



# HOKA ELECTRONIC B.V.

**Technical Communications**

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# Protocols

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
SITOR	HF	FSK	Sitor A-B ARQ 625 FEC 625 Amtor	auto detects Mode A and Mode B	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
Baudot	HF	FSK	ITA-2 RTTY	BR 6028 VFT BARRIE / 6028 USA 7 Modem R39 Demodulator SYNOP DECODER	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Message Coded Encrypted	X	X
Baudot Synchr	HF	FSK			Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
BF6 Baudot F7B	HF	4 FSK	Baudot F7B ITA-2 Twin 2 channel ITA-2 RTTY Baudot Twinplex		Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
CW	HF	OOK	Morse		Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
CW-F1B	HF	FSK	FSK CW		Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
ASCII	HF	FSK	ITA5 / IRA		Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
Packet AX 25	HF	FSK	Packet Radio Packet HF Packet VHF	HF mode 300 Baud, VHF mode 1200 Baud	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted DATA Transparent Modem	X	X
Pactor I	HF	FSK		Pactor 1 - 8, ICRC IFRC HAM MIL Pactor SELCALL up to 6 chars	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted DATA Transparent Modem	X	X
Pactor I FEC	HF	FSK			Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted DATA Transparent Modem	X	X
Pactor I Special	HF	FSK		Pactor 1 - 8, ICRC IFRC HAM MIL Pactor SELCALL up to 6 chars	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted / DATA Transparent Modem	X	X
Pactor II	HF	DBPSK DQPSK 8-DPSK 16-DPSK		all possible CRC variants	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	X	X
Pactor II FEC	HF	DBPSK DQPSK 8-DPSK 16-DPSK		all possible CRC variants	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	X	X
Pactor III HOKA (options HOKA)	HF	DBPSK DQPSK 8-DPSK 16-DPSK		all possible CRC variants	Common Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	O	X
Autospec	HF	FSK	Spread	AUTOSPEC with Spread 11, Spread 21, Spread 51	Common Mode	Clear / 5 Fgs/Ltrs Encrypted	X	X
FAX FM	HF	FSK	FAX / Facsimile / MeteoFax		Common Mode	Clear / Encrypted	X	X
FAX AM	VHF/UHF	FSK	NOAA / Meteosat		Common Mode	Clear / Encrypted	X	X
G3 FAX (offline)	Phone line		Standard G3 FAX		Common Mode	Off line Decoder	N	X
SSTV	HF	FSK	SSTV / Slow Scan Television		Common Mode	Clear	X	X
PSK-31	HF	DBPSK DQPSK			Common Mode	Clear / Encrypted	X	X
HELL	HF	FSK	HELLSCREIBER / HELL		Common Mode	Clear	X	X

