

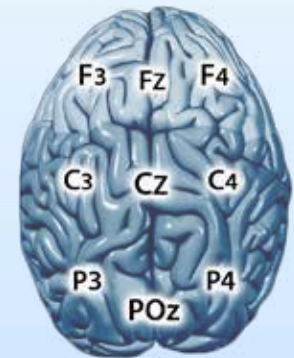
B-ALERT[®] X10



The B-Alert X10 is the premiere solution for mobile EEG applications, delivering a balance of medical-grade functionality and simplicity. The lightweight headset applies easily and remains comfortable for extended high quality recordings in any home health-care, clinical or operational setting. The 9-channel combination of mid-line and lateral EEG sites allows for multiple analysis opportunities as evidenced by numerous peer-reviewed publications. As the complete SDK is included with every B-Alert purchase, straight-forward integration and synchronization tools make for a system that meets the needs of researchers across many fields.

Product Features:

- 9 channels of medical-grade EEG, plus 1 optional channel for ECG, EMG, or EOG (10 Channels @ 256Hz)
- Comfortable and non-intrusive; sets up in about 5 minutes
- Automated wireless impedance checks
- Bluetooth[®] wireless signal transmission up to 10 meters
- 8+ hour rechargeable battery life
- On-board accelerometer to quantify head movement & position
- Data quality monitoring and feedback
- Multiple options for data synchronization
- Sizing to fit adolescent through adult heads
- SDK fully compatible with MatLab, EEGLab, and BCI2000



B-Alert X10 Electrode Sites

B-AlertLAB

The B-Alert X10 Wireless EEG Headset will pair with the B-Alert LAB Software Suite best suited to meet your needs



EEG Metrics synchronized across individuals can be used to derive Team Cognitive States

HARDWARE

| | |
|------------------------------|--|
| Channels | 9 EEG with fixed gain referenced to linked mastoids 1 optional differential channel |
| Sampling rate | 256 samples/second |
| Dynamic range | Fixed gain $\pm 1,000 \mu\text{V}$ |
| Resolution | 16 bit, CMRR 105 dB |
| Bandpass characteristics | 0.1 Hz HPF, 100Hz 5th order LPF |
| Input impedance | 100 G Ω |
| Noise | $\sim \pm 2 \mu\text{V}$ @ 10 Hz and 50 k Ω impedance |
| Head movement/position | Angles obtained with 3-axis 12-bit accelerometer |
| RF Band | 2.4 to 2.48 GHz (ISM band) |
| Transmission mode | Bi-directional with B-Alert Bluetooth – USB dongle |
| Data transmission range | ~ 10 meters, line of sight with onboard antenna |
| Transmission power | Bluetooth Class 2 +4dBm |
| System power consumption | ~ 40 mA @ 3.7 V |
| Battery capacity | Standard 2 x Li-ION batteries - 460 mAH, 11-hours of continuous use Optional 4 x Li-ION batteries - 920 mAH, 22-hours of continuous use |
| Battery charging | Internally charged with custom cable and USB wall charger |
| On-line impedance monitoring | Initiated by host computer using bi-directional link |
| Head unit dimensions | Size: 5'(L) x 2.25" (W) x 1" (H); Weight: 0.11 kg with standard battery |
| User control | On/Off |
| Indicator LEDs | Green/Amber |

SOFTWARE

| | |
|--------------------------------|---|
| Compatibility | Windows 8, 7, and XP, PC with 2.0 GHz or higher processor 1 GB of RAM |
| Estimated file size per minute | ~ 45 KB/Min/channel |

SENSOR HEADSET & ACCESSORIES

| | |
|--------------------|---|
| Sensor sites | Fz, F3, F4, Cz, C3, C4, POz, P3, P4 |
| Sensor strip sizes | Ships with small & medium; inquire about other sizes |
| Electrode cream | Highly conductive electrolytes and preservatives in non-ionic, hypoallergenic base, buffered to skin pH |

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