

Production Switchers

Feature Comparison

CARBONITE Ultra 60

Ultrix **CARBONITE**

Ultrix A · C · U · I · T · Y

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ROSS

PHYSICAL							
ROSS		CARBONITE Ultr ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
	CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12	
Separate Rack Frame & Panel	✓	✓	✓	✓	✓	✓	
Rack Frame Height (RU)	3	2	5	12	5	12	
Rack Frame Width	17.50" (444.5 mm)	17.50" (444.5 mm)	17.50" (444.5 mm)	17.50" (444.5 mm)	17.50" (444.5 mm)	17.50" (444.5 mm)	
Rack Frame Depth	17.50" (444.5 mm)	7.90" (200.66 mm)	7.90" (200.66 mm)	7.90" (200.66 mm)	7.90" (200.66 mm)	7.90" (200.66 mm)	
Rack Frame Weight	20.00 lbs. (9.07 kg.)	12.00 lbs. (5.44 kg.) Blade (approx.) 3 lbs. (1.36 kg.) Ultripower: 10.6 lbs. (4.83 kg.)	14.00 lbs. (6.35 kg.) Blade (approx.) 3 lbs. (1.36 kg.) Ultripower: 10.6 lbs. (4.83 kg.)	76.00 lbs. (34.47 kg.) Blade (approx.) 3 lbs. (1.36 kg.) Ultripower: 10.6 lbs. (4.83 kg.)	Frame: 14.00 lbs. (6.35 kg.) Blade (approx.) 3 lbs. (1.36 kg.) Ultripower: 10.6 lbs. (4.83 kg.)	Frame: 76.00 lbs. (34.47 kg.) Blade (approx.) 3 lbs. (1.36 kg.) Ultripower: 10.6 lbs. (4.83 kg.)	
Maximum SDPE Blades per Chassis	N/A	2	4	16	4	8	
Power Consumption	800W 12VDC (maximum)	See Note			See Note		
Input Power	100 - 120 V, 220 - 240V, 47 - 63 Hz, 1.6 A	See Note			See Note		
		NOTE: Power requirements and consumption dependent on I/O and SDPE blade complement.					
LEGEND:	✓ = Supported ✗ = Unsupported	Specifications subject to change without notice					

PORTS						
ROSS	CARBONITE Ultra ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
	CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
Ethernet Port (Frame)	1	Blades & Chassis	Blades & Chassis	Blades & Chassis	Blades & Chassis	Blades & Chassis
Tally	24	24 per SDPE blade	24 per SDPE blade	24 per SDPE blade	24 per SDPE blade (Up to 96)	24 per SDPE blade (Up to 96)
GPI/O	24	24 per SDPE blade	24 per SDPE blade	24 per SDPE blade	24 per SDPE blade (Up to 96) (I/O Configurable)	24 per SDPE blade (Up to 96) (I/O Configurable)
Serial Ports (Panel)	✗	✗	✗	✗	8	8
Serial Ports (Frame)	✗	1	1	1	1	1
LTC Input	1	1	1	1	1	1
AES Input	✗	✗	✗	✗	✗	✗
AES Output	✗	2	2	2	2 per SDPE blade	2 per SDPE blade
Reference Input	1	1 ²	2 ²	2 ²	2 ²	2 ²
Reference Loop	1 ¹	1 ²	2 ²	2 ²	2 ²	2 ²
Independent Reference Output	1	✗	✗	✗	✗	✗
		¹ Using Reference Output. ² On Ultrix frame				
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SUPPORTED VIDEO STANDARDS								
ROSS		CARBONITE Ultra Λ 60	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y		
		CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12	
		NOTE: Support for SD formats available late 2023						
SD	480i /59.94	✓	✗	✗	✗	✗	✗	
	576i /50	✓	✗	✗	✗	✗	✗	
HD 720p	720p /50	✓	✓	✓	✓	✓	✓	
	720p /59.94	✓	✓	✓	✓	✓	✓	
HD pSF	1080 pSF /23.98	✓	✓	✓	✓	✓	✓	
	1080 pSF /24	✓	✓	✓	✓	✓	✓	
	1080 pSF /25	✓	✓	✓	✓	✗	✗	
	1080 pSF /29.97	✓	✓	✓	✓	✗	✗	
	1080 pSF /30	✓	✓	✓	✓	✓	✓	
HD 1080i	1080i /25	✓	✓	✓	✓	✗	✗	
	1080i /29.97	✓	✓	✓	✓	✗	✗	
	1080i /30	✓	✓	✓	✓	✗	✗	
	1080i /50	✓	✓	✓	✓	✓	✓	
	1080i /59.94	✓	✓	✓	✓	✓	✓	
HD 1080p	1080p /23.98	✓	✓	✓	✓	✗	✗	
	1080p /24	✓	✓	✓	✓	✓	✓	
	1080p /25	✓	✓	✓	✓	✓	✓	
	1080p /29.97	✓	✓	✓	✓	✓	✓	
	1080p /30	✓	✓	✓	✓	✗	✗	
	1080p /50 (Level A)	✓	✓	✓	✓	✓	✓	
	1080p /59.94 (Level A)	✓	✓	✓	✓	✓	✓	
	1080p /60	✓	✓	✓	✓	✓	✓	
UHD 2160p	2160p /23.98	✓	✓	✓	✓	✓	✓	
	2160p /24	✓	✓	✓	✓	✓	✓	
	2160p /25	✓	✓	✓	✓	✓	✓	
	2160p /29.97	✓	✓	✓	✓	✓	✓	
	2160p /30	✓	✓	✓	✓	✓	✓	
	2160p /50	✓	✓	✓	✓	✓	✓	
	2160p /59.94	✓	✓	✓	✓	✓	✓	
	2160p /60	✓	✓	✓	✓	✓	✓	
	Single-Link 12G	✓	✓	✓	✓	✓	✓	
	Quad-Link 2SI, 3G Level A	✓	✓	✓	✓	✓	✓	
LEGEND: ✓ = Supported ✗ = Unsupported		Specifications subject to change without notice						

