

Digital Emissions - Lowest Permitted Amateur Frequency - Developed by Ed Neustrom KF5RYL (2017 Edition)

Source: *FLDIGI* Users Manual, version 3.23

Lowest Allowable Frequency is the lowest amateur frequency at which this emission may be used

See FCC Part 97.307 limits on symbol rate and bandwidth

PSK

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK31	31.25	160-12m	50	80.00%	31	1-PSK		31HG1B	1	
PSK63	62.5	160-12m	100	80.00%	63	1-PSK		63HG1B	2	
PSK125	125	160-12m	200	80.00%	125	1-PSK		125HG1B	4	
PSK250	250	160-12m	400	80.00%	250	1-PSK		250HG1B	126	
PSK250C6	250	160-12m	2400	80.00%	2000	6-PSK		2000HG1B	263	63
PSK500	500	10m	800	80.00%	500	1-PSK		500HG1B	173	
PSK500C2	500	10m	1600	80.00%	1200	2-PSK		1200HG1B	263	27
PSK500C4	500	10m	3200	80.00%	2600	4-PSK		2600HG1B	263	28
PSK800C2	800	10m	2300	80.00%	1400	2-PSK		2300HGB1	263	57
PSK1000	1000	10m	1600	80.00%	1800	1-PSK		1800HG1B	263	50
PSK1000C2	1000	10m	3200	80.00%	3600	2-PSK		3600HG1BC	263	52

PSKR / PSK-FEC

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK63FEC	62.5	160-12m	55	80.00%	63	1-PSK		63HG1B	22	
PSK63RC4	63	160-12m	220	80.00%	330	4-PSKR		330HG1BC	263	1
PSK63RC5	63	160-12m	275	80.00%	416	5-PSKR		416HG1BC	263	2
PSK63RC10	63	160-12m	550	80.00%	850	10-PSKR		850HG1BC	263	3
PSK63RC20	63	160-12m	1100	80.00%	1725	20-PSKR		1725HG1BC	263	4
PSK63RC32	63	160-12m	1760	80.00%	2775	32-PSKR		2775HG1BC	263	5

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK125R	125	160-12m	110	80.00%	125	1-PSKR		125HG1B	183	
PSK125RC4	125	160-12m	352	80.00%	650	3-PSKR		650HG1B	10	
PSK125RC5	125	160-12m	440	80.00%	825	4-PSKR		700HG1BC	11	
PSK125RC10	125	160-12m	1100	80.00%	1700	10-PSKR		1700HG1BC	12	
PSK125RC16	125	160-12m	1760	80.00%	2750	16-PSKR		2750HG1BC	13	

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK250R	250	160-12m	220	80.00%	250	1-PSKR		250HG1B	186	
PSK250RC2	250	160-12m	440	80.00%	600	2-PSKR		600HG1BC	263	20

PSK250RC3	250	160-12m	660	80.00%	950	3-PSKR		950HG1BC	263	21
PSK250RC5	250	160-12m	1100	80.00%	1650	5-PSKR		1760HG1BC	263	22
PSK250RC6	250	160-12m	1320	80.00%	2000	6-PSKR		2000HG1BC	263	65
PSK250RC7	250	160-12m	1540	80.00%	2350	7-PSKR		2350HG1BC	263	23

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK500R	500	10m	440	80.00%	500	1-PSKR		500-HG1BC	187	
PSK500RC2	500	10m	880	80.00%	1400	2-PSKR		1400HG1BC	263	24
PSK500RC3	500	10m	1320	80.00%	1900	3-PSKR		1900HG1BC	263	25
PSK500RC4	500	10m	1760	80.00%	2600	4-PSKR		2600HG1BC	263	26

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK800RC2	800	10m	1280	80.00%	1400	2-PSKR		800HGB1C	263	54

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
PSK1000R	1000	10m	880	80.00%	1800	1-PSKR		1800HG1B	263	51
PSK1000RC2	1000	10m	1760	80.00%	3600	2-PSKR		3600HG1BC	263	53

