

## Specifications

The information in this section is subject to change without notice.

## Switcher Resources

The number of resources specific to your switcher depends on the options installed.

Resource	Carbonite Black Solo/Carbonite Black 109
2D DVE Channels per ME	2
Aux Buses	16
Chroma Keys per ME	1
Custom Controls	256
FSFCs	6
GPI I/Os	24
Keyers per ME	4
Keyers per MiniME™	2
Matte Generators per ME	2
Media-Store Channels	4
Media-Store CACHE	8 GB
Memories per ME	100
MEs (max)	1
MiniME™ Engines	2
MultiScreen Generators	1
MultiViewer Boxes	10
MultiViewer Layouts	23
MultiViewer Heads	1
Pattern Generators per ME	2
Tallies	16
SDI Video Inputs	6
HDMI Video Inputs	3
SDI Video Outputs	5
HDMI Video Outputs	1
Carbonite Black Solo/Carbonite Black 109 IP Address	192.168.0.123
CB9 Control Panel IP Address	192.168.0.129

## Hardware Weights

Hardware	Weight
CB9 Panel	8lbs (3.63kg)

Hardware	Weight
CB-SOLO	11lbs (4.99kg)

## Environmental Characteristics

All Switchers	
Ambient Temperature Range	0 - 40°C (32 - 104°F)
Frame Cooling	Active, Front-to-Back airflow
Control Panel Cooling	Passive

## Video Input Specifications

Input Specification	Value
Equalization (using Belden 1694 cable)	>50m @ 3Gb/s
	>100m @ 1.5 Gb/s
	>300m @ 270 Mb/s (5°-40°C)
Impedance	75 ohms, terminating
Video Inputs, SDI	SMPTE 259M/292M/424M serial digital (non-looping)
Video Inputs, HDMI	HDMI 1.4
	High Speed HDMI Cable (Max 10m)
Reference Inputs (non-terminating, looping)	Standard Definition — analog black
	High Definition — tri-level sync

## Video Output Specifications

Output Specification	Value
Return Loss	<-23dB @ 1.5GHz
	<-18dB @ 3GHz
Rise and Fall Time	800ps ±10% (SD)
	240ps ±10% (HD)
Signal Level	800mV ±10%
DC Offset	0 Volts
Overshoot	<10%
Video Outputs, SDI HD Mode	10-bit SMPTE-292M/424M serial digital
Video Outputs, HDMI	HDMI 1.4
	High Speed HDMI Cable (Max 10m)

## Audio Specifications

Specification	Carbonite Black Solo
Audio Depth	24-bit AES3 in HD (20-bit in SD)
Channels	1 Stereo Pair (2 channels)
Output	AES
File Format	Multi-channel Waveform Audio File (.wav)
Impedance	110 Ohms, differential
Minimum/Maximum output voltage swing	1.5/6V peak-to-peak
Rise and Fall Times	20ns, typical
Sample Rate	48kHz
Synchronization	Locked to Video

## Jitter

Specification	Value
HD - Tri-Level Sync	Alignment (> 100KHz) < 0.2UI
	Timing (<10Hz) < 1.0UI
HD - Composite Reference	Performance not guaranteed with composite reference
SD - Tri-Level Sync	Alignment (> 1KHz) < 0.2UI
	Timing (<10Hz) < 0.2UI
SD - Composite Reference	Alignment (> 1KHz) < 0.2UI
	Timing (<10Hz) < 0.5UI

## System Timing

- All video inputs zero time relative to reference input, auto timing will correct for inputs out of time by up to +/- 0.25 line.
- System delay is less than 1 line.

## Power Consumption

	Carbonite Black Solo	Carbonite Black Solo Frame Only	CB9 Panel
Power	57W 4.75A 12V	45W 3.75A 12V	24W 2A 12V
Input Voltage	100 - 120V~, 220 - 240V~, 47-63Hz, 1.6A		

## Option Summary

Use the available options listed in the following tables for each control panel or frame.

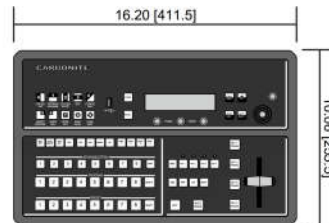
	Carbonite Black Solo	Carbonite Black Solo (frame only)
Carbonite Black Solo	CB-SOLO	CBF-109
Redundant Power	PSU-12V9A-6PIN	PSU-12V9A-6PIN
Extended Warranty, Carbonite Black Solo	CB-SOLO-ROSSCARE	CBF-109-ROSSCARE
<b>Switcher Options</b>		
Desk Mount Kit	CBF-SOLO-DESKMOUNTKIT	
Rack Mount Kit	CBF-SOLO-RACKMOUNTKIT	
DashBoard Display	CBPS-DashMenu	
SHC-9642 SDI to HDMI Converter	SHC-9642	
SideShot	CPS-SideShot	
SMC-9901 Serial to MIDI Converter	SMC-9901	
XPression Live	XDS0-0001-CPS	
<b>Training Options</b>		
Online Operational Training	CARBONITE-ONL-1DAY	
Onsite Commissioning	CARBONITE-COM-1DAY	
Onsite Operational Training	CARBONITE-OTR-1DAY	
Onsite Technical Training	CARBONITE-OTT-1DAY	

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## Dimensions

Dimensions are in inches with metric dimensions shown in brackets [mm].

### Carbonite Black Solo (CB-SOLO/CB9)



### Carbonite Black Solo Frame (CBF-109)

