



Quick guide for ECB02 IO and Com Test software

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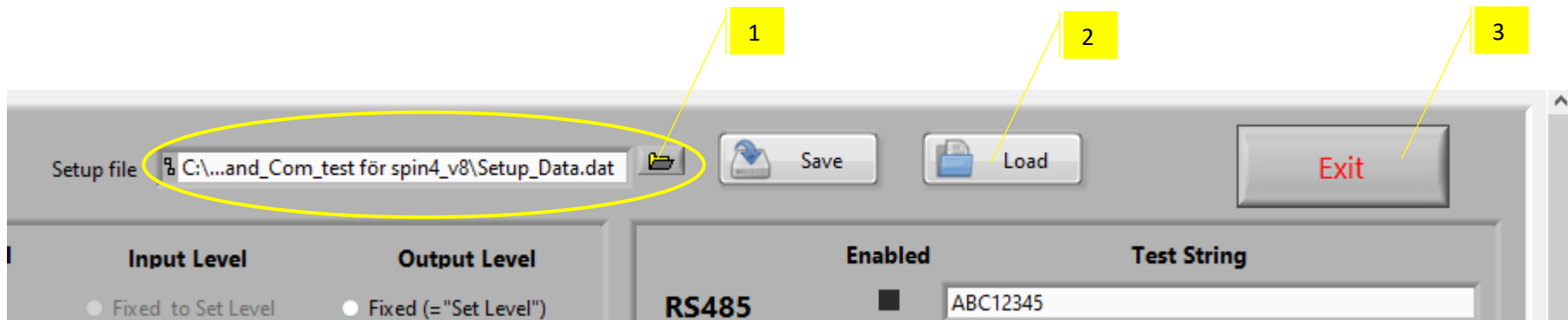
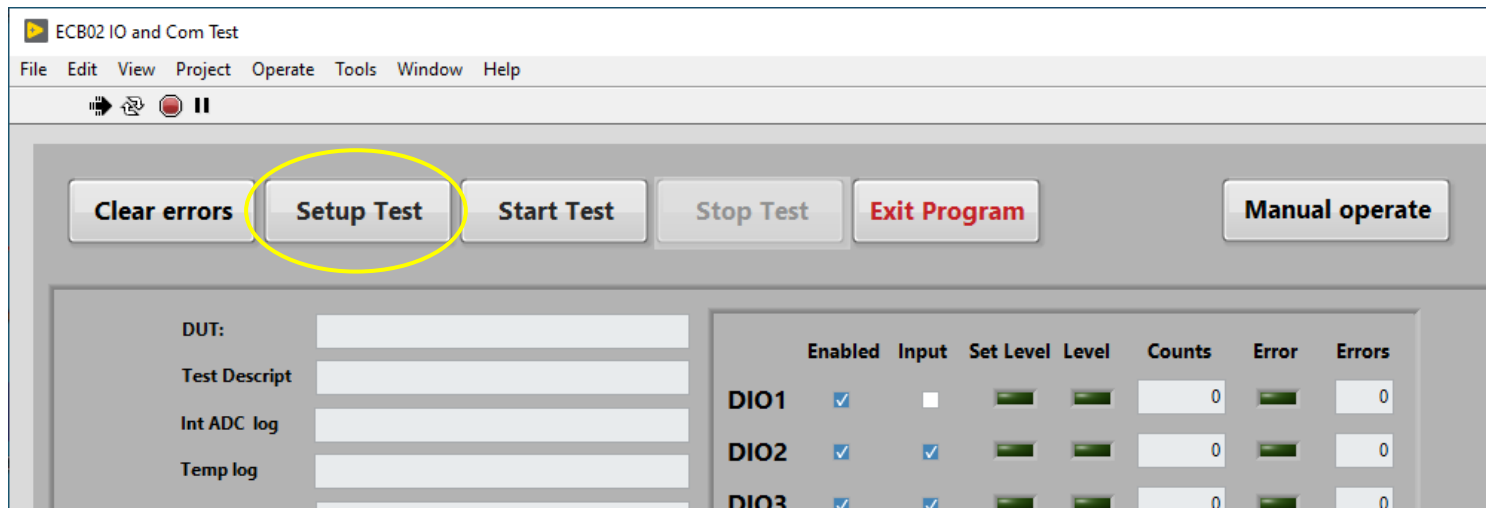
1. How to start up the test sequence

