AstroNova™
Test & Measurement

Dash 18XR-HS Specifications

Color Display	
Type	Active matrix color LCD (TFT) with 17" viewing area
Resolution	1280 x 1024
Touch	Full screen, resistive
Functions	User interface with touch-based icons and menus; Real-time waveform monitoring; Review previous waveform records while recording; Overlay numeric values in Engineering Units
Interface	
Ethernet	10/100BaseT
Removable media	Removable cartridges for all non-volatile media
VGA	For displaying data on an external monitor
USB 1.1	For external peripherals and file export
Analog Input Boards	
Maximum Boards	3
Maximum Waveforms	18
A/D	14 bit
Standard Event Inputs	
Number of Inputs	8
Connector	D-shell (9-pin)
Input Type	TTL with pull-up (0 to 5VDC)
Response	Detects if duration is greater than 0.01 msec
Real-time Signal Processing	
Filters	Low Pass Stops: 10 Hz to 10,000 Hz; High Pass Starts: 0.1 Hz to 100 Hz; Notch: 50 or 60 Hz center

RMS	Time constant selectable from 0.02 to 2 seconds
Frequency to Voltage	5 Hz to 20 kHz, +/- 0.05% of measurement + 0.1 Hz
Cross-Channel	Sum, Difference, Ratio, Product (Power)
Real-time Signal Testing	
Filters	Low Pass Stops: 10 Hz to 10,000 Hz; High Pass Starts: 0.1 Hz to 100 Hz; Notch: 50 or 60 Hz center
RMS	Time constant selectable from 0.02 to 2 seconds
Frequency to Voltage	5 Hz to 20 kHz, +/- 0.05% of measurement + 0.1 Hz
Cross-Channel	Sum, Difference, Ratio, Product (Power)
Data Capture	
Recording Method	Internal 73 Gbyte hard drive (removable)
Max. Rate	100,000 samples/second per channel (all channels)
Min. Rate	1 sample/minute
Dual Rate	Second slower rate available when no trigger is used
Total Capacity	16 billion samples
Max. Record	2 billion samples
Header	Information on units, range, sample rates, etc. saved with data
Events	All standard event inputs captured with waveforms
Trigger Point Lock	Amounts of pre- and post-trigger is user adjustable
Auto Re-arm	Allows automatic stacking of captures
Auto Playback	Yes
External Sample Rate	TTL sample clock up to 40,000 Hz
Signal Conditioner Specifications (General)	
Channels per Module	6

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Isolation	250 Vrms (iso-common to chassis and other iso-commons)
Bandwidth	12 kHz (-3dB)
Input Coupling	DC
Zero Suppression	Yes
User Engineering Units	Yes
Calibration	Semi-automated to external reference
Single Ended Voltage Input	
Input Type	Isolated, differential
Connector	Guarded banana jack
Max. rated input	+/- 250 Vrms
Max. transient input	+/- 400 V
Specified ranges	40 to 400 VFS; 4 to 40 VFS; 0.4 to 4VFS
Accuracy (25°C)	+/- 0.5% of attenuator
Min. Input Impedance	1 Megohm
Differential Voltage Measurements (use for bridge measurements)	
Input Type	Isolated, single-ended
Connector	Screw terminal header
Absolute Max. Input	+/- 40 V differential
Measuring Ranges	200 to 1600 mVFS; 50 to 500 mVFS; 5 to 50 mVFS
Accuracy (25°C)	+/- 0.5% of attenuator
Min. Input Impedance	200 kOhm
CMR at 60 Hz	> 60dB
Auto Balance	Yes, limited to maximum span

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Thermocouple Measurements	
Input Type	Isolated, differential with screw terminal header connector
Absolute Max. Input	+/- 40 V
Specified Range	Type J: 0 to 760 °C Type K: 0 to 1370 °C Type T: -160 to 400 °C Type E: -100 to 870 °C Type N: 0 to 1300 °C
Accuracy (25°C)	0.5% of measurement + 2 °C
Bandwidth	10 Hz (-3dB)
Intrinsic Noise	0.5 °C (1 Hz filter)
Linearization	NIST polynomial
Units	°C or °F
Excitation	
Connector	Screw terminal header
Excitation	Isolated 10V @ 20 mA
Adjustable	0.1 to 10 V
Frequency Measurements	
Method	Zero-crossing, channels 1, 7 and 13 only
Signal Amplitude	Peak-to-peak minimum is 20% of attenuator
Hysteresis	Yes
Power	
Input Voltage Range	102 to 264VAC
Frequency Range	47 Hz to 63 Hz
Power Consumption	300 W maximum
Physical	

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Enclosure	Aluminum
Dimensions	15.75"H x 19"W x 17.64"D
Weight	29 lbs.
Environmental	
Operating Temp	5 to 40 °C (40 to 105°F)
Non-operating Temperature	-20 to 60 °C (-4 to 140 °F)
Operating Humidity	10% to 90%, non condensing
Optional Chart Recorder - Model SCR-18R	
Chart Width	11"
Max. Chart Speed	50 mm/sec
Dimensions	7"H x 19"W x 11"D

Specifications are subject to change. Registered trademarks belong to their respective companies.

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