LPE-C122

Programming Manual

Version: V1.0 2015D25

To properly use the product, read this manual thoroughly is necessary.

Part No.: 81-02C122L-011

Revision History

Date	Revision	Description
2015/12/25	1.0	Document creation.

Electrical safely

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. Disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension card. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the voltage available in your area.
- If the power supply is broken, contact a qualified service technician or your retailer.

Operational safely

- Please carefully read all the manuals that came with the package, before installing the new device.
- Before use ensure all cables are correctly connected and the power cables are not damaged. If you detect and damage, contact the dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- If you encounter technical problems with the product, contact a qualified service technician or the dealer.

Contents

1. Software Procedure

1.1. Data Definition

Name	Description	Range
U8	8-bit ASCII character	0 to 255
I16	16-bit signed integer	-32768 to 32767
U16	16-bit unsigned integer	0 to 65535
I32	32-bit signed long integer	-2147483648 to 2147483647
U32	32-bit unsigned long integer	0 to 4294967295
F32	32-bit single-precision floating-point	-3.402823E38 to 3.402823E38
F64	64-bit double-precision floating-point	-1.797683134862315E308 to 1.797683134862315E309
Boolean	Boolean logic value	TRUE, FALSE

2. Hardware Initialization

Function Name	Description
_lpe_c122_open	Initialize hardware and resources.
_lpe_c122_close	Release hardware resources.
_lpe_c122_check_switch_card_num	Check the existence of the LPE-C122 with a card number.
_lpe_c122_get_switch_card_num	Get the card number of the specified card index.
_lpe_c122_get_cpld_version	Get the software version of the CPLD.

2.1. _lpe_c122_open

Description:

Initialize hardware and resources.

Syntax:

I16 status = _lpe_c122_open (U16* existcards)

Argument:

Name	Type	Description
existcards	U16 *	Get master card count in your PC

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

2.2. _lpe_c122_close

Description:

Release hardware resources.

Syntax:

I16 status = _lpe_c122_close ()

Argument:

N/A

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

2.3. _lpe_c122_check_switch_card_num

Description:

Check the existence of the LPE-C122 with a card number.

Syntax:

I16 status = _lpe_c122_check_switch_card_num (U16 SwitchCardNo, U8 *IsExist)

Argument:

Name	Type	Description
SwitchCardNo	U16	The number of the card to be checked with the rotary switch setting.
IsExist	U8 *	Equal to 1 if the card exists, 0 if the card does not exist.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

2.4. _lpe_c122_get_switch_card_num

Description:

Get the card number of the specified card index.

Syntax:

I16 status = _lpe_c122_get_switch_card_num (U16 CardIndex, U16 *SwitchCardNo)

Argument:

Name	Type	Description
CardIndex	U16	The index of the card. Eg. 0, 1, 2, …
SwitchCardNo	U16 *	The rotary switch set number of the LPE-C122.

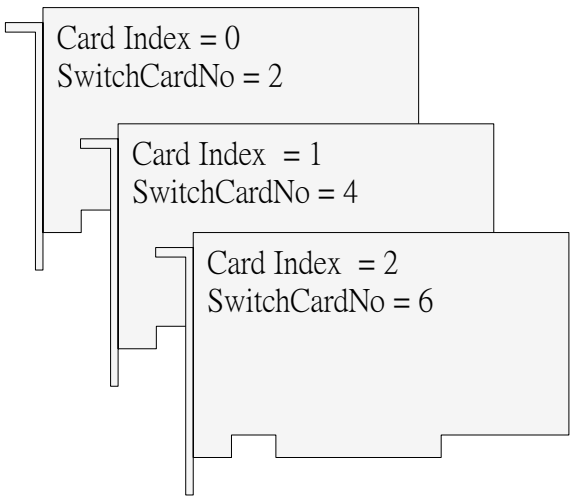
Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

CardIndex is auto-incrementing from 0 , and the SwitchCardNo is decision by rotary switch on master card.

For example, there are 3 LPE-C122 installed in PC, we can get the SwitchCardNo by API.



2.5. _lpe_c122_get_cpld_version

Description:

Get the software version of the CPLD..

Syntax:

I16 status = _lpe_c122_get_cpld_version (U16 SwitchCardNo, U16 *CpldVer)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
CpldVer	U16 *	Returns the current CPLD version.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

3. CAN bus Access Functions

Function Name	Description
_lpe_c122_set_config	Set configuration of a port.
_lpe_c122_get_config	Get configuration of a port.
_lpe_c122_send_msg	Send the message of can packet to a port.
_lpe_c122_receive_msg	Receive the message of a can packet from a port.
_lpe_c122_get_receive_count	Get the counts of the message in the FIFO.

