

GEMINI DMX FUNCTION CHART V3.0

For use with Gemini 2x1Soft FW Rev B2 and later: Aug 3, 2018

For use with Gemini 1x1 Soft FW Rev A0 and later: March 19, 2019

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	Dimmer	Base Chan= 1 to 497
Base Chan+1	0-255	0-100	CCT (2700K-MAX)	Gemini 2x1: Max= 6000K Gemini 1x1: Max= 10000K
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	Green OffSet NO OffSet (0 Green) -100 Green -99 to -1 Green No OffSet (0 Green) +1 to +99 Green +100 Green	
Base Chan+3			Reserved	
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	Mode 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	DMX Fan Control Fan Auto (Fan On with Full 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	Dimmer	Base Chan= 1 to 497
Base Chan+1	0-255	0-100	HUE 0 to 359 Degrees	
Base Chan+2	0-255	0-100	Saturation 0 to Full Saturation	
Base Chan+3			Reserved	
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	Mode 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	Dmx Fan Control Fan Auto (Fan On with Full 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	Dimmer	Base Chan= 1 to 497
Base Chan+1	0-127 128-255	0-50 50-100	CCT (2700K-6000K) 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	Gel ID 1's Digit (See GEL ID Chart) 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	Gel ID 10's Digit (See GEL ID Chart) 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	Mode 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	DMX Fan Control 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)

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	Dimmer	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	EFFECTS Emergency Fire Fireworks HUE Burst Lite-ning Paparazzi Party Lites Pulsing Squares Strobe TV/Monitor Reserved	
Base Chan+2	0-255	0-100	DMX EFFECTS PARAMETER 1 (See Dmx Effects ParmS below)	
Base Chan+3	0-255	0-100	DMX EFFECTS PARAMETER 2 (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	Mode 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	DMX Fan Control Fan Auto (Fan On with Full 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	DMX EFFECTS PARAMETER 3 (See Dmx Effects ParmS below)	
Base Chan+7	0-255	0-100	DMX EFFECTS PARAMETER 4 (See Dmx Effects ParmS below)	
Base Chan+8	0-255	0-100	DMX EFFECTS PARAMETER 5 (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	Dimmer (if changed after preset is triggered)	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	PRESET SELECT 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	Trigger the Preset 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	FACTORY / USER TYPE SELECT 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	Mode CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	213 < Val < 255

CCT Mode (Gemini Set to 16 Bit Mode)

<u>Channel</u>		<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	Dimmer	Base Chan= 1 to 497
Base Ch+2	Base Ch+3	0-65535	0-100	CCT (2700K-Max)	Gemini 2x1: Max= 6000K Gemini 1x1: Max= 10000K
Base Ch+4	Base Ch+5	0-5000 5001-10000 10001-29999 30000-40000	0-7 8-15 16-46 46-61 61-92 92-100	Green OffSet NO OffSet (0 Green) -100 Green -99 to -1 Green NO OffSet (0 Green) +1 to +99 Green +100 Green	
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	Mode CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	0 < Val < 42
Base Chan+7		0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	DMX Fan Control Fan Auto (Fan On with Full 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 16 Bit Mode)

<u>Channel</u>		<u>Value</u>	<u>%</u>	<u>Function</u>	<u>Notes</u>
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	Dimmer	Base Chan= 1 to 497
Base Ch+2	Base Ch+3	0-65535	0-100	HUE 0 to 360 Degrees	
Base Ch+4	Base Ch+5	0-65535	0-100	Saturation 0 to Full Saturation	
Base Chan+6		0-42 43-85 86-127 128-170 171-212 213-255	0-16 17-33 34-50 51-66 67-83 84-100	Mode CCT HSI GEL RGBW EFFECTS (Loop Mode) PRESETS TRIGGER MODE	43 < Val < 85
Base Chan+7		0-63 64-127 128-191 192-255	0-25 25-50 50-75 75-100	DMX Fan Control Fan Auto (Fan On with Full 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 16 Bit Mode)

Channel		Value	%	Function	Notes
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	Dimmer	Base Chan= 1 to 497
Base Chan+2		0-127 128-255	0-50 50-100	CCT (2700K-6000K) Tungsten Source Daylight Source	
Base Chan+3				Reserved	
Base Chan+4		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	Gel ID 1's Digit (See GEL ID Chart) 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		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	Gel ID 10's Digit (See GEL ID Chart) 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	Mode 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	DMX Fan Control Fan Auto (Fan On with Full 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)

Effects Mode (Gemini Set to 16 Bit Mode)

