



The **Medtronic BIS Complete 4 Channel Monitor** is a Bispectral Index Monitor. This is a non-invasive way to measure brain activity and the effects of anesthesia agents on the brain. The Medtronic BIS Complete uses raw EEG data and the sedation of the patient to come up with the BIS number. This helps you customize the amount of anesthesia needed per patient for different procedures. The 4 Channel monitoring system comes with a 3.5 version of the software installed. The difference between the Medtronic 2 Channel and the 4 Channel, is that the Medtronic BIS 4 channel can detect differences in the Hemispheres of the brain.

## Features

- BIS Brain Function monitoring helps address each patient's unique anesthetic requirements
- Can provide additional security to those that are more sensitive to the hemodynamic effects of anesthesia
- Translates the Raw EEG data into an Easy -to-read BIS Index number
- Density Spectral Array (DSA) with visual display of EEG bands



# Specifications

## Dimensions

Height: 8 in (20.3 cm)  
Width: 7.5 in (19 cm)  
Depth: 5 in (12.7 cm)  
Weight: 3.5 lbs (1.6 kg)

## Display Size

Height: 4 in (10 cm)  
5.25 in (13 cm)

## General Specifications

Digital Output: USB Port a, b, R232 serial port  
power Requirements: 100-240 VAC, 50-60 Hz, 0.7ampere max.  
Battery Backup: 45 minutes at full operation  
Battery charge Time: 6 hours  
Software Updates: User-via USB port (Type A),/li>  
Operator Position: 3.3 ft ( 1 Meter) in front of the unit with display at eye level

## EEG Specifications

Epoch Duration: 2 Seconds  
Artifcat Rejection: Automatic  
Input Amplifer Range: +/- 1 mV  
EEG Scales  
One channel display: 25  $\mu$ V/div ( $\pm$  50  $\mu$ V full scale)  
Two Channels display: 50  $\mu$ V/div ( $\pm$  50  $\mu$ V per waveform)  
EEG Sweep: 25 min/sec  
User-defined Displays: Trend and real-time EEG waveforms  
Update Rate: 1 second for BIS number, 10 seconds for trend

## BISX Specifications

Weight: 10 oz (0.284 kg) including integral cable  
Dimensions: 3.75 in (9.5 cm) diameter x 2.5 in (6.3 cm) thick  
Cable length:  
9 ft (2.7m) integral BISX Cable  
4.5 ft (1.4 m) from BISX to sensor connector  
Analog to Digital Converter: noise-shaped sigma-delta  
Sample Rate: 16,384 samples/second  
Resolution: 16 bits at 256 samples/second  
Input Impedance:  
50 M ohms typical (DC)  
5 M ohms typical (at 10 Hz)  
Noise: < 0.3  $\mu$ V RMS (2.0  $\mu$ V Peak-to-peak); 0.25 Hz to 50 Hz  
Common Mode Rejection: 110 dB at 50/60 Hz to earth ground  
Frequency/Bandwidth: 0.16-100 Hz