SDI/HDMI/MADI INPUTS & OUTPUTS						
ROSS	CARBONITE UltrA ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
	CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
	NOTE: Support for SD formats available late 2023					
	SD/HD/UHD	HD/UHD	HD/UHD	HD/UHD	HD/UHD	HD/UHD
SDI Inputs	Up to 60	NOTE: Figures below represent Ultrix Carbonite SDI Inputs <i>and</i> Outputs			NOTE: Figures below represent Ultrix Acuity SDI Inputs <i>and</i> Outputs	
SDI Outputs	Up to 25					
SDI Inputs/Outputs		1 SDPE + 3 HDX-IO	1 SDPE + 8 HDX-IO	1 SDPE + 15 HDX-IO	1 SDPE + 8 HDX-IO	1 SDPE + 15 HDX-IO
		58 ¹	146 ¹	274 ¹	142 ¹	270 ¹
		2 SDPE + 2 HDX-IO	2 SDPE + 7 HDX-IO	2 SDPE + 14 HDX-IO	2 SDPE + 7 HDX-IO	2 SDPE + 14 HDX-IO
		40 ¹	128 ¹	256 ¹	124 ¹	252 ¹
			3 SDPE + 6 HDX-IO	3 SDPE + 13 HDX-IO	3 SDPE + 6 HDX-IO	3 SDPE + 13 HDX-IO
			110 ¹	238 ¹	106 ¹	234 ¹
			4 SDPE + 5 HDX-IO	4 SDPE + 12 HDX-IO	4 SDPE + 5 HDX-IO	4 SDPE + 12 HDX-IO
			92 ¹	220 ¹	88 ¹	216 ¹
				5 SDPE + 11 HDX-IO		5 SDPE + 11 HDX-IO
				202 ¹		198 ¹
		6 SDPE + 10 HDX-IO		6 SDPE + 10 HDX-IO		
		184 ¹		180 ¹		
		7 SDPE + 9 HDX-IO		7 SDPE + 9 HDX-IO		
		166 ¹		162 ¹		
		8 SDPE + 8 HDX-IO		8 SDPE + 8 HDX-IO		
		148 ¹		144 ¹		
		9 SDPE + 7 HDX-IO				
		130 ¹				
		10 SDPE + 6 HDX-IO				
		112 ¹				
		11 SDPE + 5 HDX-IO				
		94 ¹				
		12 SDPE + 4 HDX-IO				
		76 ¹				
		13 SDPE + 3 HDX-IO				
		58 ¹				
		14 SDPE + 2 HDX-IO				
		40 ¹				
		15 SDPE + 1 HDX-IO				
		22 ¹				
HDMI Inputs/Outputs	✗	✓	✓	✓	✓	✓
MADI Audio Inputs/Outputs	64	Ultrix	Ultrix	Ultrix	Ultrix	Ultrix
		¹ Assumes available slots are fully populated with HDX-IO boards, Aux Ports are populated with SDI SFP modules, and dedicated SDPE inputs are fully populated. Note: Each SDPE blade = one (1) Carbonite switcher which can access the router I/O matrix in groups of up to eighteen (18). An additional four (4) SDI inputs and outputs are directly available on the SDPE blade. Mixed I/O board complement will result in different matrix sizes. Contact Ross Video for more details.			² Assumes available slots are fully populated with HDX-IO boards, Aux Ports are populated with SDI SFP modules, and dedicated SDPE inputs are fully populated. Note: Each SDPE blade = one (1) Acuity ME. Acuity MEs can access the router I/O matrix on a bus-by-bus basis. Mixed I/O board complement will result in different matrix sizes. Contact Ross Video for more details.	
		³ Via optional SFP HDMI Aux ports. HDMI input/output count dependent on number of populated SFP cages. Contact Ross Video for more details.				
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IP INPUTS & OUTPUTS																								
ROSS		CARBONITE UltrΛ ⁶⁰			Ultrix CARBONITE									Ultrix A · C · U · I · T · Y										
		CARBONITE ULTRA 60			FR2			FR5			FR12			FR5			FR12							
	NOTE: Support for SD formats available late 2023			NOTE: Figures below represent Ultrix Carbonite IP Inputs and Outputs												NOTE: Figures below represent Ultrix Acuity IP Inputs and Outputs								
	SD/HD/UHD			HD	UHD	UHD	HD	UHD	UHD	HD	UHD	UHD	HD	UHD	UHD	HD	UHD	UHD						
ST-2110 Inputs/Outputs	✗				1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE	1 SDPE						
					2 IP-IO/IPX-IO	2 IP-IO	2 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	15 IP-IO/IPX-IO	15 IP-IO	15 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	15 IP-IO/IPX-IO	15 IP-IO	15 IPX-IO					
					2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7					
					32 + 32 ¹	8 + 8 ¹	16 ¹	127 + 127 ¹	32 + 32 ¹	64 ¹	64 ¹	240 + 240 ¹	60 + 60 ¹	120 ¹	120 ¹	127 + 127 ²	32 + 32 ²	64 ²	64 ²	240 + 240 ²	60 + 60 ²	120 ²		
					2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE	2 SDPE		
					1 IP-IO/IPX-IO	1 IP-IO	1 IPX-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IPX-IO	14 IP-IO/IPX-IO	14 IP-IO	14 IPX-IO	14 IP-IO/IPX-IO	14 IP-IO	14 IPX-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IPX-IO	14 IP-IO/IPX-IO	14 IP-IO	14 IPX-IO		
					2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
					16 + 16 ¹	4 + 4 ¹	8 ¹	8 ¹	111 + 111 ¹	28 + 28 ¹	56 ¹	56 ¹	224 + 224 ¹	56 + 56 ¹	112 ¹	112 ¹	111 + 111 ²	28 + 28 ²	56 ²	56 ²	224 + 224 ²	56 + 56 ²	112 ²	
								3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE	3 SDPE					
								6 IP-IO/IPX-IO	6 IP-IO	6 IPX-IO	13 IP-IO/IPX-IO	13 IP-IO	13 IPX-IO	6 IP-IO/IPX-IO	6 IP-IO	6 IPX-IO	13 IP-IO/IPX-IO	13 IP-IO	13 IPX-IO					
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7					
								95 + 95 ¹	24 + 24 ¹	48 ¹	48 ¹	208 + 208 ¹	52 + 52 ¹	104 ¹	104 ¹	95 + 95 ²	24 + 24 ²	48 ²	48 ²	208 + 208 ²	52 + 52 ²	104 ²		
								4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE	4 SDPE		
								5 IP-IO/IPX-IO	5 IP-IO	5 IPX-IO	12 IP-IO/IPX-IO	12 IP-IO	12 IPX-IO	12 IP-IO/IPX-IO	12 IP-IO	12 IPX-IO	5 IP-IO/IPX-IO	5 IP-IO	5 IPX-IO	12 IP-IO/IPX-IO	12 IP-IO	12 IPX-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								79 + 79 ¹	20 + 20 ¹	40 ¹	40 ¹	192 + 192 ¹	48 + 48 ¹	96 ¹	96 ¹	79 + 79 ²	20 + 20 ²	40 ²	40 ²	192 + 192 ²	48 + 48 ²	96 ²		
								5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE	5 SDPE		
								11 IP-IO/IPX-IO	11 IP-IO	11 IPX-IO	11 IP-IO/IPX-IO	11 IP-IO	11 IPX-IO	11 IP-IO/IPX-IO	11 IP-IO	11 IPX-IO	11 IP-IO/IPX-IO	11 IP-IO	11 IPX-IO	11 IP-IO/IPX-IO	11 IP-IO	11 IPX-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								176 + 176 ¹	44 + 44 ¹	88 ¹	88 ¹	176 + 176 ²	44 + 44 ²	88 ²	88 ²	176 + 176 ²	44 + 44 ²	88 ²	88 ²	176 + 176 ²	44 + 44 ²	88 ²		
								6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	6 SDPE	
								10 IP-IO/IPX-IO	10 IP-IO	10 IPX-IO	10 IP-IO/IPX-IO	10 IP-IO	10 IPX-IO	10 IP-IO/IPX-IO	10 IP-IO	10 IPX-IO	10 IP-IO/IPX-IO	10 IP-IO	10 IPX-IO	10 IP-IO/IPX-IO	10 IP-IO	10 IPX-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								160 + 160 ¹	40 + 40 ¹	80 ¹	80 ¹	160 + 160 ²	40 + 40 ²	80 ²	80 ²	160 + 160 ²	40 + 40 ²	80 ²	80 ²	160 + 160 ²	40 + 40 ²	80 ²		
								7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	7 SDPE	
								9 IP-IO/IPX-IO	9 IP-IO	9 IPX-IO	9 IP-IO/IPX-IO	9 IP-IO	9 IPX-IO	9 IP-IO/IPX-IO	9 IP-IO	9 IPX-IO	9 IP-IO/IPX-IO	9 IP-IO	9 IPX-IO	9 IP-IO/IPX-IO	9 IP-IO	9 IPX-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								144 + 144 ¹	36 + 36 ¹	72 ¹	72 ¹	144 + 144 ²	36 + 36 ²	72 ²	72 ²	144 + 144 ²	36 + 36 ²	72 ²	72 ²	144 + 144 ²	36 + 36 ²	72 ²		
								8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	8 SDPE	
								8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO	8 IP-IO/IPX-IO	8 IP-IO	8 IPX-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								128 + 128 ¹	32 + 32 ¹	64 ¹	64 ¹	128 + 128 ²	32 + 32 ²	64 ²	64 ²	128 + 128 ²	32 + 32 ²	64 ²	64 ²	128 + 128 ²	32 + 32 ²	64 ²		
								9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	9 SDPE	
								7 IP-IO/IPX-IO	7 IP-IO	7 IP-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IP-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IP-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IP-IO	7 IP-IO/IPX-IO	7 IP-IO	7 IP-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								112 + 112 ¹	28 + 28 ¹	56 ¹	56 ¹	112 + 112 ²	28 + 28 ²	56 ²	56 ²	112 + 112 ²	28 + 28 ²	56 ²	56 ²	112 + 112 ²	28 + 28 ²	56 ²		
								10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	10 SDPE	
								6 IP-IO/IPX-IO	6 IP-IO	6 IP-IO	6 IP-IO/IPX-IO	6 IP-IO	6 IP-IO	6 IP-IO/IPX-IO	6 IP-IO	6 IP-IO	6 IP-IO/IPX-IO	6 IP-IO	6 IP-IO	6 IP-IO/IPX-IO	6 IP-IO	6 IP-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								96 + 96 ¹	24 + 24 ¹	48 ¹	48 ¹	96 + 96 ²	24 + 24 ²	48 ²	48 ²	96 + 96 ²	24 + 24 ²	48 ²	48 ²	96 + 96 ²	24 + 24 ²	48 ²		
								11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	11 SDPE	
								5 IP-IO/IPX-IO	5 IP-IO	5 IP-IO	5 IP-IO/IPX-IO	5 IP-IO	5 IP-IO	5 IP-IO/IPX-IO	5 IP-IO	5 IP-IO	5 IP-IO/IPX-IO	5 IP-IO	5 IP-IO	5 IP-IO/IPX-IO	5 IP-IO	5 IP-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								80 + 80 ¹	20 + 20 ¹	40 ¹	40 ¹	80 + 80 ²	20 + 20 ²	40 ²	40 ²	80 + 80 ²	20 + 20 ²	40 ²	40 ²	80 + 80 ²	20 + 20 ²	40 ²		
								12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	12 SDPE	
								4 IP-IO/IPX-IO	4 IP-IO	4 IP-IO	4 IP-IO/IPX-IO	4 IP-IO	4 IP-IO	4 IP-IO/IPX-IO	4 IP-IO	4 IP-IO	4 IP-IO/IPX-IO	4 IP-IO	4 IP-IO	4 IP-IO/IPX-IO	4 IP-IO	4 IP-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								64 + 64 ¹	16 + 16 ¹	32 ¹	32 ¹	64 + 64 ²	16 + 16 ²	32 ²	32 ²	64 + 64 ²	16 + 16 ²	32 ²	32 ²	64 + 64 ²	16 + 16 ²	32 ²		
								13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	13 SDPE	
								3 IP-IO/IPX-IO	3 IP-IO	3 IP-IO	3 IP-IO/IPX-IO	3 IP-IO	3 IP-IO	3 IP-IO/IPX-IO	3 IP-IO	3 IP-IO	3 IP-IO/IPX-IO	3 IP-IO	3 IP-IO	3 IP-IO/IPX-IO	3 IP-IO	3 IP-IO		
								2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7		
								48 + 48 ¹	12 + 12 ¹	24 ¹	24 ¹	48 + 48 ²	12 + 12 ²	24 ²	24 ²	48 + 48 ²	12 + 12 ²	24 ²	24 ²	48 + 48 ²	12 + 12 ²	24 ²		
								14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	14 SDPE	
								2 IP-IO/IPX-IO	2 IP-IO	2 IP-IO	2 IP-IO/IPX-IO	2 IP-IO	2 IP-IO	2 IP-IO/IPX-IO	2 IP-IO	2 IP-IO	2 IP-IO/IPX-IO	2 IP-IO	2 IP-IO	2 IP-IO/IPX-IO	2 IP-IO	2 IP-IO		
						2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7				
						32 + 32 ¹	8 + 8 ¹	16 ¹	16 ¹	32 + 32 ²	8 + 8 ²	16 ²	16 ²	32 + 32 ²	8 + 8 ²	16 ²	16 ²	32 + 32 ²	8 + 8 ²	16 ²				
						15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE	15 SDPE			
						1 IP-IO/IPX-IO	1 IP-IO	1 IP-IO	1 IP-IO/IPX-IO	1 IP-IO	1 IP-IO	1 IP-IO/IPX-IO	1 IP-IO	1 IP-IO	1 IP-IO/IPX-IO	1 IP-IO	1 IP-IO	1 IP-IO/IPX-IO	1 IP-IO	1 IP-IO				
						2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7	2022-6	2022-6	2022-7				
						16 + 16 ¹	4 + 4 ¹	8 ¹	8 ¹	16 + 16 ²	4 + 4 ²	8 ²	8 ²	16 + 16 ²	4 + 4 ²	8 ²	8 ²	16 + 16 ²	4 + 4 ²	8 ²				
				¹ Assumes available slots are fully populated with IP-IO or IPX-IO boards. FR2 frame also contains one fixed SDI I/O board which can provide up to an additional eighteen (18) SDI inputs. Note: Each SDPE blade = one (1) Carbonite switcher which can access the router I/O matrix in groups of up to eighteen (18). An additional four (4) SDI inputs and outputs are directly available on the SDPE blade. Mixed I/O board complement will result in different matrix sizes. Contact Ross Video for more details.														² Assumes available slots are fully populated with IP-IO or IPX-IO boards. Note: Each SDPE blade = one (1) Acuity ME. Acuity MEs can access the router I/O matrix on a bus-by-bus basis. Mixed I/O board complement will result in different matrix sizes. Contact Ross Video for more details.						
LEGEND:	✓ = Supported ✗ = Unsupported	Specifications subject to change without notice																						