1 Start program "ECB02 IO and Com Test spin4.exe"

Skrivbord > ECB02_IO_and_Com_test_spin4

Namn	Senast ändrad	Typ	Storlek
data	2022-11-30 09:55	Filmapp	
ADC_logg.txt	2022-10-03 14:55	Textdokument	1
ECB02 IO and Com Test spin4.aliases	2022-11-30 09:50	ALIASES-fil	1
ECB02 IO and Com Test spin4.exe	2022-11-30 09:50	Program	1 480
ECB02 IO and Com Test spin4.ini	2022-11-30 09:50	Konfigurationsinst...	1
Fel_logg.txt	2022-10-03 14:55	Textdokument	1
Setup_Data.dat	2022-11-29 16:47	DAT-fil	1
Temp_logg.txt	2022-10-03 14:55	Textdokument	1

2 Load setup file for the test case on the setup test page



1. Select setup file
2. Load the selected file
3. Exit from setup page

3 Start Test and monitor the results

1

2

3

6

ECB02 IO and Com Test

File Edit Operate Tools Window Help

Clear errors

Setup Test

Start Test

Stop Test

Exit Program

Manual operate

Start Time

Duration

Test loop nr 0

Test Running

Sending

Reading

DUT:

Test Descript

Int ADC log

Temp log

Error log

Debug

	Enabled	Input	Set Level	Level	Counts	Error	Errors
DIO1	☐	☐	☐	☐	0	☐	0
DIO2	☐	☒	☐	☐	0	☐	0
DIO3	☒	☒	☐	☐	0	☐	0
DIO4	☒	☐	☐	☐	0	☐	0

	Enabled	Volt	Set value	Value	Error	Errors
ADC1	☐	☒	0	0	☐	0
ADC2	☒	☐	0	0	☐	0

	Enabled	Set value	Value	Error	Errors
DAC V	☐	0	0	☐	0
DAC I	☒	0	0	☐	0

Internal ADC

Enabled ☐

Error ☐

Errors 0

PWR (V)	24 V Ana	Sensor Feed	3,8 V Rail	5V Rail	PWM Cal
☐	☐	☐	☐	☐	☐

Temperatures

Enabled ☐

Ext Temp Input	Board Temp	Acc Temp	Modem Temp	CPU Temp
☐	☐	☐	☐	☐

LED

Enabled ☐

LED202 ☐

LED201 ☐

LED SYSTEM ☐

	Enabled	Response String	Error	Errors
RS485	☐		☐	0
UARTX	☐		☐	0
I2C	☐		☐	0
SPI	☐		☐	0
CAN	☐		☐	0
ETHERNET	☐		☐	0
USB	☐		☐	0
WiFi	☐	Done	☐	0

	Enabled	Response String	Error	Errors
Modem	☒	Quectel	☐	0
SIM IMSI			CellUI ping OK ☐	0
Transmit Enabled	☐	Modem Type BG95	RSSI	
Ext Cell Ant	☐	Ext GNSS Ant	Pw Ext GNSS Ant	PWR
GNSS	☐			0

	Enabled	Response String	Error	Errors
BLE	☐		☐	0

	Enabled	Response String	Error	Errors
Accelerometer	☐	0x33	☐	0

	Enabled	Response String	Error	Errors
EEprom	☐		☐	0

1

2

3

4

5

6

1. Start of test sequence

2. Stop of test sequence

3. Result monitoring
 - a. Error indicator = red light indicates 1 or more errors
 - b. Errors = counter for numbers of errors
4. Debug window where all commands to and from the DUT are found
5. Path and names on all log files
6. Indication for test times and number of test loops

2. Overview of program layout

2.1. Start page

ECB02 IO and Com Test

File Edit Operate Tools Window Help

Clear errors Setup Test Start Test Stop Test Exit Program Manual operate

Start Time Duration Test loop nr 0 Test Running ☐ Sending ☐ Reading ☐

DUT:
Test Descript
Int ADC log
Temp log
Error log

Debug

	Enabled	Input	Set Level	Level	Counts	Error	Errors
DIO1	☐	☐	☐	☐	0	☐	0
DIO2	☐	☒	☐	☐	0	☐	0
DIO3	☒	☒	☐	☐	0	☐	0
DIO4	☒	☐	☐	☐	0	☐	0

