

26 January 2007

By: Bogdan Solca, Hardware Editor

SAMSUNG Introduces 1.8-Inch 60Gb HDDs

Improved storage space for mobile devices



Samsung Electronics Ltd. claims it is the first company to release a 1.8-inch hard drive with a capacity of 60GB per disk and a super-slim form factor that is just 5-millimeters tall. Samsung showcases an entire N-series of new 1.8-inch drives including here 20GB, 30GB, 40GB and 60GB per disk capacity models. The 60GB capacity seems to be the largest one-disk storage capacity offered by any drive on the market today. Samsung's 1.8-inch N-series is already shipping to vendors and integrators. Samsung reports that the 60GB 1.8-inch hard disk can store data equivalent to 60 135-minute movies, 1,500 40MB music videos, or 15,000 4MB MP3 music files, while the N-series hard disk drives are available in both internal and external HDD type. "Samsung is offering cutting-edge technology from an aerial density standpoint with the new 1.8-inch N-series. Given the same amount of hard drive space, Samsung is able to offer 60GB per disk where our competitors can only offer 40GB," comments Albert Kim, national sales manager, Storage Systems for Samsung Semiconductor. "This enables us to produce more compact hard drives that will fit into smaller, more portable electronic devices." The new 1.8-inch hard drives were built to be the quietest on the market today, with just 1.8 Bel of generated noise. As the sound level detectable by the human ear is 2Bel, this makes the operating sound of the new drives undetectable to the human ear. In addition, the N-series features ultra-low power consumption that is just 0.3 watts in low power idle. Samsung's N-series also utilizes PMR technology to achieve such a high level of storage capacity per disk. PMR is an improved version of the perpendicular recording technology, which places the data bits perpendicular to the disc, reducing the corruption factor. Thus, by placing the data bits standing on end, more data can fit onto a disc, allowing for greater storage capacity. The entire N-series is equipped with a 4,200-rpm spindle speed, a 7.14-millisecond average seek time and a 2MB data buffer.