3.1. CAN_CONFIG

Description:
CAN_CONFIG structure define.

Syntax:

```
typedef struct
{
    U16 FrameFormat;
    U32 AcceptCode;
    U32 AcceptMask;
    U16 BitRate;
}
CAN_CONFIG, *PCAN_CONFIG;
```

Argument:

<table>
<tr><th>Name</th><th>Type</th><th>Description</th></tr>
<tr><td>FrameFormat</td><td>U16</td><td>Frame Format settings
<table>
<tr><th>Value</th><th>Frame Format</th></tr>
<tr><td>eSFF (0)</td><td>Standard Frame Format (11-bit identifier)</td></tr>
<tr><td>eEFF (1)</td><td>Extended Frame Format (29-bit identifier)</td></tr>
</table></td></tr>
<tr><td>AcceptCode</td><td>U16</td><td>Acceptance Code for CAN controller</td></tr>
<tr><td>AcceptMask</td><td>U32</td><td>Acceptance Mask for CAN controller</td></tr>
<tr><td>BitRate</td><td>U16</td><td>Bit Rate settings.
<table>
<tr><th>Value</th><th>Bit Rate</th></tr>
<tr><td>e125KBps (0)</td><td>125 Kbps</td></tr>
<tr><td>e250KBps (1)</td><td>250 Kbps</td></tr>
<tr><td>e500KBps (2)</td><td>500 Kbps</td></tr>
<tr><td>e1MBps (3)</td><td>1M bps</td></tr>
</table></td></tr>
</table>

3.2. CAN_MESSAGE

Description:
CAN_MESSAGE structure define.

Syntax:

```
typedef struct
{
    U32 ID;
    U8 RTR;
    U8 Length;
    U8 Data[8];
}
CAN_MESSAGE, *PCAN_MESSAGE;
```

Argument:

Name	Type	Description
ID	U32	CAN ID field (32-bit unsigned integer)
RTR	U8	CAN RTR bit.
Length	U8	Length of data field.
Data[8]	U8	The array stores data (8 bytes maximum)

3.3. _lpe_c122_set_config

Description:
Set configuration of a port.

Syntax:
I16 status = _lpe_c122_set_config (U16 SwitchCardNo, U16 PortNo, PCAN_CONFIG Cfg)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Cfg	PCAN_CONFIG	A pointer to CAN_CONFIG type.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

PCAN_CONIG canCfg;

canCfg.FrameFormat = eSFF; // CAN2.0A (11-bit CAN id)
canCfg.AcceptCode = 0;
canCfg.AcceptMask = 0x7FF; // mask enable all
canCfg.BitRate = e500KBps;

Ret = lpe_c122_set_config(SwitchCardNo, port, canCfg);

3.4. _lpe_c122_get_config

Description:

Get configuration of a port.

Syntax:

I16 status = _lpe_c122_get_config (U16 SwitchCardNo, U16 PortNo, PCAN_CONFIG Cfg)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Cfg	PCAN_CONFIG	A pointer to CAN_CONFIG type.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

3.5. _lpe_c122_send_msg

Description:

Send the message of can packet to a port.

Syntax:

I16 status = _lpe_c122_send_msg (U16 SwitchCardNo, U16 PortNo, PCAN_MESSAGE Msg)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Msg	PCAN_MESSAGE	A pointer to CAN_MESSAGE type.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

3.6. _lpe_c122_receive_msg

Description:

Receive the message of a can packet from a port.

Syntax:

I16 status = _lpe_c122_receive_msg (U16 SwitchCardNo, U16 PortNo, PCAN_MESSAGE Msg)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Msg	PCAN_MESSAGE	A pointer to CAN_MESSAGE type.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

3.7. _lpe_c122_get_receive_count

Description:

Stop the specified output signal triggered.