FRAME FEATURES (SD/HD)							
ROSS		CARBONITE Ultra60	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
		NOTE: Support for SD formats available late 2023					
		CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
ME Banks		Up to 3	1, 2 or 3 per SDPE Blade	1, 2 or 3 per SDPE Blade	1, 2 or 3 per SDPE Blade	Up to 4	Up to 8
MiniME Banks		4 (Gen 2) ¹	4 (Gen 2) ¹ per SDPE Blade (1 or 2 ME modes only) ²	4 (Gen 2) ¹ per SDPE Blade (1 or 2 ME modes only) ²	4 (Gen 2) ¹ per SDPE Blade (1 or 2 ME modes only) ²	✗	✗
Multifeed PGM		✗	✗	✗	✗	4 PGM, 2 PVW	4 PGM, 2 PVW
Keyers per ME		7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)
Keyers per MiniME		2	2 (1 or 2 ME modes only) ²	2 (1 or 2 ME modes only) ²	2 (1 or 2 ME modes only) ²	✗	✗
2D DVEs		12	12	12	12	14 per ME	14 per ME
DVE Border Y-Perspective		✓	✓	✓	✓	✗	✗
3D DVEs		✗	✗	✗	✗	4 per ME	4 per ME
UltraChrome Chroma Keyers		4	4	4	4	2 per ME	2 per ME
UltraScene Advanced Compositing Engine		4 pairs	4 pairs	4 pairs	4 pairs	✗	✗
Sequencer		5	5	5	5	✗	✗
Portrait Rotation Mode		Up to 15	✗	✗	✗	✗	✗
Custom Control Logic with Visualization View		✗	✗	✗	✗	✓	✓
Input FSFC		Up to 60	Up to 22	Up to 22	Up to 22	✗	✗
Input Frame Syncs		✗	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)
Input Colour Correctors/ Proc Amps		Up to 60	Up to 22	Up to 22	Up to 22	16 per ME	16 per ME
Input SDR <> HDR Conversion		Up to 60	Up to 22	Up to 22	Up to 22	✗	✗
Input Rec 709 <> Rec 2020 Conversion		Up to 60	Up to 22	Up to 22	Up to 22	✗	✗
Output FC		Up to 20	✗	✗	✗	✗	✗
Output SDR <> HDR Conversion		Up to 20	✗	✗	✗	✗	✗
Output Rec 709 <> Rec 2020 Conversion		Up to 20	✗	✗	✗	✗	✗
I/O MultiViewers		Up to 5	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)
Production MultiViewers		2	2	2	2	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)
Global MediaStores		8 x video or video/key	4 x video or video/key	4 x video or video/key	4 x video or video/key	ME MediaStores (video & key) available system-wide	ME MediaStores (video & key) available system-wide
ME MediaStores		✗	✗	✗	✗	4 x video or video/key	4 x video or video/key
Audio MediaStore		MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	2 per ME	2 per ME
MediaStore RAM Capacity		12GB (Shared)	8GB (Shared)	8GB (Shared)	8GB (Shared)	8GB per ME	8GB per ME
		¹ Gen 2 MiniME Banks provide two (2) full-function keyers					
		² MiniMEs not available in 3 ME mode					
LEGEND: ✓ = Supported ✗ = Unsupported		Specifications subject to change without notice					

