

## DME Designer Component Resource Utilization

This document lists the DSP resource utilization of DME components. The values in this document were obtained by placing single components in the configuration and tabulating the resultant DME Designer resource meter readings. Since DME Designer's resource meter only displays DSP processor usage, even if less than 100% usage is indicated, limitations of internal memory and I/O pins may prevent a design from compiling. When using components which consume a large amount memory (delays), or have a large number of inputs or outputs, use the Analyze function to ensure that your design is compilable. The Analyze function can be found in the Designer window Tools menu, and may be used to compile off-line without DME devices being present.

Sampling Frequency (F <sub>s</sub> ): 48kHz				DME24N		DME64N		DME8i-C & DME8i-ES		DME8o-C & DME8o-ES		DME4i-C & DME4i-ES		
Main Component Category	Component sub-category 1	Component sub-category 2	Component	DSP 2%	SPX 0%	DSP 0%	SPX 0%	DSP 4%	0%	DSP 6%	0%	DSP 5%	0%	
Initial DSP amount														
Ambient Noise Compensator			Mono	1%		1%		1%		1%		1%		
			Stereo	2%		2%		2%		2%		2%		
Audio Detector			Audio Detector	1%		1%		2%		2%		2%		
Auto Gain Control			Mono	2%		2%		2%		2%		2%		
			Stereo	3%		2%		3%		3%		3%		
Crossover			2 Way	3%		2%		3%		3%		3%		
			3 Way	4%		2%		5%		5%		5%		
			4 Way	6%		3%		6%		6%		6%		
			5 Way	7%		4%		7%		7%		7%		
			6 Way	8%		4%		8%		8%		8%		
Crossover Processor			2 Way	5%		3%		5%		5%		5%		
			3 Way	7%		4%		7%		7%		7%		
			4 Way	9%		5%		9%		9%		9%		
			5 Way	11%		6%		11%		11%		11%		
			6 Way	12%		6%		13%		13%		13%		
Crossover Processor II			2 Way	6%		3%		6%		6%		6%		
			3 Way	8%		4%		9%		9%		9%		
			4 Way	11%		6%		11%		11%		11%		
			5 Way	13%		7%		13%		13%		13%		
			6 Way	16%		8%		16%		16%		16%		
Delay	Long		1 Output	1%		1%		1%		1%		1%		
			2 Output	1%		1%		1%		1%		1%		
			3 Output	2%		1%		2%		2%		2%		
			4 Output	2%		1%		2%		2%		2%		
			5 Output	2%		1%		2%		2%		2%		
			6 Output	3%		2%		3%		3%		3%		
			7 Output	3%		2%		3%		3%		3%		
			8 Output	3%		2%		3%		3%		3%		
	Short			1 Output	1%		1%		1%		1%		1%	
				2 Output	1%		1%		1%		1%		1%	
				3 Output	2%		1%		2%		2%		2%	
				4 Output	2%		1%		2%		2%		2%	
				5 Output	2%		1%		2%		2%		2%	
				6 Output	3%		2%		3%		3%		3%	
				7 Output	3%		2%		3%		3%		3%	
				8 Output	3%		2%		3%		3%		3%	
Dynamics	Compander	Compander H	Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
		Compander S	Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Compressor		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	De-Esser		Mono	2%		1%		2%		2%		2%		
			Stereo	3%		2%		3%		3%		3%		
	Ducking		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Expander		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Gate		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Limiter		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Program Ducker		Mono	1%		1%		1%		1%		1%		
			Stereo	1%		1%		1%		1%		1%		
	EQ	GEQ	Mono	7 Band	3%		2%		3%		3%		3%	
				15 Band	4%		2%		4%		4%		4%	
31 Band				6%		3%		7%		7%		7%		
Stereo			7 Band	5%		3%		5%		5%		5%		
			15 Band	7%		4%		7%		7%		7%		
			31 Band	12%		6%		12%		12%		12%		
PEQ		Mono	2 Band	1%		1%		1%		1%		1%		
			3 Band	1%		1%		1%		1%		1%		
			4 Band	1%		1%		1%		1%		1%		
			6 Band	2%		1%		2%		2%		2%		
		Stereo	2 Band	1%		1%		1%		1%		1%		
			3 Band	2%		1%		2%		2%		2%		
			4 Band	2%		1%		2%		2%		2%		
			6 Band	3%		2%		3%		3%		3%		
Fader			1 Channel	1%		1%		1%		1%		1%		
			2 Channel	1%		1%		1%		1%		1%		
			4 Channel	1%		1%		1%		1%		1%		
			8 Channel	2%		1%		2%		2%		2%		
			12 Channel	3%		2%		3%		3%		3%		
			16 Channel	4%		2%		4%		4%		4%		
Feedback Suppressor			Feedback Suppressor	0%	25%	0%	25%	Not Available		Not Available		Not Available		
Filter	BPF		Mono	1%		1%		1%		1%		1%		
			Stereo	1%		1%		1%		1%		1%		
	HPF		Mono	1%		1%		1%		1%		1%		
			Stereo	1%		1%		1%		1%		1%		
	LPF		Mono	1%		1%		1%		1%		1%		
			Stereo	1%		1%		1%		1%		1%		
	Notch		Mono	1%		1%		1%		1%		1%		
			Stereo	1%		1%		1%		1%		1%		
	Programmable BPF		Mono	2%		1%		2%		2%		2%		
			Stereo	3%		2%		3%		3%		3%		
	Programmable HPF		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		
	Programmable LPF		Mono	1%		1%		1%		1%		1%		
			Stereo	2%		1%		2%		2%		2%		