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
HF-Datalink	HF	M-PSK	HF Datalink / HF Acars / ARINC pecification 635-2 27/02/1998		Special Mode	Clear / Message Coded	X	X
GMDSS HF	HF	FSK			Special Mode	Clear / Message Coded	X	X
NAVTEX	HF	FSK	NAVTEX	Japanese Navtex	Special Mode	Clear / Message Coded	X	X
G-TOR	HF	FSK			Special Mode	Clear Encrypted Different Mapping table DATA / EMAIL Transparent Modem	X	X
TWINPLEX	HF	FSK	TWINPLEX CCIR 476	with standard and variable shift	Special Mode	Clear 5 Fgs/Ltrs Encr	X	X
IRA-ARQ	HF	MFSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted / DATA	X	X
NUM-13	HF	MFSK	SP14		Special Mode	5 Fgs/Ltrs	X	X
AUM-13	HF	MFSK			Special Mode	5 Fgs/Ltrs	X	X
MEROD	HF	FSK	RAC ARQ / Racal ARQ		Special Mode	Clear / Message Coded	X	X
SKYFAX MSM	HF	10 par FSK tones	RC 5000 / Racal MSM		Special Mode	Clear / 5 Fgs/Ltrs Encrypted / DATA	X	X
VISEL	HF	FSK	FEC 12		Special Mode	Clear / 5 Fgs/Ltrs Encrypted	X	X
EPIRB	VHF				Special Mode	Clear / Message Coded	X	X
GW DATAPLEX	HF	FSK	GW PACTOR		Special Mode	Clear / Message Coded	X	X
GW PSK	HF	PSK	GW PSK		Special Mode	Clear / Message Coded	X	X
DGPS SC104	HF				Special Mode	Clear / Message Coded	X	X
Baudot Parity	HF	FSK	French Baudot		Special Mode	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
Pactor * III (option M)	HF	DBPSK DQPSK 8-DPSK 16-DPSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Pactor * I + II + III + IV (option M)	HF	DBPSK DQPSK 8-DPSK 16-DPSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Clover II * (option M)	HF	16P4A 8P2A 8PSM QPSM BPSM 2DPSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Clover 2000 * (option M)	HF	16P4A 8P2A 8PSM QPSM BPSM 2DPSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Clover 2500 * (option M)	HF	16P4A 8P2A 8PSM QPSM BPSM 2DPSK			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Codan 3212 * (option M)	HF	PSK4 PSK8 QAM16 QAM32 QAM64/1/1s			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
Stanag 4538 * (option M)	HF	PSK8 / 1			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
MIL STD 188 110 C Stanag 4539 * (option M)	HF	PSK8 / 1			Special Mode	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted /DATA /EMAIL Transparent Modem	N	O
CV 768	HF	FSK			Special Mode	Clear 5 Fgs/Ltrs – Encrypted Different Mapping table	X	X

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
MD 674	HF	FSK			Special Mode	Clear 5 Fgs/Ltrs Encrypted Different Mapping table	X	X
AK 10 FEC 101	HF	FSK			Special Mode	5 Fgs/Ltrs - Encrypted	X	X
RUS 200-450	HF	FSK			Special Mode	Different Mapping table 5 Fgs/Ltrs - Encrypted	X	X
Chin. 4+4 (options HOKA)	HF	QPSK	CHN 4+4		Special Mode	Clear - 4 Fgs/Ltrs Encrypted	O	X
AQUARIUS 200	HF	FSK			Special Mode	5 Fgs/Ltrs - Encrypted	N	X
AQUARIUS OfflineTools			AQUARIUS Offline recovery Tools		Special Mode	AQUARIUS Offline recovery Tools	N	X
ARQ-625 SITOR-A	HF	FSK	Sitor A ARQ 625 mode A		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-E	HF		ARQ-E ARQ 1000 Duplex	ARQ N / R39 Demodulator	ARQ	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
ARQ-S ARQ- 1000	HF	FSK	ARQ-S / ARQ 1000-S Siemens ARQ 1000		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-E3	HF	FSK	ARQ-E3 / CCIR 519 Variant TDM 342 1 Channel	R39 Demodulator SYNOP DECODER	ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-2 TDM 242	HF	FSK		ARQ-M2-242 ARQ-M4-242	ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-4 TDM 342	HF	FSK	TDM 342 / ARQM-2, ARQM-4 ARQ28 / ARQ56 / CCIR 342-2	ARQ-M2-342 ARQ-M4-342 R39 Demodulator	ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-POL	HF	FSK	ARQ-POL POL ARQ CCIR 476 Variant		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-SWED	HF	FSK	ARQ SWED / SWED ARQ / CCIR 518 Variant		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ-DUPLEX	HF	FSK	DUP ARQ / ARTRAC		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ6-70	HF	FSK	CCIR 476 Variant		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ6-90/98	HF	FSK	CCIR 476 Variant		ARQ	Clear / 5 Fgs/Ltrs Different Mapping table Encrypted	X	X
HC-ARQ	HF	FSK	Hagelin Cripto - ARQ		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
RS-ARQ MERLIN ALIS 2	HF		RS ARQ II / ALIS 2 RS ARQ 240	ITA2 5 Bit - ITA2 7 Bit ITA5 8 Bit	ARQ	Clear / 5 Fgs/Ltrs Encrypted / DATA	X	X
RS-ARQ ALIS	HF	FSK	RS ARQ ALIS	ITA2 5 Bit - ITA2 7 Bit ITA5 8 Bit	ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
ARQ 625 TOR dirty	HF	FSK	FEC 625 without sync control		ARQ	Clear / 5 Fgs/Ltrs Encrypted	X	X
FEC-B Special	HF	FSK	Sitor-B, FEC 625 FEC-B, NAVTEX		FEC	Clear / 5 Fgs/Ltrs Different Mapping table Coded Encrypted	X	X
ROU-FEC	HF	FSK			FEC	Clear 5 Fgs/Ltrs Encrypted	X	X
HNG-FEC	HF	FSK			FEC	Clear 5 Fgs/Ltrs Encrypted	X	X
FEC-S	HF	FSK	FEC 1000 S		FEC	Clear / 5 Fgs/Ltrs Encrypted	X	X
FEC-A FEC100	HF	FSK	FEC-A Broadcast FEC100 A / FEC 101		FEC	Clear/ 5 Fgs/Ltrs Encrypted	X	X
FEC-100 interleaved	HF	FSK	FEC-100 Variable Interleaved		FEC	Clear 5 Fgs/Ltrs Encrypted	X	X
FEC-100 raw	HF	FSK	FEC-A without synchronisation		FEC	Clear / 5 Fgs/Ltrs Encrypted	X	X
FEC-100 dirty	HF	FSK	FEC 100 Dirty without synchronisation		FEC	Clear / 5 Fgs/Ltrs Encrypted	X	X
AK10	HF	FSK			FEC	5 Fgs/Ltrs / Encrypted	X	X
AUM 13	HF	MFSK			MFSK non HAM	5 Fgs/Ltrs Encrypted	X	X

