

## *LED Display Driver with Serial Interface, TI Design*

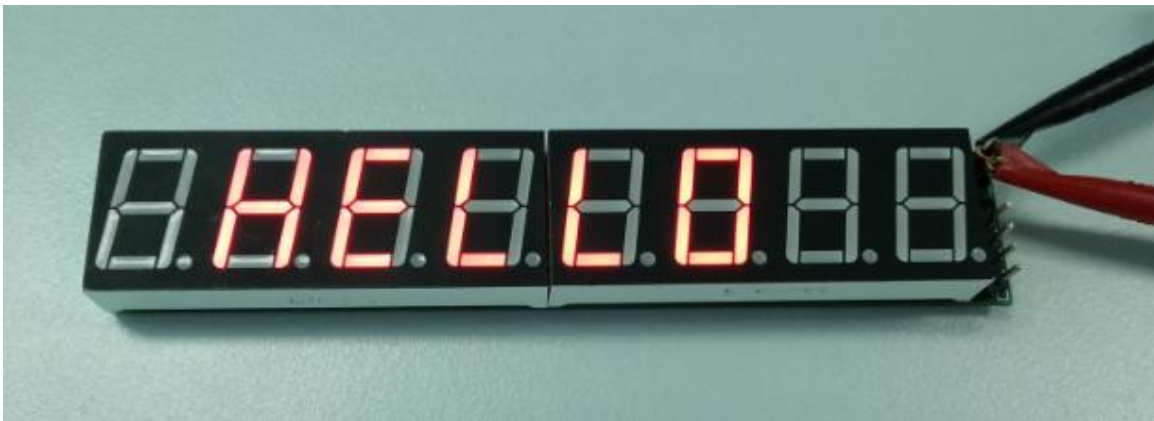
### 1. Display demo functions.

This display driver module has on-board MCU and ready-to-use display demos. By pressing button S1 on the bottom side of the module, display pattern will change once. There are total 6 kinds of display patterns in this demo program, showing in a cycle with the pushing of button S1.

#### 1.1 Display pattern 1. Show static characters.

(VM=12V, I<sub>vm</sub> = 60mA)

Display static "HELLO"



#### 1.2 Display pattern 2. Show flowing characters from left to right.

(VM=12V, I<sub>vm</sub> = 60mA)

Display flowing "HELLO"



#### 1.3 Display pattern 3. Show static characters with soft flashing ("Breathing lighting").

(VM=12V, I<sub>vm</sub> = 20~60mA)

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With DV8860's on chip PWM control, an eight level PWM duty changes can be achieved leading to a soft flashing effect (Breathing effect).

**Display soft flashing "AbCdEFGH" (Picture taken at low PWM duty)**



**Display soft flashing "AbCdEFGH" (Picture taken at high PWM duty)**



**1.4 Display pattern 4. Show digital characters with dots.**

(VM=12V, I<sub>vm</sub> = 90mA)

**Display digital numbers with dots**



**1.5 Display pattern 5. Show a running counter increasing every 0.1s.**

(VM=12V, I<sub>vm</sub> = 20~60mA)