Syntax:

I16 status = _lpe_c122_get_receive_count (U16 SwitchCardNo, U16 PortNo, U32 *Count)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Msg	PCAN_MESSAGE	A pointer to CAN_MESSAGE type.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4. CAN bus Status Functions

Function Name	Description
_lpe_c122_read_can	Read the value of the specified register of LPE-C122.
_lpe_c122_write_can	Write the value of the specified register of LPE-C122.
_lpe_c122_get_status	Get port status.
_lpe_c122_clear_overrun	Clear the data overrun status.
_lpe_c122_clear_rx_buffer	Clear data in the receive buffer.
_lpe_c122_clear_tx_buffer	Clear data in the transmit buffer.
_lpe_c122_get_arbitration_lost_bit	Get the information about the bit position of losing arbitration.
_lpe_c122_get_error_code	Get the information about the type and location of errors.
_lpe_c122_get_error_warning_limit	Get the error warning limit
_lpe_c122_set_error_warning_limit	Set the error warning limit
_lpe_c122_get_rx_error_count	Get the current value of the receive error counter.
_lpe_c122_get_tx_error_count	Get the current value of the transmit error counter.
_lpe_c122_set_tx_error_count	Set the current value of the transmit error counter.

4.1. _lpe_c122_read_can

Description:

Read the value of the specified register of LPE-C122.

Syntax:

I16 status = _lpe_c122_read_can (U16 SwitchCardNo, U16 PortNo, U16 Offset, U8 *Val)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Offset	U16	Offset of register in CAN address.
Val	U8*	Value to read.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.2. _lpe_c122_write_can

Description:

Write the value of the specified register of LPE-C122.

Syntax:

I16 status = _lpe_c122_write_can (U16 SwitchCardNo, U16 PortNo, U16 Offset, U8 Val)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Offset	U16	Offset of register in CAN address.
Val	U8	Value to write.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.3. _lpe_c122_get_status

Description:

Get port status.

Syntax:

I16 status = _lpe_c122_get_status (U16 SwitchCardNo, U16 PortNo, U8 *Status)

Argument:

<table>
<tr><th>Name</th><th>Type</th><th colspan="3">Description</th></tr>
<tr><td>SwitchCardNo</td><td>U16</td><td colspan="3">The rotary switch set number of the LPE-C122.</td></tr>
<tr><td>PortNo</td><td>U16</td><td colspan="3">Port number: 0 ~ 1</td></tr>
<tr><td rowspan="9">Status</td><td rowspan="9">U8 *</td><td colspan="3">Read the status of CAN port. Where “1’ is TRUE and “0” is FALSE.</td></tr>
<tr><td>Bit</td><td>Name</td><td>Description</td></tr>
<tr><td>0</td><td>RxBuffer</td><td>Complete messages are available in RXBuffer</td></tr>
<tr><td>1</td><td>DataOverrun</td><td>Message was lost.</td></tr>
<tr><td>2</td><td>TxBuffer</td><td>May write a message into the transmit buffer</td></tr>
<tr><td>3</td><td>TxEnd</td><td>Last requested transmission has been completed</td></tr>
<tr><td>4</td><td>RxStatus</td><td>Receiving a message</td></tr>
<tr><td>5</td><td>TxStatus</td><td>Transmitting a message.</td></tr>
<tr><td>6</td><td>ErrorStatus</td><td>Error counters has reached</td></tr>
<tr><td>7</td><td>BusStatus</td><td>Controller is not involved in bus activities</td></tr>
</table>

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.4. _lpe_c122_clear_overrun

Description:

Clear the data overrun status.

Syntax:

I16 status = _lpe_c122_clear_overrun (U16 SwitchCardNo, U16 PortNo)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

Accordingly there must be enough space for each data byte which has been received. If there is not enough space to store the message, that message will be dropped and the data overrun condition will be signaled.

4.5. _lpe_c122_clear_rx_buffer

Description:

Clear data in the receive buffer.

Syntax:

I16 status = _lpe_c122_clear_rx_buffer (U16 SwitchCardNo, U16 PortNo)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.6. _lpe_c122_clear_tx_buffer

Description:

Clear data in the transmit buffer.

Syntax:

I16 status = _lpe_c122_clear_tx_buffer (U16 SwitchCardNo, U16 PortNo)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.7. _lpe_c122_get_arbitration_lost_bit

Description:

Get the information about the bit position of losing arbitration.

Syntax:

I16 status = _lpe_c122_get_arbitration_lost_bit (U16 SwitchCardNo, U16 PortNo, U8 *BitPos)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
BitPos	U8 *	Binary coded frame bit number where arbitration was lost.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

Description of bits 4 to 0 of the arbitration lost capture register. Bits 7 to 5 are reserved.