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
CODAN 9001/3012 CHIRP	HF	BPSK	Codan ALE		MFSK non HAM	Clear / Selcall Coded Message	X	X
CODAN 9001/3012 (options HOKA)	HF	PSK	C16		MFSK non HAM	Clear / 5 Fgs/Ltrs Encrypted /DATA/EMAIL Transparent Modem	O	X
CODAN CHIRP + DTATA (options HOKA)	HF	PSK BPSK	Codan ALE C16		MFSK non HAM	Clear / Selcall Coded Message 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	O	X
COQUELET-8	HF	MFSK	Coq8 / Coquelet MK2 French Multitone Teleimprimeur ACEC		MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
COQUELET-13	HF	MFSK	Coq 13 / Coquelet MK1 French Multitone		MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
COQUELET-8 FEC	HF	MFSK	COQUELET 80		MFSK non HAM	Clear, Diff Mapping table 5 Fgs/Ltrs / Encrypted	X	X
COQUELET-8 FEC auto	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
COQUELET-8 auto-start	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
COQUELET-8 FEC I	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	N	X
COQUELET-8 FEC II	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	N	X
COQUELET-8 FEC III	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	N	X
CROWD-36	HF	MFSK	CIS 36 / URS Multitone / CIS 10 11 11		MFSK non HAM	Clear / 5 Fgs/Ltrs Encrypted	X	X
CROWD 36 ECC	HF	MFSK	CIS 36 / Rus Piccolo URS Multitone / CIS 10 11 11		MFSK non HAM	Clear / 5 Fgs/Ltrs Encrypted	X	X
FIRE	HF		MS5 / CIS 12		MFSK non HAM	Encrypted	X	X
MFSK Universal	HF	MFSK			MFSK non HAM		X	X
MFSK 16	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
MFSK 16-15 XPA II	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
MFSK 21-20	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
MFSK 16-31	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
MFSK 18	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
MFSK 20 XPA	HF	MFSK	non amateur mode		MFSK non HAM	5 Fgs/Ltrs	N	X
NUM 13	HF	MFSK			MFSK non HAM	5 Fgs/Ltrs	X	X
PICCOLO-6	HF	MFSK	PICCOLO MK6 PICCOLO ITA-2		MFSK non HAM	Clear / 5 Fgs/Ltrs Encrypted	X	X
PICCOLO-12	HF	MFSK	PICCOLO MK12 PICCOLO ITA-5		MFSK non HAM	Encrypted	X	X
Mazielka X06	HF	MFSK			MFSK non HAM	5 numbers	N	X
RF7B	HF	4FSK			MFSK non HAM	5 Fgs/Ltrs	X	X
T8	HF	MFSK			MFSK non HAM	Clear Different Mapping table 5 Fgs/Ltrs / Encrypted	N	X
CODAN T	HF	PSK BPSK	CODAN 9001/3012 Variant		MFSK non HAM	Coded Message 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	N	X
DTMF-TTY	HF		DTMF-TTY	With all speed variant	MFSK HAM	Clear	X	X
THROB	HF	MFSK	THROB	With all speed variant	MFSK HAM	Clear	X	X
MFSK 8 n.H.	HF	MFSK	non amateur mode		MFSK HAM	5 Fgs/Ltrs	X	X
MFSK 16	HF	MFSK	MFSK 16		MFSK HAM	5 Fgs/Ltrs	X	X
MT63	HF	MFSK	MT63	With all speed variant	MFSK HAM	Clear / Encrypted	X	X

