



SSD202D
CHIPTOP Module Description

SigmaStar Confidential
深圳百问网络科技有限公司
Internal Use Only



SigmaStar Confidential
for
Internal Use Only
深圳百问网科技有限公司

© 2022 SigmaStar Technology Corp. All rights reserved.

SigmaStar Technology makes no representations or warranties including, for example but not limited to, warranties of merchantability, fitness for a particular purpose, non-infringement of any intellectual property right or the accuracy or completeness of this document, and reserves the right to make changes without further notice to any products herein to improve reliability, function or design. No responsibility is assumed by SigmaStar Technology arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

SigmaStar is a trademark of SigmaStar Technology Corp. Other trademarks or names herein are only for identification purposes only and owned by their respective owners.

1. REGISTER DESCRIPTION

1.1. CHIPTOP Register (Bank = 101E)

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
00h (101E00h)	REG101E00	7:0	Default : 0x00	Access : R/W
	-	7:1	Reserved.	
	CKG_ALLDFT	0	MIU clock selects DFT clock. MPLL_SYN clock selects DFT clock. MIU_REC clock selects DFT clock. GE clock selects DFT clock.	
01h (101E03h)	REG101E03	7:0	Default : 0x02	Access : R/W
	-	7:6	Reserved.	
	SETL	5	Digital pads set low.	
	SETH	4	Digital pads set high.	
	-	3:2	Reserved.	
	FT_MODE	1	FT mode. 1: Enable FT mode. 0: Disable FT mode.	
	-	0	Reserved.	
03h (101E06h)	REG101E06	7:0	Default : 0x00	Access : R/W
	-	7	Reserved.	
	UART0_MODE[2:0]	6:4	UART0 Mode.	
	-	3	Reserved.	
	FUART_MODE[2:0]	2:0	FUART Mode.	
03h (101E07h)	REG101E07	7:0	Default : 0x00	Access : R/W
	-	7	Reserved.	
	UART2_MODE[2:0]	6:4	UART2 Mode.	
	-	3	Reserved.	
07h (101E0Eh)	REG101E0E	7:0	Default : 0x00	Access : R/W
	PWM2_MODE[1:0]	7:6	PWM2 Mode.	
	PWM1_MODE[2:0]	5:3	PWM1 Mode.	

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
	PWM0_MODE[2:0]	2:0	PWM0 Mode.
07h (101E0Fh)	REG101E0F	7:0	Default : 0x00 Access : R/W
	-	7:4	Reserved.
	PWM3_MODE[2:0]	3:1	PWM3 Mode.
	PWM2_MODE[2]	0	See description of '101E0Eh'.
08h (101E11h)	REG101E11	7:0	Default : 0x00 Access : R/W
	-	7:2	Reserved.
	SDIO_MODE[1:0]	1:0	SDIO Mode.
09h (101E12h)	REG101E12	7:0	Default : 0x00 Access : R/W
	-	7	Reserved.
	I2C1_MODE[2:0]	6:4	I2C1 Mode.
	-	3	Reserved.
	I2C0_MODE[2:0]	2:0	I2C0 Mode.
0Ah (101E14h)	REG101E14	7:0	Default : 0x00 Access : R/W
	-	7:6	Reserved.
	PM_SPICZ2_MODE[1:0]	5:4	PM SPI CZ2 Mode.
	-	3:1	Reserved.
	IDAC_MODE	0	IDAC Mode.
0Ch (101E18h)	REG101E18	7:0	Default : 0x00 Access : R/W
	-	7:3	Reserved.
	SPI0_MODE[2:0]	2:0	SPI0 Mode.
0Dh (101E1Ah)	REG101E1A	7:0	Default : 0x00 Access : R/W
	-	7:2	Reserved.
	BT1120_MODE[1:0]	1:0	BT1120 Mode.
0Dh (101E1Bh)	REG101E1B	7:0	Default : 0x00 Access : R/W
	-	7:6	Reserved.
	TX_MIPI_MODE[1:0]	5:4	MIPI TX mode.
	TTL_MODE[3:0]	3:0	TTL Mode.
0Eh (101E1Ch)	REG101E1C	7:0	Default : 0x00 Access : R/W
	-	7:1	Reserved.
	ETH0_MODE	0	ETH0 Mode.
0Eh (101E1Dh)	REG101E1D	7:0	Default : 0x00 Access : R/W
	-	7:4	Reserved.