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Sampling Frequency (F <sub>s</sub> ): 48kHz				DME24N		DME64N		DME8i-C & DME8i-ES		DME8o-C & DME8o-ES		DME4io-C & DME4io-ES			
Main Component Category	Component sub-category 1	Component sub-category 2	Component	DSP	SPX	DSP	SPX	DSP		DSP		DSP			
Meter			1 Channel	1%		1%		1%		1%		1%			
			2 Channel	1%		1%		1%		1%		1%			
			4 Channel	1%		1%		1%		1%		1%			
			8 Channel	2%		1%		2%		2%		2%			
			12 Channel	3%		2%		3%		3%		3%			
			16 Channel	4%		2%		4%		4%		4%			
Miscellaneous	Oscillator		Mono	2%		1%		2%		2%		2%			
	Wav File Player		N.B. A maximum of one Wav file player can be inserted per DME.	1%		1%		1%		1%		1%			
Mixer	Auto Mixer	2 Channel		2%		1%		2%		2%		2%			
		4 Channel		3%		2%		3%		3%		3%			
		8 Channel		5%		3%		5%		5%		5%			
		12 Channel		7%		4%		7%		7%		7%			
		16 Channel		9%		5%		9%		9%		9%			
		8 Channel		5%		3%		5%		5%		5%			
		16 Channel		8%		4%		8%		8%		8%			
		Auto Mixer II	2 Input		2 Output	3%		2%		3%		3%		3%	
			4 Output		4%		2%		4%		4%		4%		
			8 Output		7%		4%		7%		7%		7%		
	12 Output		10%		5%		10%		10%		10%				
	16 Output		12%		6%		13%		13%		13%				
	4 Input		2 Output	4%		2%		4%		4%		4%			
	4 Output		7%		4%		7%		7%		7%				
	8 Output		13%		7%		13%		13%		13%				
	12 Output		18%		9%		19%		19%		19%				
	16 Output		24%		12%		24%		24%		24%				
	8 Input		2 Output	8%		4%		8%		8%		8%			
	4 Output		14%		7%		14%		14%		14%				
	8 Output		25%		13%		26%		26%		26%				
	12 Output		31%		16%		32%		32%		32%				
	16 Output		40%		20%		42%		42%		42%				
	Matrix Mixer	2 Input		1 Output	2%		1%		2%		2%		2%		
		2 Output		2%		1%		2%		2%		2%			
		4 Input		1 Output	2%		1%		2%		2%		2%		
		2 Output		2%		1%		2%		2%		2%			
		4 Output		2%		1%		2%		2%		2%			
		8 Output		3%		2%		3%		3%		3%			
		16 Output		4%		2%		4%		4%		4%			
		8 Input		1 Output	2%		1%		2%		2%		2%		
		2 Output		2%		1%		2%		2%		2%			
		4 Output		3%		2%		3%		3%		3%			
		8 Output		3%		2%		4%		4%		4%			
		16 Output		5%		3%		6%		6%		6%			
		32 Output		10%		5%		10%		10%		10%			
		12 Input		1 Output	2%		1%		3%		3%		3%		
		2 Output		3%		2%		3%		3%		3%			
		4 Output		3%		2%		3%		3%		3%			
		8 Output		4%		2%		5%		5%		5%			
		12 Output		6%		3%		6%		6%		6%			
		16 Input		1 Output	3%		2%		3%		3%		3%		
		2 Output		3%		2%		3%		3%		3%			
		4 Output		4%		2%		4%		4%		4%			
		8 Output		5%		3%		6%		6%		6%			
		12 Output		7%		4%		8%		8%		8%			
		16 Output		9%		5%		9%		9%		9%			
		32 Output		16%		8%		17%		17%		17%			
		64 Output		Not Available		16%		Not Available		Not Available		Not Available		Not Available	
		24 Input		17%		9%		18%		18%		18%			
		32 Input		16%		8%		17%		17%		17%			
		32 Output		29%		15%		30%		30%		30%			
		64 Output		Not Available		30%		Not Available		Not Available		Not Available		Not Available	
		32 Output		Not Available		30%		Not Available		Not Available		Not Available		Not Available	
		64 Output		Not Available		56%		Not Available		Not Available		Not Available		Not Available	
						N.B. A 64-input Matrix Mixer cannot be included simultaneously with any other components.									
		Simple Mixer		16 Channel		11%		6%		12%		12%		12%	
				24 Channel		16%		8%		17%		17%		17%	
		Pan	LCR	1 Channel		1%		1%		1%		1%		1%	
				2 Channel		1%		1%		1%		1%		1%	
				4 Channel		1%		1%		1%		1%		1%	
				8 Channel		2%		1%		2%		2%		2%	
				12 Channel		3%		2%		3%		3%		3%	
	16 Channel			4%		2%		4%		4%		4%			
	LR		1 Channel		1%		1%		1%		1%		1%		
			2 Channel		1%		1%		1%		1%		1%		
			4 Channel		1%		1%		1%		1%		1%		
			8 Channel		2%		1%		2%		2%		2%		
			12 Channel		2%		1%		2%		2%		2%		
			16 Channel		3%		2%		3%		3%		3%		
	Surround		3-1		1%		1%		1%		1%		1%		
			5.1		1%		1%		1%		1%		1%		
			6.1		1%		1%		1%		1%		1%		
	Room Combiner		Mono		4 Room	2%		1%		2%		2%		2%	
					8 Room	3%		2%		4%		4%		4%	
		12 Room			6%		3%		6%		6%		6%		
		16 Room			9%		5%		9%		9%		9%		
		24 Room			17%		9%		18%		18%		18%		
		Stereo		4 Room	3%		2%		4%		4%		4%		
				8 Room	9%		5%		9%		9%		9%		
				12 Room	17%		9%		18%		18%		18%		
				16 Room	29%		15%		30%		30%		30%		