QPSK

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
QPSK31	31.25	160-12m	50	80.00%	31	1-QPSK		31H0G1B	110	
QPSK63	62.5	160-12m	100	80.00%	63	1-QPSK		63HG1B	3	
QPSK125	125	160-12m	200	80.00%	125	1-QPSK		125HG1B	5	
QPSK250	250	160-12m	400	80.00%	250	1-QPSK		250HG1B	127	
QPSK500	500	10m	800	80.00%	500	1-QPSK		500HG1B		

8PSK

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
8PSK125	125	160-12m	620	80.00%	125	1-8PSK		250HG1B	56	1066
8PSK250	250	160-12m	620	80.00%	250	1-8PSK		250HG1B	56	1071
8PSK500	500	10m	1650	80.00%	500	1-8PSK		500HG1B	56	1076
8PSK1000	1000	10m	3300	80.00%	1000	1-8PSK		1000HG1B	56	1047
8PSK125F	125	160-12m	620	80.00%	125	1-8PSK		250HG1B	56	1037
8PSK250F	250	160-12m	620	80.00%	250	1-8PSK		250HG1B	56	1038
8PSK500F	500	10m	1650	80.00%	500	1-8PSK		500HG1B	56	1043

8PSK1000F	1000	10m	3300	80.00%	1000	1-8PSK		1000HG1B	56	1078
8PSK1200F	1200	10m	4200	80.00%	1200	1-8PSK		1200HG1B	56	1058

Contestia

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
CONTESTIA-4-250	62.5	160-12m	40	100.00%	250	4-FSK	-10 dB	250HF1B	55	
CONTESTIA-8-250	31.25	160-12m	30	100.00%	250	8-FSK	-13 dB	250HF1B	49	
CONTESTIA-4-500	125	160-12m	78	100.00%	500	4-FSK	-8 dB	500HF1B	54	
CONTESTIA-8-500	62.5	160-12m	60	100.00%	500	8-FSK	-10 dB	500HF1B	52	
CONTESTIA-16-500	31.25	160-12m	30	100.00%	500	16-FSK	-12 dB	500HF1B	50	
CONTESTIA-8-1000	125	160-12m	117	100.00%	1000	8-FSK	-5 dB	1K00F1B	117	
CONTESTIA-16-1000	62.5	160-12m	78	100.00%	1000	16-FSK	-9 dB	1K00F1B	53	
CONTESTIA-32-1000	31.25	160-12m	48	100.00%	1000	32-FSK	-12 dB	1K00F1B	51	

DominoEX

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
DominoEX4	3.9	160-12m	29	100.00%	173			173HF1B	84	
DominoEX5	5.4	160-12m	44	100.00%	244			244HF1B	85	
DominoEX8	7.8	160-12m	58	100.00%	346			346HF1B	86	
DominoEX11	10.8	160-12m	80	100.00%	262			262HF1B	87	
DominoEX16	15.6	160-12m	115	100.00%	355			355HF1B	88	
DominoEX22	21.5	160-12m	160	100.00%	524			524HF1B	90	
DominoEX44	43	160-12m	312	100.00%	1600			1600HF1B	263	45
DominoEX88	86	160-12m	614	100.00%	1600			1600HF1B	263	46

MFSK

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
MFSK4	3.9	160-12m	18	100.00%	154	32-FSK		154HF1B		
MFSK8	7.8	160-12m	36	100.00%	316	32-FSK		316HF1B	60	
MFSK11	10.8	160-12m	40	100.00%	218	16-FSK		218HF1B	148	
MFSK16	15.6	160-12m	58	100.00%	316	16-FSK		316HF1B	57	
MFSK22	21.5	160-12m	80	100.00%	435	16-FSK		435HF1B	152	
MFSK31	31.3	160-12m	55	100.00%	330	8-FSK		330HF1B		
MFSK32	31.3	160-12m	120	100.00%	630	16-FSK		630HF1B	147	
MFSK64	63	160-12m	240	100.00%	1260	16-FSK		1260HF1B	263	30

