

Vibrant Datasheet (SCBV2A)

Absolute Maximums						
Parameter				Rating		Unit
Max Device Voltage				36		VDC
Max Device Current	@17VDC			4.2		A
	@28VDC			2.5		A
	@36VDC			2		A
Max Operating Temperature				71		°C
Max Storage Temperature				85		°C
Electrical						
Parameter	Symbol	Min	Typical	Max	Unit	Condition
Operating Voltage	VDC	17	28	36		
Operating Current	IDD		0.875	2.5	A	@28VDC
Bus Controller (BC) Resolution			5			
Remote Terminal (RT) Resolution			5			
Electrical Testing	MIL-STD-704F	Results				
Load Measurement	LDC101	Passed				
Steady State Limits for Voltage	LDC102	Passed				
Voltage Distortion Spectrum	LDC103	Passed				
Normal Voltage Transients	LDC105	Passed				
Power Interrupt	LDC201	Passed				
Abnormal Steady State Limits for Voltage	LDC301	Passed				
Abnormal Voltage Transients (Over/Undervoltage)	LDC302	Passed				
Emergency Limits for Voltage	LDC401	Passed				
Starting Voltage Transients	LDC501	Passed				
Power Failure	LDC601	Passed				
Mechanical						
Parameter	Value		Unit		Limits	
Dimensions (L x W x H)	11 x 5 x 3.5		In		Max	
Weight	6.25		lbs		Max	
J1 Power Cable Connections			DC Power			
J2 Data Cable Connections			MIL-STD-1553, ARINC 429			
J3 Processor Cable Connections			Ethernet, Serial, CAN Bus			
Environmental/Electromagnetic						
Parameter		Symbol	Min	Typical	Max	Unit
Operating Temperature (Ambient)		TA	-40		71	°C
Operating Temperature (Baseplate)		TC			85	°C
Storage Temperature		TSTG	-40		85	°C
Relative Humidity (Non-Condensing)		RH			95%	%
Environmental Testing	MIL-STD-810G	Symbol	Min	Typical	Max	Unit
Altitude	500.5	ALT			60,000	ft
Vibration	514.6					
Functional Shock	516.6				10	g
Crash Hazard Shock	516.6				30	g
Explosive Atmosphere	511.7					
EMC/EMI Testing	MIL-STD-416G	Symbol	Min	Typical	Max	Unit
Audio-Frequency Emissions	CE101					Curve 2
RF Potentials/Noise Voltage	CE102					
Conducted Susceptibility (30Hz-150kHz)	CS101					Curve 2
Conducted Susceptibility (10kHz-200MHz	CS114					Curve 5
Conducted Susceptibility (Impulse Transients)	CS115					
Conducted Susceptibility (Damped Sinusoidal)	CS116					
Electrostatic Discharge (ESD)	CS118					8kV Contact
Radiated Emissions (30Hz-100kHz)	RE101					
Radiated Emissions (10kHz-1GHz)	RE102					Fixed Wing, Internal