



QUASAR SCIENCE

RR / R2 LINEAR LIGHTS

DMX Chart

Compatible with 0.6B

The RR/R2 has 3 types of DMX Profiles

1. DMX Standard Profiles
2. DMX Profiles with DMX Control of Built in FX
3. DMX Standard and FX Profiles with Output Channel

When the lamp is in multiple pixel mode, patch additional fixtures of the same profile.

Example: A Q25R2 set to 10 Pixels in Profile 1 (HSIC) would be 5 channels per pixel
 $5 \times 10 = 50$ Channels

DMX Standard Profiles

1. HSIC – 8bit
2. HSIC - 16 bit
3. HSI - 8bit
4. XFade with CC - 8bit
5. XFade - 8 bit
6. CCT & RGB - 8 bit
7. CCT & RGB - 16 bit
8. RGB - 8 bit
13. RGBTD - 8 Bit
14. RGBTD - 16 Bit
15. RGB - 16 Bit
19. xy - 8 Bit
20. xy - 16 Bit
21. xy + Spectrum Control - 8 Bit
22. xy + Spectrum Control - 16 Bit

DMX FX Profiles

For Effects Profiles, the FX parameters are for the entire fixture and come after the Pixel Profiles.

Example: An RR50 set to 20 Pixels in Profile 9 (HSIC+FX) would be 5 channels per pixel Plus 3

FX Channels

5 x 20 = 100

+ 3 FX

103 Channels

DMX Profiles with DMX Control of Built in FX

9. HSIC + FX – 8bit,
10. HSIC + FX - 16 bit
11. CCT & RGB + FX - 8 bit
12. CCT & RGB + FX - 16 bit

Other Tables

+/- Green Table

FX Table

FX Size Table

FX Emergency Light

DMX Profiles Standard and FX with Output Channel

31. HSIC+O – 8bit - (Profile 1)
32. HSIC+O - 16 bit - (Profile 2)
33. HSI+O - 8bit - (Profile 3)
34. XFade with CC+O - 8bit - (Profile 4)
35. XFade+O - 8 bit - (Profile 5)
36. CCT & RGB+O - 8 bit - (Profile 6)
37. CCT & RGB+O - 16 bit - (Profile 7)
38. RGB+O - 8 bit - (Profile 8)
39. HSIC + FX + O – 8bit - (Profile 9)
40. HSIC + FX + O - 16 bit - (Profile 10)
41. CCT & RGB + FX+ O - 8 bit - (Profile 11)
42. CCT & RGB + FX + O- 16 bit - (Profile 12)
43. RGBTD + O - 8 Bit - (Profile 13)
44. RGBTD + O- 16 Bit - (Profile 14)
45. RGB + O - 16 Bit - (Profile 15)

49. xy + O - 8 Bit - (Profile 19)
50. xy + O - 16 Bit - (Profile 20)
51. xy + S + O - 8 Bit - (Profile 21)
52. xy + S + O - 16 Bit - (Profile 22)

DMX Standard Profiles

Profile 1					
<u>HSIC – 8 Bit</u>					
<u>5 DMX Channels Per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
3	+/- Green			SEE GREEN TABLE	0% / 128
4	Hue	0-255	0 to 360	0° to 360°	0
5	Saturation	0-255	0-100	White Light to RGB	0
Profile 2					
<u>HSIC – 16 Bit</u>					
<u>8 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65,535	0-100		0
3	Color Temp	0-255	0-100	1,750K to 10,000K	0
4	+/- Green			SEE GREEN TABLE	0% / 128
5/6	Hue	0-65,535	0 to 360	0° to 360°	0
7/8	Saturation	0-65,535	0-100	White Light to RGB	0
Profile 3					
<u>HSI 8 bit</u>					
<u>3 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage		Default % / DMX
1	Intensity	0-255	0-100		0
2	Hue	0-255	0 to 360	0° to 360°	0
3	Saturation	0-255	0-100	4000K to RGB	0
*The white light value in this mode is 4000K					

Profile 4					
<u>Crossfade & CC - 8 bit</u>					
<u>3 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
3	+/- Green			SEE GREEN TABLE	0% / 128
Profile 5					
<u>Crossfade - 8 bit</u>					
<u>2 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
Profile 6					
<u>CCT & RGB - 8 Bit</u>					
<u>7 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
3	+/- Green			SEE GREEN TABLE	0% / 128
4	Crossfade	0-255	0-100	White Light to RGB	0
5	Red	0-255	0-100		0
6	Green	0-255	0-100		0
7	Blue	0-255	0-100		0

