INTERRUPT Drivers

For

AVR Microcontrollers

LOW LEVEL DESGIN Document

1. API specification

1.1 Type definitions

Name:	**EXIT0_RISING_EDGE**
Type:	#define
Element:	3
Description:	Configure external interrupt 0 to be triggered on the rising edge of the input signal

Name:	**EXIT0_FALLING_EDGE**
Type:	#define
Element:	2
Description:	Configure external interrupt 0 to be triggered on the falling edge of the input signal

Name:	**EXIT0_LOGIC_CHANGE**
Type:	#define
Element:	1
Description:	Configure external interrupt 0 to be triggered on any change in the input signal

Name:	**EXIT0_LOW_LEVEL**
Type:	#define
Element:	0
Description:	Configure external interrupt 0 to be triggered when the input signal is held at a low level

Name:	**EXIT1_RISING_EDGE**
Type:	#define
Element:	3
Description:	Configure external interrupt 1 to be triggered on the rising edge of the input signal

Name:	EXIT1_FALLING_EDGE
Type:	#define
Element:	2
Description:	Configure external interrupt 1 to be triggered on the falling edge of the input signal

Name:	EXIT1_LOGIC_CHANGE
Type:	#define
Element:	1
Description:	Configure external interrupt 1 to be triggered on any change in the input signal

Name:	EXIT1_LOW_LEVEL
Type:	#define
Element:	0
Description:	Configure external interrupt 1 to be triggered when the input signal is held at a low level

Name:	EXIT2_RISING_EDGE
Type:	#define
Element:	3
Description:	Configure external interrupt 2 to be triggered on the rising edge of the input signal

Name:	EXIT2_FALLING_EDGE
Type:	#define
Element:	2
Description:	Configure external interrupt 2 to be triggered on the falling edge of the input signal

2. Function definitions

Service name:	**EXIT_U8EXIT0Init**
Syntax:	EXIT_U8EXIT0Init(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Initialize the Interrupt0 module.
Requirements:	[INT_001]

Service name:	**EXIT_U8EXIT0SenseControl**
Syntax:	EXIT_U8EXIT0SenseControl(const uint8 LOC_U8Source);
Parameters (in):	LOC_U8Source
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sense Control based on LOC_U8Source.
Requirements:	[INT_003]

Service name:	**EXIT_U8EXIT0Enable**
Syntax:	EXIT_U8EXIT0Enable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Enable External Interrupt 0.
Requirements:	[INT_004]

Service name:	**EXIT_U8EXIT0Disable**
Syntax:	EXIT_U8EXIT0Disable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	This function used to External Interrupt 0
Requirements:	[INT_005]

Service name:	**EXIT_U8EXIT0SetCallBack**
Syntax:	EXIT_U8EXIT0SetCallBack(void (*LOC_VidPtrToFun)
Parameters (in):	*LOC_VidPtrToFun
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sets the callback function for external interrupt 0.
Requirements:	[INT_006]

Service name:	**EXIT_U8EXIT1Init**
Syntax:	EXIT_U1EXIT0Init(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Initialize the Interrupt1 module.
Requirements:	[INT_001]

Service name:	**EXIT_U8EXIT1SenseControl**
Syntax:	EXIT_U8EXIT1SenseControl(const uint8 LOC_U8Source);

Parameters (in):	LOC_U8Source
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sense Control based on LOC_U8Source.
Requirements:	[INT_003]

Service name:	**EXIT_U8EXIT1Enable**
Syntax:	EXIT_U8EXIT1Enable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Enable External Interrupt 1.
Requirements:	[INT_004]

Service name:	**EXIT_U8EXIT1Disable**
Syntax:	EXIT_U8EXIT1Disable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	This function used to disable External Interrupt 1
Requirements:	[INT_005]

Service name:	**EXIT_U8EXIT1SetCallBack**
Syntax:	EXIT_U8EXIT1SetCallBack(void (*LOC_VidPtrToFun)
Parameters (in):	*LOC_VidPtrToFun
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sets the callback function for external interrupt 1
Requirements:	[INT_006]

Service name:	**EXIT_U8EXIT2Init**
Syntax:	EXIT_U1EXIT0Init(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Initialize the Interrupt2 module.
Requirements:	[INT_001]

Service name:	**EXIT_U8EXIT2SenseControl**
Syntax:	EXIT_U8EXIT2SenseControl(const uint8 LOC_U8Source);
Parameters (in):	LOC_U8Source
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sense Control based on LOC_U8Source.
Requirements:	[INT_003]

Service name:	**EXIT_U8EXIT2Enable**
Syntax:	EXIT_U8EXIT2Enable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Enable External Interrupt 2.
Requirements:	[INT_004]

Service name:	**EXIT_U8EXIT2Disable**
Syntax:	EXIT_U8EXIT2Disable(void);
Parameters (in):	NONE
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	This function used to disable External Interrupt 2
Requirements:	[INT_005]

Service name:	**EXIT_U8EXIT2SetCallBack**
Syntax:	EXIT_U8EXIT2SetCallBack (void (*LOC_VidPtrToFun)
Parameters (in):	*LOC_VidPtrToFun
Parameters (in/out):	NONE
Parameters (out):	NONE
Return value:	Uint8
Description:	Function to Sets the callback function for external interrupt 2
Requirements:	[INT_006]