Bits					Decimal	Description
0	1	2	3	4		
0	0	0	0	0	00	arbitration lost in bit 1 of identifier
0	0	0	0	1	01	arbitration lost in bit 2 of identifier
0	0	0	1	0	02	arbitration lost in bit 3 of identifier
0	0	0	1	1	03	arbitration lost in bit 4 of identifier
0	0	1	0	0	04	arbitration lost in bit 5 of identifier
0	0	1	0	1	05	arbitration lost in bit 6 of identifier
0	0	1	1	0	06	arbitration lost in bit 7 of identifier
0	0	1	1	1	07	arbitration lost in bit 8 of identifier
0	1	0	0	0	08	arbitration lost in bit 9 of identifier
0	1	0	0	1	09	arbitration lost in bit 10 of identifier
0	1	0	1	0	10	arbitration lost in bit 11 of identifier
0	1	0	1	1	11	arbitration lost in bit SRTR
0	1	1	0	0	12	arbitration lost in bit IDE
0	1	1	0	1	13	arbitration lost in bit 12 of identifier
0	1	1	1	0	14	arbitration lost in bit 13 of identifier

Bits					Decimal	Description
0	1	2	3	4		
0	1	1	1	1	15	arbitration lost in bit 14 of identifier
1	0	0	0	0	16	arbitration lost in bit 15 of identifier
1	0	0	0	1	17	arbitration lost in bit 16 of identifier
1	0	0	1	0	18	arbitration lost in bit 17 of identifier
1	0	0	1	1	19	arbitration lost in bit 18 of identifier
1	0	1	0	0	20	arbitration lost in bit 19 of identifier
1	0	1	0	1	21	arbitration lost in bit 20 of identifier
1	0	1	1	0	22	arbitration lost in bit 21 of identifier
1	0	1	1	1	23	arbitration lost in bit 22 of identifier
1	1	0	0	0	24	arbitration lost in bit 23 of identifier
1	1	0	0	1	25	arbitration lost in bit 24 of identifier
1	1	0	1	0	26	arbitration lost in bit 25 of identifier
1	1	0	1	1	27	arbitration lost in bit 26 of identifier
1	1	1	0	0	28	arbitration lost in bit 27 of identifier
1	1	1	0	1	29	arbitration lost in bit 28 of identifier
1	1	1	1	0	30	arbitration lost in bit 29 of identifier
1	1	1	1	1	31	arbitration lost in bit RTR

4.8. _lpe_c122_get_error_code

Description:

Get the information about the type and location of errors.

Syntax:

I16 status = _lpe_c122_get_error_code (U16 SwitchCardNo, U16 PortNo, U8 *ErrCode)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
ErrCode	U8 *	Binary coded frame bit number where error occurred.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

Description of error code:

Bit	Name	Value	Description
7	ERRCode1		
6	ERRCode0		
5	Direction	1	Rx error occurred during reception.
		0	Tx error occurred during ransmission.
4	Segment 4		
3	Segment 3		
2	Segment 2		
1	Segment 1		
0	Segment 0		

Bit interpretation of ERRCode0 and ERRCode1:

ERRCode1	ERRCode0	Description
0	0	bit error
0	1	form error
1	0	stuff error
1	1	other type of error

Bit interpretation of bits Segment 4 to Segment 0:

SEG4	SEG3	SEG2	SEG1	SEG0	Description
0	0	0	1	1	start of frame
0	0	0	1	0	ID.28 to ID.21
0	0	1	1	0	ID.20 to ID.18
0	0	1	0	0	bit SRTR
0	0	1	0	1	bit IDE
0	0	1	1	1	ID.17 to ID.13
0	1	1	1	1	ID.12 to ID.5
0	1	1	1	0	ID.4 to ID.0
0	1	1	0	0	bit RTR
0	1	1	0	1	reserved bit 1
0	1	0	0	1	reserved bit 0
0	1	0	1	1	data length code
0	1	0	1	0	data field
0	1	0	0	0	CRC sequence
1	1	0	0	0	CRC delimiter
1	1	0	0	1	acknowledge slot
1	1	0	1	1	acknowledge delimiter
1	1	0	1	0	end of frame
1	0	0	1	0	intermission
1	0	0	0	1	active error flag
1	0	1	1	0	passive error flag
1	0	0	1	1	tolerate dominant bits
1	0	1	1	1	error delimiter
1	1	1	0	0	overload flag

4.9. _lpe_c122_get_error_warning_limit

Description:

Get the error warning limit.

Syntax:

I16 status = _lpe_c122_get_error_warning_limit (U16 SwitchCardNo, U16 PortNo, U8 *Limit)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Limit	U8*	Error warning limit value.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.10. _lpe_c122_set_error_warning_limit

Description:

Set the error warning limit.

