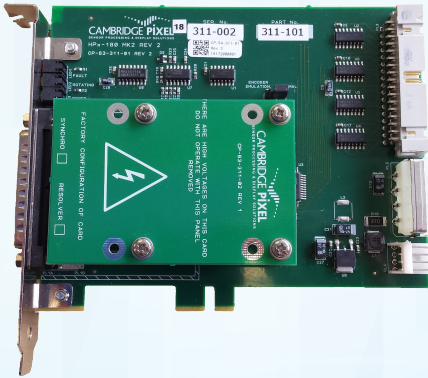


HPx-180

Synchro-Resolver Card



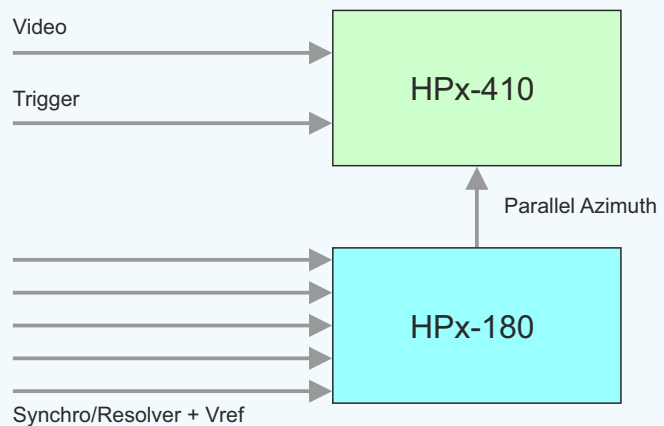
Features:

- PCI/PCIe form factor
- Power from standard PSU connector
- No connection to PCI power/data
- Supports both synchro (3-wire) and resolver (4-wire) input
- Data + strobe parallel azimuth output compatible with HPx-410, HPx-250
- 12-bit resolution (4096 values per rotation)
- Emulated ACP/ARP output for use with legacy systems
- Input frequency DC to 40kHz
- Rotation period 5 rpm to 120 rpm
- Reference voltage 115V (P/N 311-101), 26V (P/N 311-102)
- Synchro/resolver voltage 90V (P/N 311-101), 12V (P/N 311-102)

The HPx-180 Mk2 is a PCI/PCIe form-factor synchro/resolver converter. Designed to interface with most standard synchro and resolver units, the card provides digitisation of the input signals, comparing them with the supplied reference signal to generate a 12-bit resolution parallel azimuth output (data and strobe) as RS-422. This output is compatible with Cambridge Pixel's range of radar input cards including the HPx-400, HPx-410 and HPx-250. The card can also generate emulated ACP and ARP output signals for use with radar input cards that do not accept parallel azimuth (e.g. the HPx-346) or for legacy display systems that expect ACP/ARP radar antenna signals.

The HPx-180 Mk2 supports high voltage and low voltage reference and synchro/resolver inputs, making it suitable for use with a wide variety of installed systems. It is a PCI/PCIe form factor card, but the bus connector is for mechanical location only and does not take power or data from the PCI/PCIe bus. Power to the card is supplied using a standard PC power connector from the computer's power supply unit (either 4-pin Molex connector or 4-pin floppy drive auxiliary connector). All inputs to the card and the emulated ACP/ARP are available on the card's front panel via a D-type connector, while parallel azimuth is supported via an IDC socket. A ribbon cable between the HPx-180 and a radar input card such as the HPx-410 is used to provide parallel azimuth to the input card.

The HPx-180 Mk2 has front panel status indications including power, conversion error (input signals out of specification) and turning (LED turns on/off once per revolution). ■



DATA SHEET



Architecture

Form Factor: PCI/PCIe (less than half length, full height)
Platform: OS independent

Inputs

Synchro: 3 wire + reference
 or
Resolver: 4 wire + reference
 (configurable through hardware links on card)
Vref Reference Voltage: 115 V (Model 311-101)
 26 V (Model 311-102)
Vref Input Frequency: DC to 40 kHz
S1, S2, S3, S4 Signals: 90V (Model 311-101)
 11.8V (Model 311-102)
Rotation Period: 5 rpm to 120 rpm

Outputs

Parallel Azimuth: 12-bit parallel azimuth + strobe.
 Azimuth data is valid on rising edge of strobe.
Signal Type: RS422.
Emulated ACP / ARP: RS422
Resolution: 12 bits.
 (4,096 values per rotation)

Connectors

Front Panel: 25W D Male on card.
Parallel Azimuth: 34W IDC pins on card. Compatible with HPx-200, HPx-200e, HPx-400e and HPx-410 cards. Interconnection cable is supplied with card.
Power: 4-pin peripheral connector ("4-pin Molex")
 4-pin floppy drive connector

Status LEDs

Conversion Error: Red
Power: Green
Conversion Active (MSB azimuth): Yellow

Environmental

Cooling: Forced air cooling
Temperature: 0° to 55°C

Ordering Information

The following versions of the card are available (**note the voltage difference**):

311-101	115V Reference, 90 V signals (Synchro or Resolver inputs)
311-102	26V Reference, 11.8V signals (Synchro or Resolver inputs)

For more information, please contact:



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