

www.scs-ptc.com

# **PACTOR-III**

## Proved, Robust, Global

Through extensive circuit optimization and extremely dense component placing, we could develop a compact but still very high performance multimode controller: **the PTC-Illusb.** As successor to the beloved PTCIlusb it is mainly designed for **PACTOR-III**, thus allowing worldwide E-mail traffic via shortwave. It is however also very suitable for all other available modes through its superb performance - e.g. with Packet Radio, RTTY, weather FAX reception or decoding CW.

The PTC-Illusb is software compatible to the PTC-Illusb so that existing software (AirMail, RMS Express, Alpha etc.) can continue to be used. The elegant design as well as the possibility of easy upgrades (free updates!) round out the concept of the most modern PACTOR-III modem from SCS.



### Small but Oh wow!

The **PTC-Illusb** is not only an excellent HF-modem but also a powerful multimode controller. It supports the following modes:
PACTOR-I/III/III, PR, (also RPR), RTTY, CW, PSK31, FAX, SSTV, AMTOR, NAVTEX, APRS-Beacon.

#### **Transceiver control**

You can remote control your transceiver directly from the PTC-Illusb for really comfortable operation. The PTC-Illusb TRX interface is compatible with equipment from Icom, Yaesu, SGC, Kenwood as well as Rohde and Schwarz.

#### Bluetooth compatible?

You wish to minimize the potential for mutual HF interference or ground loops and dispense with the USB connection? No problem. You can operate the PTC-Illusb via the optional Bluetooth module!

### **PACTOR-III** as standard

- Widespread proven technique (Winlink, SailMail etc.)
- Max. 5200 bps net
- High Adaptivity
- High Interference Immunity
- Max 2400 Bandwidth
- Automatic Frequency
  Correction





# **Technical data**

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Operational Modes	
PACTOR-I,II,III:	With PACTOR-III maximum approx. 2700 bps without compression, approx. 5200 bps with PMC-Text compression, 6 "Speedlevels" with automatic adjustment for the actual channel quality, Bandwidth max 2400 Hz, k=9 – convolutional code, Viterbi decoder with soft decision and complex "Memory-ARQ", through which practically inaudible signals can still be decoded. Automatic frequency correction (±80 Hz), automatic transmitter power adjustment is possible.
Packet-Radio:	300, 1200 Bd (A)FSK, 9600, 19200 Bd G3RUH-Direct-FSK, R300/600 Bd Robust-Packet-Radio (RPR), automatic APRS-Beacon
FAX/SSTV:	All usual analogue Modes, including AM-Fax, special JVCOMM32-Mode, very good AirMail/GetFax-support for Weather-Fax
RTTY:	20 – 300 Bd, very good receiving decoder
PSK31:	DBPSK und DQPSK, 31,25 Bd
CW:	Decoder with automatic speed adjustment, CW-transmit-terminal
AMTOR/NAVTEX:	ITU-R M.476-compatible Implementation, NAVTEX-Processor for automatic message storage.

Hardware	
Processors:	Freescale MC68360 32 Bit CPU with 25 MHz clocked, 56303 48 Bit DSP with 100 MHz clocked, 768 kB fast DSP RAM, 2 MB CMOS RAM, 256 kB Flash-ROM for the firmware (Easy updates), common TCXO-time base with 1 ppm accuracy
Connections:	USB (opt. Bluetooth), GPS (RS232 and TTL), Transceiver-Audio/PTT (a common connection for all operational modes), Transceiver remote control (Transceiver types: Icom, Yaesu, Kenwood, SGC, Rohde & Schwarz)
Audio-level/impedances:	Input: max. 2 V p-p, 47 k $\Omega$ , Output: max. 3 V p-p, 1 k $\Omega$
Display:	9 LED's for the display of hardware and operational condition
Power supply:	1020 V, 300 mA (max. at 13,8 V input voltage)
Weight/size:	450 g, 125 x 43 x 138 mm (Width x Height x Depth)



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