FRAME FEATURES (SD/HD)							
ROSS		CARBONITE Ultra ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
		NOTE: Support for SD formats available late 2023					
		CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
USB Media Player		✓ ¹	✓ ¹	✓ ¹	✓ ¹	✗	✗
Internal SSD Capacity		1TB (800GB User-accessible)	N/A	N/A	N/A	256GB	256GB
Audio Mixer		✓	Ultrimix	Ultrimix	Ultrimix	Ultrimix	Ultrimix
Audio Aux Mix Re-Entry		✓	✗	✗	✗	✗	✗
Multiple AFV Source Triggers		✓	✗	✗	✗	✗	✗
Memory/Custom Control Export		✓ ²	✓ ²	✓ ²	✓ ²	✗	✗
Dual GPI Events		✓	✓	✓	✓	✗	✗
Frame Simulator (DashBoard)		✓	✓	✓	✓	✓	✓
Ross Platform Manager (RPM) Support		✓	✓	✓	✓	✓	✓
XPression LivcCG		✓	✓	✓	✓	✗	✗
		¹ Supported for certain resolutions, frame rates, and file formats only. Contact Ross Video for specifications					
		² Export function supported for Graphite, Carbonite Ultra, Carbonite Ultra 60, and Ultrix Carbonite only					
LEGEND:	✓ = Supported ✗ = Unsupported						