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
	ETH1_MODE[3:0]	3:0	ETH1 Mode.
0Fh (101E1Eh)	REG101E1E	7:0	Default : 0x00
	-	7:2	Reserved.
	EJ_MODE[1:0]	1:0	EJ Mode.
0Fh (101E1Fh)	REG101E1F	7:0	Default : 0x00
	-	7:6	Reserved.
	I2S_MODE[1:0]	5:4	I2S Mode.
	-	3	Reserved.
	DMIC_MODE[2:0]	2:0	DMIC Mode.
12h (101E24h)	REG101E24	7:0	Default : 0x00
	-	7:6	Reserved.
	TEST_OUT_MODE[1:0]	5:4	Select TEST_OUT mode. 2'd0: TEST_OUT functions are not enabled. 2'd1: TEST_OUT[23:0] use FUART/SR/SPI0 pads. 2'd2: TEST_OUT[23:0] use I2C0/SD/USB/SAR/PM/ETH pads. 2'd3: TEST_OUT[15:0] use SR pads.
	-	3:2	Reserved.
	TEST_IN_MODE[1:0]	1:0	Select TEST_IN mode. 2'd0: TEST_IN functions are not enabled. 2'd1: TEST_IN[23:0] use FUART/SR/SPI0 pads. 2'd2: TEST_IN[23:0] use I2C0/SD/USB/SAR/PM/ETH pads. 2'd3: TEST_IN[14:0] use SAR/ETH/FUART/SPI0/SD/USB pads.
	-		
1Ch (101E39h)	REG101E39	7:0	Default : 0x00
	BIST_MODE_EXT	7	BIST mode enable (disabled by default).
	BIST_START_EXT	6	BIST mode start.
	-	5	Reserved.
	FORCE_ALLSRAM_ON	4	Force all of the whole chip SRAM to power-on.
	-	3:0	Reserved.
1Dh (101E3Ah)	REG101E3A	7:0	Default : 0x00
	BIST_DONE[7:0]	7:0	Indicate SRAM done. [0]: Dig_gp. [1]: Pm_gp. [2]: Sc_gp.

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
			[3]: Dec_gp. [4]~[14]: N/A. [15]: All.	
1Dh (101E3Bh)	REG101E3B	7:0	Default : 0x00	Access : RO
	BIST_DONE[15:8]	7:0	See description of '101E3Ah'.	
1Eh (101E3Ch)	REG101E3C	7:0	Default : 0x00	Access : RO
	BIST_FAIL[7:0]	7:0	Indicate SRAM fail. [0]: Dig_gp. [1]: Pm_gp. [2]: Sc_gp. [3]: Dec_gp. [4]~[14]: N/A. [15]: All.	
1Eh (101E3Dh)	REG101E3D	7:0	Default : 0x00	Access : RO
	BIST_FAIL[15:8]	7:0	See description of '101E3Ch'.	
20h (101E40h)	REG101E40	7:0	Default : 0xFF	Access : R/W
	CHIPTOP_DUMMY_0[7:0]	7:0	Dummy registers for CHIPTOP.	
20h (101E41h)	REG101E41	7:0	Default : 0xFF	Access : R/W
	CHIPTOP_DUMMY_0[15:8]	7:0	See description of '101E40h'.	
21h (101E42h)	REG101E42	7:0	Default : 0x00	Access : R/W
	CHIPTOP_DUMMY_1[7:0]	7:0	Dummy registers for CHIPTOP. [0]: Clk_MIU_xd2MIU ICG control. 0: Disable. 1: Enable.	
21h (101E43h)	REG101E43	7:0	Default : 0x00	Access : R/W
	CHIPTOP_DUMMY_1[15:8]	7:0	See description of '101E42h'.	
22h (101E44h)	REG101E44	7:0	Default : 0xFF	Access : R/W
	CHIPTOP_DUMMY_2[7:0]	7:0	Dummy registers for CHIPTOP.	
22h (101E45h)	REG101E45	7:0	Default : 0xFF	Access : R/W
	CHIPTOP_DUMMY_2[15:8]	7:0	See description of '101E44h'.	
23h (101E46h)	REG101E46	7:0	Default : 0x00	Access : R/W
	CHIPTOP_DUMMY_3[7:0]	7:0	Dummy registers for CHIPTOP.	
23h (101E47h)	REG101E47	7:0	Default : 0x00	Access : R/W
	CHIPTOP_DUMMY_3[15:8]	7:0	See description of '101E46h'.	
30h	REG101E60	7:0	Default : 0x00	Access : R/W

