

Colorful450-512M D5 (N450-055-N01)

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Model Name:

Colorful450-512M D5 (N450-055-N01)

Brief Information:

Memory: 512MB / 128bit, GDDR 5




Clocks (core/memory): 783MHz / 3608MHz

Video Ports: HDMI + VGA + DVI

TDP: 106W

DirectX: 11

Specification:






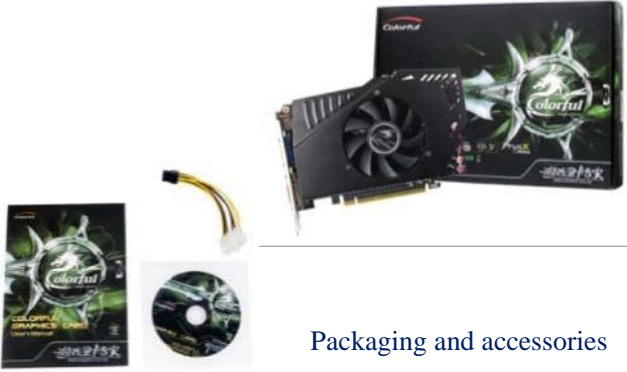
Chipset	GPU	NVIDIA GeForce GTS 450 (GF116)
	Manufacturing Process	40 nm
	CUDA cores	192
Clock Speeds	Core Clock	783MHz
	Shader Clock	1566 MHz
	Memory Clock	3608MHz
Memory	Memory Size	512 MB
	Memory Interface	128 BIT
	Memory Type	DDR 3
Interface and Connectors	Video Output	HDMI + VGA + DVI
	PCI Express	2.0
	Additional Power connectors	1 * 6 pin
	SLI	N/A
Thermal	Board Power (Idle / Load)	15.6 W / 101.8 W
	TDP (NVIDIA)	106 W
	Temperature (Idle / Load)	34°C (GPU-Z) / 70°C (Furmark) ^{*Note1}
Cooling	Type	With Fan (8 cm in diameter)
	Fan Speed	1200±15% - 2800 ±10% RPM
	Acoustical Noise	22-34.3 dBA ^{*Note2}
	Fan Power Connector	4-pin, PWM
3D API	DirectX /Shader Model	11 / 5.0
	OpenGL	4.1
Others	Featured Technologies	  
	Form Factor	Dual Slot
	Packaging	1* Graphics Card, 1* User's Manual, 1* Driver CD, 1* 6-pin Power Adapter cable

Note 1: The temperature is read from the software like GPU-Z and Furmark, and the data may not exactly show the actual electrical thermal status of the graphics card. Usually when tested by the infrared thermometer, the figures are always higher than those shown by software. However, considering few DIY users may use an infrared thermometer at hand to test the card's

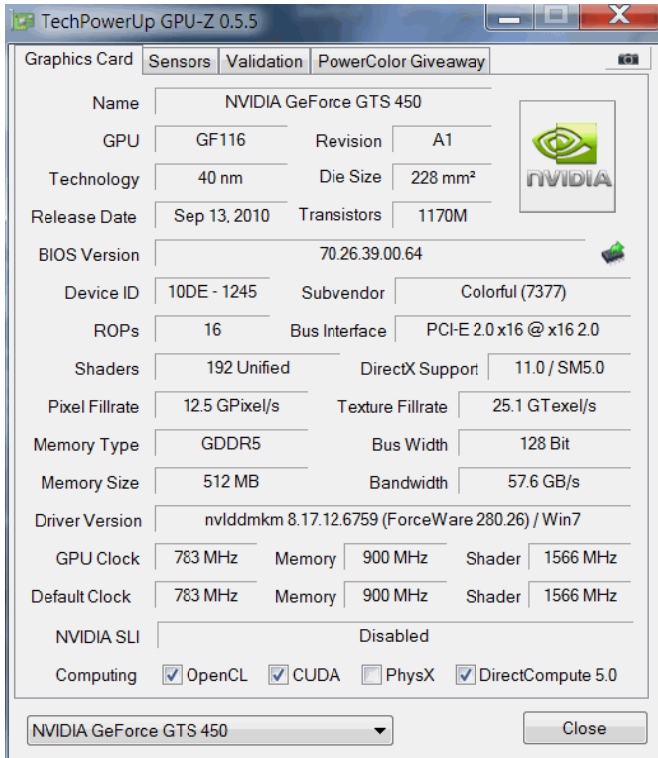
temperature, I give the software-based data here for reference, which should be more meaningful to most users.

Note 2: The acoustical data is the tested noise of the cooling Fan only, and the graphics card especially equipped in a particular PC case running in a certain room, the acoustical noise may be higher than the given figures here.