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
OLIVIA MFSK	HF	MFSK	OLIVIA		MFSK HAM	Clear / Encrypted	X	X
PSK 10	HF	PSK	PSK 10		PSK Modes	Clear	X	X
PSK 31	HF	DBPSK DQPSK	PSK 31		PSK Modes	Clear / Encrypted	X	X
PSK 31 FEC	HF	DBPSK DQPSK	PSK 31 FEC		PSK Modes	Clear / Encrypted	X	X
PSK 10 AM	HF	PSK	PSK 10 AM		PSK Modes	Clear / Encrypted	X	X
PSK 31 AM	HF	PSK	PSK 31 AM		PSK Modes	Clear / Encrypted	X	X
PSK 50 AM	HF	PSK	PSK 50 AM		PSK Modes	Clear / Encrypted	X	X
PSK 63	HF	DBPSK DQPSK	PSK 63		PSK Modes	Clear / Encrypted	X	X
PSK 125	HF	DBPSK DQPSK	PSK 125		PSK Modes	Clear / Encrypted	X	X
PSK 250	HF	DBPSK DQPSK	PSK 220		PSK Modes	Clear / Encrypted	X	X
PSK 220	HF	DBPSK DQPSK	PSK 220		PSK Modes	Clear / Encrypted	X	X
PSK 31F	HF	DBPSK DQPSK	PSK 63F		PSK Modes	Clear / Encrypted	X	X
PSK 63F	HF	DBPSK DQPSK	PSK 63F		PSK Modes	Clear / Encrypted	X	X
PSK 125F	HF	DBPSK DQPSK	PSK 125F		PSK Modes	Clear / Encrypted	X	X
PSK 220F	HF	DBPSK DQPSK	PSK 220F		PSK Modes	Clear / Encrypted	X	X
CIS-11 TORG-10/11	HF	FSK		SYNOP DECODER	CIS	Clear Message Coded 5 Fgs/Ltrs / Encrypted	X	X
CIS-12 FIRE	HF		MS5		CIS	Encrypted	X	X
CIS-14 TORG-14	HF	FSK	CIS 14 AMOR AMOR 96		CIS	Clear, Coded Different Mapping table 5 Fgs/Ltrs / Encrypted	X	X
CROWD-36	HF	MFSK	CIS 36 / URS Multitone / CIS 10 11 11		CIS	Clear / 5 Fgs/Ltrs Encrypted	X	X
CIS 50	HF	FSK	BEE / 36-50 / T600 CIS-36-50 / CIS-50-50		CIS	Encrypted	X	X
CIS BEE 36-50	HF	FSK	BEE / 36-50 / T600 CIS-36-50 / CIS-50-50		CIS	Encrypted	X	X
405 395	HF	FSK			CIS	Encrypted	X	X
81-81	HF	FSK		40,5 / 81 / 162 Baud and variable	CIS	Encrypted	X	X
81-29	HF	FSK		40,5 / 81 / 162 Baud and variable	CIS	Encrypted	X	X
Baudot F7B	HF	4 FSK	Baudot F7B / ITA-2 2 channel ITA-2 RTTY		CIS	Different Mapping table Clear/ 5 Fgs/Ltrs / Encr	X	X
R 37	HF	FSK			CIS	Encrypted	X	X
X06 Mazielka	HF	MFSK			CIS	5 numbers	N	X
XPA MFSK 20	HF	MFSK	non amateur mode		CIS	5 Fgs/Ltrs	N	X
XPA II MFSK 16-15	HF	MFSK	non amateur mode		CIS	5 Fgs/Ltrs	N	X
AQUARIUS	HF	FSK			CIS	5 Fgs/Ltrs - Encrypted	N	X
ARINC ANNEX-10	HF		ANNEX 10		SELCALL	Clear Message Coded	X	X
EEA	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
EIA	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
EURO	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
CCITT	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
CCIR1	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
CCIR2	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
CTCSS	VHF/UHF				SELCALL	Clear selcall	X	X
DCSS	VHF/UHF				SELCALL	Clear selcall	X	X
DTMF	VHF/UHF				SELCALL	Clear selcall	X	X
NATEL	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X

