

BTI2 Electrical Specifications

Absolute Maximum Ratings

Ambient temperature range: $+5^{\circ} \sim +50^{\circ} \text{ C}$

Storage temperature range: $-5^{\circ} \sim +55^{\circ} \text{ C}$

Voltage on Vcc with respect to GND: $-0.3 \sim +6.5\text{V}$

Voltage on Reset, Tx, Rx with respect to GND: $-0.3 \sim (V_{cc}+0.3)$

Voltage on Vpmp with respect to GND: $+7.2\text{V}$

Serial Communication

TTL level, 9600, N, 8, 1

Alcohol Measurement

Fuel cell:

Operating life: 1 year (minimum)

Specificity: specific for alcohol, no cross

Sensitivity to ketones or hydrocarbons

Range: 0~255 mg% BAC

Resolution: 1mg% BAC

Accuracy: $\pm 5\%$ BAC for solution $< 50\text{ mg\% BAC}$

$\pm 10\%$ for solution $\geq 50\text{ mg\% BAC}$

Analyzing time: < 6 seconds at 100 mg% BAC

Purging time: < 60 seconds at 100 mg% BAC

Warm-up time: 2 minutes (maximum)

Alcohol Calibration

Solution: 50 mg% BAC

Power Supply

Total power dissipation: Vcc -- 400mW (maximum)

Vpmp -- 20W (maximum)

Maximum current Icc: 100mA

Maximum current Ipmp: 3A

Nominal Vcc: +5V/100mA with 750mA fuse

Nominal Vpmp: +5V/3A (recommended) with 5A fuse