**Dynamic display a running counter (0~65531)**



**1.6 Display pattern 6. Show characters with both flowing and breathing effects.**

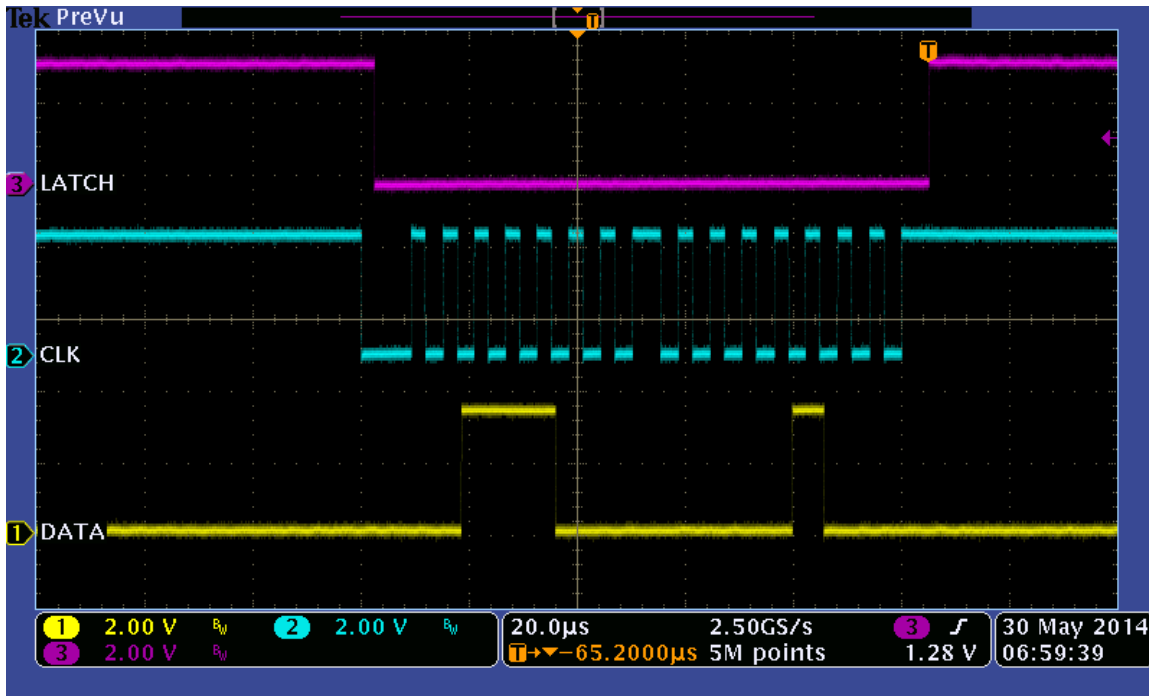
(VM=12V, I<sub>vm</sub> = 20~60mA)

**Display "SEE YOU" with flowing and breathing effects**

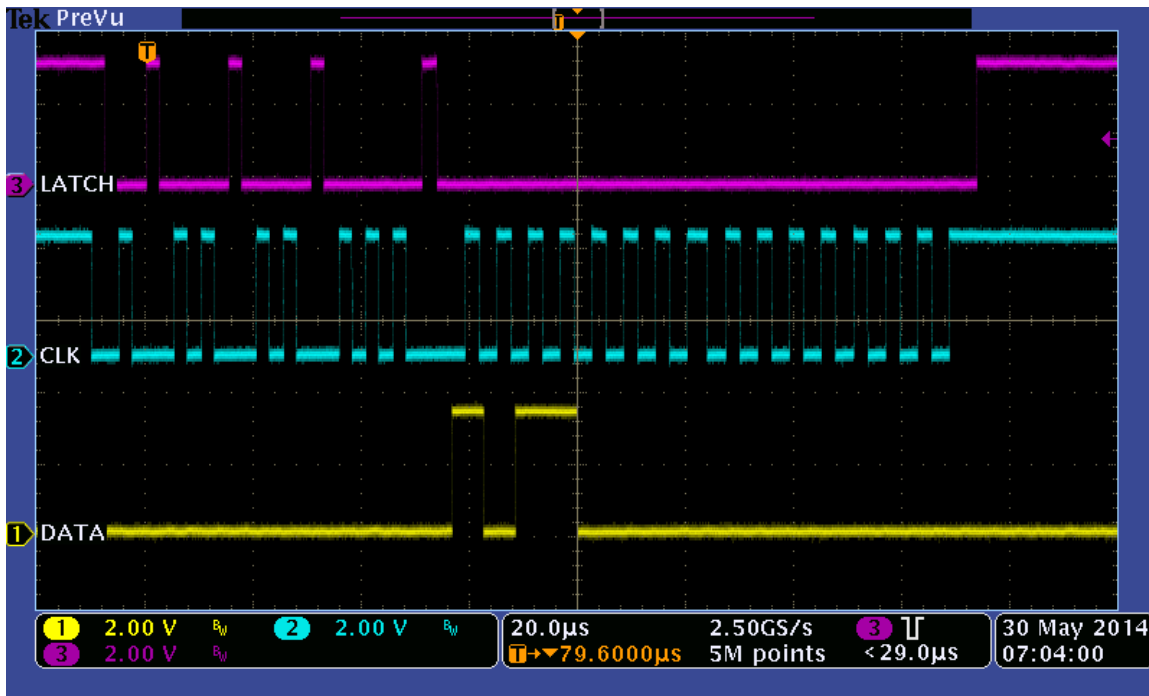


**2. Example of serial command waveforms.**

2.1 Serial command to change the output registers data of the two DRV8860 in daisy chain.



2.2 Serial command to change the control registers data of the two DRV8860 in daisy chain for PWM duty control.



(Please refer to [DRV8860 datasheet](#) for all the detailed description of serial interface)

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