FRAME FEATURES (UHD)							
ROSS		CARBONITE Ultra ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
		CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
ME Banks		Up to 3	1 or 2 per SDPE Blade	1 or 2 per SDPE Blade	1 or 2 per SDPE Blade	Up to 4	Up to 8
MiniME Banks		2 (Gen 2) ¹	2 (Gen 2) ¹ per SDPE Blade	2 (Gen 2) ¹ per SDPE Blade	2 (Gen 2) ¹ per SDPE Blade	✗	✗
Multifeed PGM		✗	✗	✗	✗	4 PGM, 2 PVW	4 PGM, 2 PVW
Keyers per ME		5 (4 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)	7 (6 Full + 1 Transition Keyer)
Keyers per MiniME		2	2	2	2	✗	✗
2D DVEs		6	6	6	6	6 per ME	6 per ME
DVE Border Y-Perspective		✓	✓	✓	✓	✗	✗
3D DVEs		✗	✗	✗	✗	1 per ME	1 per ME
UltraChrome Chroma Keyers		2	2	2	2	2 per ME	2 per ME
UltraScene Advanced Compositing Engine		✗	✗	✗	✗	✗	✗
Sequencer		5	5	5	5	✗	✗
Portrait Rotation Mode		✗	✗	✗	✗	✗	✗
		¹ Gen 2 MiniME Banks provide two (2) full-function keyers					
LEGEND:	✓ = Supported ✗ = Unsupported	Specifications subject to change without notice					

