



CMS Live View Capabilities

Test Method	<ol style="list-style-type: none"> The test was done on a dedicated computer. No other softwares are installed or running while the CMS is working. The IPC is monitoring a live scene with constant movement. When the PC CPU usage rises to around 100%, we record the number of live channels. We keep the memory usage (RAM) is under 80% so the OS will have enough resources for operating normally. 										
NO.	PC Hardware					Support Channels					
	CPU	Frequency	Memory (RAM)	Display Card	Display Card Memory	CIF 25fps/CBR/ 1Mbps	D1 25fps/CBR/ 2Mbps	720P (1MP) 25fps/CBR/ 6Mbps	960P (1.3MP) 25fps/CBR/ 6Mbps	1080P (2MP) 25fps/CBR/8Mbps	3MP 25fps/CBR/8Mbps
1	Inter*Core™ i7-4790	3.6GHZ	8.00GB	GeForce GST 450	2724MB	~108	~48	~22	~16	~9	~6
Conclusion	1. As we can see, the support channel number is directly influenced and limited by PC decode capability.										



CMS Recording Capabilities

Test Method	<ol style="list-style-type: none"> The test was done on a dedicated computer. No other softwares are installed or running while the CMS is working. IPC simulator provides master stream of 1080P/4Mbps and sub stream of D1/1Mbps. We monitor the system resources (CPU, RAM & Network) and note their status when increasing recording channels. Once one of the resources is reaching 100% usage, or the video stream becomes unsmooth, we write down the number of recorded channels and the resource that was depleted. 												
NO.	Hardware					Recording Channels				PC Status	Remark	With Preview	
	CPU	Frequency	Memory	Network	HDD Information			D1	1080P (2MP)				
					Model	RMP	Date Speed	25fps/CBR/ 1Mbps	25fps/CBR/ 4Mbps				
1	Intel*Core™ i7-4790	3.6GHZ	4.00GB	1Gb Ethernet	SeaGate ST500DM002-1BD142	7200/min	600MBps	~800	~200	CPU<20% Memory<50% Network>85%	With recording channels of up to 200/800 and strong PC hardware, the network usage is over 85%. As a result the video stream became a little unsmooth when playback the record files. In this case, the network is the bottle neck.	With 8ch 1080P/25fps/8Mbps live view, CPU usage will be 100%, play record file is not smooth any more.	With 4ch 1080P/25fps/8Mbps live view, CPU usage is around 80%, play record file is smooth.
Conclusion	<ol style="list-style-type: none"> According to network specs, normally Gigabite network card can support no more than 250 channels (4Mbps per channel), under optimun conditions When recording channels are ~200, i3/i7 CPU PC can handle extra live view as shown in the table above 												