



GM Counter

Ver: 2.2

USB , I2C, UART

www.csparkresearch.in/gmcounter

USB

CONTROLLER I2C
SDA SCL GND VCC

DEFAULT I2C: 0x10

COMMUNICATION

UART : Via USB (ACM),
or RXTX pins. Use either .
115200 BAUD Rate. 8N1
I2C : Default 0x10 [Change via
UART command I2C]

OPERATING VOLTS

Varies from tube to tube
LND-712, LND 716 Linearity
tested between 500 Volts
and 600 Volts
Operated at 600V

Default voltage limit set to
1100 volts to protect tubes.
can be increased to 1250.

USB
LED

RESET

3.3V

GND

RX 115200

TX 8N1 UART

STOP [I2C ADDR]

STRT +4 +2 +1

EN -11 -12 -13

STATUS LED

TUBE

BODY

TUBE

CENTER

HV

C14

C16

C15

220V

100p

100p

100p

100p

100p

100p

100p

100p

100p

100p

100p

100p

100p

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100p

HIGH
VOLTAGE

65 MM

All Commands must be terminated with a \r . Responses end with \r\n .

COMMANDS DESCRIPTION

| | |
|-----------|------------------------------------|
| V? | Short Version (CSGM2.1) |
| VER? | Long Version String |
| VOLTS? | Measured Voltage (e.g. 400 V) |
| COUNT? | Counts e.g. 212 |
| SETV X | Set the tube voltage to X volts |
| START | Start counting events |
| STOP | Stop Counting events |
| CLEAR | Clear the counter. Resets it to 0 |
| RESET | Clear the counter and stopwatch |
| TIME X | Set time limit to X seconds |
| SCANI2C | Scan for Devices on the I2C bus |
| VOLTLIMIT | Change voltage limit. default 1100 |
| I2C | Change I2C address |

I2C

| ADDRESS | LOCATION | REMARK |
|------------|----------|------------------------------|
| START | 100 | - |
| STOP | 101 | - |
| RESET | 102 | - |
| SAVE | 103 | - |
| READVOLTS | 104 | read 2 bytes. lsb, msb |
| WRITEVOLTS | 105 | write 2. lsb, msb |
| READCOUNTS | 106 | read 4 bytes lsb,lsb2,3,.msb |
| TIMELIMIT | 107 | write 2 bytes . lsb, msb. |