Motion Feedback and Simulation PMC Boards

Product Brief



Models: SB-3641/3642/3644



Motion Feedback PMC SB-3641/3642



Motion Simulation PMC SB-3644

DDC's Motion Feedback and Simulation Boards are rugged, air-cooled PMC designs featuring multiple high-accuracy, independent channels and simplified programmability. These cards are versatile enough to begin using in the lab, yet rugged enough to design into embedded applications just by the switch of a carrier card. As boards dedicated to providing highly accurate motion feedback and simulation, there is no need for complex configuration and programming of multiple functions. With the new common Motion Feedback C SDK: plug and play, and start simulating.

Features

Motion Feedback PMC (SB-3641 & SB-3642)

- 4 or 8 Synchro or Resolver input channels each with independent reference input
- Accuracy to 1 arc minute +1 LSB
- Programmable resolution and bandwidth
- Incremental encoder emulation (A Quad B)
- Available for Front I/O only or Front/Rear combination I/O

Motion Simulation PMC Board (SB-3644)

- 4 Synchro/Resolver output channels each with independent reference input
- Accuracy to 1 arc minute
- Programmable dynamic rotation

Additional Features (SB-3642 & SB-3644)

- Programmable two-speed mode
- 4 Discrete Inputs and 4 Discrete Outputs
- Common Motion Feedback library for Windows^B, Linux^B, and LabVIEW^B
- User-friendly Windows® Graphical User Interface
- Voltage scaling for external reference signals, 2V to 120V
- Up to 16 Bit angle resolution
- 😽 RoHS Compliant

Benefits

- Versatile ruggedized board can be used for embedded designs and test systems
- Faster time-to-simulate with new Motion Feedback C Software Development Kit (SDK) based software suite
- Compact single-slot footprint boards effectively use space to include more features
- Efficient operation through enhanced heat management with DDC's custom-designed heat-sinks
- Designed to meet or exceed VITA-47 shock/vib specifications
- One-stop shop: optimize your DDC experience, can use with all synchro/resolver components and synchro booster amplifier
- Peace of mind: no calibration needed
- Made in USA

Applications

- High performance industrial and military position feedback and control systems
- Ship navigation
- Motor control

Need a Custom Solution?

DDC can customize designs for all products, ranging from simple modifications of standard products to fully customized solutions for commercial, military, aerospace, and industrial applications.

For more information: www.ddc-web.com/SB-36410ix | www.ddc-web.com/SB-3642x | www.ddc-web.com/SB-3644x



Machine tool control

Robotics and process

and production test

Engineering development

• Antenna control

control systems

Ordering Information

Motion Feedback PMC with Front I/O*

SB-3642X F X-XAON

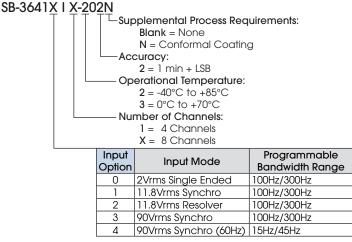
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ΓT	\top \Box \Box Supplemental Process Requirements:					
	N = Acrylic Conformal Coating					
	Operational Temperature (Air Cooled):					
	$2A0 = -40^{\circ}C$ to $+85^{\circ}C$ (Rugged)					
	3A0 = 0°C to +70°C					
	Number of Channels:					
	4 = 4 Channels					
	8 = 8 Channels					
I/O Connector:						
F = Front Connector I/O						
		Input	Input Modo	Programmable		
	Option		Input Mode	Bandwidth Range		
		0	2V Single Ended	80Hz/300Hz		
1		1	11.8Vrms Synchro	80Hz/300Hz		
2 11.8Vrms Resolver			80Hz/300Hz			
3 90Vrms Synchro 80Hz/3				80Hz/300Hz		

90Vrms Synchro (60Hz) 15Hz/45Hz

*Note: Coming Soon! Contact DDC for availability.

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Motion Feedback PMC with Front and Rear I/O



Motion Simulation PMC Board

4

SB-36441 F 0-2A0N

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Supplemental Process Requirements: N = Acrylic Conformal Coating Operational Temperature (Air Cooled): 2A0 = -40°C to +85°C (Rugged) I/O Connector: F = Front Connector I/O Ordering Options:						
Ordering Option	Channel Count	Signal output	Operating Frequency	Accuracy		
1	Λ	0 to 11.8Vrms	360 Hz to	1 arc-		

Synchro/

Resolver

10 kHz

v

minute

Included Software

Board	GUI*	Windows Drivers & Libraries*	Linux Drivers & Libraries
Motion Feedback PMC (SB-3641, SB-3642)	\checkmark	\checkmark	✓
Motion Simulation PMC (SB-3644)	\checkmark	\checkmark	✓

*Note: Coming Soon! Contact DDC for availability.

Software

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Synchro / Resolver LabVIEW [®] Support Package						

Drivers and User API Libraries for Windows[®], Linux[®], and VxWorks[®]



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