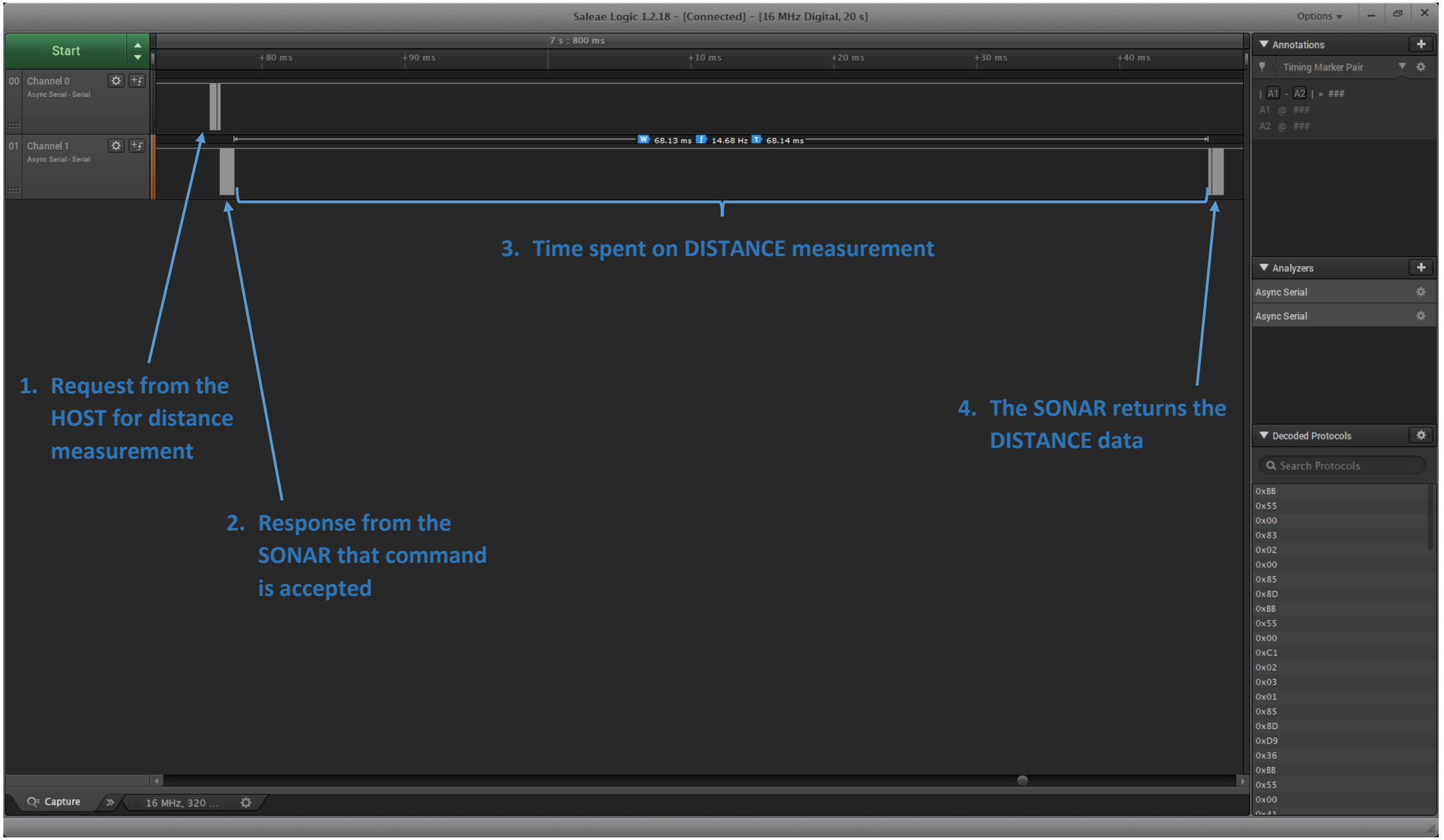
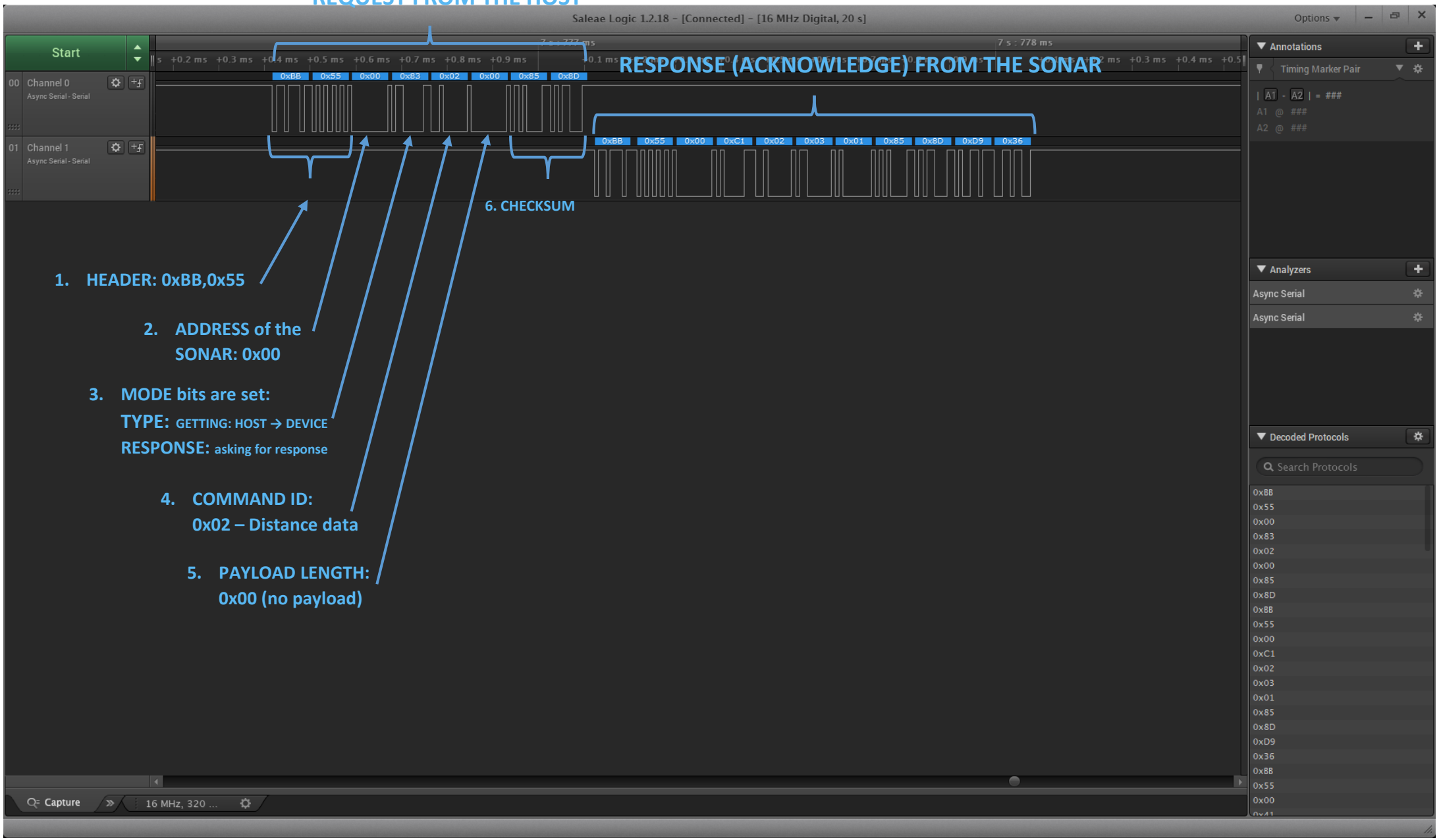
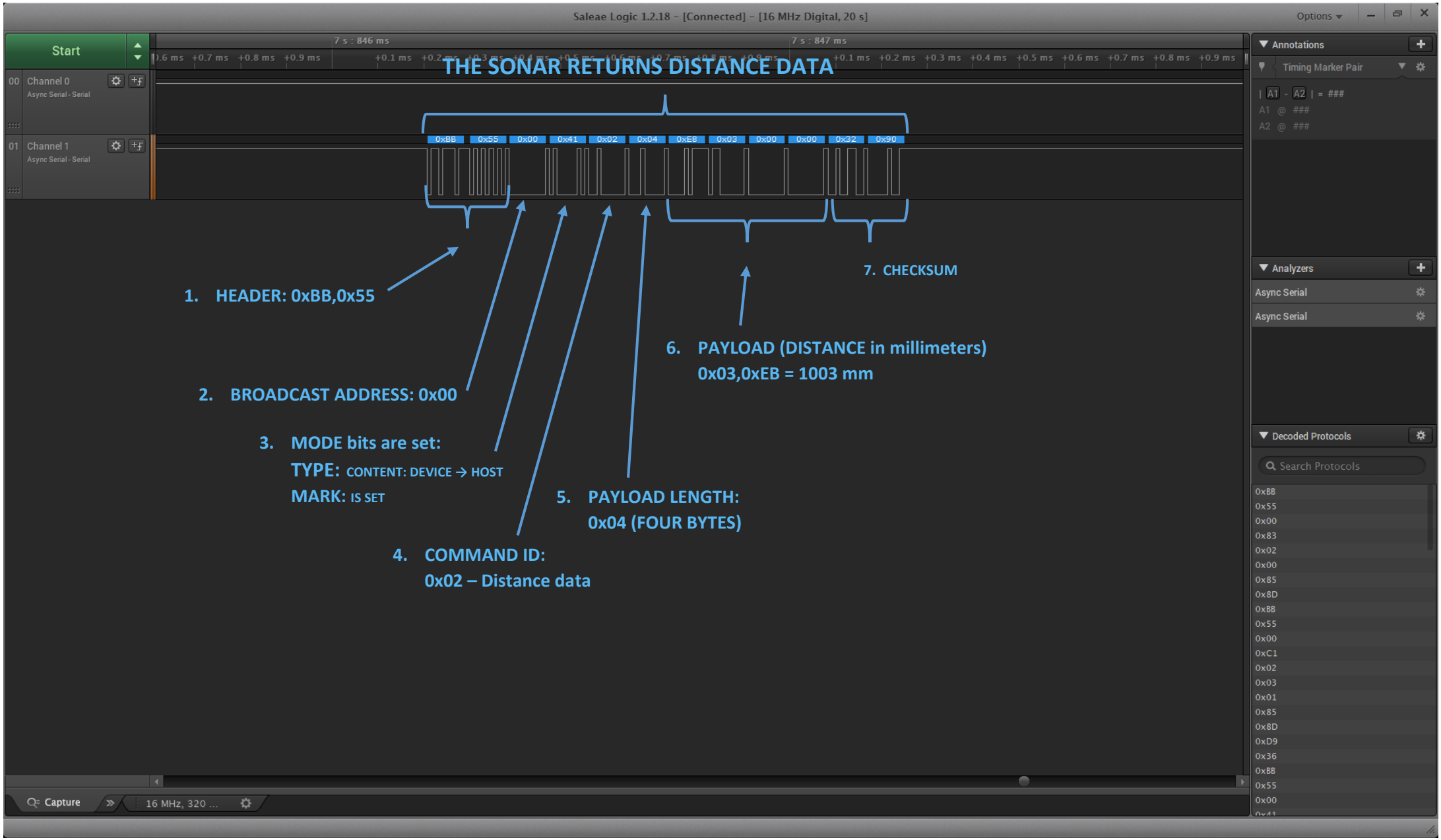
# A SNAPSHOT OF THE DATA EXCHANGE BETWEEN THE HOST AND SONAR




REQUEST FROM THE HOST
Saleae Logic 1.2.18 - [Connected] - [16 MHz Digital, 20 s]
Options
Start
Channel 0
Async Serial - Serial
Channel 1
Async Serial - Serial
0xBB 0x55 0x00 0x83 0x02 0x00 0x85 0x8D
RESPONSE (ACKNOWLEDGE) FROM THE SONAR
0xBB 0x55 0x00 0xC1 0x02 0x03 0x01 0x85 0x8D 0xD9 0x36
6. CHECKSUM
1. HEADER: 0xBB,0x55
2. ADDRESS of the SONAR: 0x00
3. MODE bits are set:
