

← → AM263P4-Q1 Software MCSPI

MCSPI (2 Added)

✓ CONFIG_MCSPi0

✓ CONFIG_MCSPi1

Name

CONFIG_MCSPi0

Mode of Operation

Single Channel Controller

Pin Mode

4 Pin Mode

TR Mode

TX Only

Input Select

D1

D0 TX Enable

TX ENABLED

D1 TX Enable

TX DISABLED

Fifo Trigger Level for TX

8

Transfer Mode

Interrupt Mode

Interrupt Priority

4

Transfer Mode

Callback

Transfer Callback

SPI0_TX

SDK Infra

HLD

Enable Multi Word Access

false

Show Advanced Config

☐

SPI Instance

SPI0

✓ Signals

Pins

✓ SPI Clock Pin(SPI0_CLK)

SPI0_CLK/A11

✓ SPI D0 Pin(SPI0_D0)

SPI0_D0/C10

✓ SPI D1 Pin(SPI0_D1)

SPI0_D1/B11

Pull Up/Down		Slew Rate	
Pull Up		High	
No Pull		Low	
No Pull		Low	
No Pull		Low	

MCSPI Channel Configuration

EDMA Configuration

CONFIG_EDMA0

ARM LE SYS

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13:14 08-07-2025

8 Jul 2025, 1:14 pm

MCSPI (2 Added)

✓ CONFIG_MCSPI0

✓ CONFIG_MCSPI1

Name

Mode of Operation

Pin Mode

TR Mode

Input Select

D0 TX Enable

D1 TX Enable

Fifo Trigger Level for RX

Transfer Mode

Interrupt Priority

Transfer Mode

Transfer Callback

SDK Infra

Enable Multi Word Access

SPI Instance

CONFIG_MCSPI1

Peripheral

4 Pin Mode

RX Only

D0

TX DISABLED

TX DISABLED

8

Interrupt Mode

4

Callback

SPI1_RX

HLD

false

SPI1

✓ Signals 1

✓ SPI Clock Pin(SPI1_CLK)

✓ SPI D0 Pin(SPI1_D0)

✓ SPI D1 Pin(SPI1_D1)

Pins

Any(SPI1_CLK/A10)

Any(SPI1_D0/B10)

Any(SPI1_D1/D9)

