|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Register Select | Read / Write | Enable Signal |  |  |  |  |  |  |  |  |  |
|  | **RS** | **R/W** | **E** | **DB7** | **DB6** | **DB5** | **DB4** | **DB3** | **DB2** | **DB1** | **DB0** |  |
| **Clear Display** | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  |
| **Return Home** | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 1 |  |  |
| **Entry Mode Set** | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 1 | „High“ moves blink right and increase DDRAM by 1 | “High” shift of entire display |  |
| „Low“ moves blink right and increase DDRAM by 1 | “Low” not shift of entire display |
| **Display on/of** | 0 | 0 |  | 0 | 0 | 0 | 0 | 1 | „High“ display on | „High“  cursor on | „High“  cursor blink |  |
| „Low“ display off | „Low“  cursor off | „Low“ cursor blink off |
| **Cursor or Display shift** | 0 | 0 |  | 0 | 0 | 0 | 0 | „H“ | „H“ |  |  | moves to 2nd line after 40th digit. Sifts cursor or display according to combination of DB3/DB2 |
| „L“ | „L“ |
| **Function Set** | 0 | 0 |  | 0 | 0 | 1 | „H“  8-bit mode | „H“  1-line mode | „H“  5x8 dot format |  |  |  |
| „L“  4-bit mode | „L“  2-line mode | „L“  5x11 dot format |
| **Set**  **CGRAM address** | 0 | 0 |  | 0 | 1 |  |  |  |  |  |  |  |
| **Set**  **DDRAM address** | 0 | 0 |  | 1 |  |  |  |  |  |  |  |  |
| **Read Busy flag and address** | 0 | 1 |  | “High” indicates busy |  |  |  |  |  |  |  |  |
|  |
| **Writ data to RAM** | 1 | 0 |  |  |  |  |  |  |  |  |  |  |
| **Read data from RAM** | 1 | 1 |  |  |  |  |  |  |  |  |  |  |