

# 16LF1784 Support Information

## #pragma config Usage

### #pragma config <setting>=<named value>

For example:

```
// Data Memory Code Protection: Data memory code protection is disabled
// Brown-out Reset Enable: Brown-out Reset disabled
// Internal/External Switchover: Internal/External Switchover mode is
disabled
// Oscillator Selection: ECM, External Clock, Medium Power Mode (0.5-4 MHz):
device clock supplied to CLKIN pin
// Fail-Safe Clock Monitor Enable: Fail-Safe Clock Monitor is disabled
// MCLR Pin Function Select: MCLR/VPP pin function is digital input
// Watchdog Timer Enable: WDT disabled
// Flash Program Memory Code Protection: Program memory code protection is
disabled
// Power-up Timer Enable: PWRT disabled
// Clock Out Enable: CLKOUT function is disabled. I/O or oscillator function
on the CLKOUT pin
#pragma config CPD = OFF, BOREN = OFF, IESO = OFF, FOSC = ECM, FCMEN = OFF,
MCLRE = OFF, WDTE = OFF, CP = OFF, PWRT = OFF, CLKOUTEN = OFF
```

### #pragma config <setting>=<literal constant>

For example:

```
// Data Memory Code Protection: Data memory code protection is disabled
// Brown-out Reset Enable: Brown-out Reset disabled
// Internal/External Switchover: Internal/External Switchover mode is
disabled
// Oscillator Selection: ECM, External Clock, Medium Power Mode (0.5-4 MHz):
device clock supplied to CLKIN pin
// Fail-Safe Clock Monitor Enable: Fail-Safe Clock Monitor is disabled
// MCLR Pin Function Select: MCLR/VPP pin function is digital input
// Watchdog Timer Enable: WDT disabled
// Flash Program Memory Code Protection: Program memory code protection is
disabled
// Power-up Timer Enable: PWRT disabled
// Clock Out Enable: CLKOUT function is disabled. I/O or oscillator function
on the CLKOUT pin
#pragma config CPD = 0x1, BOREN = 0x0, IESO = 0x0, FOSC = 0x6, FCMEN = 0x0,
MCLRE = 0x0, WDTE = 0x0, CP = 0x1, PWRT = 0x1, CLKOUTEN = 0x1
```

### #pragma config <register>=<literal constant>

For example:

```
// Data Memory Code Protection: Data memory code protection is disabled
// Brown-out Reset Enable: Brown-out Reset disabled
// Internal/External Switchover: Internal/External Switchover mode is
disabled
// Oscillator Selection: ECM, External Clock, Medium Power Mode (0.5-4 MHz):
device clock supplied to CLKIN pin
```

```
// Fail-Safe Clock Monitor Enable: Fail-Safe Clock Monitor is disabled
// MCLR Pin Function Select: MCLR/VPP pin function is digital input
// Watchdog Timer Enable: WDT disabled
// Flash Program Memory Code Protection: Program memory code protection is
disabled
// Power-up Timer Enable: PWRT disabled
// Clock Out Enable: CLKOUT function is disabled. I/O or oscillator function
on the CLKOUT pin
#pragma config CONFIG1 = 0xC9A6
```

For example:

```
// IDLOC @ 0x8000
#pragma config IDLOC0 = 0x3FFF
```

## #pragma config Settings

### Register: CONFIG1 @ 0x8007

#### CPD = Data Memory Code Protection

OFF Data memory code protection is disabled  
ON Data memory code protection is enabled

#### BOREN = Brown-out Reset Enable

OFF Brown-out Reset disabled  
ON Brown-out Reset enabled  
NSLEEP Brown-out Reset enabled while running and disabled in Sleep  
SBODEN Brown-out Reset controlled by the SBODEN bit in the BORCON register

#### IESO = Internal/External Switchover

OFF Internal/External Switchover mode is disabled  
ON Internal/External Switchover mode is enabled

#### FOSC = Oscillator Selection

ECM ECM, External Clock, Medium Power Mode (0.5-4 MHz): device clock supplied to CLKIN pin  
XT XT Oscillator, Crystal/resonator connected between OSC1 and OSC2 pins  
LP LP Oscillator, Low-power crystal connected between OSC1 and OSC2 pins  
EXTRC EXTRC oscillator: External RC circuit connected to CLKIN pin  
ECH ECH, External Clock, High Power Mode (4-32 MHz): device clock supplied to CLKIN pin  
ECL ECL, External Clock, Low Power Mode (0-0.5 MHz): device clock supplied to CLKIN pin  
INTOSC INTOSC oscillator: I/O function on CLKIN pin  
HS HS Oscillator, High-speed crystal/resonator connected between OSC1 and OSC2 pins

#### FCMEN = Fail-Safe Clock Monitor Enable

OFF Fail-Safe Clock Monitor is disabled

ON Fail-Safe Clock Monitor is enabled

**MCLRE = MCLR Pin Function Select**

OFF MCLR/VPP pin function is digital input

ON MCLR/VPP pin function is MCLR

**WDTE = Watchdog Timer Enable**

OFF WDT disabled

ON WDT enabled

NSLEEP WDT enabled while running and disabled in Sleep

SWDTEN WDT controlled by the SWDTEN bit in the WDTCON register

**CP = Flash Program Memory Code Protection**

OFF Program memory code protection is disabled

ON Program memory code protection is enabled

**PWRTE = Power-up Timer Enable**

OFF PWRT disabled

ON PWRT enabled

**CLKOUTEN = Clock Out Enable**

OFF CLKOUT function is disabled. I/O or oscillator function on the CLKOUT pin

ON CLKOUT function is enabled on the CLKOUT pin

**Register: CONFIG2 @ 0x8008**

**LPBOR = Low Power Brown-Out Reset Enable Bit**

OFF Low power brown-out is disabled

ON Low power brown-out is enabled

**PLLEN = PLL Enable**

OFF 4x PLL disabled

ON 4x PLL enabled

**WRT = Flash Memory Self-Write Protection**

OFF Write protection off

BOOT 000h to 1FFh write protected, 200h to FFFh may be modified by EECON control

HALF 000h to 7FFh write protected, 800h to FFFh may be modified by EECON control

ALL 000h to FFFh write protected, no addresses may be modified by EECON control

**STVREN = Stack Overflow/Underflow Reset Enable**

OFF Stack Overflow or Underflow will not cause a Reset

ON Stack Overflow or Underflow will cause a Reset

**BORV = Brown-out Reset Voltage Selection**

LO Brown-out Reset Voltage (Vbor), low trip point selected.

HI Brown-out Reset Voltage (Vbor), high trip point selected.

**LVP = Low-Voltage Programming Enable**

OFF High-voltage on MCLR/VPP must be used for programming

ON Low-voltage programming enabled

**Register: IDLOC0 @ 0x8000**

**Register: IDLOC1 @ 0x8001**

**Register: IDLOC2 @ 0x8002**

**Register: IDLOC3 @ 0x8003**