

# GEMINI DMX FUNCTION CHART V2.10

For use with Gemini FW Rev B2 and later. Aug 3, 2018

## CCT Mode (Gemini Set to 8 Bit Mode)

<u>Channel</u>	<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>
Base Chan	0-255	0-100	<b>Dimmer</b>	Base Chan= 1 to 497
Base Chan+1	0-255	0-100	<b>CCT (2700K-6000K)</b>	
Base Chan+2	0-10 11-20 21-119 120-145 146-244 245-255	0-4 4-8 8-47 47-57 47-96 96-100	<b>Green OffSet</b> NO OffSet (0 Green) -100 Green -99 to -1 Green No OffSet (0 Green) +1 to +99 Green +100 Green	
Base Chan+3			<b>Reserved</b>	
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	0 < Val < 42
Base Chan+5	0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>DMX Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)

## HSI Mode (Gemini Set to 8 Bit Mode)

<u>Channel</u>	<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>
Base Chan	0-255	0-100	<b>Dimmer</b>	Base Chan= 1 to 497
Base Chan+1	0-255	0-100	<b>HUE</b> 0 to 359 Degrees	
Base Chan+2	0-255	0-100	<b>Saturation</b> 0 to Full Saturation	
Base Chan+3			<b>Reserved</b>	
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	43 < Val < 85
Base Chan+5	0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>Dmx Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)

## GEL Mode (Gemini Set to 8 Bit Mode)

<u>Channel</u>	<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>		
Base Chan	0-255	0-100	<b>Dimmer</b>	Base Chan= 1 to 497		
Base Chan+1	0-127 128-255	0-50 50-100	<b>CCT (2700K-6000K)</b> Tungsten Source Daylight Source			
Base Chan+2	0-25 26-51 52-76 77-102 103-127 128-153 154-178 179-204 205-229 230-255	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	<b>Gel ID 1's Digit (See GEL ID Chart)</b> 0 1 2 3 4 5 6 7 8 9	GelID#= _ GelID#= _1 GelID#= _2 GelID#= _3 GelID#= _4 GelID#= _5 GelID#= _6 GelID#= _7 GelID#= _8 GELID#= _9		
Base Chan+3	0-25 26-51 52-76 77-102 103-127 128-153 154-178 179-204 205-229 230-255	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	<b>Gel ID 10's Digit (See GEL ID Chart)</b> 0 1 2 3 4 5 6 7 8 9	GelID#= _ GelID#= 1_ GelID#= 2_ GelID#= 3_ GelID#= 4_ GelID#= 5_ GelID#= 6_ GelID#= 7_ GelID#= 8_ GELID#= 9_		
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	86 < Val < 127		
Base Chan+5	0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>DMX Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)		

# RGBW Mode (Gemini Set to 8 Bit Mode)

Channel	Value	%	Function	Notes		
Base Chan	0-255	0-100	<b>Dimmer</b>	Base Chan= 1 to 497		
Base Chan+1	0-255	0-100	<b>CCT (2700K-6000K)</b>			
Base Chan+2	0-255	0-100	<b>White Intens</b>			
Base Chan+3			<b>Red Intens</b>			
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	128 < Val < 170		
Base Chan+5	0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>DMX Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)		
Base Chan+6	0-255	0-100	<b>Green Intens</b>			
Base Chan+7	0-255	0-100	<b>Blue Intens</b>			

## EFFECTS Mode (Gemini Set to 8 Bit Mode)

<u>Channel</u>	<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>		
Base Chan	0-255	0-100	<b>Dimmer</b>	Base Chan= 1 to 497		
Base Chan+1	0-15 16-31 32-47 48-63 64-79 80-95 96-111 112-127 128-143 144-159 160-171 172-255	0-6 6-12 12-19 19-25 25-31 31-37 37-43 44-50 50-56 57-63 63-69 70-100	<b>EFFECTS</b> Emergency Fire Fireworks HUE Burst Lite-ning Paparazzi Party Lites Pulsing Squares Strobe TV/Monitor Reserved			
Base Chan+2	0-255	0-100	<b>DMX EFFECTS PARAMETER 1</b> (See Dmx Effects ParmS below)			
Base Chan+3	0-255	0-100	<b>DMX EFFECTS PARAMETER 2</b> (See Dmx Effects ParmS below)			
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	171 < Val < 212		
Base Chan+5	0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>DMX Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)		
Base Chan+6	0-255	0-100	<b>DMX EFFECTS PARAMETER 3</b> (See Dmx Effects ParmS below)			
Base Chan+7	0-255	0-100	<b>DMX EFFECTS PARAMETER 4</b> (See Dmx Effects ParmS below)			
Base Chan+8	0-255	0-100	<b>DMX EFFECTS PARAMETER 5</b> (See Dmx Effects ParmS below)			

