

Summary on **SCS** Waveforms

In practice, on air **SCS** transmitted waveforms are generated by a band-limited audio waveform fed to an **SSB modulator**.

PACTOR 1¹			
Speedlevel	Symbol Rate (sps)	Modulation	ITU Emission Designator
1	100	CPFSK ²	340HJ2D ³
2	200	CPFSK ²	440HJ2D ³

PACTOR 2⁴			
Speedlevel	Symbol Rate (sps)	Modulation	ITU Emission Designator
1	100	DBPSK	450HJ2D
2	100	DQPSK	450HJ2D
3	100	8-DPSK	450HJ2D
4	100	16-DPSK	450HJ2D

PACTOR 3⁵			
Speedlevel	Symbol Rate (sps)	Modulation	ITU Emission Designator
1	100	DBPSK	2K20J2D
2	100	DBPSK	2K20J2D
3	100	DBPSK	2K20J2D
4	100	DQPSK	2K20J2D
5	100	DQPSK	2K20J2D
6	100	DQPSK	2K20J2D

¹ <https://archive.org/details/QEX19812016/QEX%201991/QEX%201991-10/page/n3/mode/2up>

² https://en.wikipedia.org/wiki/Continuous_phase_modulation#Continuous-phase_frequency-shift_keying

³ <https://www.ntia.doc.gov/legacy/osmhome/reports/2010/84-168.pdf> (Page 49)

⁴ <https://www.p4dragon.com/download/PACTOR-2%20Protocol.pdf>

⁵ <https://www.p4dragon.com/download/PACTOR-3%20Protocol.pdf>

PACTOR 4⁶

Speedlevel	Symbol Rate (sps)	Modulation	ITU Emission Designator
1	66,66	DBPSK	2K20J2D
2	1800	DQPSK	2K40J2D
3	1800	DQPSK	2K40J2D
4	1800	DQPSK	2K40J2D
5	1800	BPSK	2K40J2D
6	1800	BPSK	2K40J2D
7	1800	QPSK	2K40J2D
8	1800	8-PSK	2K40J2D
9	1800	16-QAM	2K40J2D
10	1800	32-QAM	2K40J2D

Robust Packet Radio (RPR)⁷

Speedlevel	Symbol Rate (sps)	Modulation	ITU Emission Designator
1	50	DBPSK	480HJ2D
2	50	DQPSK	480HJ2D

SCS

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⁶ <https://www.p4dragon.com/download/PACTOR-4%20Protocol.pdf>

⁷ https://www.p4dragon.com/download/SCS_Manual_DSPTNC_1.7.pdf