EXTENDED MEMORY

When measuring at high sample rates, a long record length/large memory is necessary to be able to record a complete signal in the scope's buffer.
Each measurement the scope does needs to be stored in the memory of the scope to be used and transferred to the laptop.
At slow sample rates there are not many measurements made per second so a small buffer is fine.
However at high sample rates (1 million measurements per second) the data blocks become so large that a normal 1Million sample buffer is not sufficient.
An upgrade function is a 256 Million sample buffer.

The ATS6004XM (eXtended Memory) has up to 256 MSamples memory per channel, depending on the selected resolution and the number of active channels.
An advantage of a large memory is that once-only fast intermittent faults can be captured accurately. Or that complete serial communication signal blocks can be measured all at once. For example serial communications, like CAN bus or LIN bus signals, can be measured all in one record to be reviewed and analysed afterwards.
The unlimited super zoom feature of the Handyscope HS6 DIFF allows to zoom in to individual samples, no matter what record length is used.
Very large recordings can be cropped for easy and targeted data sharing purposes. Simply 'cut' a section out of the very large recording to post or email.
Large data buffer (extended memory) is also necessary for CAN analyses, high speed spectrum analyses like measuring remote control key functions, or immobiliser communication.
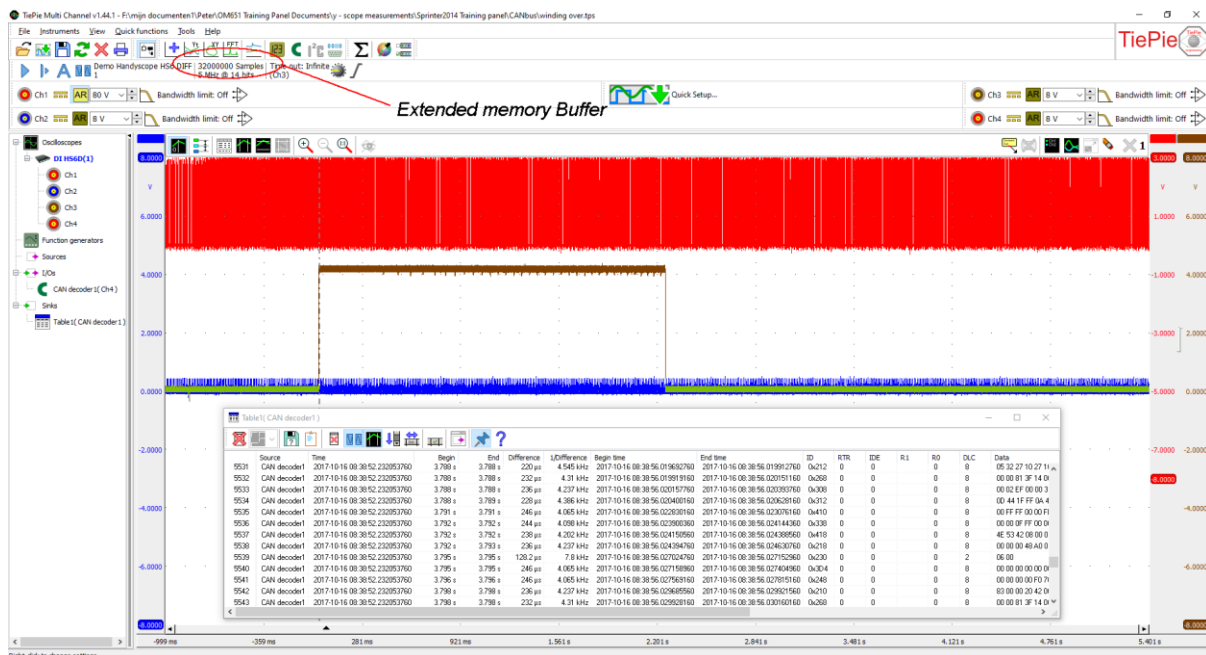
ATS 6004XM scope CANDATA bus recording into extended memory and analysed.