System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
VDEW	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
ZVEI1	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
ZVEI2	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
ZVEI1-13 BIIS	VHF/UHF	5 Tone			SELCALL	Clear selcall	X	X
ZVEI2-ITA xtone	VHF/UHF	xx Tone			SELCALL	Clear selcall	X	X
Universal X Tone	HF	xx Tone			SELCALL	Configurable Clear selcall	X	X
CODAN 8500 / CCIR 493-44	HF	FSK			SELCALL	Clear selcall	X	X
CODAN CHIRP	HF	BPSK	Codan ALE		SELCALL	Clear / Selcall Coded Message	X	X
Analogue 5 Tone Classify	VHF/UHF	xx Tone	TT		SELCALL	classifier	X	X
Digital 5 Tone Classify	VHF/UHF	xx Tone	TT		SELCALL	classifier	X	X
MIL STD 188-110 A	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
MIL STD 188-110 B	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	N	X
MIL STD 188-110 39-tone	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
MIL STD 188-110 Var 39-tone	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	N	X
MIL STD 188-110 App A	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
MIL STD 188-141 ALE	HF	MFSK	Ale (Automatic Link Establishment)	Bit stream Output scanning control	MIL STD 188-series	Selcall / Clear Coded Message 5 Fgs/Ltrs / Encrypted	X	X
STANAG-4415	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
STANAG-4481	HF	FSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
STANAG-4481	HF	PSK		with all standard terminal mode	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted	X	X
STANAG-4285	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
STANAG-4529	HF	PSK		with all standard terminal mode Bit stream Output	MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted /DATA /EMAIL Transparent Modem	X	X
STANAG-5065	HF	FSK			MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted	X	X
MIL-M 55529A	HF	FSK			MIL STD 188-series	Clear / 5 Fgs/Ltrs/ Encr	X	X
CV 768	HF	FSK	Async		MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted	X	X
MD 674	HF	FSK	Wireline FSK		MIL STD 188-series	Clear / 5 Fgs/Ltrs Encrypted	X	X
LINK 11	HF	PSK			MIL STD 188-series	Clear Selcall	N	X
LINK 11 Slew	HF	PSK			MIL STD 188-series	Clear Selcall	N	X
ACARS SITA	VHF		VHF ACARS		VHF/UHF	Clear / coded message	X	X
ATIS DSC GMDSS	VHF	FSK			VHF/UHF	Clear / coded message	X	X
BIIS	VHF/UHF		BIIS		VHF/UHF	Clear / coded message	X	X
EPIRB	VHF/UHF		EPIRB		VHF/UHF	Clear / coded message	X	X
ERMES	VHF/UHF				VHF/UHF	Clear / coded message	X	X
FLEX	VHF/UHF				VHF/UHF	Clear / coded message	X	X
FMS-BOS	VHF/UHF				VHF/UHF	Clear /coded message	X	X



