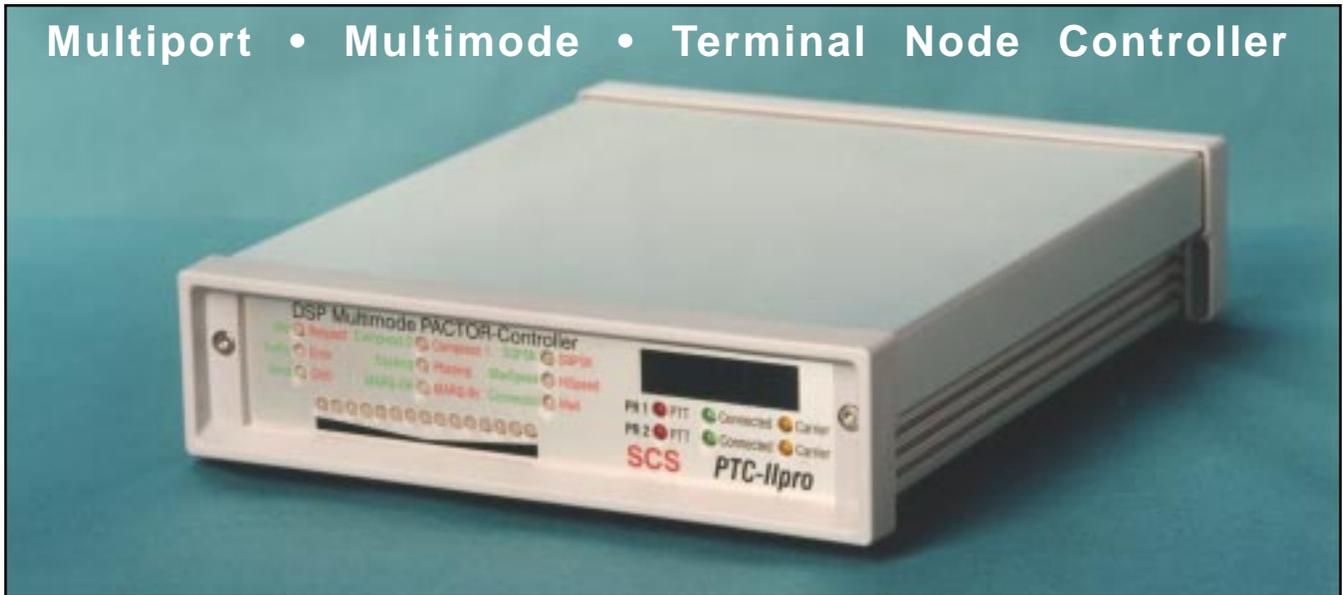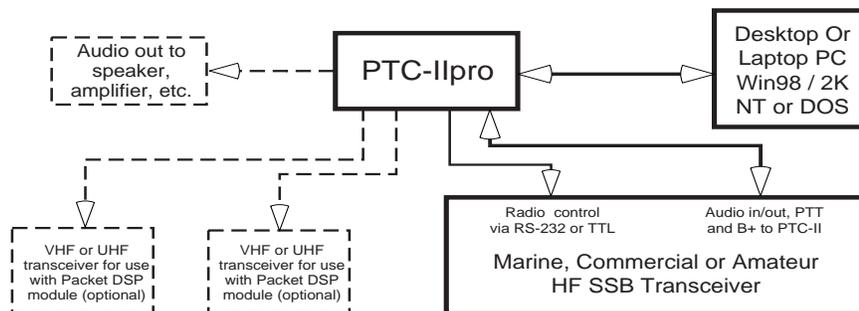# SCS PTC-IIpro Radio Modem
HF / VHF / UHF

Multiport • Multimode • Terminal Node Controller

Fast, full featured and upgradable to PACTOR III. Send email, transfer files, real-time data links. The PTC-IIpro modem from Special Communications Systems is the mulimode data interface between your PC and radio equipment. SCS PTC modems use PACTOR II mode, the industry standard, and most robust digital mode available for radio data connections. The PTC-IIpro will maintain links in conditions with signal to noise ratios of minus 18 dB, transferring data with absolutely inaudible signals.

The Pro comes standard with 2mb of ram for incoming data storage, integrated RS-232 and TTL interface for control of common radios and a temperature compensated crystal oscillator for stability. The Pro incorporates an audio amplifier for output to a speaker or headphones, which allows the Pro's powerful DSP to be used with any audio signal. Built in ability for GPS position reporting. With optional Packet radio modules, the Pro will function as a VHF/UHF modem (up to 19200 baud) and act as a gateway for data between HF and VHF/UHF radios.