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
(101E60h)	GPIO_DRV[7:0]	7:0	GPIO pad control.
30h	REG101E61	7:0	Default : 0x00
(101E61h)	-	7	Reserved.
	GPIO_DRV[14: 8]	6:0	See description of '101E60h'.
31h	REG101E62	7:0	Default : 0xFF
(101E62h)	GPIO_PE[7:0]	7:0	GPIO pad control.
31h	REG101E63	7:0	Default : 0x7F
(101E63h)	-	7	Reserved.
	GPIO_PE[14: 8]	6:0	See description of '101E62h'.
32h	REG101E64	7:0	Default : 0x00
(101E64h)	-	7	Reserved.
	SD_DRV[6:0]	6:0	SD pad control.
32h	REG101E65	7:0	Default : 0x7F
(101E65h)	-	7	Reserved.
	SD_PE[6:0]	6:0	SD pad control.
35h	REG101E6A	7:0	Default : 0x00
(101E6Ah)	-	7:6	Reserved.
	UART0_DRV[1:0]	5:4	UART0 pad control.
	FUART_DRV[3:0]	3:0	FUART pad control.
35h	REG101E6B	7:0	Default : 0x00
(101E6Bh)	-	7:2	Reserved.
	UART1_DRV[1:0]	1:0	UART1 pad control.
36h	REG101E6C	7:0	Default : 0x00
(101E6Ch)	-	7:2	Reserved.
	HDMITX_DRV[1:0]	1:0	HDMI pad control.
38h	REG101E70	7:0	Default : 0xFF
(101E70h)	TTL_IE[7:0]	7:0	TTL pad control.
38h	REG101E71	7:0	Default : 0xFF
(101E71h)	TTL_IE[15:8]	7:0	See description of '101E70h'.
39h	REG101E72	7:0	Default : 0xFF
(101E72h)	TTL_IE[23:16]	7:0	See description of '101E70h'.
39h	REG101E73	7:0	Default : 0x0F
(101E73h)	-	7:4	Reserved.