Pull Up/Down Slew Rate

Pull Up High

No Pull Low

No Pull Low

No Pull Low

MCSPI Channel Configuration

EDMA Configuration

CONFIG_EDMA0

Project Run Tools Scripts Window Help

Debug X

<terminated> mcspi_loopback_changed_am263px-lp-r5fss0-0_nortos-ti-arm-clang: CIO

Expression Type Value

gMcspiTxBuffer unsigne... [6 '\x06', 6 '\x

mcspi_loopb... main.c mcspi_v0_ild.c mcspi.h mcspi_v0.c mcspi_ild.h

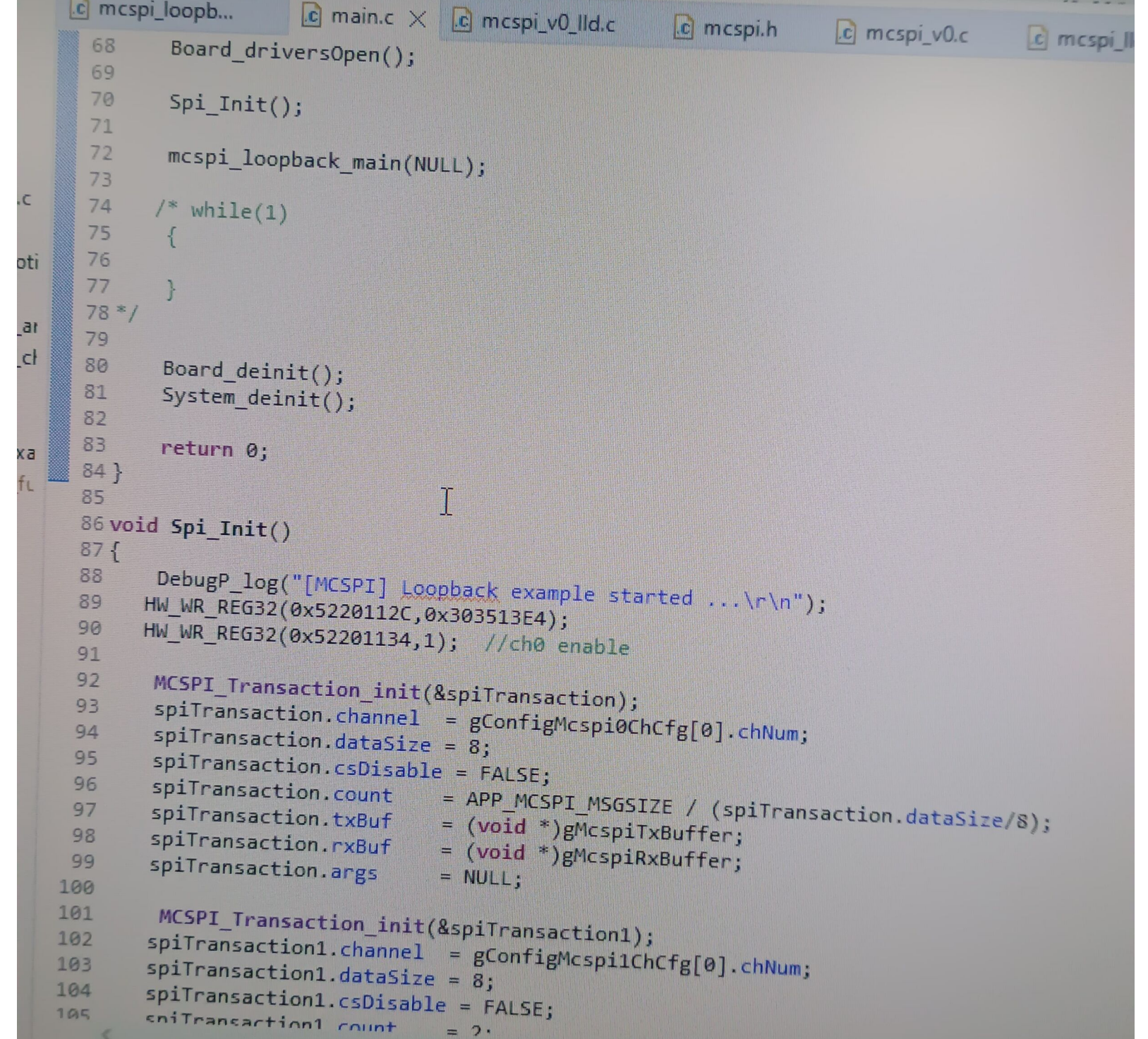
```
36 #include <kernel/dpl/DebugP.h>
37 #include "ti_drivers_open_close.h"
38 #include "ti_board_open_close.h"
39 #include <drivers/hw_include/tistdtypes.h>
40
41 void Spi_Init();
42 void mcspi_loopback_main(void *args);
43
44 #define CONFIG_SPI_INT_NUM (78u)
45
46 #define APP_MCSPi_MSGSIZE (16U)
47 #define APP_MCSPi_TRANSFER_LOOPCOUNT (10U)
48
49 uint8_t gMcspiTxBuffer[APP_MCSPi_MSGSIZE];
50 uint8_t gMcspiRxBuffer[APP_MCSPi_MSGSIZE];
51
52 uint8_t gMcspiTxBuffer1[APP_MCSPi_MSGSIZE];
53 uint8_t gMcspiRxBuffer1[APP_MCSPi_MSGSIZE];
54
55 //HwiP_Object gSPIHwiObj[CONFIG_MCSPi_NUM_INSTANCES];
56 int32_t transferOK1;
57 MCSPI_Transaction spiTransaction;
58 MCSPI_Transaction spiTransaction1;
59
60
61 int main(void)
62 {
63
64     System_init();
65     Board_init();
66
67     Drivers_open();
68     Board_driversOpen();
69
70     Spi_Init();
71
72     mcspi_loopback_main(NULL);
73 }
```

