



P4dragon
DR-7800

www.p4dragon.com

PACTOR-4

DR-7800

Our brand new HF-modem **P4dragon DR-7800** is the no compromise further development of the legendary **PTC-II**, which was designed for professional use and for the ambitious amateur radio enthusiast. The **DR-7800** has been optimized for use with the new high-end data transmission mode **PACTOR-4**. This offers unparalleled fast and robust data links via shortwave. Email almost like at home – from any point on earth.

The **DR-7800** is software compatible to the **PTC-II** series so that existing **PACTOR** software (AirMail, RMS Express, Alpha etc) can continued to be used. The elegant design, and the excellently readable and informative OLED display, as well as the easy upgrade possibilities (free updates!) complete the concept of the most modern short-wave modem from **SCS**, the creators of **PACTOR**.



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-7800 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 new 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

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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-7800	
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 – 28 V 400 mA (max at 10 V input)
Weight / size:	770 g, 172 x 43 x 205 mm (width, height and depth)

