VTC Digital Signal Processor Settings - EL210 / ELS212

The gain and limiter threshold values in the table are for power amplifiers with a gain of 32dB. The gain and limiter threshold values in the table must change if amplifiers with a different gain are used. If an amplifier's gain is 28dB, there is a 32 - 28 = 4dB difference in gain. Therefore the DLMS4080 limiter setting would INCREASE by 4dB.

Note: If the amplifiers used are in bridge mode, the amplifier gain increases by 6dB. A 32dB gain amplifier when in bridge mode will have a gain of 38dB, therefore a 6dB DECREASE in limiter setting is required.

Processor Model	**DLMS4080**
Speaker Models	**EL210 / ELS212**
Revision Date	**October 6, 2009**

Bi-Amp Full Range	**EL210**	
Output	**Low**	**Hi**
Output Gain	Plus 3.5 dB	Plus 1.5 dB
Delay and Polarity		
Output Delay	0.0ms	.312ms
Polarity	Normal	Normal
Crossover		
HP Resp. Shape	LR 24	BUT 18
HP Frequency	45 Hz	950 Hz
LP Resp. Shape	LR 24	-
LP Frequency	1000 Hz	-
EQ		
Output EQ1 Type	PEQ	PEQ
Output EQ1 Frequency	60 Hz	1000 Hz
Output EQ1 +/-	Plus 4.5 dB	Minus 8 dB
Output EQ1 Bandwidth	0.25 oct/Q=5.7	0.35 oct/Q=4.1
Output EQ2 Type	PEQ	PEQ
Output EQ2 Frequency	267 Hz	1603 Hz
Output EQ2 +/-	Minus 4.5 dB	Minus 12.75 dB
Output EQ2 Bandwidth	0.5 oct/Q=2.8	0.8 oct/Q=1.7
Output EQ3 Type	PEQ	PEQ
Output EQ3 Frequency	341 Hz	4000 Hz
Output EQ3 +/-	Minus 5 dB	Minus 13 dB
Output EQ3 Bandwidth	0.75 oct/Q=1.9	0.7 oct/Q=2
Output EQ4 Type	PEQ	PEQ
Output EQ4 Frequency	649 Hz	6490 Hz
Output EQ4 +/-	Minus 11 dB	Minus 4.75 dB
Output EQ4 Bandwidth	0.45 oct/Q=3.2	0.15 oct/Q=9.6
Output EQ5 Type	PEQ	PEQ
Output EQ5 Frequency	784 Hz	14000 Hz
Output EQ5 +/-	Plus 6 dB	Plus 8 dB
Output EQ5 Bandwidth	0.2 oct/Q=7.2	0.30 oct/Q=4.8
Output Limiter		
Threshold	Plus 3.5dBu	Plus 2dBu
Attack	4.0ms	.3ms
Release	8X	16X

Bi-Amp With ELS212 Sub	**EL210**	
Output	**Low**	**Hi**
Output Gain	Plus 3.5 dB	Plus 0.5 dB
Delay and Polarity		
Output Delay	5.5ms	5.812ms
Polarity	Normal	Normal
Crossover		
HP Resp. Shape	LR 24	BUT 18
HP Frequency	100 Hz	950 Hz
LP Resp. Shape	LR 24	-
LP Frequency	1000 Hz	-
EQ		
Output EQ1 Type	PEQ	PEQ
Output EQ1 Frequency	-	1000 Hz
Output EQ1 +/-	-	Minus 8 dB
Output EQ1 Bandwidth	-	0.35 oct/Q=4.1
Output EQ2 Type	PEQ	PEQ
Output EQ2 Frequency	267 Hz	1603 Hz
Output EQ2 +/-	Minus 4.5 dB	Minus 12.75 dB
Output EQ2 Bandwidth	0.5 oct/Q=2.8	0.8 oct/Q=1.7
Output EQ3 Type	PEQ	PEQ
Output EQ3 Frequency	341 Hz	4000 Hz
Output EQ3 +/-	Minus 5 dB	Minus 13 dB
Output EQ3 Bandwidth	0.75 oct/Q=1.9	0.7 oct/Q=2
Output EQ4 Type	PEQ	PEQ
Output EQ4 Frequency	649 Hz	6490 Hz
Output EQ4 +/-	Minus 11 dB	Minus 4.75 dB
Output EQ4 Bandwidth	0.45 oct/Q=3.2	0.15 oct/Q=9.6
Output EQ5 Type	PEQ	PEQ
Output EQ5 Frequency	784 Hz	14000 Hz
Output EQ5 +/-	Plus 6 dB	Plus 8 dB
Output EQ5 Bandwidth	0.2 oct/Q=7.2	0.30 oct/Q=4.8
Output Limiter		
Threshold	Plus 10.5dBu	Plus 2dBu
Attack	2.0ms	.3ms
Release	16X	16X

Crossover For Sub	**ELS212**
Output	**Sub**
Output Gain	Plus 7.5 dB
Delay and Polarity	
Output Delay	0.0ms
Polarity	Normal
Crossover	
HP Resp. Shape	LR 24
HP Frequency	30 Hz
LP Resp. Shape	LR 24
LP Frequency	90 Hz
EQ	
Output EQ1 Type	PEQ
Output EQ1 Frequency	47 Hz
Output EQ1 +/-	Plus 3 dB
Output EQ1 Bandwidth	0.21 oct/Q=6.8
Output EQ2 Type	-
Output EQ2 Frequency	-
Output EQ2 +/-	-
Output EQ2 Bandwidth	-
Output EQ3 Type	-
Output EQ3 Frequency	-
Output EQ3 +/-	-
Output EQ3 Bandwidth	-
Output EQ4 Type	-
Output EQ4 Frequency	-
Output EQ4 +/-	-
Output EQ4 Bandwidth	-
Output EQ5 Type	-
Output EQ5 Frequency	-
Output EQ5 +/-	-
Output EQ5 Bandwidth	-
Output Limiter	
Threshold	Plus 5dBu
Attack	4.0ms
Release	8X

VTC Digital Signal Processor Settings - C4

The gain and limiter threshold values in the table are for power amplifiers with a gain of 32dB. The gain and limiter threshold values in the table must change if amplifiers with a different gain are used. If an amplifier's gain is 28dB, there is a 32 - 28 = 4dB difference in gain. Therefore the DLMS4080 limiter setting would INCREASE by 4dB.