Console X Search Progress

mcspi_loopback_changed_am263px-lp-r5fss0-0_nortos-ti-arm-clang: CIO

Writable Smart Insert

Search here to search



mcspl_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang:ClO

8 Jul 2025, 1:12 pm

to search

Debug X

<terminated> mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang: CIO

mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang: CIO

Expression: gMcspiTxBuffer

Type	Value
unsigned...	[6 '\x06', ...]

```

mcspi_loopb... | main.c | mcspi_v0_ild.c | mcspi.h | mcspi_v0.c | mcspi_ild.c
83     return 0;
84 }
85
86 void Spi_Init()
87 {
88     DebugP_log("[MCSPI] Loopback example started ... \r\n");
89     HW_WR_REG32(0x5220112C, 0x303513E4);
90     HW_WR_REG32(0x52201134, 1); //ch0 enable
91
92     MCSPI_Transaction_init(&spiTransaction);
93     spiTransaction.channel = gConfigMcspi0ChCfg[0].chNum;
94     spiTransaction.dataSize = 8;
95     spiTransaction.csDisable = FALSE;
96     spiTransaction.count = APP_MCSPI_MSGSIZE / (spiTransaction.dataSize/8);
97     spiTransaction.txBuf = (void *)gMcspiTxBuffer;
98     spiTransaction.rxBuf = (void *)gMcspiRxBuffer;
99     spiTransaction.args = NULL;
100
101     MCSPI_Transaction_init(&spiTransaction1);
102     spiTransaction1.channel = gConfigMcspi1ChCfg[0].chNum;
103     spiTransaction1.dataSize = 8;
104     spiTransaction1.csDisable = FALSE;
105     spiTransaction1.count = 2;
106     spiTransaction1.txBuf = (void *)gMcspiTxBuffer1;
107     spiTransaction1.rxBuf = (void *)gMcspiRxBuffer1;
108     spiTransaction1.args = NULL;
109     for(int i = 0U; i < APP_MCSPI_MSGSIZE; i++)
110     {
111         gMcspiTxBuffer[i] = 6;
112         gMcspiRxBuffer[i] = 0U;
113         gMcspiRxBuffer1[i] = 0U;
114     }
115
116     //transferOK1 = MCSPI_transfer(gMcspiHandle[CONFIG_MCSPI1], &spiTransaction1);
117
118 }
119
120

```

Console X Search Progress

mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang: CIO

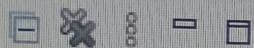
Writable Smart Insert

re to search

8 Jul 2025, 1:12 pm



Debug X



(x)= Variables Expressions X Registers Breakpoints

<terminated> mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang/mcspi_loopback.c

Expression	Type	Value
gMcspiTxBuffer	unsigned char [6]	[6 '\x06', 6 '\x06', 6 '\x06', 6 '\x06', 6 '\x06', 6 '\x06']

mcspi_loopb... X main.c mcspi_v0_ild.c mcspi.h mcspi_v0.c mcspi_ild.h

```

46 #include <kernel/api/debugp.h>
47 #include "ti_drivers_config.h"
48 #include "ti_drivers_open_close.h"
49 #include "ti_board_open_close.h"
50 #include <drivers/hw_include/tistdtypes.h>
51
52
53 #define APP_MCSPi_MSGSIZE (16U)
54 extern uint8_t gMcspiTxBuffer[APP_MCSPi_MSGSIZE];
55 extern uint8_t gMcspiRxBuffer[APP_MCSPi_MSGSIZE];
56 //extern uint8_t gMcspiTxBuffer1[APP_MCSPi_MSGSIZE];
57 extern uint8_t gMcspiRxBuffer1[APP_MCSPi_MSGSIZE];
58
59 uint32_t txdone;
60 int32_t transferOK;
61 int32_t transferOK1;
62 extern MCSPI_Transaction spiTransaction;
63 extern MCSPI_Transaction spiTransaction1;
64 int COUNT, COUNT1;
65
66 //void spi_rx();
67
68 void *mcspi_loopback_main(void *args)
69 {
70
71
72     if(txdone == 0)
73     {
74         txdone = 1;
75
76         transferOK1 = MCSPI_transfer(gMcspiHandle[CONFIG_MCSPi1], &spiTransaction1);
77         transferOK = MCSPI_transfer(gMcspiHandle[CONFIG_MCSPi0], &spiTransaction);
78         for(int j = 0; j<100;j++)
79         {
80
81         }
82
83         //ClockP_usleep(10000);