## Presets Trigger Mode (Gemini Set to 8 Bit Mode)

**(Bump "Base Ch+2" Data from 0 to 128+ to Trigger)**

<u>Channel</u>	<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>
Base Chan	0-255	0-100	<b>Dimmer (if changed after preset is triggered)</b>	Preset Dim used unless Board Dimmer changes
Base Chan+1	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 51-66 67-83 84-100	<b>PRESET SELECT</b> Preset # 1 Preset # 2 Preset # 3 Preset # 4 Preset # 5 Preset # 6	Select the Preset # to be triggered
Base Chan+2	0-10 11-127 128-255	0-4 4-50 51-100	<b>Trigger the Preset</b> Preset Trigger Armed No Action Preset Triggered	Bump from 0 to 128+ to trigger the preset that is selected by (Base Ch+1) and (Base Ch+3)
Base Chan+3	0-127 128-191 192-255	0-50 51-75 176-100	<b>FACTORY / USER TYPE SELECT</b> Preset Trigger Disabled Factory Preset Selected User Preset Selected	Select Factory or User Preset
Base Chan+4	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	213 < Val < 255





## Gel Mode (Gemini Set to 16 Bit Mode)

Channel		Value	%	Function	Notes
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	<b>Dimmer</b>	Base Chan= 1 to 497
Base Chan+2		0-127 128-255	0-50 50-100	<b>CCT (2700K-6000K)</b> Tungsten Source Daylight Source	
Base Chan+3				<b>Reserved</b>	
Base Chan+4				<b>Gel ID 1's Digit (See GEL ID Chart)</b>	
		0-25 26-51 52-76 77-102 103-127 128-153 154-178 179-204 205-229 230-255	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	0 1 2 3 4 5 6 7 8 9	GelID#= _ GelID#= _1 GelID#= _2 GelID#= _3 GelID#= _4 GelID#= _5 GelID#= _6 GelID#= _7 GelID#= _8 GELID#= _9
Base Chan+5				<b>Gel ID 10's Digit (See GEL ID Chart)</b>	
		0-25 26-51 52-76 77-102 103-127 128-153 154-178 179-204 205-229 230-255	0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100	0 1 2 3 4 5 6 7 8 9	GelID#= _ GelID#= 1_ GelID#= 2_ GelID#= 3_ GelID#= 4_ GelID#= 5_ GelID#= 6_ GelID#= 7_ GelID#= 8_ GELID#= 9_
Base Chan+6		0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	86 < Val < 127
Base Chan+7		0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>DMX Fan Control</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)



## RGBW Mode (Gemini Set to 16 Bit Mode)

Channel		Value	%	Function	Notes
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	<b>Dimmer</b>	Base Chan= 1 to 497
Base Ch+2	Base Ch+3	0-65535	0-100	<b>CCT (2700K-6000K)</b>	
Base Ch+4	Base Ch+5	0-65535	0-100	<b>White Intensity</b>	
Base Chan+6		0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	128 < Val < 170
Base Chan+7		0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	<b>Fan</b> Fan Auto (Fan On with Power) Fan Delayed (Fan On at Hi Temp) Fan Max (Maximum Speed Fan) Fan Off (Power reduced by 50%)	(Enable/Disable DMX Fan Control Option in Gemini Menu)
Base Ch+8	Base Ch+9	0-65535	0-100	<b>Red Intensity</b>	
Base Ch+10	Base Ch+11	0-65535	0-100	<b>Green Intensity</b>	
Base Ch+12	Base Ch+13	0-65535	0-100	<b>Blue Intensity</b>	



<b>Preset Trigger Mode (Gemini Set to 16 Bit Mode)</b>						
<b>(Bump "Base Ch+2" Data from 0 to 128+ to Trigger)</b>						
Base Chan	0-255	0-100	<b>Dimmer (if changed after preset is triggered)</b>	Preset Dim used unless Board Dimmer changes		
Base Chan+1	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 51-66 67-83 84-100	<b>PRESET SELECT</b> Preset # 1 Preset # 2 Preset # 3 Preset # 4 Preset # 5 Preset # 6	Select the Preset # to be triggered		
Base Chan+2	0-10 11-127 128-255	0-4 4-50 51-100	<b>Trigger the Preset</b> Preset Trigger Armed No Action Preset Triggered	Bump from 0 to 128+ to trigger the preset that is selected by (Base Ch+1) and (Base Ch+3)		
Base Chan+3	0-127 128-191 192-255	0-50 51-75 176-100	<b>FACTORY / USER TYPE SELECT</b> Preset Trigger Disabled Factory Preset Selected User Preset Selected	Select Factory or User Preset		
Base Chan+4			<b>Reserved</b>			
Base Chan+5			<b>Reserved</b>			
Base Chan+6	0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 50-66 67-83 83-100	<b>Mode</b> CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	213 < Val < 255		