Note: If the amplifiers used are in bridge mode, the amplifier gain increases by 6dB. A 32dB gain amplifier when in bridge mode will have a gain of 38dB, therefore a 6dB DECREASE in limiter setting is required.

Processor Model	**DLMS4080**
Speaker Model	**C4**
Revision Date	**October 6, 2009**

Bi-Amp Full Range	**C4 using 32dB gain amplifiers**	
Output	**Low**	**Hi**
Output Gain	Plus 5.5 dB	Plus 1 dB
Delay and Polarity		
Output Delay	0.604ms	0ms
Polarity	Normal	Normal
Crossover		
HP Resp. Shape	LR 24	LR 36
HP Frequency	40 Hz	980 Hz
LP Resp. Shape	LR 24	BUT 6
LP Frequency	1400 Hz	15000 Hz
EQ		
Output EQ1 Type	PEQ	Lo Shelf
Output EQ1 Frequency	60 Hz	7172 Hz
Output EQ1 +/-	Plus 6 dB	Minus 7 dB
Output EQ1 Bandwidth	0.20 oct/Q=7.2	1.12 oct/Q=1.25
Output EQ2 Type	PEQ	PEQ
Output EQ2 Frequency	90 Hz	1580 Hz
Output EQ2 +/-	Plus 2 dB	Minus 3 dB
Output EQ2 Bandwidth	0.15 oct/Q=9.6	0.15 oct/Q=9.6
Output EQ3 Type	PEQ	PEQ
Output EQ3 Frequency	740 Hz	2600 Hz
Output EQ3 +/-	Minus 3 dB	Plus 3 dB
Output EQ3 Bandwidth	0.35 oct/Q=4.1	0.1 oct/Q=14.4
Output EQ4 Type	PEQ	PEQ
Output EQ4 Frequency	0	4500 Hz
Output EQ4 +/-	0	Plus 3 dB
Output EQ4 Bandwidth	0	0.2 oct/Q=7.2
Output EQ5 Type	PEQ	PEQ
Output EQ5 Frequency	0	0
Output EQ5 +/-	0	0
Output EQ5 Bandwidth	0	0
Output Limiter		
Threshold	Plus 12dBu	Minus 11dBu
Attack	4.0ms	.3ms
Release	8X	16X

VTC Digital Signal Processor Settings - N4

The gain and limiter threshold values in the table are for power amplifiers with a gain of 32dB. The gain and limiter threshold values in the table must change if amplifiers with a different gain are used. If an amplifier's gain is 28dB, there is a 32 - 28 = 4dB difference in gain. Therefore the DLMS4080 limiter setting would INCREASE by 4dB.

Note: If the amplifiers used are in bridge mode, the amplifier gain increases by 6dB. A 32dB gain amplifier when in bridge mode will have a gain of 38dB, therefore a 6dB DECREASE in limiter setting is required.

Processor Model	**DLMS4080**
Speaker Model	**N4**
Revision Date	**October 6, 2009**

Bi-Amp Full Range	**N4 using 32dB gain amplifiers**	
Output	**Low**	**Hi**
Output Gain	Plus 8.5 dB	Minus 3.75 dB
Delay and Polarity		
Output Delay	0.270ms	0ms
Polarity	Normal	Normal
Crossover		
HP Resp. Shape	LR 24	But 24
HP Frequency	35 Hz	1060 Hz
LP Resp. Shape	But 24	
LP Frequency	720 Hz	
EQ		
Output EQ1 Type	PEQ	Lo Shelf
Output EQ1 Frequency	55 Hz	4500 Hz
Output EQ1 +/-	Plus 4 dB	Minus 3 dB
Output EQ1 Bandwidth	0.25 oct/Q=5.7	1.36 oct/Q=1.02
Output EQ2 Type	PEQ	PEQ
Output EQ2 Frequency	80 Hz	1400 Hz
Output EQ2 +/-	Plus 3.5 dB	Minus 2.5 dB
Output EQ2 Bandwidth	0.15 oct/Q=9.6	0.13 oct/Q=11.09
Output EQ3 Type	PEQ	PEQ
Output EQ3 Frequency	285 Hz	2200 Hz
Output EQ3 +/-	Minus 7 dB	Minus 2 dB
Output EQ3 Bandwidth	0.30 oct/Q=4.8	0.1 oct/Q=14.4
Output EQ4 Type	PEQ	PEQ
Output EQ4 Frequency	565	7800 Hz
Output EQ4 +/-	Minus 7 dB	Minus 2 dB
Output EQ4 Bandwidth	0.17 oct/Q=8.4	0.13 oct/Q=11.09
Output EQ5 Type	PEQ	PEQ
Output EQ5 Frequency	0	0
Output EQ5 +/-	0	0
Output EQ5 Bandwidth	0	0
Output Limiter		
Threshold	Plus 10dBu	Minus 1dBu
Attack	4.0ms	.3ms
Release	8X	16X