	Enabled	Volt	Set value	Value	Error	Errors
ADC1	☐	☒	0	0	☐	0
ADC2	☒	☐	0	0	☐	0

	Enabled	Set value	Value	Error	Errors
DAC V	☐	0	0	☐	0
DAC I	☒	0	0	☐	0

Internal ADC	Enabled	Error	Errors
PWR (V)	☐	☐	0
24 V Ana	☐	☐	0
Sensor Feed	☐	☐	0
3,8 V Rail	☐	☐	0
5V Rail	☐	☐	0
PWM Cal	☐	☐	0

Temperatures	Enabled
Ext Temp Input	☐
Board Temp	☐
Acc Temp	☐
Modem Temp	☐
CPU Temp	☐

LED	Enabled	LED202	LED201	LED SYSTEM
	☐	☐	☐	☐

	Enabled	Response String	Error	Errors
RS485	☐		☐	0
UARTX	☐		☐	0
I2C	☐		☐	0
SPI	☐		☐	0
CAN	☐		☐	0
ETHERNET	☐		☐	0
USB	☐		☐	0
WiFi	☐	Done	☐	0

Modem	Enabled	Response String	Error	Errors
	☒	Quectel	☐	0
SIM IMSI			CellUI ping OK	☐
Transmit Enabled	☐	Modem Type	BG95	RSSI
Ext Cell Ant	☐	Ext GNSS Ant	☐	PWR
GNSS	☐		☐	0

BLE	Enabled	Response String	Error	Errors
	☐		☐	0

Accelerometer	Enabled	Response String	Error	Errors
	☐	0x33	☐	0

EEprom	Enabled	Response String	Error	Errors
	☐		☐	0

Here you monitor the result and start and stop the test sequence

2.2. SetUp page

Test_SetUp.vi

Setup file: C:\...and_Com_test för spin4_v8\Setup_Data.dat

Save Load Exit

DUT: 12345

Test Description: test disp

Int ADC log file: C:\...st för spin4_v8\ADC_log_file.txt

Temp log File: C:\...test för spin4_v8\Temp_logg.txt

Error log file: C:\...m_test för spin4_v8\Fel_logg.txt

IP on test computer: 192.168.127.250

IP on DUT: 192.168.127.10

CAN adapter type: Kvaser U100

Write timer: 20 sec

WiFi ssid: Jemac-5

WiFi wpa2 key: 123456789

WiFi IP to ping: 192.168.0.1

Ext WatchDog enable: ☒

RS232 Pri: COM22

RS232 Sec: COM4

UART: COM4

SPI: COM4

CAN: COM4

ETH: COM4

USB: COM10

	Enabled	Input	Set Level	Input Level	Output Level
DIO1	☐	☐	☐	☐ Fixed to Set Level ☐ Connected to DIO2	☐ Fixed (= "Set Level") ☒ Switching (appr 10 s)
DIO2	☐	☒	☐	☐ Fixed to Set Level ☒ Connected to DIO1	☐ Fixed (= "Set Level") ☒ Switching (appr 10 s)
DIO3	☒	☒	☐	☐ Fixed to Set Level ☒ Connected to DIO4	☐ Fixed (= "Set Level") ☒ Switching (appr 10 s)
DIO4	☒	☐	☐	☐ Fixed to Set Level ☒ Connected to DIO3	☐ Fixed (= "Set Level") ☒ Switching (appr 10 s)

	Enabled	Volt	Set value (V / mA)	Input Value
ADC1	☐	☒	0	☐ Fixed to Set Value ☒ Connected to DAC V ☐ Connected to DAC I
ADC2	☒	☐	0	☐ Fixed to Set Value ☐ Connected to DAC V ☒ Connected to DAC I

	Enabled	Set value (V / mA)	Level
DAC V	☐	0	☐ Fixed to Set Value ☒ Switching (0, Set Value, 10 V)
DAC I	☒	0	☐ Fixed to Set Value ☒ Switching (0, Set Value, 20 mA)

Internal ADC Enabled ☒ PWR Nominal Voltage: 5V Rail On ☒ Sensor feed On ☒

Temperatures Enabled ☒ CPU temp disable ☐

LED Enabled ☒

	Enabled	Test String
RS485	☒	ABC12345
UARTX	☐	
I2C	☐	
SPI	☐	
CAN	☒	ABC12345
ETHERNET	☒	Done
USB	☒	ABC12345
WiFi	☐	Done