Profile 7					
<u>CCT & RGB – 16 Bit</u>					
<u>9 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65.535	0-100		0
3	Color Temp	0-255	0-100	1,750K to 10,000K	0
4	+/- Green			SEE GREEN TABLE	0% / 128
5/6	Crossfade	0-65,535	0-100	White Light to RGB	0
7	Red	0-255	0-100		0
8	Green	0-255	0-100		0
9	Blue	0-255	0-100		0
Profile 8					
<u>RGB 8 bit</u>					
<u>3 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Red	0-255	0-100		0
2	Green	0-255	0-100		0
3	Blue	0-255	0-100		0
*The white light value in this mode is 4000k					

Profile 13					
<u>RGBTD 8 bit</u>					
<u>5 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Red	0-255	0-100		0
2	Green	0-255	0-100		0
3	Blue	0-255	0-100		0
4	2000k	0-255	0-100		0
5	6000k	0-255	0-100		0

Profile 14					
<u>RGBTD 16 bit</u>					
<u>10 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Red	0-65,535	0-100		0
3/4	Green	0-65,535	0-100		0
5/6	Blue	0-65,535	0-100		0
7/8	2000k	0-65,535	0-100		0
9/10	6000k	0-65,535	0-100		0

Profile 15					
<u>RGB 16 bit</u>					
<u>6 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Red	0-65,535	0-100		0
3/4	Green	0-65,535	0-100		0
5/6	Blue	0-65,535	0-100		0

Profile 19					
<u>xy – 8 Bit</u>					
<u>6 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	X Coordinates	0-255	0-100	0.0 to 0.80	0
3	Y Coordinates	0-255	0-100	0.0 to 0.80	0

Profile 20					
<u>xy – 16 Bit</u>					
<u>6 DMX Channels per Pixel</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65.535	0-100		0
3/4	X Coordinates	0-65.535	0-100	0.0 to 0.80	0
5/6	Y Coordinates	0-65.535	0-100	0.0 to 0.80	0

Profile 21					
<u>xy + S – 8 Bit</u>					
<u>6 DMX Channels per Pixel + 1 Spectrum Channel per Fixture</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	X Coordinates	0-255	0-100	0.0 to 0.80	0
3	Y Coordinates	0-255	0-100	0.0 to 0.80	0
4	Spectrum Control	0-255	0-100	0% RGB to 100% Maximum Spectrum	100/255

xy Profile 22					
<u>xy +S – 16 Bit</u>					
<u>6 DMX Channels per Pixel + 1 Spectrum Channel per Fixture</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65.535	0-100		0
3/4	X Coordinates	0-65.535	0-100	0.0 to 0.80	0
5/6	Y Coordinates	0-65.535	0-100	0.0 to 0.80	0
7	Spectrum Control	0-255	0-100	0% RGB to 100% Maximum Spectrum	100/255

DMX FX Profiles

FX Profile 9					
<u>HSIC+FX – 8 Bit</u>					
5 DMX Channels per Pixel + 3 FX Channels					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
3	+/- Green			SEE GREEN TABLE	0% / 128
4	Hue	0-255	0 to 360	0° to 360°	0
5	Saturation	0-255	0-100	White Light to RGB	0
6	FX			SEE FX TABLE	0
7	FX Rate		0-200%	SEE FX RATE TABLE	100%/128
8	FX Size	0-255	0-100%		0

FX Profile 10					
<u>HSIC+FX – 16 Bit</u>					
8 DMX Channels per Pixel + 3 FX Channels					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65,535	0-100		0
3	Color Temp	0-255	0-100	1,750K to 10,000K	0
4	+/- Green			SEE GREEN TABLE	0% / 128
5/6	Hue	0-65,535	0 to 360	0° to 360°	0
7/8	Saturation	0-65,535	0-100	White Light to RGB	0
9	FX			SEE FX TABLE	0
10	FX Rate		0-200%	SEE FX RATE TABLE	100%/128
11	FX Size	0-255	0-100%		0

FX Profile 11					
<u>CCT & RGB+FX – 8 Bit</u>					
<u>7 DMX Channels per Pixel + 3 FX Channels</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1	Intensity	0-255	0-100		0
2	Color Temp	0-255	0-100	1,750K to 10,000K	0
3	+/- Green			SEE GREEN TABLE	0% / 128
4	Crossfade	0-255	0-100	White Light to RGB	0
5	Red	0-255	0-100		0
6	Green	0-255	0-100		0
7	Blue	0-255	0-100		0
8	FX			SEE FX TABLE	0
9	FX Rate			SEE FX RATE TABLE	100%/128
10	FX Size	0-255	0-100%		0

