

**IBM PC® COMPATIBLE**  
**6 CHANNEL D/R-D/S CONVERTER CARD**



**DESCRIPTION**

The DSC-36020 is a versatile, full size IBM PC card designed for 1 to 6 channels of Digital-to-Synchro/Resolver conversion. The DSC-36020 uses either the DSC-11520 series hybrid converters for low power applications or the DSC-11524 series converters if higher drive capability is required.

Specific information concerning the hybrid converters can be obtained directly from the associated converter's data sheet. The DSC-36020 circuit card assembly is the interface to mount (plug-in) the hybrid converter components.

All binary angular information needed to control the Digital-to-Synchro/Resolver converters is presented to the DSC-36020 through switch selectable I/O address space. Two bytes of angular

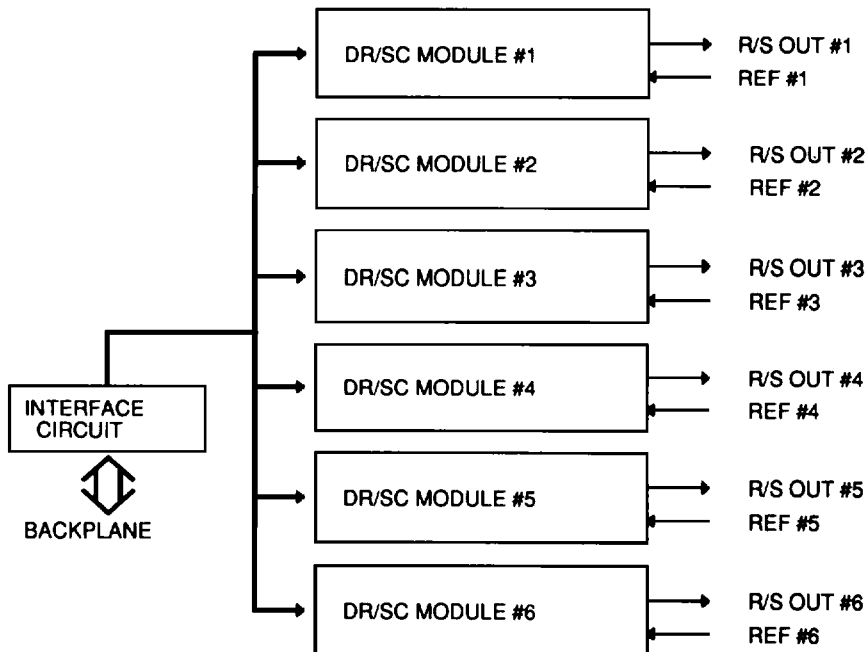
information (16 bits) are required for each converter for a total of 12 bytes of data if all 6 channels of converters are installed on the DSC-36020. Demonstration software displaying the capabilities of the DSC-36020 is available upon request.

**APPLICATIONS**

The multichannel DSC-36020 is designed for use in test systems, high-performance simulation systems, and control systems. With the various hybrid converter selections available for drive and accuracy a mixture of converters can be used to accommodate many applications including motor control, antenna positioning, CNC machine tooling, robot axis control, and process control.

**FEATURES**

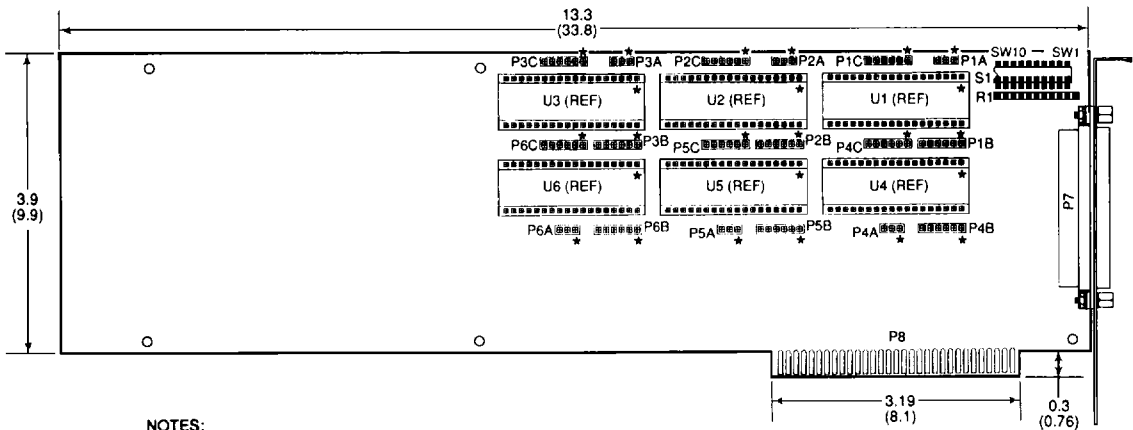
- **1 to 6 Channels**
- **Generates Synchro or Resolver Output Signals**
- **No External Power Supply Required**
- **Accuracy to ±1 Minute of Arc**



**FIGURE 1. DSC-36020 BLOCK DIAGRAM**

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TABLE 1. DSC-36020 SPECIFICATIONS		
<b>HARDWARE REQUIREMENTS</b>		
IBM PC/XT/AT or compatible.		
PARAMETER	UNITS	VALUE
<b>POWER SUPPLY (+5V)</b>		
Current Drain		
■ Without Any Hybrids	mA	285 max
■ With One (1) DSC-11520 Hybrid	mA	430 max
■ With Six (6) DSC-11520 Hybrids	mA	1150 max
■ With One (1) DSC-11524 Hybrid	mA	540 max
■ With Six (6) DSC-11524 Hybrids	mA	1800 max
<b>TEMPERATURE RANGE</b>		
Operating	°C	0 to +50
Storage	°C	-25 to +85
<b>PHYSICAL CHARACTERISTICS</b>		
Size (Full size IBM PC card)	in (cm)	3.9 x 13.3 x 0.44 (9.9 x 33.8 x 1.1)
Note: Specifications for the DSC-11520 and DSC-11524 Series are detailed in the individual data sheets.		



NOTES:  
 THE \*\* DESIGNATED PIN 1 LOCATION.  
 DIMENSIONS ARE IN INCHES (CENTIMETERS).

**FIGURE 2. DSC-36020 MECHANICAL OUTLINE**

**ORDERING INFORMATION**

**CARD ASSEMBLY:**  
 DSC-36020

**CONVERTERS:**  
 DSC-11520  
 DSC-11524

- Notes: 1. The DSC-36020 is a standard, full-size IBM PC/XT/AT card (3.9 x 13.3 x 0.44 inches).  
 2. Converters are ordered separately as listed above and installed by the user. Sockets are included on the DSC-36020.  
 3. Mating connectors are supplied with the DSC-36020. The connectors are part of Positronic's MD 37F 20Y00 kit.

Positronic's address is 423 N. Cambell Ave., Springfield, Missouri 65801

For additional information, please contact the Synchro Applications Group at 516 567-5600 ext. 7413 or 7389.

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