

CubeSat_nortos.h File Reference

Header file for CubeSat CC1310. [More...](#)

```
#include <stdlib.h>
#include <stdbool.h>
#include <stdint.h>
#include <ti/drivers/rf/RF.h>
#include <ti/drivers/PIN.h>
#include <ti/drivers/Power.h>
#include <ti/drivers/SD.h>
#include <ti/display/Display.h>
#include <ti/devices/DeviceFamily.h>
#include "Board.h"
#include "smartrf_settings/smartrf_settings.h"
#include "easylink/EasyLink.h"
```

[Go to the source code of this file.](#)

Functions

- | | | |
|------|---|---|
| void | driverSetup () | Setup LED and display drivers. More... |
| bool | sdSetup (int8_t rssi, uint8_t errorCode) | Function to initialise the (micro)SD card driver. More... |
| bool | sdWrite (SD_Handle sdHandle , int_fast8_t result , bool sdFailure) | Write to (micro)SD card and check operation. More... |
| void | commandRx () | Enter RX mode to get commands from ground station. More... |
| void | groundStationAckTx () | Echo the packet from the ground station (ack) More... |
| void | commandTx () | Perform TX command to send commands to femtosat. More... |
| void | femtosatAckRx () | Enter RX mode to receive ack from femtosat. More... |
| void | dataTx () | Enter TX mode and send data to ground station. More... |
| bool | isPacketCorrect (EasyLink_RxPacket *rxp, EasyLink_TxPacket *txp) | Check that received packet is the same as transmitted packet. More... |
-

Detailed Description

Header file for CubeSat CC1310.

=====

The rfEasyLinkRx_nortos.h header file should be included in an application as follows:

```
#include "CubeSat_nortos.h"
```

Function Documentation

◆ commandRx()

```
void commandRx ( )
```

Enter RX mode to get commands from ground station.

Returns

none

◆ commandTx()

```
void commandTx ( )
```

Perform TX command to send commands to femtosat.

Returns

none

◆ dataTx()

```
void dataTx ( )
```

Enter TX mode and send data to ground station.

Returns

none

◆ driverSetup()

```
void driverSetup ( )
```

Setup LED and display drivers.

Returns

none

◆ femtosatAckRx()

```
void femtosatAckRx ( )
```

Enter RX mode to receive ack from femtosat.

Returns

none

◆ groundStationAckTx()

```
void groundStationAckTx ( )
```

Echo the packet from the ground station (ack)

Returns

none

◆ isPacketCorrect()

```
bool isPacketCorrect ( EasyLink_RxPacket * rxp,  
                       EasyLink_TxPacket * txp  
                       )
```

Check that received packet is the same as transmitted packet.

Parameters

***rxp** Pointer to RX packet.

***txp** Pointer to TX packet.

Returns

status Flag pulled low when RX and TX packets are not the same

◆ sdSetup()

```
bool sdSetup ( int8_t  rssi,
               uint8_t errorCode
             )
```

Function to initialise the (micro)SD card driver.

Parameters

rssi RSSI value of RF link.
errorCode Error code of operation.

Returns

sdOpFlag Flag raised when microSD op fails.

◆ sdWrite()

```
bool sdWrite ( SD_Handle sdHandle,
               int_fast8_t result,
               bool        sdFailure
             )
```

Write to (micro)SD card and check operation.

Parameters

sdHandle SD driver handle
result Result of SD driver initialisation

Returns

sdFlag Flag raised in the event of microSD failure.