



## Multiple Channel Serial Interface Module Model 6065P



- Up to Eight Serial Interface Channels
- Configurable as RS-232, RS-422, RS-423 or RS-485
- 512kBytes of Memory Allocatable to Input and Output Buffers
- Programmable to Any Baud Rate from 1.7 Baud to 125k Baud
- Ideal for Interfacing the VXIbus to Other Peripherals
- Easy SCPI Software Setup and Control

### Re-configurable Serial Interfaces

The Racal Instruments 6065P is available as either an eight channel or four channel module. Each individual channel can be configured under software control to be an RS-232, RS-422, RS-423 or RS-485 interface. Any combination of interface standards can be user configured on the same card without opening the unit.

Software handshaking (XON/XOFF) or hardware handshaking with RTS/CTS is software selectable. Data Terminal

Ready (DTR)/Data Set Ready (DSR) control lines are also provided.

In addition, each individual channel can be looped back on itself at the line driver/receiver level under program control in order to perform a full self test of the Model 6065P.

### Easy Software Control

The Model 6065P is a high performance, message-based module that can accommodate transmitting and receiving on all eight channels simultaneously.

All of the key protocol parameters (baud rate, word length, parity checking, and handshaking) are software programmable on each channel. The baud rate is programmable to standard and custom baud rates up to 125k baud. The 6065P supports baud rates to 38400 with no "dead" time. These configurations can then be stored in non-volatile memory for added flexibility and ease of setup. Device dependent commands meet the Standard Commands for Programmable Instruments (SCPI) specifications.

**Flexible Memory Eases Data Throughput**  
512k Bytes of transmit and receive memory are user allocatable among the eight channels allowing complete flexibility for all interface applications. Transmit buffers can be unloaded under program control in either a repetitive loop mode controlled by an internal timer or in burst mode.

Each receive buffer is supported by a programmable input buffer to prevent overflow conditions.



6065P Soft Front Panel from WIN Framework Driver

### Real-time Operation

The 6065P-4 has been tested in applications requiring simultaneous, multi-channel receiver/transmit operations in real-time. For eight channel real-time applications, it is recommended that two 4-channel modules are used. Real-time operation on all eight channels of 6065P-8 is possible using "block" transmit mode.

## 6065P Specifications

### TRANSMIT AND RECEIVE BUFFER

#### Size

512k Bytes

#### Capacity

256k Characters

#### Configurability of XMIT and RCV Buffers

6065P-4: 2 to 256k Characters allocatable across 4 transmit buffers and 4 receive buffers

6065P-8: 2 to 256k Characters allocatable across 8 transmit buffers and 8 receive buffers

#### Data Formats

ASCII, Hexadecimal and Integer

### SERIAL PORT PARAMETERS

#### Baud Rate

Programmable: 1.7 baud to 125k baud

#### Data Length

5, 6, 7 or 8 bits

#### Receive Jitter Tolerance

4.5%

#### Parity

None, odd, even and mark or space

#### Stop Bits

1, 2

#### Handshaking

Software: XON/XOFF

Hardware: DSR and CTS for output pacing

### MODES OF DATA TRANSMISSION

#### Block Mode

Transmission begins with SCPI command or trigger. Characters are not erased after transmission.

#### Character Mode

Transmission begins immediately. Characters are erased after transmission.

#### Burst Mode

Single burst of characters after a trigger.

#### Timed Mode

Transmission starts with a trigger and repeats at timed intervals

### VXIbus INTERFACE DATA

(Single-slot, C-sized, VXIbus Rev. 1.4)

#### Peak Current & Power Consumption

	+24V	+12V	+5V	-12V	-24V
$I_{Pm}$ (A)	0.2	0.1	2	0.1	0.2
$I_{Dm}$ (mA)	.23	2.0	1.8	2.1	0.4
Total Power: 22 Watts					

#### Weight

2.20 lb (1kg)

#### Software Control

SCPI, IEEE-488.2

#### Drivers

LabVIEW, LabWindows/CVI, VXIplug&play (WIN, WIN95, WIN NT Frameworks)

#### EMC (Council Directive 89/336/EEC)

EN55011, EN50082-1

#### Safety (Low Voltage Directive 73/23/EEC)

EN6010-1, EC1010-1, UL3111-1, CSA 22.2 #1018

**CE** The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

## ORDERING INFORMATION

Model	Description	Part Number
6065P-4 w/512kB	4-Channel Serial Interface Module w/512kB	70-0036-010
6065P-8 w/512kB	8-Channel Serial Interface Module w/512kB	70-0036-011



<http://www.racalinst.com>

