



Monitoring Report August 2019

kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
80m band informational only! - Amateur co-primary, shared with other also primary allocated services!									
3527.0	2221	07	08			F1B	50	200	daily
3532.0	2153	28	08			DQPSK	14x75	~6k1	LINK 11 DSB often
3549.0 VFO USB	2230 2219	07 22	08			G1D PSK8	2400	2k7	MIL 188-110A (D2) mod (Hybrid) preamble 4 tones, PSK4 75Bd 450Hz spacing often
3563.0 VFO USB	2227	07	08			G1D PSK8	2400	2k7	MIL 188-110A
3569.0	2224	22	08			F1B	50	200	
3580.0 VFO USB	2234	07	08			G1D PSK8	2400	2k7	Stanag 4285 almost daily
3715.0	2238	07	08			G1D	2400	2k7	Stanag 4285 often
3765.0	2104	20	08			F1B	50	200	often
3772.0	2107	20	08			F1B	50	200	often
7000.0	2028	23	08			J3E-U		appx 2k5	unid language; probably fishery
7008.0	1506	11	08			F1B	75	250	TDoA Area of Moscow
7008.0	0727	23	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D often
7018.0	1303	05	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
7030.0	2021	12	08			J7D	12x120	2k7	CIS12; idling
7064.0	2157	26	08			FMOP	10 sps	160k	OTHR
7112.0 VFO LSB	2231	27	08			BPSK	30x60Bd	~2k5	Burst system; tone spacing 75 Hz Pre- amble 4x PSK4 60Bd; spacing 600Hz; Pilottone at 450Hz
7119.0	2018	23	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
7140.8	2240	27	08		various	F1B	100	170	CODAN Selcall
7146.8	2238	27	08		various	F1B	100	170	CODAN Selcall
7152.5	1626	22	08		YDZK	A1A	15 wpm		Letters and figures (5ENY de YDZK)
7179.0	1623	22	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7188.0 VFO LSB	0821	27	08			BPSK	30x60Bd	~2k5	Burst system; tone spacing 75 Hz Pre- amble 4x PSK4 60Bd; spacing 600Hz; Pilottone at 450Hz (weak signal)
7196.0	0903	29	08			F1B	75	200	often
7197.0	2101	14	08	TUR	309013	MFSK8	125	1750	ALE, MIL 188-141A
7197.0	2121	14	08	TUR	334018	MFSK8	125	1750	ALE, MIL 188-141A
7197.0	0900	29	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7198.0	1619	22	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
7200.0	0716	02	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D often
14000.5	1712	24	08		var	OFDM8	50	500Hz	Carrier spacing 60Hz; data rate 200 or 600bps. Robust Packet network
14008.0	0829	31	08			F1B	50	250	often
14091.0	0830	20	08			OFDM60	30	~ 2.75k	PSK4; spacing 44.45Hz; pilot tone
14152.0	1139	14	08			FMOP	40 sps	appx 12k	OTHR; (long lasting)
14169.0	1112	12	08			F1B	50	200	
14179.0	0823	20	08			FMOP	40 sps	appx 12k	
14192.0	0719	02	08			F1B	50	200	daily
14221.0	2124	09	08			F1B	50	200	often
14221.0	1118	14	08			FMOP	40 sps	appx 12k	OTHR; (long lasting)



kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
14234.0 VFO USB	1114	28	08			OFDM 112	22.2	~ 3k05k	PSK2; spacing 25.6Hz; pilot tone
14240.0	0816	20	08			F1B	50	250	
14258.0	0724	19	08			F1B	50	500	
14336.0	0711	19	08			FMOP	40 sps	appx 12k	OTHR
14339.0	1224	06	08			F1B	75	200	
18071.0	1022	31	08			FMCW	50 sps	20k	OTHR
18080.0	0631	12	08			A3E		appx 10k	BC: Chinese often
18090.0	0628	22	08			FMCW	50 sps	20k	OTHR UK base Cyprus
21438.0	0855	15	08	RUS	RCV	A1A			letters + figures almost daily
28720.0	0814	13	08			XXX	225 + 334 sps	appx 45k	OTHR, Bursts, various sweep-rates and durations daily
28860.0	0721	02	08	IRN		XXX	150 + 313 sps	appx 45k	OTHR, Bursts, various sweep-rates and durations daily

Errors and omissions excepted

Digital transmissions: Frequency mostly center frequency; otherwise indicated.

BC = Broadcast // **BD** = Baud, or also Burst duration // **BRI** = Burst repetition interval // **SH** = Shift or Spacing (Hz)

BW = Bandwidth // **OTHR** = over the horizon radar // **FMCW** = frequency modulated continuous wave //

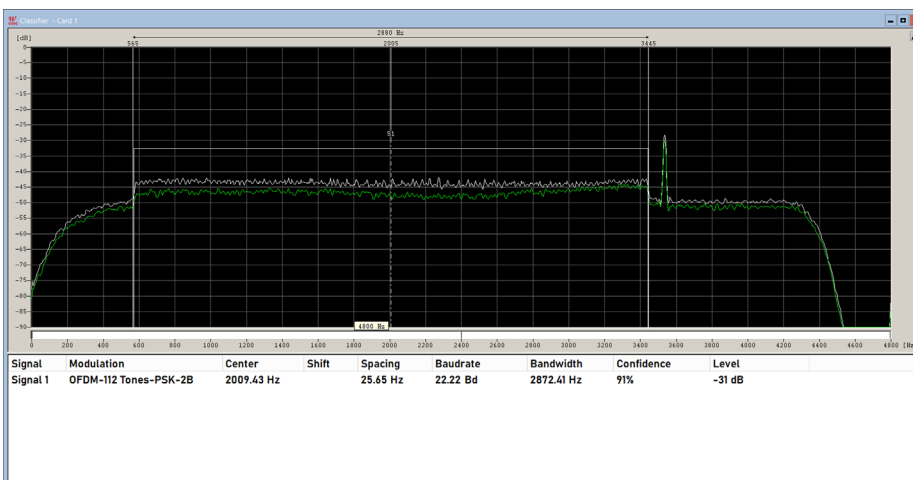
FMOP = frequency modulated on pulse // **sps** = sweeps per second // **vd** = various dates // **vt** = various times

DF = Direction finding (radio location) // **TDoA** Time difference of arrival // **aka** = also known as

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CIS OFDM 112 (OFDM Orthogonal Frequency-Division Multiplexing)



Analysis of a CIS OFDM 112 signal with W-Code Classifier 10.0:

112 carriers DBPSK modulated
 Tone Spacing 25.65 Hz
 Baudrate 22.22 Bd
 Pilot tone, separated by 110Hz from the last tone

There are also other CIS OFDM variants with 60 carriers, BPSK or QPSK modulated 30 Bd or 35.5 Bd

Many thanks to WAVECOM ELEKTRONIK AG in Bülach for the very valuable and helpful support since almost 15 years!