QL43-DDS

Quick Link Downhole Data Storage

The **QL43 DDS - Downhole Data Storage** is a downhole memory sub recording in real time all data measured by a tool string. It is of optimal use when it is combined with tool subs generating a consequent volume of data. The main objectives of the QL43 DDS are to increase the logging speed and to back up the field data.

When it is run in conjunction with ALT televiewers (QL43-ABI2G, QL40-ABI2G-VLB), the ultrasonic waveforms are recorded downhole by the QL43 DDS. All other parameters are also recorded in the memory but simultaneously transmitted to surface through the logging wireline for real time monitoring and data acquisition. Recording the ultrasonic waves in downhole memory enables a significant increase in the logging speed and offers the option to perform post processing of the raw field data. As an indication the data transfer rate from the tool string to the QL43 DDS sub is about 500 kbps which is quite high when compared to the average transfer rate achieved on conventional logging wirelines. On completion of a logging run data recorded by the DDS sub may then be recombined with the corresponding file recorded at the surface.

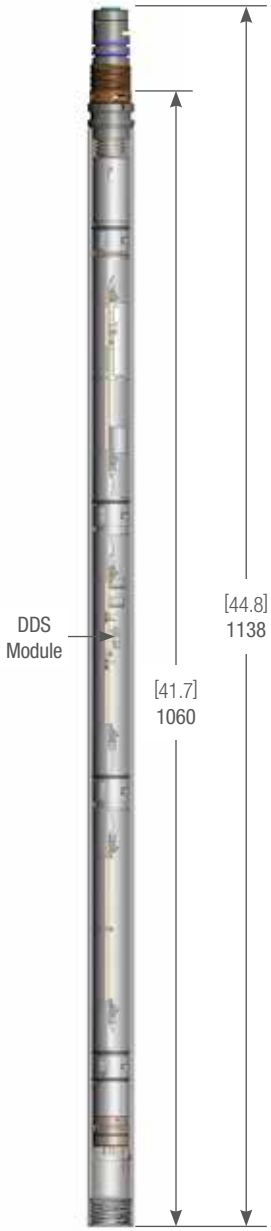
The QL43 DDS is delivered as standard with a **DDS Interface** device and a dedicated software application **DdsExplorer.**
The DDS Interface allows the user to explore the content of the QL DDS memory and to download all required stored files on a freestanding computer or computer network. Data transfer is made via an ethernet connection.

Application

- Downhole data storage during logging operations

Main features

- Back up and record logging data in a downhole memory
- Record ultrasonic waveforms when run in conjunction with ALT televiewers with no compromise on the logging speed
- Offer the option to re-process ultrasonic data with the dedicated ALT software
- Fast data download and data merging via an ethernet connection and DDS Interface



TOOL

Diameter	Max 42.8mm (1.69”)
Length	1.06m (41.73”)
Weight	4.5kg (9.9 lbs)
Temp	0 - 170°C (32 - 338°F)
Max. Pressure	700bar (10153psi)

MEMORY

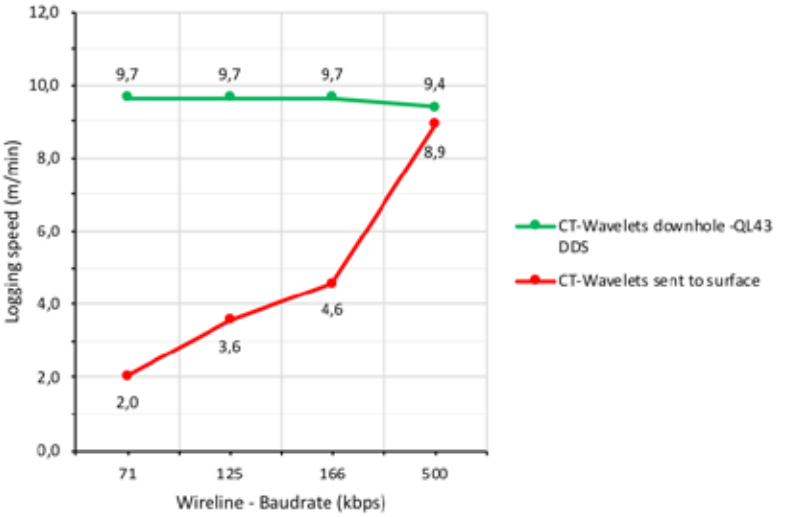
Capacity	1 GB or +/- 16h of logging in Cased Hole Mode with typical settings

TELEMETRY

Digital data transmission from DDS to surface	41Kbps to 500Kbps depending on wireline conditions
Digital data transmission from DDS to below tool subs:	500Kbps

OPERATING CONDITIONS

Always placed at the top of a tool stack

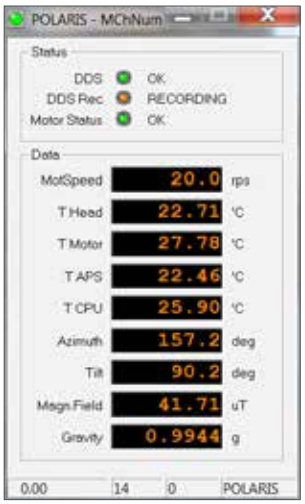


Example of logging speed vs wireline baudrate for a 9"5/8 casing – 72 ppt – 1" (25.4mm) vertical resolution - Cased Hole Mode

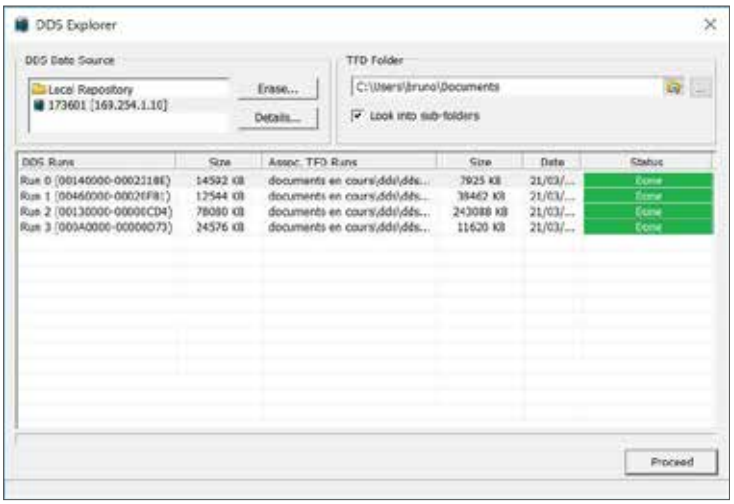
DDS interface

Configuration	Logging speed performance with the QL43 DDS (wavelets recorded downhole)
QL43-ABI2G + QL43 DDS run on a 6000m 5/16" single conductor wireline (71 kbps)	5 times faster
QL43-ABI2G + QL43 DDS run on a 3000m 5/16" single conductor wireline (125 kbps)	Almost 3 times faster
QL43-ABI2G + QL43 DDS run on a 1500m 1/8" single conductor wireline (166 kbps)	2 times faster

Software minimum requirements : LoggerSuite 12.1.2348 / WellCAD 5.0 build 1103



Example of MChNum browser display QL43 DDS stacked with a QL43-ABI



DDS Explorer – data files download and merging