```

Console X Search Progress

mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos_ti-arm-clang:CIO

Debug X

<terminated> mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos ti-arm-clang: CIO

mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos ti-arm-clang: CIO

(x)= Variables Expressions X

Expression

gMcspiTxBuffer

mcspi_loopb...

main.c

mcspi_v0_lld.c

mcspi.h

mcspi_v0

```
86      /* while(!txdone);  
87      while(!txdone1);  
88      printf("rx data %d\n",HW_RD_REG32(0x5220113C));*/  
89      }  
90  
91
```

```
92 }  
93  
94
```

```
95 void SPI0_TX()  
96 {  
97     //printf("tx done\n");  
98     txdone = 0;  
99     COUNT++;  
100     /* spi_rx();*/  
101 }  
102  
103
```

```
104 void SPI1_RX()  
105 {  
106     //spi_rx();  
107     COUNT1++;  
108 }  
109  
110
```

```
111 /*void spi_rx()  
112 {  
113  
114  
115  
116     for(int i = 0; i<2; i++)  
117     {  
118         printf("spi data %d = %d",gMcspiRxBuffer1[i]);  
119     }  
120  
121     txdone = 0;  
122 }*/  
123 }*/
```

Console X Search Progress

mcspi_loopback_changed_am263px-lp_r5fss0-0_nortos ti-arm-clang: CIO

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(x)= Variables Expressions Registers Breakpoints

Expression	Type	Value	Address
gMcspiTxBuffer	unsigne...	[0 '\x00', 1 '\x01', 2 '\x02', 3 '\x03', 4 '\x04'...]	0x700545C0
gMcspiRxBuffer1	unsigne...	[0x00 '\x00', 0x01 '\x01', 0x00 '\x00', 0x00 '\x00', ...]	0x700545B0
(x)= [0]	unsigne...	0x00 '\x00' (Hex)	0x700545B0
(x)= [1]	unsigne...	0x01 '\x01' (Hex)	0x700545B1
(x)= [2]	unsigne...	0x00 '\x00' (Hex)	0x700545B2
(x)= [3]	unsigne...	0x00 '\x00' (Hex)	0x700545B3
(x)= [4]	unsigne...	0x00 '\x00' (Hex)	0x700545B4
(x)= [5]	unsigne...	0x00 '\x00' (Hex)	0x700545B5
(x)= [6]	unsigne...	0x00 '\x00' (Hex)	0x700545B6
(x)= [7]	unsigne...	0x00 '\x00' (Hex)	0x700545B7
(x)= [8]	unsigne...	0x00 '\x00' (Hex)	0x700545B8
(x)= [9]	unsigne...	0x00 '\x00' (Hex)	0x700545B9
(x)= [10]	unsigne...	0x00 '\x00' (Hex)	0x700545BA
(x)= [11]	unsigne...	0x00 '\x00' (Hex)	0x700545BB
(x)= [12]	unsigne...	0x00 '\x00' (Hex)	0x700545BC
(x)= [13]	unsigne...	0x00 '\x00' (Hex)	0x700545BD
(x)= [14]	unsigne...	0x00 '\x00' (Hex)	0x700545BE
(x)= [15]	unsigne...	0x00 '\x00' (Hex)	0x700545BF
(x)= gUartReceiveBuffer	unknown	identifier not found: gUartReceiveBuffer	
(x)= gUartReceiveBuffer	unknown	identifier not found: gUartReceiveBuffer	
spiTransaction	struct M...	{channel=0,csDisable=0,dataSize=8,count=16...}	0x70054558
(x)= COUNT	int	1	0x70054604
(x)= COUNT1	int	1	0x70054608
+ Add new expression			

mcspi_v0_ild.c mcspi.h mcspi_v0.c exit.c example.syscfg »

```

    (*__TI_cleanup_ptr)();

    /**
     * RAM TERMINATION. CURRENTLY JUST HALTS EXECUTION.
     */
    section(".text:abort"))
  
```

Memory Browser