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
	TTL_IE[27:24]	3:0	See description of '101E70h'.
3Ah (101E74h)	REG101E74	7:0	Default : 0xFF
	TTL_PE[7:0]	7:0	TTL pad control.
3Ah (101E75h)	REG101E75	7:0	Default : 0xFF
	TTL_PE[15:8]	7:0	See description of '101E74h'.
3Bh (101E76h)	REG101E76	7:0	Default : 0xFF
	TTL_PE[23:16]	7:0	See description of '101E74h'.
3Bh (101E77h)	REG101E77	7:0	Default : 0x0F
	-	7:4	Reserved.
	TTL_PE[27:24]	3:0	See description of '101E74h'.
3Ch (101E78h)	REG101E78	7:0	Default : 0xFF
	TTL_PS[7:0]	7:0	TTL pad control.
3Ch (101E79h)	REG101E79	7:0	Default : 0xFF
	TTL_PS[15:8]	7:0	See description of '101E78h'.
3Dh (101E7Ah)	REG101E7A	7:0	Default : 0xFF
	TTL_PS[23:16]	7:0	See description of '101E78h'.
3Dh (101E7Bh)	REG101E7B	7:0	Default : 0x0F
	-	7:4	Reserved.
	TTL_PS[27:24]	3:0	See description of '101E78h'.
3Eh (101E7Ch)	REG101E7C	7:0	Default : 0x00
	TTL_DRV[7:0]	7:0	TTL pad control.
3Eh (101E7Dh)	REG101E7D	7:0	Default : 0x00
	TTL_DRV[15:8]	7:0	See description of '101E7Ch'.
3Fh (101E7Eh)	REG101E7E	7:0	Default : 0x00
	TTL_DRV[23:16]	7:0	See description of '101E7Ch'.
3Fh (101E7Fh)	REG101E7F	7:0	Default : 0x00
	-	7:4	Reserved.
	TTL_DRV[27:24]	3:0	See description of '101E7Ch'.
40h (101E80h)	REG101E80	7:0	Default : 0x03
	-	7:2	Reserved.
	MCU_BRIDGE_EN_MODE[1:0]	1:0	Clock MCU gating control. 00: Use MCU_bridge_en (HW saving mode 0). 01: Use MCU_bridge_en_d (HW saving mode 1, preferred).

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
			10: SW saving power mode. 11: Always enable (default).	
44h (101E88h)	REG101E88	7:0	Default : 0xFF	Access : R/W
	RIU_WCLK_MASK[7:0]	7:0	RIU write clock mask. [0]: Sc_gp. [1]: Vhe_gp. [2]: HeMCU_gp. [3]: Mipi_gp. [4]: Mcu_if_gp. [5]: Others.	
44h (101E89h)	REG101E89	7:0	Default : 0xFF	Access : R/W
	RIU_WCLK_MASK[15:8]	7:0	See description of '101E88h'.	
45h (101E8Ah)	REG101E8A	7:0	Default : 0xFF	Access : R/W
	RESERVED3[7:0]	7:0	Reserved.	
45h (101E8Bh)	REG101E8B	7:0	Default : 0xFF	Access : R/W
	RESERVED3[15:8]	7:0	See description of '101E8Ah'.	
46h (101E8Ch)	REG101E8C	7:0	Default : 0xFF	Access : R/W
	RESERVED4[7:0]	7:0	Reserved.	
46h (101E8Dh)	REG101E8D	7:0	Default : 0xFF	Access : R/W
	RESERVED4[15:8]	7:0	See description of '101E8Ch'.	
47h (101E8Eh)	REG101E8E	7:0	Default : 0x00	Access : R/W
	-	7:5	Reserved.	
	BOND_OV_EN[4:0]	4:0	Bonding overwrite enable.	
47h (101E8Fh)	REG101E8F	7:0	Default : 0x00	Access : R/W
	-	7:5	Reserved.	
	BOND_OV[4:0]	4:0	Bonding overwrite value.	
48h (101E90h)	REG101E90	7:0	Default : 0x00	Access : RO
	-	7:5	Reserved.	
	BOND_IN[4:0]	4:0	Bonding value.	
50h (101EA1h)	REG101EA1	7:0	Default : 0x80	Access : R/W
	ALLPAD_IN	7	1: Set all pads (except PM) as input.	
	-	6:0	Reserved.	
53h (101EA6h)	REG101EA6	7:0	Default : 0x10	Access : R/W
	UART_SEL1[3:0]	7:4	Select controller for PAD_FUART_RX and PAD_FUART_TX.	

