

There are several prominent companies starting with the letter **M** that are either primary manufacturers of Deep Brain Stimulation (DBS) hardware or provide critical surgical technologies used for deep brain access and therapy.

1. Medtronic (The Market Leader)¹

Medtronic is the pioneer of Deep Brain Stimulation and currently the largest player in the market. They were the first company to receive FDA approval for DBS in 1997.²

- **Key Products:** The **Percept™ PC** and **Percept™ RC** (rechargeable) systems.³
- **Innovations:** They recently introduced **BrainSense™ technology**, which is the first "closed-loop" system.⁴ It can "sense" and record brain signals (local field potentials) while delivering therapy, allowing doctors to adjust settings based on real-time data.⁵
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- **Indications:** Their devices are FDA-approved for Parkinson's disease, Essential Tremor, Dystonia, Epilepsy, and Obsessive-Compulsive Disorder (OCD).⁶

2. MicroPort Scientific Corporation (MicroPort Neuromodulation)

MicroPort is a massive global medical device company (headquartered in China) with a dedicated neuromodulation branch that competes directly with Medtronic.

- **Key Products:** The **G-Series** neurostimulator and various DBS leads.
- **Focus:** They focus on high-precision lead placement and affordable, long-lasting rechargeable batteries. While very dominant in Asian markets, they have a growing global presence.

3. MicroLeads

MicroLeads is a clinical-stage startup focusing on high-resolution neuromodulation.

- **Technology:** They are developing the **μDBS (Micro-DBS)** lead. Traditional DBS leads have 4 to 8 large contacts; MicroLeads uses high-density "micro-contacts" to provide much more precise "steering" of the electrical field.
- **Goal:** The aim is to reduce side effects (like speech or balance issues) by ensuring the stimulation only hits the intended target without "leaking" into surrounding brain tissue.

4. Monteris Medical

While not a "DBS" company in the traditional electrical stimulation sense, Monteris is a leader in **Deep Brain** interventions.

- **Technology:** Their **NeuroBlate® System** uses MRI-guided laser interstitial thermal

therapy (LITT).

- **Connection to DBS:** It is often used to treat similar deep-seated targets for conditions like drug-resistant epilepsy and brain tumors. It is a "lesioning" therapy rather than a "stimulation" therapy, but it is a major competitor in the deep brain therapeutic space.

5. Minnetronix Medical (now Forj Medical)

Minnetronix is a major medical technology partner that recently commercialized its own deep-brain surgical tool.⁷

- **Key Product:** The **MindsEye™ Expandable Port**.⁸
- **Function:** This is a "brain access" system.⁹ It provides a minimally invasive path for surgeons to reach deep-seated areas of the brain for surgery or for the placement of electrodes/leads. It is currently the only expandable port on the market that allows for visualization and access to the deep brain.¹⁰

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Comparison of Key Companies

| Company | Role | Primary Focus |
|-------------|-----------------|--|
| Medtronic | Manufacturer | Market leader; Closed-loop "sensing" technology. |
| MicroPort | Manufacturer | Global competitor; High-longevity rechargeable IPGs. |
| MicroLeads | Tech Developer | High-resolution leads with 10x more contacts. |
| Monteris | Therapy | Deep brain laser ablation (thermal therapy). |
| Minnetronix | Surgical Access | Expandable ports for deep brain visibility. |

Would you like more details on a specific company's technology or perhaps a

comparison of how Medtronic's DBS differs from other major competitors like Abbott or Boston Scientific?