MFSK128	125	160-12m	480	100.00%	1920			1920HF1B	263	31
MFSK64L	63	160-12m	240	100.00%	1260	16-FSK		1260HF1B	263	30
MFSK128L	125	160-12m	480	100.00%	1920			1920HF1B	263	31

MT-63

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
MT63-500	5	160-12m	50	80.00%	500	64 x 2-PSK		500HJ2DEN	9	
MT63-1000	10	160-12m	100	80.00%	1000	64 x 2-PSK		1K00J2DEN	12	
MT63-2000	20	160-12m	200	80.00%	2000	64 x 2-PSK		2K00J2DEN	15	

Olivia

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
OLIVIA-4-250	63	160-12m	20	100.00%	250	4-FSK	-12 dB	250HF1B	75	
OLIVIA-8-250	31	160-12m	15	100.00%	250	8-FSK	-14 dB	250HF1B	69	
OLIVIA-4-500	125	160-12m	40	100.00%	500	4-FSK	-10 dB	500HF1B	74	
OLIVIA-8-500	63	160-12m	30	100.00%	500	8-FSK	-11 dB	500HF1B	72	
OLIVIA-16-500	31	160-12m	20	100.00%	500	16-FSK	-13 dB	500HF1B	70	
OLIVIA-8-1000	125	160-12m	58	100.00%	1000	8-FSK	-7 dB	1K00F1B	116	
OLIVIA-16-1000	63	160-12m	40	100.00%	1000	16-FSK	-10 dB	1K00F1B	73	
OLIVIA-32-1000	31	160-12m	24	100.00%	1000	32-FSK	-12 dB	1K00F1B	71	

RTTY

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
RTTY 45	45	160-12m	60	100.00%	270			270HF1B	39	
RTTY 50	50	160-12m	66	100.00%	270			270HF1B	40	
RTTY 75N	75	160-12m	100	100.00%	370			370HF1B	41	
RTTY 75W	75	160-12m	100	100.00%	870			870HF1B		

THOR

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
THOR4	3.9	160-12m	14	100.00%	173			173HF1B	136	
THOR5	5.4	160-12m	22	100.00%	244			244HF1B	139	
THOR8	7.8	160-12m	28	100.00%	346			346HF1B	137	
THOR11	10.8	160-12m	40	100.00%	262			262HF1B	143	
THOR16	15.6	160-12m	58	100.00%	355			355HF1B	138	

THOR22	21.5	160-12m	78	100.00%	524			524HF1B	145	
THOR25X4	24.3	160-12m	88	100.00%	1800	4x tone spacing, 2 sec interleave		1800HF1B	263	40
THOR50X1	48.6	160-12m	176	100.00%	900	1 sec interleave		900HF1B	263	41
THOR50X2	48.5	160-12m	176	100.00%	1800	2x tone spacing, 1 sec interleave		1800HF1B	263	42
THOR100	97	160-12m	352	100.00%	1800	0.5 sec interleave		1800HF1B	263	43

THROB

Mode	Baud	Lowest Allowable Band	WPM	Duty Cycle	BW (Hz)	Modulation	S/N	ITU	RSID-1	RSID-2
THROB1	1	160-12m	10	80.00%	72	1/2 of 9-FSK		72H0F1B	43	
THROB2	2	160-12m	20	80.00%	72	1/2 of 9-FSK		72H0F1B	44	
THROB4	4	160-12m	30	80.00%	144	1/2 of 9-FSK		144HF1B	45	
THROBX1	1	160-12m	10	80.00%	94	2 of 11-FSK		94H0F1B	46	
THROBX2	2	160-12m	20	80.00%	94	2 of 11-FSK		94H0F1B	47	
THROBX4	4	160-12m	40	80.00%	188	2 of 11-FSK		188HF1B	146	