

HighPoint RocketRAID 2640x4

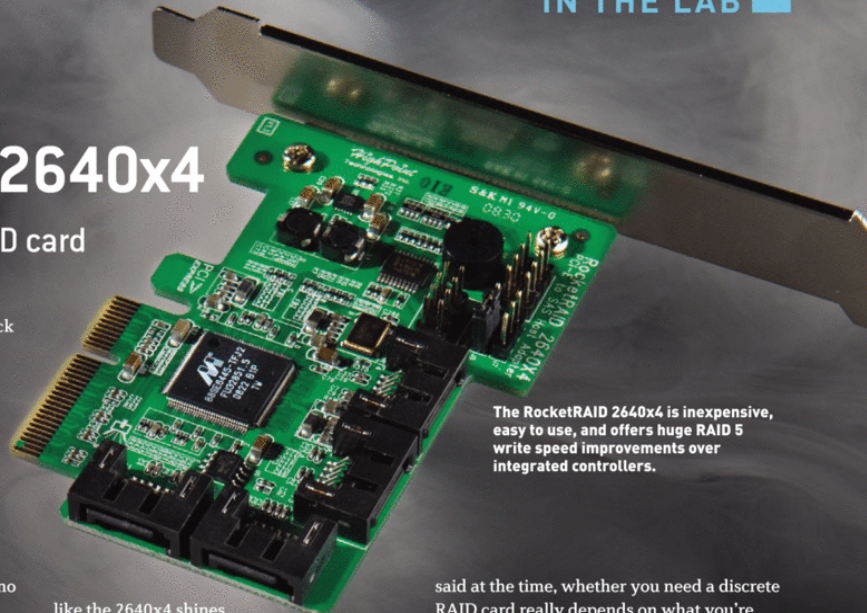
A decent entry-level RAID card

Power users who want to take advantage of RAID are typically stuck between a rock and a hard place: their motherboard's integrated RAID (the quality of which can vary wildly between chipsets) and expensive discrete controllers. HighPoint's RocketRAID 2640x4 attempts to bridge the gap by offering better-than-onboard performance at a price much lower than fancier discrete cards.

As expected, the RocketRAID 2640x4, which has four SAS/SATA 3Gb/s ports but no onboard processor or memory, performed better than our test bed motherboard's onboard RAID controller but couldn't match the performance of the \$450 Adaptec 5405, which boasts an onboard 1.2GHz processor and 256MB DDR2 cache.

Setting up the RocketRAID 2640x4 is simple: Drop in the card, hook up the drives, power up your computer, and hit Ctrl+H during boot. HighPoint's BIOS makes creating and maintaining RAID a snap, and its Windows drivers are easy to install from the included disc.

In two-disk RAID 0, the RocketRAID averaged 174MB/s reads and 148MB/s writes, slightly better than the EVGA's 166MB/s and 135.9MB/s, but no match for Adaptec's 210MB/s and 209MB/s. RAID 5, however, is where the difference between onboard RAID and even an inexpensive discrete card



The RocketRAID 2640x4 is inexpensive, easy to use, and offers huge RAID 5 write speed improvements over integrated controllers.

like the 2640x4 shines through. Echoing results from our May 2008 RAID controller showdown (<http://bit.ly/raidcont>), using a discrete RAID controller rather than onboard upped RAID 5 write speeds nearly tenfold: 216.5MB/s on the 2640x4 versus only 25.3MB/s onboard. The 2640x4 even surpassed Adaptec's much more expensive RAID controller in RAID 5 writes, though the Adaptec far outstripped the RocketRAID's read speeds.

In our previous RAID card roundup, the RocketRAID 3510 took high honors for speedy RAID 5 performance on the cheap, and the 2640x4 continues that trend. As we

said at the time, whether you need a discrete RAID card really depends on what you're doing with it. For RAID 0, an entry-level RAID card like the 2640x4 offers modest boosts over the motherboard's controller, while a more expensive card will give you bigger gains. In RAID 5, adding a drop-in card will immediately give you a significant increase in average write speeds.

The HighPoint RocketRAID 2640x4 isn't the most feature-rich RAID card we've ever tested, but you get a lot of performance for \$140, especially if you want to run RAID 5. The low price point, decent performance, and ease of use make this a good choice for an entry-level RAID controller. —NATHAN EDWARDS

BENCHMARKS

	RocketRAID 2640x4	Adaptec 5405	EVGA 680i mobo
RAID 0 (two-disk)	RAID 0 (2-disk)	RAID 0 (2-disk)	RAID 0 (2-disk)
HDTach Avg Read (MB/s)	174.8	210	166
HDTach Avg Write (MB/s)	148.6	208	135
HDTach Burst Read (MB/s)	394	876	328
HDTach CPU Utilization (%)	3	2	5
HDTach Random Access (ms)	7.4	7.3	7.4
Premiere Pro (sec)	642	633	655
PCMark Vantage	7,282	8,173	6,900
RAID 5	RAID 5 (4-disk)	RAID 5 (4-disk)	RAID 5 (4-disk)
HDTach Avg Read (MB/s)	161.6	247.7	154.5
HDTach Avg Write (MB/s)	216.5	206	25.3
HDTach Burst Read (MB/s)	373.5	815	348
HDTach CPU Utilization (%)	2	3	4
HDTach Random Access (ms)	7.5	7.5	7.4
Premiere Pro (sec)	651	632	843
PCMark Vantage	7,724	8,547	4,059

Best scores bolded. All RAID controllers were tested on a stock-clocked Intel OX4700 on an EVGA 680i SLI motherboard, using 300GB WD VelociRaptor drives. HDTach 3.0.1.0 and Premiere Pro encoding tests done in Windows XP 32-bit; PCMark Vantage tests run on 32-bit Windows Vista.

SPECIFICATIONS

Connection	PCI Express x4
RAID Support	0, 1, 1+0, 5, JBOD
Processor	None
Memory	None
Connection	Four SAS/SATA ports

VERDICT **8**

HIGHPOINT ROCKETRAID 2640X4

ROCKETMAN (SONG) **ROCKETMAN** (FILM)

+ Cheap; easy to install and use; improved RAID 5 over onboard controllers.

- Lacks stripe size options; RAID 0 not much better than onboard; no onboard processor or memory.

\$140, www.highpoint.com