



P4dragon
DR-7400

www.p4dragon.com

PACTOR-4 **DR-7400**

Our new compact HF-Modem **DR-7400** offers a lower-priced entry to the **p4dragon** modem class. The **DR-7400** has been optimized for use with the new high-end data transmission mode **PACTOR-4**. This allows unparalleled fast and robust data links via shortwave. Email almost like at home – from any point on earth. The **DR-7400** is software compatible to the **PTC-II** series

and to the **DR-7800** so that existing **PACTOR** software (AirMail, RMS Express, Alpha etc) can continued to be used. The elegant design as well as the easy upgrade possibilities (free updates!) complete the concept of the “Little Dragon”. Of course, the **DR-7400** also provides TRX remote control, a GPS input and an (optional) Bluetooth interface.



Switch plugs and go ...

Due to the plug compatibility of the radio ports, a change from the commonly used PTC-II technology to the innovative P4dragon technology is very easy. Change over the plugs, turn on, and enjoy PACTOR-4!

To the limit

DR-7400 means “High end” in both hardware and software. 6.4 Billion arithmetical operations per second, and hand optimized DSP algorithms, enable an unparalleled PACTOR performance. – Reference class!

P4dragon

The Ouroboros logo is not only a symbol for globe encircling HF-communications. 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
- ⊙ 1.5 - 3 x faster than P3
- ⊙ Backwards compatible
- ⊙ 2400 Hz bandwidth
- ⊙ Highly adaptive
- ⊙ Highly resistant to interference
- ⊙ 6 auto notches
- ⊙ Adaptive equalizer



Technical data

www.scs-ptc.com

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:	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.

DR-7400	
Operating modes:	PACTOR-4, PACTOR-3, PACTOR-2, PACTOR-1, weather-FAX (Receive), GPS /RTTY/NAVTEX decoder
Processor:	Quadcore DSP from Freescale, 6400 MIPS, 64 Bit
Connections:	USB (opt. Bluetooth), GPS (RS232 and TTL), radio AF / PTT (PTC-II compatible), radio-remote control (all usual transceiver types)
Audio level/imp:	Input: max 3 V p-p, 47 kΩ, output: max 4.5 V p-p, 1 kΩ, both asymmetrically
Display:	8 dual-color LED's (green, red) indicating all important operating states and signal tuning
Power supply:	10 – 25 V, typically 300 mA, max 400 mA at 10 V supply voltage
Weight / size	450 g, 125 x 43 x 138 mm (width, height and depth)