Strobe Board RS485 demand

There will be three boards tied to the rs485 Bus each with their own address. One will be white, and the other 2 will be colored (Green and Blue)?????

The board can act as a light control or triggered by a strobe sync from a Digital still camera.

The standard configuration will be 200watts lighting from 1 board and the other 4 LED’s will be used for strobe pictures. Testing will be done to see what best supports the camera we use at high altitude 6-10meters

Suggested Command Protocol or similar:

FF FF A5 AD XX CS 26

AD= Address, XX= Commands, and CS= Check sum

The PWM section on the MCU will be used to control the light that is on if required.

Table showing controls:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Address | Frequency | Duty Cycle | Current | Power |
| 10 | 3.3vdc | 100% | 4.2 Amps | 101watts |
| 11 | 60hz | 90% | 3.5 Amps | 84 watts |
| 12 | 60hz | 80% | 3.0 Amps | 72 watts |
| 13 | 100hz | 80% | 2.6 Amps | 62 watts |
| 14 | 150hz | 80% | 2.4 Amps | 58 watts |
| 15 | 250hz | 80% | 2 Amps | 48watts |
| 16 | 500hz | 80% | 1.2 Amps | 36watts |
| 17 | 750hz | 80% | .86 Amps | 21 watts |
| 18 | 1000hz | 80% | .66 Amps | 16 watts |
| 19 | 2000hz | 80% | .33 Amps | 8 watts |
| 0X | Strobe Sync | 100% |  |  |

The output Duty Cycle of 100% means high 100% of time. 90% means high for 90% and low for 10% and the frequency of this pulse is Hertz.

In the command format XX the number will represent the first X signifies strobe control. 0 Strobe sync is active and the LED’s will fire for .2 seconds on PWM pin. The strobe sync will come in as a low for 100msec and the strobe will flash for 200msec. This will be at full power. 3.3v pulse on PWM pin for 100msec-200msec.

If the first X is 1 then the strobe sync is not looked at and light intensity will we based on second X.