FRAME FEATURES (UHD)							
ROSS		CARBONITE Ultra ⁶⁰	Ultrix CARBONITE			Ultrix A · C · U · I · T · Y	
	CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12	
Custom Control Logic with Visualization View	✗	✗	✗	✗	✓	✓	
Input FSFC	Up to 40	Up to 4	Up to 4	Up to 4	✗	✗	
Input Frame Syncs	✗	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	All inputs (via Ultrisync Frame Syncs)	
Input Format Conversion	✗	✗	✗	✗	Bus-based 3G --> 12G autoconversion	Bus-based 3G --> 12G autoconversion	
Input Colour Correctors/ Proc Amps	✗	Up to 4	Up to 4	Up to 4	16 per ME	16 per ME	
Floating I/O Colour Correction/Proc Amps	Up to 20	✗	✗	✗	✗	✗	
Input SDR <=> HDR Conversion	Up to 20	Up to 4	Up to 4	Up to 4	✗	✗	
Input Rec 709 <=> Rec 2020 Conversion	Up to 20	Up to 4	Up to 4	Up to 4	✗	✗	
Output FC	Up to 20	✗	✗	✗	✗	✗	
Output SDR <=> HDR Conversion	Up to 20	✗	✗	✗	✗	✗	
Output Rec 709 <=> Rec 2020 Conversion	Up to 20	✗	✗	✗	✗	✗	
I/O MultiViewers	Up to 5	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	
Production MultiViewers	1	1	1	1	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	Ultriscap (Up to 3 per HDB/SFP or 2 per IP blade)	
Global MediaStores	8 x video or video/key	4 x video or video/key	4 x video or video/key	4 x video or video/key	ME Stores (video & key) available system wide	ME Stores (video & key) available system wide	
ME MediaStores	✗	✗	✗	✗	4 x video or video/key	4 x video or video/key	
Audio MediaStore	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	MediaStore 1 & 2	2 per ME	2 per ME	
MediaStore RAM Capacity	12GB (Shared)	8GB (Shared)	8GB (Shared)	8GB (Shared)	8GB per ME	8GB per ME	
USB Media Player	✗	✗	✗	✗	✗	✗	
Internal SSD Capacity	1TB (800GB User-accessible)	N/A	N/A	N/A	256GB	256GB	
Audio Mixer	✓	Ultrimix	Ultrimix	Ultrimix	Ultrimix	Ultrimix	
Audio Aux Mix Re-Entry	✓	✗	✗	✗	✗	✗	
Multiple AFV Source Triggers	✓	✗	✗	✗	✗	✗	
Memory/Custom Control Export	✓ ¹	✓ ¹	✓ ¹	✓ ¹	✗	✗	
Dual GPI Events	✓	✓	✓	✓	✗	✗	
Frame Simulator (DashBoard)	✓	✓	✓	✓	✓	✓	
Ross Platform Manager (RPM) Support	✓	✓	✓	✓	✓	✓	
XPression LivcCG	✓	✓	✓	✓	✗	✗	
		¹ Export function supported for Graphite, Carbonite Ultra, Carbonite Ultra 60, and Ultrix Carbonite only					
LEGEND:	✓ = Supported ✗ = Unsupported	Specifications subject to change without notice					