Channel		Value	%	Function	Notes
Upper	Lower				
Base Ch	Base Ch+1	0-65535	0-100	Dimmer	Base Chan= 1 to 497
Base Chan+2				EFFECTS	
		0-15	0-6	Emergency	
		16-31	6-12	Fire	
		32-47	12-19	Fireworks	
		48-63	19-25	HUE Burst	
		64-79	25-31	Lite-ning	
		80-95	31-37	Paparazzi	
		96-111	37-43	Party Lites	
		112-127	44-50	Pulsing	
		128-143	50-56	Squares	
		144-159	57-63	Strobe	
		160-171	63-69	TV/Monitor	
		172-255	70-100	Reserved	
Base Ch+3	Base Ch+4	0-65535	0-100	DMX EFFECTS PARAMETER 1 (See Dmx Effects Parm below)	
Base Chan+5				Reserved	
Base Chan+6				Mode	171 < Val < 212
		0-42	0-16	CCT	
		43-85	17-33	HSI	
		86-127	34-50	GEL	
		128-170	50-66	RGBW	
		171-212	67-83	EFFECTS (Loop Mode)	
		213-255	83-100	PRESETS TRIGGER MODE	
Base Chan+7				DMX Fan Control	(Enable/Disable DMX Fan Control Option in Gemini Menu)
		0-63	0-25	Fan Auto (Fan On with Full Power)	
		64-127	25-50	Fan Delayed (Fan On at Hi Temp)	
		128-191	50-75	Fan Max (Maximum Speed Fan)	
		192-255	75-100	Fan Off (Power reduced by 50%)	
Base Ch+8	Base Ch+9	0-65535	0-100	DMX EFFECTS PARAMETER 2 (See Dmx Effects Parm below)	
Base Ch+10	Base Ch+11	0-65535	0-100	DMX EFFECTS PARAMETER 3 (See Dmx Effects Parm below)	
Base Ch+12	Base Ch+13	0-65535	0-100	DMX EFFECTS PARAMETER 4 (See Dmx Effects Parm below)	
Base Ch+14	Base Ch+15	0-65535	0-100	DMX EFFECTS PARAMETER 5 (See Dmx Effects Parm below)	

Preset Trigger Mode (Gemini Set to 16 Bit Mode)				
(Bump "Base Ch+2" Data from 0 to 128+ to Trigger)				
Base Chan	0-255	0-100	Dimmer (if changed after preset is triggered)	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	PRESET SELECT 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	Trigger the Preset 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	FACTORY / USER TYPE SELECT Preset Trigger Disabled Factory Preset Selected User Preset Selected	Select Factory or User Preset
Base Chan+4			Reserved	
Base Chan+5			Reserved	
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	Mode 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

* Gemini 2x1 Rev B2 FW and Later

* Gemini 1x1 Reb A0 FW and later

DMX Effects Parameters (Effects Run in Looped Mode)

EFFECT	PARM1	PARM2	PARM3	PARM4	PARM5
EMERGENCY!	# of Pulses 0-20% (0-50) = 1 21-40% (51-101) = 2 41-60% (102-153) = 3 61-80% (154-203) = 4 81-100% (204-255)	Colors 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
FIRE	HUE 0%(0) = 0 Deg 100%(255) = 359 Deg	SATuration 0%(0) = No SAT 100%(255) = Full SAT	Rate 0%(0) = Slow 100%(255) = Fast	Depth 0%(0) = Shallow 100%(255) = Deep	Color Mix 0-24% (0-63) = 1 Color 25-49% (64-127) = Narrow 50-74% (128-191) = Medium 75-100% (192-255) = Wide
FIREWORKS	Frequency 0%(0) = Sparse 100%(255) = Frequent	Colors 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	Decay 0-33% (0-85) = Short 34-66% (86-170) = Med 67-100% (171-255) = Long	Reserved	Reserved
HUE BURST	HUE 0%(0) = 0 Deg 100%(255) = 359 Deg	SATuration 0%(0) = No SAT 100%(255) = Full SAT	Gap Between Pulses 0%(0) = 40mSec 100%(255) = 400mSec	Rest for Loop 0%(0) = 50mSec 100%(255) = 5000mSec	Pulse Qty 0%(0) = 1 100%(255) = 16
Lite-ning	Rate 0%(0) = Slowest 100%(255) = Fastest	CCT 0%(0) = 2700K 100%(255) = 6000K	Reserved	Reserved	Reserved
Paparazzi	Frequency 0%(0) = Sparse 100%(0) = Frequent	CCT 0%(0) = 2700K 100%(255) = 6000K	Flash Type 0-24% = 50mSec 25-49% = 100mSec 50-74% = 150mSec 75-100% Bulb	Reserved	Reserved
Party Lites	Rate 0%(0) = Slowest 100%(255) = Fastest	Type 0-33% (0-85) = Pulsing 34-66% (86-170) = Chase 67-100% (171-255) = Blend	Colors 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
Pulsing	HUE 0%(0) = 0 Deg 100%(255) = 359 Deg	SATuration 0%(0) = No SAT 100%(255) = Full SAT	Ramp Time 0%(0) = Fastest Ramp U/D 100%(255) = Slowest Ramp U/D	On Time 0%(0) = 25mSec 100%(255) = 5000mSec	Rest for Loop 0%(0) = 25mSec 100%(255) = 5000mSec

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)
- Dmx chart V2.12- Fixed typo describing Fan operation
- Dmx chart V3.0- Added Support for Gemini 1x1 CCTMax= 10000K