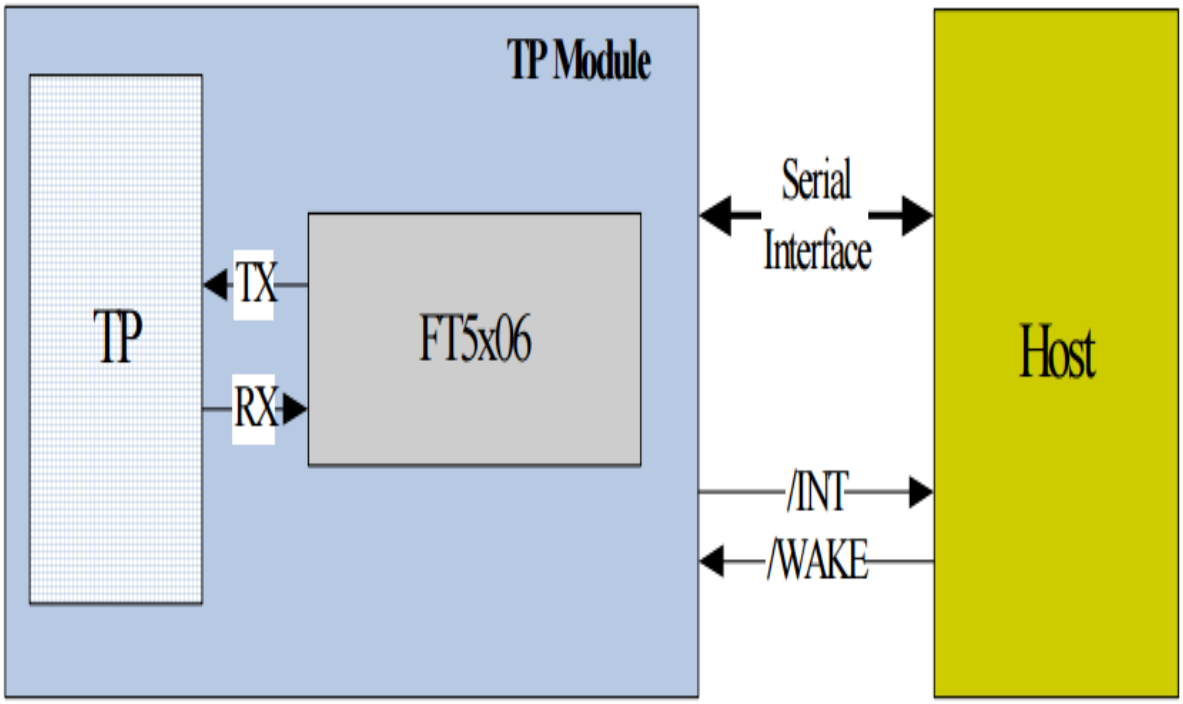
DOCUMENTATION ON FT5X06

BLOCK DIAGRAM OF FT5X06 (TOUCH SCREEN)



The are two kinds of interface

1. Control
2. Data

Control Interface:

i. Interrupt
ii. Wake up

Data Interface:

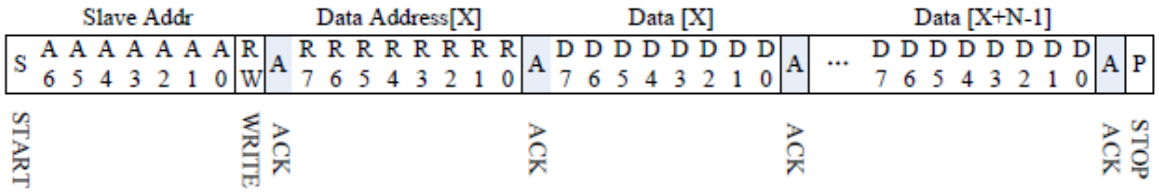
Data interface can be in serial communications, which are I2C / SPI protocol

There are 3 kinds of communications between CTPM and HOST/MASTER.

1. Transfer data via I2C
2. Send interrupt when there is valid touch
3. Host send wakeup signal to CTPM (capacitive touch panel module)

Frame Format of I2C Protocol

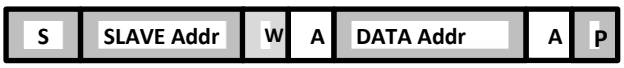
MASTER WRITE SLAVE READ:



In this mode master will transmit data and slave receives the data. The frame format starts with start bit followed with slave address, write, acknowledge, data address, acknowledge and after completion of data stop bit to end the data.

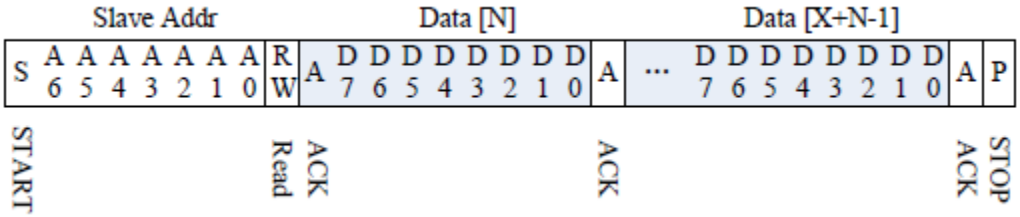
- ⇨ Every eight bit of data written by master followed with acknowledgement bit by slave.
- ⇨ The transmission ends with stop bit (P).

SET ADDRESS:



Before master reads slave it should set the address.

MASTER READ SLAVE WRITE:



In this mode master will receive data and slave transmits the data. The frame format starts with start bit followed with slave address, read, acknowledge, data address, acknowledge and after completion of data stop bit to end the data.

- ⇨ Every eight bit of data written by slave followed with acknowledgement bit by master.
- ⇨ The receiving ends with stop bit (P).