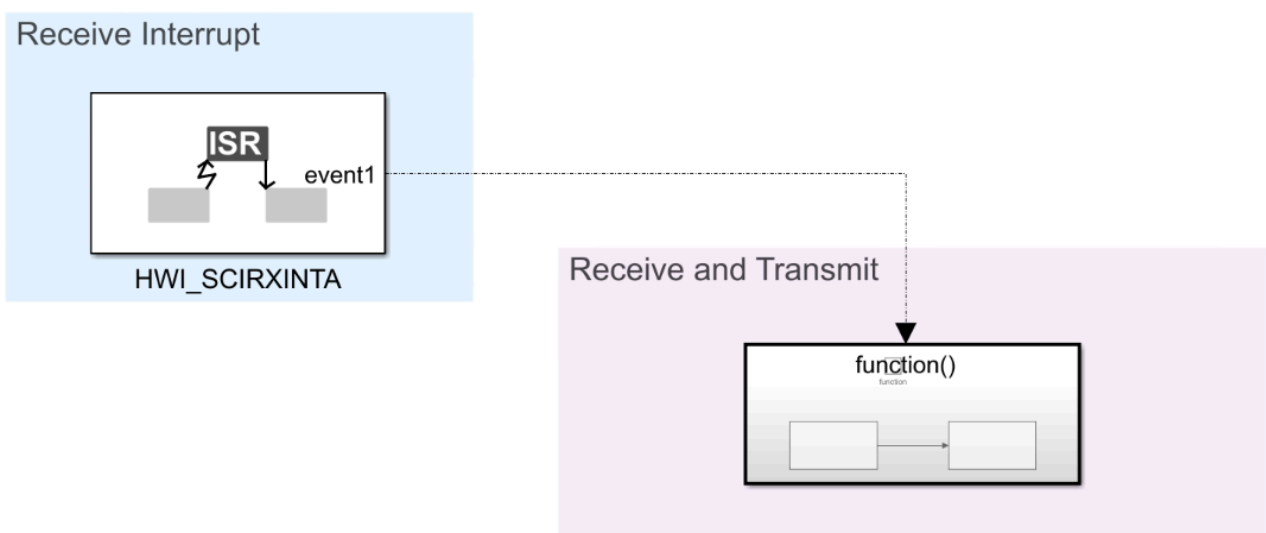


target model



1. configuration

Configuration Parameters: c28x_sci_comm_interrupt/Configuration (Active)

Search

Solver
Data Import/Export
Math and Data Types
Diagnostics
Hardware Implementation
Model Referencing
Simulation Target
Code Generation

Hardware board: TI Delfino F28379D LaunchPad
Code Generation system target file: ert.tlc
Device vendor: Texas Instruments
Device type: C2000

Device details

Hardware board settings

Processing Unit: c28xCPU1

Simulation settings

Task profiling on processor

Operating system/scheduler

Target hardware resources

Groups

Build options

Enable loopback

Clocking

Suspension mode: Free_run

Input X-BAR

Output X-BAR

Number of stop bits: 1

ADC_A

Parity mode: None

ADC_B

Character length bits: 8

ADC_C

Desired baud rate in bits/sec: ~~5000~~ 115200

ADC_D

Baud rate prescaler (BRR = ((SCIHBAUD << 8) | SCILBAUD)): 4

CMPSS

Closest achievable baud rate ((LSPCLK/(BRR+1))/8) in bits/sec: 500000

DAC

ePWM

Post transmit FIFO interrupt when data is transmitted

eCAP

Post receive FIFO interrupt when data is received

eQEP

Receive FIFO interrupt level: 1

I2C_A

Data byte order: Little_Endian

I2C_B

Pin assignment(Tx): GPIO42

SCI_A

Pin assignment(Rx): GPIO43

SCI_B

SCI_C

SCI_D

SPI_A

OK Cancel Help Apply

no longer polling, but based on interrupt

2. function blocks setting

Receive Interrupt

HWI_SCIRXINTA

Parameters

Number of events to serve 1

Simulink task priority 30

Disable interrupt pre-emption

Enable simulation port

Hardware Mapping

HWI_SCIRXINTA_event1

Interrupt group: SCI - Serial Communications Interface

Interrupt name: SCIA_RX_INT

Event name: Default event

Clear interrupt status flags after events service

Block Parameters: SCI Receive

C28x SCI Receive (mask) (link)

Configures Serial Communication Interface (SCI) of the C2000 MCUs to receive data from SCIRXD pin. This enables asynchronous serial digital communications between the MCU and other connected peripherals.

Parameters

SCI module: A

Additional package header:

Number of retries for header receive check: 16

Additional package terminator:

Data type: uint8

Data length option: Length via dialog

Data length: 1

Initial output: 0

Action taken when connection times out: Output the last received value

Sample time: -1

Wait until data received

Timeout: 0.019444

Output receiving status

OK Cancel Help Apply

no longer polling, no need to set sample time

-1 means to follow the interrupt

blocking mode but with timeout

Block Parameters: SCI Transmit

C28x SCI Transmit (mask) (link)

Configures Serial Communication Interface (SCI) of the C2000 MCUs to transmit data via SCITXD pin. This enables asynchronous serial digital communications between the MCU and other connected peripherals.

Parameters

SCI module: A

Additional package header:

Additional package terminator:

Frame size: 1

Wait until previous data transmitted

Output status

OK Cancel Help Apply

3. Build, Deploy & Start target model

host .m script

1. run the function with the port seen from device manager and baudrate

c2000HostSCICommunication('COM6', 115200);

```
>> c2000HostSCICommunication('COM6', 115200)
Enter uint8 data: [23 15 67]
Received data 23 15 67
```