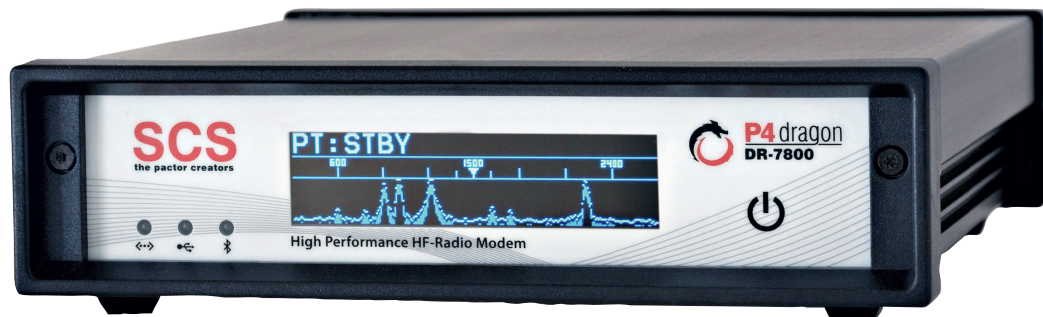# P4 dragon
⇌ !DH7 ⇌J DF C

PACTOR-4

⇌ !DH7 ⇌J DF C

Our brand new HF-modem **P4dragon** is the no com-promise further development of the legendary **PTC-II,** which was designed for professional use and for the ambitioned amateur radio enthusiast. The **IF-PTCIVPRO** has been optimized for use with the new high-end data transmission mode **PACTOR-4.** This offers unexcelled fast and robust data links via shortwave; E-mail almost like at home – from any point on earth.

The **IF-PTCIVPRO** is software compatible to the **PTC-II** series so that existing **PACTOR** software (AirMail, RMS Express, Alpha etc) can continue to be used. The elegant design, and the ex-cellently readable and informative OLED display, as well as the easy upgrade possibilities (free updates!) round up the concept of the most modern short-wave modem from **SCS,** the creators of PACTOR.

Switch plugs and go…
Due to the plug compati-bility of the radio ports, a change from the tried and tested PTC-II technology to the innovative P4dra-gon technology is very easy. Change over the plugs, turn on, and enjoy PACTOR-4!

To the limit
IF-PTCIVPRO means High end in both hard and software. 6.4 Billion arithmetical operations per second, and hand optimized DSP algorithms, enable an unexcelled PACTOR perfor-mance. – Reference class!

P4dragon
The new Ouroboros–Logo is not only a symbol for globe encircling HF-communication. It also symbolizes the many iterative operations, without which **PACTOR-4** could not approach so close to the Shannon boundary.

PACTOR-4
- ↻ Max net speed 10500 bps
- ↻ 2 x faster than P3
- ↻ Backwards compatible
- ↻ 2400 Hz bandwidth
- ↻ Highly adaptive
- ↻ Highly resistant to interference
- ↻ 6 auto notches
- ↻ Adaptive equalizer

🌐 Worldwide   📡))) Wireless   ⇄ Communications

Technical data

PACTOR-4	
Data throughput:	Maximum 5512 bps without compression. Approx 10500 bps with PMC using text. This is reached with approx +16 dB @ 4 khz in an AWGN channel. Under the usual channel conditions **1.5 – 3 times faster than PACTOR-3**
Compatibility:	Strictly **backward compatible to PACTOR-1/-2/-3.** Automatic negotiation during link setup. Noticeably improved reception with PACTOR-2 and PACTOR-3
ARQ protocol:	Synchronized, similar to PACTOR-3, except 10 instead of 6 speed levels ("Waveforms") and faster switching. **Bandwidth always smaller than 2400 Hz.**
Channel equalization:	Iterative **adaptive equalizer** for the coherent speed levels (5 – 10), RAKE receiver with maximum ratio combination for the splayed speed levels (2-4). Real-time multitasking operating system.

⇒ !DH7 ⇒J DF C˙	
Operating modes:	PACTOR-4, PACTOR-3, PACTOR-2, PACTOR-1, weather-FAX (Receive), GPS decoder.
Processor:	Quad core DSP from Freescale, 6400 MIPS, 64 Bit
Connections:	USB, (Opt.: Bluetooth, Ethernet, USB-master), GPS (RS232 and TTL), 2 x radio AF / PTT (Main, Aux, configurable - PTC-II compatible or symmetrical, opt. dual-port operation), 1 x radio-remote control (all usual transceiver types), microphone input, loudspeaker output (2W)
Audio level / imp.:	Input: max 5.5 V p-p, 15 kΩ, output: max. 9 V p-p, 300 Ω
Display:	256 x 64 pixel OLED, blue, high contrast, excellent readability, no viewing angle problems, display of spectrum and much more.
Power supply:	10 – 26 V 400 mA (max at 10 V input)
Weight / size:	770 g, 172 x 43 x 205 mm (width, height and depth)