This tutorial presents how to monitor and control an oscilloscope via the ethernet. The RIGOL DS1054Z is utilised for demonstration, and the following two software are also required

- UltraScope Remote Interface and Control SW
- UltraSigma Instrument Connectivity Driver

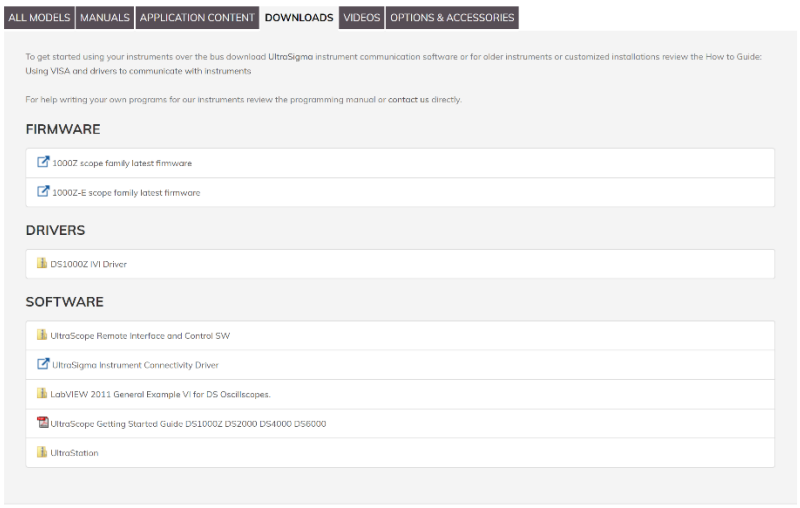

Figure 1: Screenshot from RIGOL Website.

To realise the remote monitoring and controlling of an oscilloscope, several settings on the oscilloscope and the PC are required.

Step 1: Configurations on the RIGOL DS1054Z

1. Selecting the “Utility” button.
2. Selecting the “IO Setting”.
3. Choosing the “LAN Conf”.
4. Choosing the “Configure”.
5. Selecting the “DHCP”, and deselecting the “Auto IP” and “Static IP”, as shown in the following figure.
6. Clicking the “apply” button. The IP address (e.g., 192.168.1.107 in this tutorial) in the red rectangle of Fig. 2 is generated automatically, and used in Step 2.

Figure 2: Configurations of LAN on the RIGOL DS1054Z.

Step 2: Settings on the PC

1. Opening the “Ultra Sigma” software.
2. Choosing the “LAN” option.
3. Clicking the “Search”.
4. After a few seconds, the oscilloscope with the IP address of 192.168.1.107 is shown in the right panel. Selecting the “TCPIP :: 192.168.1.107 :: INSTR” (see Fig. 3).
5. Clicking the “OK” option.

Figure 3: Searching on the Ultra Sigma.

6. Then, right clicking the DS1054Z, and choosing “UltraScope” option (see Fig. 4).

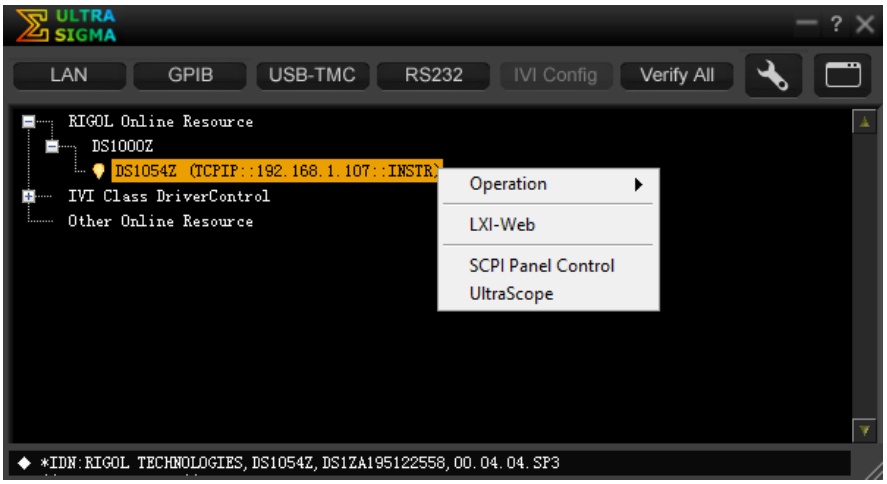

Figure 4: Choosing UltraScope.

7. Finally, the screen of DS1054Z is shown in windows, as shown in the following Fig. 5.

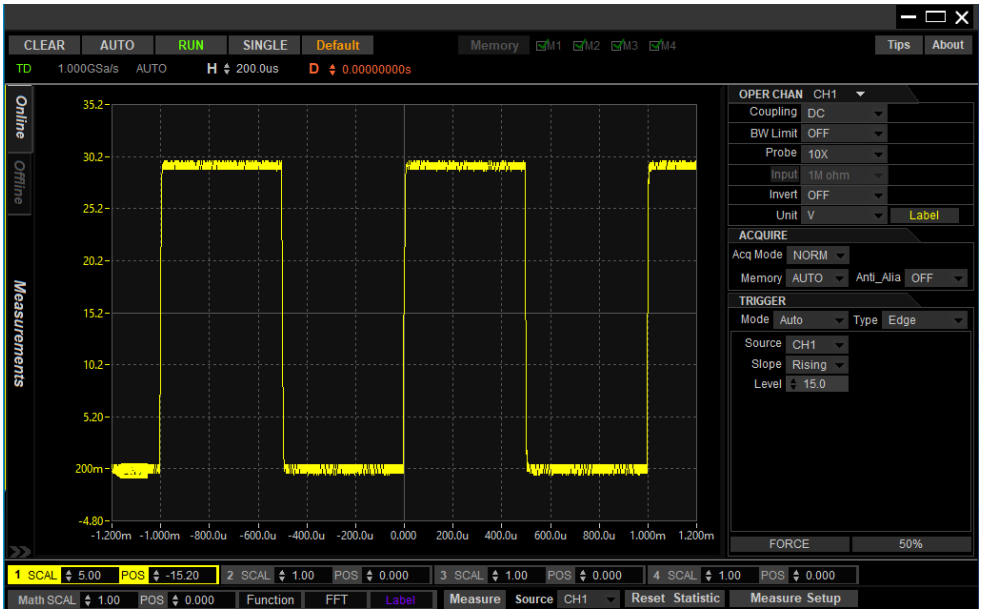

Figure 5: The Screen of DS1054Z.