TYPE: GETTING: HOST → DEVICE
RESPONSE: asking for response
4. COMMAND ID:
0x02 – Distance data
5. PAYLOAD LENGTH:
0x00 (no payload)
Annotations
Timing Marker Pair
Analyzers
Async Serial
Async Serial
Decoded Protocols
Search Protocols
0xBB
0x55
0x00
0x83
0x02
0x00
0x85
0x8D
0xBB
0x55
0x00
0xC1
0x02
0x03
0x01
0x85
0x8D
0xD9
0x36
0xBB
0x55
0x00
Capture
16 MHz, 320 ...


Saleae Logic 1.2.18 - [Connected] - [16 MHz Digital, 20 s]
Options
Start
7 s : 846 ms
7 s : 847 ms
THE SONAR RETURNS DISTANCE DATA
00 Channel 0
Async Serial - Serial
01 Channel 1
Async Serial - Serial
0xBB 0x55 0x00 0x41 0x02 0x04 0xE8 0x03 0x00 0x00 0x32 0x90
1. HEADER: 0xBB,0x55
2. BROADCAST ADDRESS: 0x00
3. MODE bits are set:
TYPE: CONTENT: DEVICE → HOST
MARK: IS SET
4. COMMAND ID:
0x02 – Distance data
5. PAYLOAD LENGTH:
0x04 (FOUR BYTES)
6. PAYLOAD (DISTANCE in millimeters)
0x03,0xEB = 1003 mm
7. CHECKSUM
Annotations
Timing Marker Pair
Analyzers
Async Serial
Async Serial
Decoded Protocols
Search Protocols
0xBB
0x55
0x00
0x83
0x02
0x00
0x85
0x8D
0xBB
0x55
0x00
0xC1
0x02
0x03
0x01
0x85
0x8D
0xD9
0x36
0xBB
0x55
0x00
Capture
16 MHz, 320 ...