OLAMI vt6751 micro-array UART command set R03 2017-7-3

0. VT6751's UART port

UART port 115200, 8 data bits, no parity bit, 1 stop bit.

1. Buttons message

VT6751 will send 'A', 'B', 'C', 'D' to TX for each button.
Combination key not support

2. LED control

VT6751 get control command from RX. The command is end with a checksum.
If checksum ok, VT6751 will send 'O' to TX. (OK) then take action.
If checksum fail, VT6751 will send 'N' to TX. (NG), the action will not run.
Feedback of checksum was disabled as default, use a command to enable it.

```
#define CMD_REC_SET_LED         0x02
#define CMD_REC_SET_SINGLE_LED  0x03
#define CMD_SHOW_LED            0x04
#define CMD_ROTATE_LED           0x05
#define CMD_ACKNAK          0x06
```

2.1 Set colors with a mask in buffer

This command set colors with bit map to buffer.

CMD_REC_SET_LED	mask type	mask high	mask low	red	green	blue	checksum

CMD_REC_SET_LED	value = 2
mask type	'P' = pset
mask high byte	value =0~255
mask low byte	value =0~255, each bit map to a LED
Red	value =0~255
Green	value =0~255
blue	value =0~255
Checksum	value = CMD_REC_SET_LED ^ mask type ^ mask high ^ mask low ^ red ^ green ^ blue

2.2 Set one LED color by position in buffer.

This command set a color to buffer by position.

CMD_REC_SET_SINGLE_LED	position	Red	Green	blue	checksum

CMD_REC_SET_SINGLE_LED	value = 3
Position	value = 0 ~ 11
Red	value =0~255
Green	value =0~255
Blue	value =0~255
Checksum	value = CMD_REC_SET_SINGLE_LED ^ position ^ red ^ green ^ blue

2.3 Send color buffer to LED with brightness.

CMD_SHOW_LED	brightness	checksum

CMD_SHOW_LED	value = 4
brightness	value = 0~ 100
checksum	value = CMD_SHOW_LED ^ brightness

2.4 Rotate color buffer

Shift buffer left or right 1 cell.

CMD_ROTATE_LED	direction	checksum

CMD_ROTATE_LED	value = 5
Direction	value = 'L' shift left value = 'R' shift right
checksum	value = CMD_ROTATE_LED ^ direction

2.5 turn on/off VT6751 send ACK/NAK

CMD_ACKNAK	on/off	checksum

CMD_ACKNAK	value = 6
on/off	value = 'O' on value = 'F' off
checksum	value = CMD_ACKNAK ^ on/off