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Mobile

A Brief History of the Cell-Phone Antenna

Since cell phones were developed more than three decades ago, antenna design has been one of the thorniest problems handset engineers have faced.

—Amy Thomson

Motorola DynaTAC

This 8-in., 2-lb. phone was used to make the first cell-phone call, from a New York street in 1973. Despite its bulk—and the 5-in. rubber antenna that stuck out of the top—the \$4,000 DynaTAC became the ultimate accessory for the über-rich after it was featured in the 1987 film *Wall Street*.



Motorola StarTAC

The first smash-hit clamshell phone was introduced in 1996. The StarTAC replaced the DynaTAC's towering antenna with a thin wire whip that could be pushed into the body of the handset.



Nokia 8210

Introduced in 1999, this handset designed by fashion house Kenzo was one of the first cell phones to hide the antenna entirely inside the body. Consumers loved the simplicity of the design and soon began to turn their noses up at phones with external antennas.



Apple iPhone 4

To provide more room inside the case, Apple decided to wrap antennas for its latest phone around the exterior. Problem is, this design innovation put the antennas into contact with callers' fingers, which can block signals. That, in turn, caused Apple's biggest PR flap since the ill-fated Newton handheld.