SUPPORTED PROTOCOLS						
ROSS		CARBONITE Ultra ⁶⁰		Ultrix CARBONITE		Ultrix A · C · U · I · T · Y
	CARBONITE ULTRA 60	FR2	FR5	FR12	FR5	FR12
INBOUND						
RossTalk	✓	✓	✓	✓	✓	✓
OverDrive / Caprica	✓	✓	✓	✓	✓	✓
TSL 3.1	✓	✓	✓	✓	✓	✓
TSL 5.0	✓	✓	✓	✓	✓	✓
GVG 100/110	✓	✓	✓	✓	✓	✓
GVG 200, 4000	✗	✗	✗	✗	✓	✓
OUTBOUND						
Ross Audio Protocol (RAP)	✗	✗	✗	✗	✓	✓
Lawo Ember+ (Audio Consoles)	✗	✗	✗	✗	✓	✓
Lawo____A (Audio Engines)	✗	✗	✗	✗	✓	✓
VDCP	✗	✗	✗	✗	✓	✓
AMP	✓	✓	✓	✓	✓	✓
Betacam / BVW-75	✗	✗	✗	✗	✓	✓
CII	✗	✗	✗	✗	✓	✓
RossTalk	✓	✓	✓	✓	✓	✓
TSL 3.1	✓	✓	✓	✓	✓	✓
TSL 5.0	✓	✓	✓	✓	✓	✓
Contribution Serial Tally	✗	✗	✗	✗	✓	✓
Ross CamBot	✓	✓	✓	✓	✓	✓
Ross Furio	✗	✗	✗	✗	✓	✓
Telemetrys	✗	✗	✗	✗	✓	✓
Visca (Serial)	✓	✓	✓	✓	✓	✓
Visca (Ethernet)	✗	✗	✗	✗	✓	✓
Shotoku	✗	✗	✗	✗	✓	✓
Panasonic	✗	✗	✗	✗	✓	✓
Eagle	✗	✗	✗	✗	✓	✓
Canon BU series	✓	✓	✓	✓	✓	✓
PBUS II	✓	✓	✓	✓	✓	✓
ProBel (SWP-P-08)	✗	✗	✗	✗	✓	✓
GVG NP / 7000	✗	✗	✗	✗	✓	✓
NVISION (NVSP) / NV9000	✗	✗	✗	✗	✓	✓
Quartz / Evertz	✗	✗	✗	✗	✓	✓
LEGEND:	✓ = Supported ✗ = Unsupported	Specifications subject to change without notice				

