-
Device Chemistry		LION	-	0x4095	5	4	21	-