06/2021

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 1[1]			
Speedlevel	**Symbol Rate (sps)**	**Modulation**	**ITU Emission Designator**
1	100	CPFSK[2]	340HJ2D[3]
2	200	CPFSK[2]	440HJ2D[3]

PACTOR 2[4]			
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 3[5]			
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 4[6]			
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

Spezielle Communications Systeme GmbH & Co. KG
Röntgenstraße 36
63454 Hanau
GERMANY
Internet: www.p4dragon.com
E-Mail: info@p4dragon.com

Tel.: +49(0)618185 00 00
Fax.: +49(0)618199 02 38

[6] https://www.p4dragon.com/download/PACTOR-4%20Protocol.pdf
[7] https://www.p4dragon.com/download/SCS_Manual_DSPTNC_1.7.pdf