	Enabled	Expected Response
Modem	☒	Quectel
SIM type	E-SIM	Modem Type: BG95
CellUI ping enable	☐	Transmitter On ☐ Transmit PWR Level (%)
GNSS enable	☒	Done
Ext Cell Ant	☐	Ext GNSS Ant ☒ Pw Ext GNSS Ant ☒

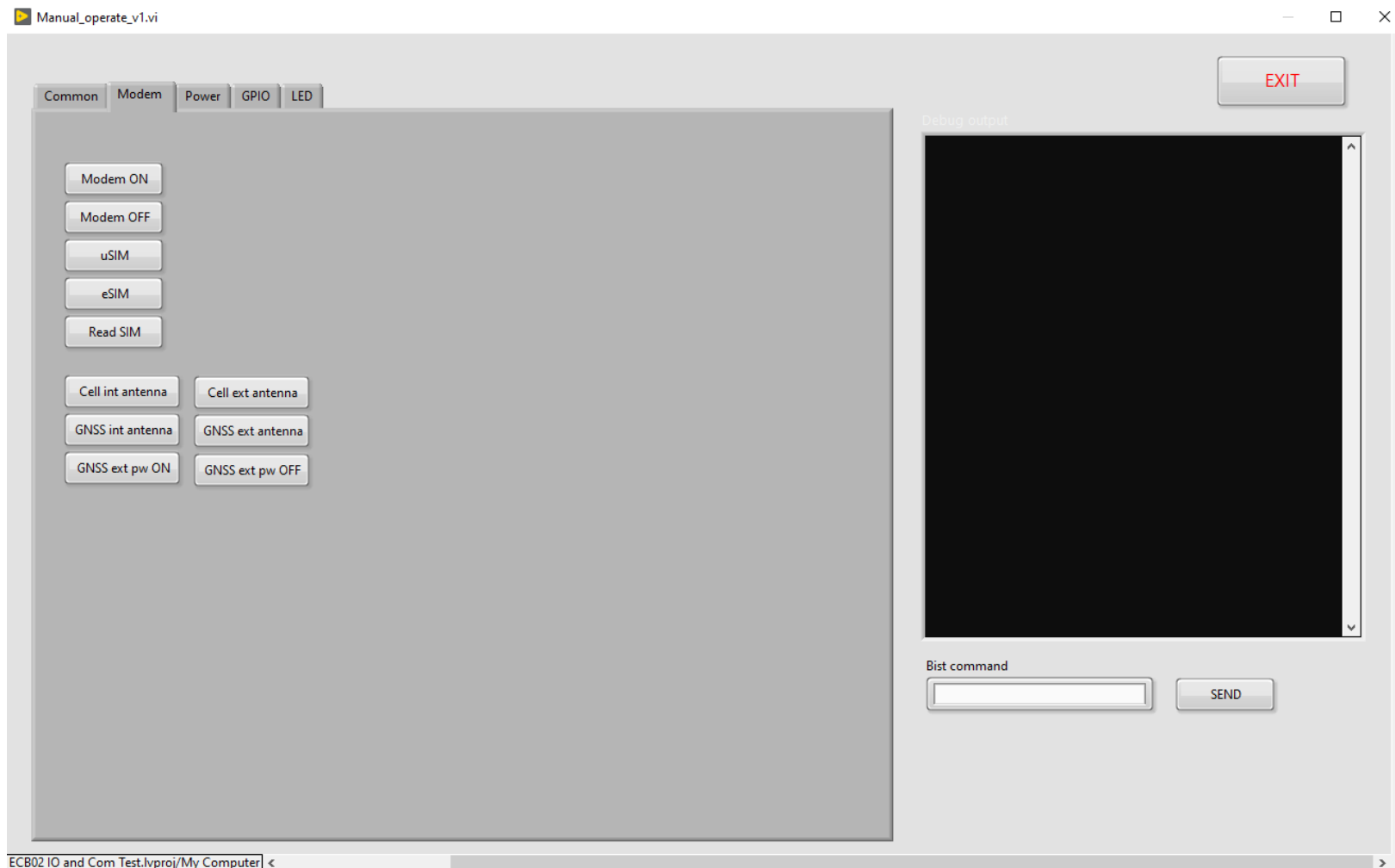
	Enabled	Expected Response
BLE	☐	

	Enabled	Expected Response
Accelerometer	☒	0x33

	Enabled	Expected Response
EEprom	☒	13

On this page all configurations are made for the test sequence setup

2.3. Manual page



On this page there are controls to run all the functions of the DUT manually