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
	UART_SELO[3:0]	3:0	Select controller for PAD_PM_UART_RX and PAD_PM_UART_TX. 0000: N/A. 0001: FUART. 0010: UART0. 0011: UART1. 0100: UART2. 0101: UART_DEC. Note: For PAD_PM_UART_RX and PAD_PM_UART_TX, please refer to the "reg_hk51_uart0_en" and "reg_uart_rx_enable" in pm_sleep registers. (a). "reg_hk51_uart0_en" == 0. (b). "reg_uart_rx_enable" == 1.
53h (101EA7h)	REG101EA7	7:0	Default : 0x32 Access : R/W
	UART_SEL3[3:0]	7:4	Select controller for PAD_UART1_RX and PAD_UART1_TX.
	UART_SEL2[3:0]	3:0	Select controller for PAD_UART0_RX and PAD_UART0_TX.
54h (101EA8h)	REG101EA8	7:0	Default : 0x54 Access : R/W
	UART_SEL5[3:0]	7:4	Select controller for PAD_PM_LCD1/LCD0.
	UART_SEL4[3:0]	3:0	Select controller for PAD_UART2_RX and PAD_UART2_TX.
55h (101EAAh)	REG101EAA	7:0	Default : 0x00 Access : R/W
	-	7:4	Reserved.
	JTAG_SEL[3:0]	3:0	JTAG selection.
55h (101EABh)	REG101EAB	7:0	Default : 0x00 Access : R/W
	UART_PAD_INVERSE[7:0]	7:0	Invert PAD UART TX/RX.
56h (101EACH)	REG101EAC	7:0	Default : 0x00 Access : R/W
	UART_INNER_LOOPBACK[7:0]	7:0	Enable of inner loopback test for 3 sets of UART controller. [0]: N/A. [1]: FUART enable. [2]: UART0 enable. [3]: UART1 enable. [4]~[7]: N/A.
56h (101EADh)	REG101EAD	7:0	Default : 0x00 Access : R/W
	UART_OUTER_LOOPBACK[7:0]	7:0	Enable of outer loopback test for 4 sets of UART pad. [0]: PM_UART enable. [1]: FUART enable. [2]: UART0 enable.

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
			[3]: UART1 enable. [4]~[7]: N/A.	
57h (101EAEh)	REG101EAE	7:0	Default : 0x00	Access : R/W
	FORCE_RX_DISABLE[7:0]	7:0	Disable RX signals from PADs.	
57h (101EAFh)	REG101EAF	7:0	Default : 0x00	Access : R/W
	FORCE_RX_DISABLE[15:8]	7:0	See description of '101EAEh'.	
58h (101EB0h)	REG101EB0	7:0	Default : 0x00	Access : R/W
	FPGA_MIU_OPTION[7:0]	7:0	FPGA_MIU_OPTION.	
58h (101EB1h)	REG101EB1	7:0	Default : 0x00	Access : R/W
	FPGA_MIU_OPTION[15:8]	7:0	See description of '101EB0h'.	
65h (101ECAh)	REG101ECA	7:0	Default : 0x00	Access : RO
	-	7:5	Reserved.	
	CHIP_CONFIG_STAT[4:0]	4:0	CHIP_CONFIG status.	
65h (101ECBh)	REG101ECB	7:0	Default : 0x00	Access : RO
	-	7:5	Reserved.	
	POWERGOOD_AVDD	4	POWERGOOD_AVDD status.	
	-	3:2	Reserved.	
	IN_SEL_DBUS	1	IN_SEL_DBUS.	
	IN_SEL_SBUS	0	IN_SEL_SBUS.	
69h (101ED3h)	REG101ED3	7:0	Default : 0x00	Access : R/W
	-	7:4	Reserved.	
	BOOT_FROM_SDRAM	3	Boot from SDRAM. 1: Enable boot from SDRAM. 0: Disable boot from SDRAM.	
	-	2:0	Reserved.	
6Ah (101ED4h)	REG101ED4	7:0	Default : 0x00	Access : R/W
	BOOT_FROM_SDRAM_OFFSET[7:0]	7:0	The booting address of SDRAM.	
6Ah (101ED5h)	REG101ED5	7:0	Default : 0x00	Access : R/W
	BOOT_FROM_SDRAM_OFFSET[15:8]	7:0	See description of '101ED4h'.	
6Bh (101ED6h)	REG101ED6	7:0	Default : 0x00	Access : R/W
	BOOT_FROM_SDRAM_OFFSET[23:16]	7:0	See description of '101ED4h'.	

