# Portable USB Synchro/Resolver Interface Device



## **Product Brief**

Model: SB-3661XUX-3L0

Control

Power



DDC's USB device provides new levels of performance and flexibility for interfacing to Synchro/Resolver systems designed for modern, high performance industrial and military position feedback, control, and test systems.

## **Key Features**

- 2 Input Channels
- BIT Output for Each Channel
- Self Test Mode
- 2-Speed
- Data Logging
- On-Board Programmable Reference Sine Oscillator
- Drivers and API Libraries for Windows<sup>®</sup> XP/Vista/7, and Linux<sup>®</sup>
- Compact Size
  - 6.38 in. x 5.10 in. x 2.17 in. (162 mm x 130 mm x 55.1 mm)

#### **Benefits**

- Fast and Easy Lab Connections
  - Insert Direct Wires into Removable Mating Connectors (Included with Device)
- Powered by an External Off-the-Shelf DC Power Pack
- Compact and Portable

#### Applications

- Lab Testing
  - Motor Control
  - Machine Tool Control
  - Antenna Control
  - Robotics
  - Process Control Systems
  - Valve Control
- Engineering Development and Production Test

#### Need a Custom Solution?

DDC can customize designs for all boards, 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-3661XUX

# Portable USB Synchro/Resolver Interface Device — Overview

# Synchro/Resolver-to-Digital Input Unit

Two independent Synchro/Resolver to Digital conversion channels configurable for 2V to 90V inputs and operate at carrier frequencies in the range of 47 Hz - 10 kHz. Hi and lo bandwidth settings are field programmable. The data is provided as a programmable resolution (10, 12, 14 or 16 bit) USB output, achieving high accuracy (up to 1 arc min). The conversion process uses DDC's field proven RD-19230 series ASICs, providing high reliability results.

## **Reference Oscillator**

The on-board reference oscillator is capable of driving the input channels with a programmable voltage (2 to 32 VAC or 20 to 123 VAC) and frequency range (400 Hz to 10 kHz). The reference oscillator has an output drive capability of up to 2VA max derated to 1 VA at minimum voltage.

#### Software

The Device is fully supported by software drivers and libraries for Windows® XP/Vista/7 and Linux® operating systems. The Windows software includes a graphical user interface which allows the user to control all functionality.

# Ordering Information



#### Included Accessories:

- 1 USB cable
- 1 Universal AC power adapter
- 2 14-pin Mating plug-in connector
- 1 10-pin Mating plug-in connector
- 1 12-pin Mating plug-in connector
- 1 Flat head screwdriver
- 1 Quick reference wiring guide "laminated"
- Synchro/Resolver software CD
- Binary angle card

## Included Software:

SB-36610SX- S/R Test System Software Package

- Operating System:
  - 0 = Windows® XP/VISTA/7

1 = Linux



Since introducing the first synchro converter module in 1968, DDC has taken the lead role in the design and manufacture of modern data conversion products. Written by our expert staff, the Synchro/Resolver Conversion Handbook was the first integrated reference source on synchro/resolver data converters, and has served as a teaching aid for many engineers and operators over the years.

DDC offers a complete line of Synchro/Resolver instrument-grade cards including angle position indicators and simulators, plus a variety of hardware and software to meet today's commercial, military, and COTS/MOTS requirements.

Moreover, DDC is the world's leading supplier of Synchro/ Resolver-to-Digital and Digital-to-Synchro/Resolver components—the smallest, most accurate converters available, and the building blocks for DDC's card-level products. Most of these single chip and hybrid converters are based on custom monolithic designs, yielding the most reliable converters ever offered.

Military and industrial applications include radar, IR, navigation systems, fire control, flight instrumentation/ simulators, motor/motion feedback controls and drives, and robotics systems. MIL-PRF-38534 processing is available on many products.



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