FX Profile 12					
<u>CCT & RGB + FX – 16 Bit</u>					
<u>9 DMX Channels per Pixel + 3 FX Channels</u>					
Channel	Function	Value	Percentage	Description	Default % / DMX
1/2	Intensity	0-65.535	0-100		0
3	Color Temp	0-255	0-100	1,750K to 10,000K	0
4	+/- Green			SEE GREEN TABLE	0% / 128
5/6	Crossfade	0-65.535	0-100	White Light to RGB	0
7	Red	0-255	0-100		0
8	Green	0-255	0-100		0
9	Blue	0-255	0-100		0
10	FX			SEE FX TABLE	0
11	FX Rate		0-200%	SEE FX RATE TABLE	100%/128
12	FX Size	0-255	0-100%	SEE FX SIZE TABLE	0

Additional DMX Charts

+/- Green Table					
Channel	Function	Value	Percentage	Description	Default % / DMX
Channel #	+/- Green			Plus and Minus Green	Neutral 0% / 128
		0-10	0-4	No Effect	
		11-20	5-8	Full Minus Green	
		21-119	8-46	-99% to -1%	
		120-145	47-57	Neutral 0%	
		146-244	57-96	1% to 99%	
		245-255	96-100	Full Plus Green	

FX Table					
Channel	Function	Value	Percentage	Description	Default % / DMX
Channel #	FX	0 - 27	0 - 10	OFF	
		28 - 39	11 - 15	Rainbow	
		40 - 51	16 - 20	Short Circuit	
		52 - 64	21 - 25	Paparazzi	
		65 - 77	26 - 30	Strobe	
		78 - 90	31 - 35	Fire	
		91 - 102	36 - 40	Emergency Light	

FX Rate Table					
Channel	Function	Value	Percentage	Description	Default % / DMX
11	FX Rate	0-255	0-100		100%/128
		0-10	0-4	No Effect	
		11-20	5-8	0%	
		21-119	8-46	1% to 99%	
		120-145	47-57	100% Default	
		146-244	57-96	101% to 199%	
		245-255	96-100	200%	

EMERGENCY LIGHT HUE PRESET TABLE						
Channel	Function	DMX Value	Hue Angle	Percentage	Description	Default % / DMX
x	Hue	0 - 13	0 - 19	0 - 5	Red & Blue	100%/128
		14 - 26	20 - 38	6 - 10	Blue & Blue	
		27 - 38	39 - 55	11 - 15	Red & Orange	
		39 - 51	56 - 73	16 - 20	Red & White (3200)	
		52 - 64	74 - 91	21 - 25	Red & White (5600)	
		65 - 77	92 - 109	26 - 30	Blue & White (3200)	
		78 - 89	110 - 127	31 - 35	Blue & White (5600)	
		90 - 102	128 - 145	36 - 40	Green & White(3200)	
		103 - 115	146 - 163	41 - 45	Green & White(5600)	
		116 - 128	164 - 181	46 - 50	Orange & White (3200)	
		129 - 140	182 - 199	51 - 55	Orange & White (5600)	
		141 - 153	200 - 217	56 - 60	White & White (3200)	
		154 - 166	218 - 235	61 - 65	White & White (5600)	
		167 - 255	236 - 360	66 - 100	No Effect / Future Use	

FX EMERGENCY LIGHT PATTERNS					
Profiles 9,10,11,12					
Channel	Function	Value	Percentage	Description	Default % / DMX
X	FX Size	0-255	0-100		0/0
		0 - 38	0 - 15	Single	
		39 - 77	16 - 30	Single/Off	
		78 - 115	31 - 45	Double	
		116 - 153	46 - 60	Triple	
		154 - 191	61 - 75	Quad	
		192 - 255	76 - 100	Future Use	

Output Channel Profiles

For each profile, add 1 additional channel to control the Output Mode of the Light

DMX OUTPUT CHANNEL Profiles 31-45					
Channel	Function	Value	Percentage	Description	Default % / DMX
X	Output Mode	0-255	0-100		0/0
		0 - 77	0-30	High	
		78-153	31-60	Normal	
		154-255	61-100	Low	