DataRdyUART1
DataRdyUART2

Description: This function returns the UART receive buffer status.

Include: `uart.h`

Prototype:
```
char DataRdyUART1(void);
char DataRdyUART2(void);
```

Arguments: None

Return Value: If '1' is returned, it indicates that the receive buffer has a data to be read.
If '0' is returned, it indicates that receive buffer does not have any new data to be read.

Remarks: This function returns the status of the UART receive buffer.
This indicates if the UART receive buffer contains any new data that is yet to be read as indicated by the UxSTA<URXDA> bit.

Source File:
```
DataRdyUART1.c
DataRdyUART2.c
```

Code Example:
```
while(DataRdyUART1());
```

OpenUART1
OpenUART2

Description: This function configures the UART module

Include: `uart.h`

Prototype:
```
void OpenUART1(unsigned int config1,
  unsigned int config2, unsigned int ubrg);
void OpenUART2(unsigned int config1,
  unsigned int config2, unsigned int ubrg);
```

Arguments:

config1 This contains the parameters to be configured in the UxMODE register as defined below:

UART enable/disable
```
UART_EN
UART_DIS
```

UART Idle mode operation
```
UART_IDLE_CON
UART_IDLE_STOP
```

UART communication with ALT pins
```
UART_ALTRX_ALTTX
UART_RX_TX
```
UART communication with ALT pins is available only for certain devices and the suitable data sheet should be referred to.

UART Wake-up on Start
```
UART_EN_WAKE
UART_DIS_WAKE
```

UART Loopback mode enable/disable
```
UART_EN_LOOPBACK
UART_DIS_LOOPBACK
```

Input to Capture module
```
UART_EN_ABAUD
UART_DIS_ABAUD
```

OpenUART1 (Continued)
OpenUART2

Parity and data bits select
UART_NO_PAR_9BIT
UART_ODD_PAR_8BIT
UART_EVEN_PAR_8BIT
UART_NO_PAR_8BIT

Number of Stop bits
UART_2STOPBITS
UART_1STOPBIT

config2 This contains the parameters to be configured in the UxSTA register as defined below:

UART Transmission mode interrupt select
UART_INT_TX_BUF_EMPTY
UART_INT_TX

UART Transmit Break bit
UART_TX_PIN_NORMAL
UART_TX_PIN_LOW

UART transmit enable/disable
UART_TX_ENABLE
UART_TX_DISABLE

UART Receive Interrupt mode select
UART_INT_RX_BUF_FUL
UART_INT_RX_3_4_FUL
UART_INT_RX_CHAR

UART address detect enable/disable
UART_ADR_DETECT_EN
UART_ADR_DETECT_DIS

UART OVERRUN bit clear
UART_RX_OVERRUN_CLEAR

ubrg This is the value to be written into UxBRG register to set the baud rate.

Return Value: None

Remarks: This functions configures the UART transmit and receive sections and sets the communication baud rate.

Source File:
OpenUART1.c
OpenUART2.c

Code Example:

```
baud = 5;
UMODEvalue = UART_EN & UART_IDLE_CON &
             UART_DIS_WAKE & UART_EN_LOOPBACK &
             UART_EN_ABAUD & UART_NO_PAR_8BIT &
             UART_1STOPBIT;
U1STAvalue = UART_INT_TX_BUF_EMPTY &
             UART_TX_PIN_NORMAL &
             UART_TX_ENABLE &
             UART_INT_RX_3_4_FUL &
             UART_ADR_DETECT_DIS &
             UART_RX_OVERRUN_CLEAR ;
OpenUART1(U1MODEvalue, U1STAvalue, baud);
```