Registermap

Overview

Name	Address	Description
LEDG	0x5000	Green LED Register
LEDR	0x5002	Red LED Register
HEX0	0x5010	Seven Segment Digit 0 Register
HEX1	0x5012	Seven Segment Digit 1 Register
HEX2	0x5014	Seven Segment Digit 2 Register
HEX3	0x5016	Seven Segment Digit 3 Register
KEY	0x5020	Pushbuttons Register
SW	0x5022	Switch Register
USB_TX_DATA	0x6000	TX-FIFO Data Register
USB_TX_CONTROL	0x6002	TX-FIFO Control Register
USB_RX_DATA	0x6004	RX-FIFO Data Register
USB_RX_CONTROL	0x6006	RX-FIFO Control Register

Detailed Description

LEDG

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	LEDG							
Mode	r0	r0	r0	r0	r0	r0	r0	r0	w							
Reset	-	-	-	-	-	-	-	-	0x00							

LEDR

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	LEDR									
Mode	r0	r0	r0	r0	r0	r0	w									
Reset	-	-	-	-	-	-	0x000									

The registers LEDG and LEDR control the eight green and the ten red LEDs of the evaluation board respectively.

A set bit means the LED is on, a reset bit means the LED is off.

HEX0

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	HEX0						
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	w						
Reset	-	-	-	-	-	-	-	-	-	0x00						

HEX1

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	HEX1						
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	w						
Reset	-	-	-	-	-	-	-	-	-	0x00						

HEX2

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	HEX2						
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	w						
Reset	-	-	-	-	-	-	-	-	-	0x00						

HEX3

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	HEX3						
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	w						
Reset	-	-	-	-	-	-	-	-	-	0x00						

The registers HEX0—HEX3 control the segments of the four-digit hexadecimal display of the evaluation board.

A set bit means the segment is on, a reset bit means the segment is off.

KEY

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	-	-	-	KEY			
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r			
Reset	-	-	-	-	-	-	-	-	-	-	-	-	-			

The KEY register contains the state of the four pushbuttons of the evaluation board.

A set bit means the button is not pressed, a reset bit means the button is pressed.

SW

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	SW									
Mode	r0	r0	r0	r0	r0	r0	r									
Reset	-	-	-	-	-	-	-									

The SW register contains the state of the ten switches of the evaluation board.

A set bit means the switch is on, a reset bit means the switch is off.

USB_TX_DATA

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	DATA							
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0/w							
Reset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

USB_TX_DATA is the register to which the CPU writes data. The first byte starts a SYNC sequence. After the last byte (i.e. when the FIFO is empty) EOP is applied.

USB_TX_CONTROL

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	-	-	-	-		FULL	EMPTY
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r	r
Reset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0

Name	Function
FULL	FIFO full bit 0: FIFO is not full 1: FIFO is full
EMPTY	FIFO empty bit 0: FIFO is not empty 1: FIFO is empty

USB_TX_CONTROL contains the status of the TX-FIFO.

USB_RX_DATA

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	DATA							
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r							
Reset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

USB_RX_DATA is the register from which the CPU reads data.

USB_RX_CONTROL

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Name	-	-	-	-	-	-	-	-	-	-	-	-	-		FULL	EMPTY
Mode	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r0	r	r
Reset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0

Name	Function
FULL	FIFO full bit 0: FIFO is not full 1: FIFO is full
EMPTY	FIFO empty bit 0: FIFO is not empty 1: FIFO is empty

USB_RX_CONTROL contains the status of the RX-FIFO.