# GEL ID CHART

ID#	10's Digit	1's Digit	Gel ID	Gel Description
0	0	0	R01	Light Bastard Amber
1	0	1	R09	Pale Amber Gold
2	0	2	R16	Light Amber
3	0	3	R19	Fire
4	0	4	R20	Medium Amber
5	0	5	R24	Scarlet
6	0	6	R26	Light Red
7	0	7	R31	Salmon Pink
8	0	8	R33	No Color Pink
9	0	9	R36	Medium Pink
10	1	0	R40	Light Salmon
11	1	1	R42	Deep Salmon
12	1	2	R45	Rose
13	1	3	R54	Special Lavender
14	1	4	R57	Lavender
15	1	5	R60	No Color Blue
16	1	6	R63	Pale Blue
17	1	7	R65	Daylight Blue
18	1	8	R67	Light Sky Blue
19	1	9	R68	Parry Sky Blue
20	2	0	R70	Nile blue
21	2	1	R76	Light Green Blue
22	2	2	R77	Green Blue
23	3	3	R80	Primary Blue
24	2	4	R85	Deep Blue
25	2	5	R86	Pea Green
26	2	6	R89	Moss Green
27	2	7	R90	Dark Yellow Green
28	2	8	R95	Medium Blue Green
29	2	9	R99	Chocolate
30	3	0	R355	Pale Violet
31	3	1	R3202	Full CTB
32	3	2	R3204	1/2 CTB
33	3	3	R3208	1/4 CTB
34	3	4	R3304	Tough PlusGreen
35	3	5	R3407	RoscoSun CTO
36	3	6	R3408	RoscoSun 1/2 CTO
37	3	7	R3409	RoscoSun 1/4 CTO
38	3	8	R4330	CalcColor 30 Cyan
39	3	9	R4360	CalcColor 60 Cyan
40	4	0	R4390	CalcColor 90 cyan
41	4	1	L71	Tokyo Blue
42	4	2	L103	Straw
43	4	3	L116	Medium Blue-Green
44	4	4	L147	Apricot
45	4	5	L713	J. Winter Blue
46*	4	6	RE213	White Flame Green
47*	4	7	RE730	Liberty Green
48*	4	8	R3150	Industrial Vapor
49*	4	9	R3152	Urban Vapor
50*	5	0	L650	Industry Sodium
51*	5	1	L651	HI Sodium
52*	5	2	L652	Urban Sodium
53*	5	3	L653	LO Sodium
54*	5	4	L713	Aurora Borealis Green
* Rev B2 FW and Later				