SUPPORTED CONTROL PANELS				
ROSS		CARBONITE Ultra ⁶⁰	Ultrix CARBONITE	Ultrix A · C · U · I · T · Y
		CARBONITE ULTRA 60	ALL MODELS	ALL MODELS
C10 (CPS-1012)		✗	✗	✗
C1 (CPS-1016)		✗	✗	✗
C1A		✓ ¹	✓ ¹	✗
C1M		✓ ¹	✓ ¹	✗
C2		✓ ¹	✓ ¹	✗
C2M		✓ ¹	✓ ¹	✗
C2S		✓ ¹	✓ ¹	✗
C2X		✓ ¹	✓ ¹	✗
C3S		✓ ¹	✓ ¹	✗
C3X		✓ ¹	✓ ¹	✗
CB9		✓	✓	✗
CB1		✓	✓	✗
CB1S		✓	✓	✗
CB2		✓	✓	✗
CB2S		✓	✓	✗
CB3S		✓	✓	✗
CB3X		✓	✓	✗
A1S/A1SDD		✗	✗	✓
A2M/A2MDD		✗	✗	✓
A2X/A2XDD		✗	✗	✓
A3M/A3MDD		✗	✗	✓
A3/A3DD		✗	✗	✓
A4/A4DD		✗	✗	✓
TD1C		✓	✓	✓
TD1		✓	✓	✓
TD2		✓	✓	✓
TD2S		✓	✓	✓
TD3S		✓	✓	✓
TD3		✓	✓	✓
TD4		✓	✓	✓
		¹ Requires CarboNet Serial - Ethernet Adaptor. Contact Ross Video for details.		
LEGEND: ✓ = Supported ✗ = Unsupported		Specifications subject to change without notice		