Easily installed with compatible radios from **Icom, Kenwood, Yaesu, SGC, SEA, Furuno, R&S** and others. Use the PTC-IIPro with commercial stations worldwide or the international network of Winlink amateur radio operators that support Pactor II. PC software for Windows or DOS.

Audio out to speaker, amplifier, etc. ◁ --- PTC-IIpro ◁----- Desktop Or Laptop PC Win98 / 2K NT or DOS

VHF or UHF transceiver for use with Packet DSP module (optional)

VHF or UHF transceiver for use with Packet DSP module (optional)

Radio control via RS-232 or TTL   Audio in/out, PTT and B+ to PTC-II

Marine, Commercial or Amateur HF SSB Transceiver

Commercial • Government • Amateur • Marine

*T*ECHNICAL

Standard Features of the PTC-IIpro Hardware

Three simultaneously available communication ports: HF and up to two optional VHF/UHF Packet ports.

Transceiver control port for remote operation of Icom, Kenwood, Yaesu, Furuno, R&S and SGC equipment. RS-232, TTL and Icom NMEA formats.

Highly stable temperature-compensated oscillator. Makes your PACTOR connection even more stable!

2 MB of static RAM. Firmware stored in flash memory. Update via RS-232 to a PC.

32 bit system with Motorola RISC 68360 processor, 24 bit Motorola DSP 56303 at 100 MHz (100 MIPS).

Built-in audio amplifier. Connect your favorite speaker and use the PTC-IIpro as audio "denoiser". The volume is controlled by software! The PTC-IIpro is fully usable as a DSP filter for all modes with freely programmable sets of parameters (auto peak, auto notch, passband filter, inversion, delay line, function generator and more).

Equipped for PSK31, FAX (AM, FM, Meteosat), SSTV, CW operation with reception and transmission. Modem tones (mark-space) and shift programmable in 1 Hz steps within all modes.

Built in ability for automatic GPS position reporting.

Built in mailbox with comprehensive features. Common and simultaneous access from all modes (PACTOR I, II, III, AMTOR, PACKET). Mail display at the front panel shows the operator there is new mail.

Battery backup for the clock and CMOS RAM. No mail loss when switched off.

Software controlled power off function. The new OFF command turns the unit off. Any character sent to the PTC-IIpro over the serial interface will switch it on again.

All significant link and controller status are displayed on 15 bi-color LEDs with center function and 10 character dot matrix display on front panel. 10 character display for mode, parameters such as call sign of a connecting station, channel-busy detection and much more.

Comprehensive filtering of all inputs and outputs for excellent electromagnetic compatibility.

HF <--> VHF/UHF gateway and cross band digipeating with comprehensive and automated link establishment features from remote. PACTOR goes PACKET.

Hostmode, extended hostmode, CRC-hostmode. Compatible with most modern PC programs. Integrates with FBB/Winlink networking and mailing systems.

Features of the PACTOR II Mode

Automatic frequency tracking allows the same frequency tolerance as with PACTOR I (+/- 80 Hz).

Newly developed on-line data compression system (PMC) reduces the data transfered by nearly 1/2.

Fully backwards compatible with all known PACTOR I implementations, including automatic mode recognition and selection. The unit always answers in the mode it has been contacted in (PACTOR I, PACTOR II, AMTOR).

Constraint length 9 convolutional coding is used with full frame interleaving and Viterbi decoder combined with very efficient Memory ARQ algorithms.

Automatic transceiver output power adaptation to the quality of the HF link and the required data throughput.

CW operation (RX and TX) with automatic speed adaptation using highly sophisticated DSP algorithms.

Available Options

• Packet Radio, DSP ModuleVHF / UHF, 300 to 19200 baud G3RUH compatible
• Pre-made PTCpro to radio interconnect cables
• GPS data in "Y" cable

Specifications

Dimensions	1.69 H x 6.81 W x 8.07 D inches (43 H x 173 W x 205 D mm)
Weight	25.75 ounces (730g)
Voltage	12 VDC nominal, 15 VDC max
Power	3 to 4 watts depending on options
PC interface	DB9 serial port, 2400 ~ 115200 baud
Audio out	20 to 3000 Mv, 1K ohm impedance
Audio in	10 to 2000 Mv p-p. 47k ohms impedance
Memory	2mb CMOS w/ battery backup
Operating temp	-4 to 122 degrees F -20 to 50 degrees C

Transceiver minimum switching time is 20ms. Check your transceiver for compatibility or contact a dealer.