

Calculation of Recording Capacity

Users can calculate the size of hard disk according to the saving time and DVR recording settings. The DVR uses fixed video bit rate. The below are the details at different settings for 200 fps 8-channel DVR.

Video Format	Resolution	Farm Rate (FPS)	Totally	Video Quality	Bit Rate (kbps)	Used Space (MB/h)
PAL	CIF	25		Highest	640	281
				Higher	512	225
				Medium	384	168.7
				Lower	256	112.5
				Lowest	128	56
NTSC	CIF	30		Highest	640	281
				Higher	512	225
				Medium	384	168.7
				Lower	256	112.5
				Lowest	128	56

The calculation format is:

$$\text{Total Recording capacity} = \text{Used space per hour (MB/h) (coverage rate of hard disk)} \\ \times \text{recording time (hour)} \times \text{channel numbers}$$

For instance, one customer uses NTSC cameras, set resolution to CIF, video quality to Lower, frame rate to 240 fps for enabling total 8 channels. He wants the unit to record continuously in a month. Below is the calculation:

$$\begin{aligned} \text{Total Recoding capacity} &= 112.5(\text{mb/h}) \times 24(\text{hours/day}) \times 30(\text{days}) \times 8(\text{channels}) \\ &= 648000(\text{MB}) \\ &= 648(\text{GB}) \end{aligned}$$

Therefore, customers just install two SATA HDDs with 320GB, it can almost record for one month.

For 4-channel DVR:

$$\begin{aligned} \text{Total Recoding capacity} &= 112.5(\text{mb/h}) \times 24(\text{hours/day}) \times 30(\text{days}) \times 4(\text{channels}) \\ &= 324000(\text{MB}) \\ &= 324(\text{GB}) \end{aligned}$$

If users install one 320GB SATA HDD, it can almost record one month.

For 16-channel DVR:

$$\begin{aligned} \text{Total Recoding capacity} &= 112.5(\text{mb/h}) \times 24(\text{hours/day}) \times 30(\text{days}) \times 16(\text{channels}) \\ &= 1296000(\text{MB}) \\ &= 1296(\text{GB}) \end{aligned}$$

Thus, users should install four 320 GB SATA HDD, they can record about one month.