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
6Bh (101ED7h)	REG101ED7	7:0	Default : 0x00	Access : R/W
	-	7:2	Reserved.	
	BOOT_FROM_SDRAM_OFFSET[25:24]	1:0	See description of '101ED4h'.	
70h (101EE1h)	REG101EE1	7:0	Default : 0x00	Access : R/W
	CLK_CALC_EN	7	CLK_CALC_EN. 1: Enable. 0: Disable.	
	-	6: 3	Reserved.	
	ROSC_OUT_SEL[2:0]	2:0	Ring OSC output select. 000: Select delay chain 0. 001: Select delay chain 1. 010: Select delay chain 2. 011: Select delay chain 3. 100: Select delay chain 4. 101: Select delay chain 5. 110: Select delay chain 6. 111: Select delay chain 7.	
71h (101EE2h)	REG101EE2	7:0	Default : 0x00	Access : RO
	CALC_CNT_REPORT[7:0]	7:0	CALC_CNT_REPORT.	
71h (101EE3h)	REG101EE3	7:0	Default : 0x00	Access : RO
	CALC_CNT_REPORT[15:8]	7:0	See description of '101EE2h'.	
73h (101EE6h)	REG101EE6	7:0	Default : 0xFF	Access : R/W
	RESERVED[7:0]	7:0	Reserved.	
73h (101EE7h)	REG101EE7	7:0	Default : 0xFF	Access : R/W
	RESERVED[15:8]	7:0	See description of '101EE6h'.	
74h (101EE8h)	REG101EE8	7:0	Default : 0x00	Access : R/W
	RESERVED[23:16]	7:0	See description of '101EE6h'.	
74h (101EE9h)	REG101EE9	7:0	Default : 0x00	Access : R/W
	RESERVED[31:24]	7:0	See description of '101EE6h'.	
75h (101EEAh)	REG101EEA	7:0	Default : 0x00	Access : R/W
	TEST_RB	7	Setting for the data arrangement on test bus.	
	TEST_GB	6	Setting for the data arrangement on test bus.	
	TEST_RG	5	Setting for the data arrangement on test bus.	
-	-	4	Reserved.	