## DMX Effects Parameters (Effects Run in Looped Mode)

EFFECT	PARM1	PARM2	PARM3	PARM4	PARM5
<b>EMERGENCY!</b>	<b># of Pulses</b> 0-20% (0-50) = 1 21-40% (51-101) = 2 41-60% (102-153) = 3 61-80% (154-203) = 4 81-100% (204-255) = 5	<b>Colors</b> 0-13% (0-36) = Blue 14-28% (37-73) = Red 29-42% (74-109) = Amber 43-56% (110-145) = Blue+Red 57-71% (146-181) = Blue+Amber 72-85% (182-217) = Blue+White 86-100% (218-255) = Blue+Red+WH	Reserved	Reserved	Reserved
<b>FIRE</b>	<b>HUE</b> 0%(0) = 0 Deg 100%(255) = 359 Deg	<b>SATuration</b> 0%(0) = No SAT 100%(255) = Full SAT	<b>Rate</b> 0%(0) = Slow 100%(255) = Fast	<b>Depth</b> 0%(0) = Shallow 100%(255) = Deep	<b>Color Mix</b> 0-24% (0-63) = 1 Color 25-49% (64-127) = Narrow 50-74% (128-191) = Medium 75-100% (192-255) = Wide
<b>FIREWORKS</b>	<b>Frequency</b> 0%(0) = Sparse 100%(255) = Frequent	<b>Colors</b> 0-20% (0-50) = RWB 21-40% (51-101) = RGB 41-60% (102-153) = 6 CLR 61-80% (154-203) = 12 CLR 81-100% (204-255) = Random	<b>Decay</b> 0-33% (0-85) = Short 34-66% (86-170) = Med 67-100% (171-255) = Long	Reserved	Reserved
<b>HUE BURST</b>	<b>HUE</b> 0%(0) = 0 Deg 100%(255) = 359 Deg	<b>SATuration</b> 0%(0) = No SAT 100%(255) = Full SAT	<b>Gap Between Pulses</b> 0%(0) = 40mSec 100%(255) = 400mSec	<b>Rest for Loop</b> 0%(0) = 50mSec 100%(255) = 5000mSec	<b>Pulse Qty</b> 0%(0) = 1 100%(255) = 16
<b>Lite-ning</b>	<b>Rate</b> 0%(0) = Slowest 100%(255) = Fastest	<b>CCT</b> 0%(0) = 2700K 100%(255) = 6000K	Reserved	Reserved	Reserved
<b>Paparazzi</b>	<b>Frequency</b> 0%(0) = Sparse 100%(0) = Frequent	<b>CCT</b> 0%(0) = 2700K 100%(255) = 6000K	<b>Flash Type</b> 0-24% = 50mSec 25-49% = 100mSec 50-74% = 150mSec 75-100% Bulb	Reserved	Reserved
<b>Party Lites</b>	<b>Rate</b> 0%(0) = Slowest 100%(255) = Fastest	<b>Type</b> 0-33% (0-85) = Pulsing 34-66% (86-170) = Chase 67-100% (171-255) = Blend	<b>Colors</b> 0-19% (0-50) = Red, WH, Blue 20-39% (51-101) = Red, Green, Blue 40-60% (102-153) = 6 Color 61-79% (154-203) = 12 Color 80-100% (204-255) = Random	Reserved	Reserved
<b>Pulsing</b>	<b>HUE</b> 0%(0) = 0 Deg 100%(255) = 359 Deg	<b>SATuration</b> 0%(0) = No SAT 100%(255) = Full SAT	<b>Ramp Time</b> 0%(0) = Fastest Ramp U/D 100%(255) = Slowest Ramp U/D	<b>On Time</b> 0%(0) = 25mSec 100%(255) = 5000mSec	<b>Rest for Loop</b> 0%(0) = 25mSec 100%(255) = 5000mSec
<b>Squares</b>	<b>HUE</b> 0%(0) = 0 Deg 100%(255) = 359 Deg	<b>SATuration</b> 0%(0) = No SAT 100%(255) = Full SAT	<b>On Time</b> 0%(0) = Fastest Ramp U/D 100%(255) = Slowest Ramp U/D	<b>Off Time</b> 0%(0) = 25mSec 100%(255) = 5000mSec	<b>Bias</b> 0%(0) = 0% Bias 100%(255) = 100% Bias

<b>Strobe</b>	<b>HUE</b> 0%(0) = 0 Deg 100%(255) = 359 Deg	<b>SATuration</b> 0%(0) = No SAT 100%(255) = Full SAT	<b>Freq</b> 0%(0) = 30 RPM 100%(255) = 1000 RPM	<b>Duty Cycle</b> 0%(0) = 0% Duty 100%(255) = 100% Duty	<b>Bias</b> 0%(0) = 0% Bias 100%(255) = 100% Bias
<b>TV / Monitor</b>	<b>Rate</b> 0%(0) = Slowest 100%(255) = Fastest	<b>Motion</b> 0%(0) = Least Motion 100%(255) = Most Motion	<b>RANGE</b> 0-33%(0-85) = Small 34-66%(86-170) = Medium 67-100%(171-255) Large	<b>CCT</b> 0-33%(0-85) = Warm 34-66%(86-170) = Neutral 67-100%(171-255) Cool	Reserved

## Change Log

Dmx chart V2.0- Initial with effects, 8bit, 16bit		
Dmx chart V2.1 Added "Squares" Effect		
Dmx chart V2.2- Added Presets Trigger Mode		
Dmx chart V2.2- Added "Range" Parm to TV Effect		
Dmx chart V2.4- Changed Presets Trig Mode (Trig on different Fader)		
Dmx chart V2.4- Fixed 16-bit CCT Chart		
Dmx chart V2.4-Allow for Dim control after Preset is Triggered		
Dmx chart V2.6- Fixed 8-bit Presets Trig chart (Fan control not used)		
Dmx chart V2.6- Changed Gel Mode (16-bit) CCT data to 1 Byte		
Dmx chart V2.6- Added RGBW Mode throughout		
Dmx chart V2.6- Added Dmx Value Notes to Effects Parameter chart		
Dmx chart V2.7- Fixed Notes for Mode channels		
Dmx chart V2.7- Corrected channel range from 1-499 to 1-497		
Dmx chart V2.7- Changed Strobe max Freq= 1000RPM from 800 RPM		
Dmx chart V2.8- Document formatting changes		
Dmx chart V2.9- Added Gels starting with "White Flame Green"		
Dmx chart V2.10- Added Dmx Fan Cntrl Modes: "Max" and "Delayed"		
Dmx chart V2.11- Fixed Typo page 13. Removed 8-bit designation.		
Dmx chart V2.11- Fixed 16-bit Effects Data range from 0-255 to 0-65535 (Typo Only)		