Syntax:

I16 status = _lpe_c122_set_error_warning_limit (U16 SwitchCardNo, U16 PortNo, U8 Limit)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
Limit	U8	Error warning limit value. (0 ~ 255)

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.11. _lpe_c122_get_rx_error_count

Description:

Get the current value of the receive error counter.

Syntax:

I16 status = _lpe_c122_get_rx_error_count (U16 SwitchCardNo, U16 PortNo, U8 *ErrCnt)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
ErrCnt	U8*	Error Counts.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.12. _lpe_c122_get_tx_error_count

Description:

Get the current value of the transmit error counter.

Syntax:

I16 status = _lpe_c122_get_tx_error_count (U16 SwitchCardNo, U16 PortNo, U8 *ErrCnt)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
ErrCnt	U8*	Error Counts.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

4.13. _lpe_c122_set_tx_error_count

Description:

Set the current value of the transmit error counter.

Syntax:

I16 status = _lpe_c122_get_tx_error_count (U16 SwitchCardNo, U16 PortNo, U8 ErrCnt)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
ErrCnt	U8	Error Counts.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

5. Event Handling Functions

Function Name	Description
_lpe_c122_interrupt_enable	Enable INT factors.
_lpe_c122_set_int_notification	Set INT event.

5.1. _lpe_c122_interrupt_enable

Description:

Enable INT factors.

Syntax:

I16 status = _lpe_c122_interrupt_enable (U16 SwitchCardNo, U16 PortNo, U8 IntBits)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
IntBits	U8	Set interrupt factors.

Bit	Frame Format
0	Receive interrupt
1	Transmit interrupt
2	Error warning interrupt
3	Data overrun interrupt
4	Wake-up interrupt
5	Error passive interrupt
6	Arbitration lost interrupt
7	Bus error interrupt

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

5.2. _lpe_c122_set_int_notification

Description:
Set INT event.

Syntax:
I16 status = _lpe_c122_set_int_notification (U16 SwitchCardNo, U16 PortNo, U8 IntType, HANDLE IntEvent)

Argument:

Name	Type	Description
SwitchCardNo	U16	The rotary switch set number of the LPE-C122.
PortNo	U16	Port number: 0 ~ 1
IntType	U8	Set the only one IntType. Value: Frame Format eRIE (0): receive interrupt eTIE (1): transmit interrupt eEIE (2): error warning interrupt eDOIE (3): data overrun interrupt eWUIE (4): wake-up interrupt eEPIE (5): error passive interrupt eALIE (6): arbitration lost interrupt eBEIE (7): bus error interrupt
IntEvent	HANDLE	HANDLE created from CreateEvent() Win32 API.

Return:

Function Name	Description
ERR_NoError	The function finished execution successfully.
Other	Please reference to the Appendix error table.

Note.

```
Ret = _lpe_c122_interrupt_enable (SwitchCardNo, port, 0x01); // eRIE
HANDLE hEvent = CreateEvent(NULL, FALSE, TRUE, “canERR”);
Ret = _lpe_c122_set_int_notification (SwitchCardNo, port, eRIE, hEvent);

// Thread function
WaitForSingleObject(hEvent, INFINITE);
ResetEvent(hEvent);
```

6. Appendix

6.1. Definition of Error Codes

ERR_NoError	0
ERR_InvalidSwitchCardNumber	-1
ERR_SwitchCardNumberRepeated	-2
ERR_MapMemoryFailed	-3
ERR_CardNotExist	-4
ERR_CardNotInitYet	-5
ERR_InvalidBoardID	-6
ERR_InvalidParameter1	-7
ERR_InvalidParameter2	-8
ERR_InvalidParameter3	-9
ERR_InvalidParameter4	-10
ERR_InvalidParameter5	-11
ERR_InvalidParameter6	-12
ERR_InvalidParameter7	-13
ERR_InvalidParameter8	-14
ERR_InvalidParameter9	-15
ERR_InvalidParameter10	-16
ERR_NotSupported	-20
ERR_SetConfigFailed	-21
ERR_SendMessageFailed	-22
ERR_TransmitBufferFull	-23
ERR_TransmitBusy	-24
ERR_ReceiveMessageFailed	-25
ERR_ReceiveBufferEmpty	-26
ERR_GetReceiveCountFailed	-27
ERR_SetInterruptFailed	-28