CHIPTOP Register (Bank = 101E)			
Index (Absolute)	Mnemonic	Bit	Description
	SWAPTEST12BIT	3	Swap MSB 12 bits with LSB 12 bits of test bus.
	CLK_OUT_SEL[2:0]	2:0	Select TEST_CLK_OUT source. 3'd0: TEST_CLK_OUT = TEST_BUS_GB[0]. 3'd1: TEST_CLK_OUT = TEST_BUS_GB[1]. 3'd2: TEST_CLK_OUT = TEST_BUS_GB[2]. 3'd3: TEST_CLK_OUT = TEST_BUS_GB[3]. 3'd4: TEST_CLK_OUT = TEST_BUS_GB[4]. 3'd5: TEST_CLK_OUT = TEST_BUS_GB[5]. 3'd6: TEST_CLK_OUT = TEST_BUS_GB[6]. 3'd7: TEST_CLK_OUT = TEST_BUS_GB[7].
75h (101EEBh)	REG101EEB	7:0	Default : 0x00 Access : R/W
	ROSC_IN_SEL	7	Select the input source of ring oscillator in CHIP_CONF. 1: Close-loop (enable ring oscillator). 0: Open-loop (input from external digital input).
	TESTBUS_EN	6	Enable test bus output (disabled by default).
	TESTCLK_MODE	5	TESTCLK_MODE used in TEST_CTRL.
	-	4: 2	Reserved.
	SEL_CLK_TEST_OUT[1:0]	1:0	Select CLK_TEST_OUT. 2'd0: Select CLK_TEST_OUT[47:0]. 2'd1: Select CLK_TEST_OUT[95:48]. 2'd2: Select CLK_TEST_OUT[143:96]. 2'd3: Reserved.
76h (101EECh)	REG101EEC	7:0	Default : 0x00 Access : R/W
	-	7:3	Reserved.
	SINGLE_CLK_OUT_SEL[2:0]	2:0	Select single CLK_OUT. 3'd1: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT. 3'd2: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT_d4. 3'd3: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT_d8. 3'd4: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT_d16. 3'd5: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT_d32. 3'd6: TEST_BUS[11] = TEST_CLK_OUT_d2. TEST_BUS[10] = TEST_CLK_OUT_d64. Others: No TEST_CLK_OUT.

CHIPTOP Register (Bank = 101E)				
Index (Absolute)	Mnemonic	Bit	Description	
77h (101EEEh)	REG101EEE	7:0	Default : 0x00	Access : R/W
	-	7:6	Reserved.	
	TEST_BUS24B_SEL[5:0]	5:0	Select TEST_BUS[23:0] source. 6'd2: TEST_BUS = ANA_MISC_TEST_OUT. 6'd3: TEST_BUS = MIU_TEST_OUT. 6'd4: TEST_BUS = DIAMOND_TOP_WP_TEST_OUT. 6'd6: TEST_BUS = UTMI_P1_TEST_OUT. 6'd7: TEST_BUS = UTMI_P2_TEST_OUT. 6'd8: TEST_BUS = AUSDM_TEST_OUT. 6'd9: TEST_BUS = DIG_PM_TEST_OUT. 6'd10: TEST_BUS = MCU_IF_TEST_OUT. 6'd11: TEST_BUS = UTMI_P3_TEST_OUT. 6'd16: TEST_BUS = SC_GP_TEST_OUT. 6'd17: TEST_BUS = DEC_GP_TEST_OUT. 6'd25: TEST_BUS = CLKGEN_TEST_OUT. 6'd26: TEST_BUS = CLKGEN_TEST_OUT2. Others: No TEST_OUT.	
7Bh (101EF6h)	REG101EF6	7:0	Default : 0x00	Access : R/W
	CHIPTOP_RESERVED[7:0]	7:0		
7Bh (101EF7h)	REG101EF7	7:0	Default : 0x00	Access : R/W
	CHIPTOP_RESERVED[15:8]	7:0	See description of '101EF6h'.	
7Ch (101EF8h)	REG101EF8	7:0	Default : 0xFF	Access : R/W
	CHK_CLK_HEMCU_FREQ_C MP_DATA[7:0]	7:0		
7Ch (101EF9h)	REG101EF9	7:0	Default : 0xFF	Access : R/W
	CHK_CLK_HEMCU_FREQ_C MP_DATA[15:8]	7:0	See description of '101EF8h'.	
7Dh (101EFAh)	REG101EFA	7:0	Default : 0x03	Access : R/W
	-	7:4	Reserved.	
	256BUS_2X_DIV_EN[3:0]	3:0	256bus MIU 2x div enable.	
7Eh (101EFCh)	REG101EFC	7:0	Default : 0x0F	Access : R/W
	-	7:4	Reserved.	
	MIU2X_DIV_RSTZ[3:0]	3:0	Clk_MIU2x_div sw rstz. [0]: MIU0. [3:1]: Reserved.	

SigmaStar Confidential
for
Internal Use Only
深圳百问网络科技有限公司