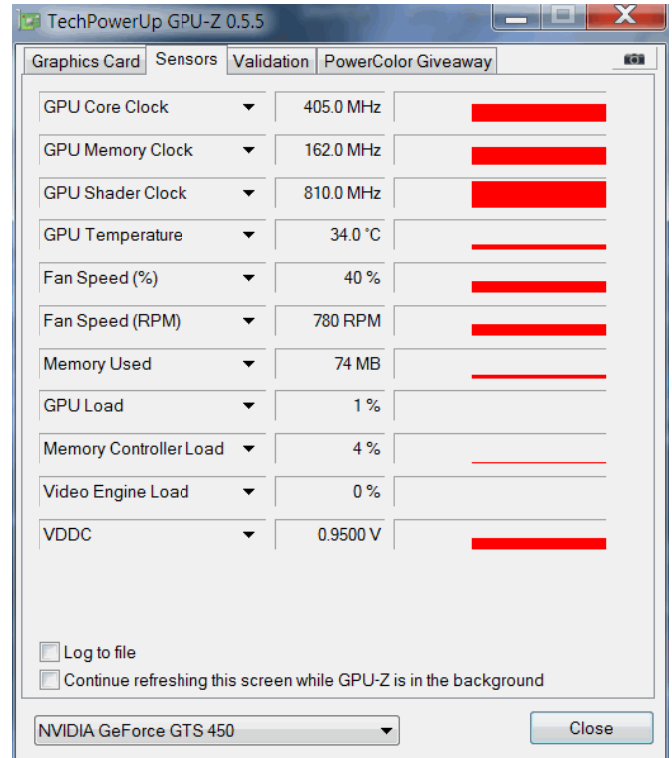
Parts of the graphics card:

 <p>Front</p>	 <p>45° View</p>
 <p>Video ports</p>	 <p>135° View</p>
 <p>Back</p>	 <p>Packaging and accessories</p>

GPU-Z and FurMark Reference:



GPU-Z: Graphics Card



Idle Temperature Default:34°C



Windows 7 Experience Index:

Graphics: 7.2

Gaming: 7.2

Rate and improve your computer's performance

The Windows Experience Index assesses key system components on a scale of 1.0 to 7.9.

Component	What is rated	Subscore	Base score
Processor:	Calculations per second	6.0	<p>Determined by lowest subscore</p>
Memory (RAM):	Memory operations per second	6.0	
Graphics:	Desktop performance for Windows Aero	7.2	
Gaming graphics:	3D business and gaming graphics performance	7.2	
Primary hard disk:	Disk data transfer rate	5.9	

Platform: Intel Pentium E5300/ Colorful C.P45 TWIN/ 2*Kingston 2G DDR3 1333MHz/ Seagate ST3500418AS 500G/ Windows 7 Ultimate 32bit

Performance (For reference only):

Graphics card		GTX 460	GTS 450 D3	GTS 450 D5	GTS 450 D5	GTX 550 Ti	GTX 560 Ti	HD 5750	HD 5770	HD 6850	HD6870	
Memory (MB/BIT)		1024/256	1024/128	512/128	1024/128	1024/192	1024/256	1024/128	1024/128	1024/128	1024/256	
Clock(MHZ, core/SP/memory)		675/1350/3600	783/1566/1600	783/1566/3600	783/1566/3600	900/1800/4100	820/1640/4000	700/700/4600	850/850/4800	820/820/4400	900/900/4200	
Driver		260.99	280.26	270.61	270.61	266.54	266.22	8.901	8.901	8.901	8.901	
Benchmarks	3DMARK06	DX9/1280×1024	17799	12729	15358	16036	16563	18628	14557	15951	18075	18420
	3DMark Vantage	DX10/ Performance	15886	7559	9793	10613	12301	21079	8938	10761	14331	16032
		DX10/ Extreme	6989	3191	--	4795	5192	9481	3681	4636	6401	7591
	3DMARK 11	DX11/ Performance	3208	2151	2148	2322	2489	3818	2190	2624	3688	4161
		DX11/ Extreme	1049	629	655	740	812	1352	706	868	1197	1404
Heaven Benchmark 2.1	DX11/High/1680×1050/Normal/AAA (fps/scores)	36.0/907	19.8/498	22.8/575	25.3/638	27.1/681	48.3/1217	18.7/472	21.7/546	31.3/790	34.1/860	
	DX11/High/1920×1200/Normal/AAA (fps/scores)	30.5/769	16.3/412	19.6/493	21.9/553	23.4/590	41.2/1039	16.4/412	19.0/479	27.5/694	30.0/755	
Games	Call of Duty-Black Ops	1920×1200 AAA	89	42	59	64	72	91*	51	54	87	91*
	Crysis V1.21	DX10/High/1920×1200/0 AAA	41.29	21.755	29.415	32.32	33.615	37.02	30.975	36.61	51.51	57.605
	Tom Clancy's HAWX	DX10/High/1680×1050/0 AAA	101	60	68	75	80	105	61	72	96	105
		DX10/High/1920×1200/8x AAA	65	29	22	45	51	--	39	44	69	73
	Just Cause 2	DX10/High/1680×1050/2AF	70.86	--	48.52	52.11	56.64	63.31	51.7	60.49	81.91	89.47
		DX10/High/1920×1200/2AF	56.2	--	38.71	41.68	45.14	54.91	43.24	49.67	68.67	77.27
Dirt2	DX11/High/1680×1050/0 AAA	98.3	--	64.9	70.2	78.3	88.1	57.4	65.1	85.2	90.9	
	DX11/High/1920×1080/4xMSAA	67.4	--	50.6	55.2	63.6	65.4	49.3	53.8	73.3	78.8	

Note: -- denotes temporary lack of the specific testing results

Test Platform	
VGA Driver:	197.45
Main Board /Chip /Driver:	ASUS P6T/X58/6.1.7600.16385
System BIOS:	V0707
CPU:	Intel core i7 920/2.67GHz
SIMM /DIMM:	Corsair 2G×3 DDR3 1333Hz
Hard Disk Drive:	WD 1001FALS 1.0TB
Monitor:	DELL 3008 WFP-HC
POWER	Corsair CMPSU-620HX
OS:	Windows 7 Ultimate6.1(7600)