System	Range	Demod.	Also known as	Includes	Menu	Common type of output	S	E
GMDSS VHF	VHF	FSK			VHF/UHF	Clear /coded message	X	X
INMARSAT C TDM	SAT	DPSK2			VHF/UHF	Clear	X	X
INMARSAT C TDMA	SAT	BPSK			VHF/UHF	Clear	X	X
MDT	VHF/UHF				VHF/UHF	Clear / coded message	X	X
MPT1327	VHF/UHF				VHF/UHF	Clear / coded message	X	X
POCSAG Cityruf	VHF/UHF			512 1200 2400 Baud num/alphanum	VHF/UHF	Clear / coded message	X	X
DCF77					Tools	Clear	X	X
SYNOP			AAXX BBXX	Included in Baudot		Clear	X	X

Please note: In our software there are several types of demodulators; in some decoding modules demodulators are selectable by the user, in other decoding module demodulators are including but not user-selectable because some protocols the management of the appropriate type of demodulator are related to some particular conditions of the use of the protocol. For example on Pactor III the type demodulator it can be automatically detected and changed by the software depending on the speed level in use.

## Legend

Term	Description
System / Function	system name
Range	in use on
Demod	type of demodulator
Also known as	alternative system name
Include	special features
Menu	menu of CODE300-32
Output	type of known output
S E	S = Code300-32 Standard E = Code300-32 Extended X = included N = not available O = available as options
*	Due to export restrictions, a warranted End User Certificate (EUC) is required

## Legend for type of known output

Term	Description
Clear	readable text output based on Latin alphabets
5 Fgs/Ltrs	text send as ciphered text in group of 5 letters or number
Selcall	string of number or letter that identify the station
Coded Message	message with a defined coded like weather report, availability list, flight report, etc. etc
Different Mapping table	in use for transmit with some special national alphabet with a normal telex machine, terminal or pc
Encrypted	all type of possible encryptions; alphabet, letter substitutions, shift register, bit inversion, bit mask, briary, etc. etc
DATA	can be used for send binary data as is like as a normal file i.e. doc, .zip, .bmp, .jpg and also fax and voice (VOIP)
EMAIL	can be used to send and receive e-mail with normal e-mail client like Outlook or custom email client. Remember that normally e-mails are encrypted on Base 64
Transparent Modem	Like DATA but with some more facilities like TCP IP connections etc. etc

# CODE300-32 Versions

## **CODE300-32 Standard Version**

**€ 4500,00 Euro**

*Package includes*

- Code300-32 Software on CD ROM
- Support for handling of up to 2 input audio channel (one sound card)
- Security key USB
- Serial output via RS232
- Bit stream Output in MIL modes
- Editing of all code tables
- Two channel audio input by LAN
- Available as option only at time of purchase:  
Pactor III HOKA, CHN 4+4, Codan Package HOKA (Codan 9001/3012, Codan Converter)
- 12 months free software update
- 24 months warranty on hard- and software.

## **CODE300-32 Extended Version**

**€ 7500,00 Euro**

*Package includes*

- Code300-32 Software on CD ROM
- Support for handling of up to 4 input audio channel (two sound card)
- Security key USB
- Serial output via RS232
- Bit stream Output in MIL modes,
- Editing of all code tables,
- Two (x2) channel audio input by LAN
- Available as option : Pactor III Pactor I/II/III/IV, Cover II, Clover 2000, Clover 2500, Codan 3212, Stanag 4538, MIL 188 110 C (Medav/SAAB). It is possible to open the optional module Medav / SAAB twice. Multiple licenses are available on request, please contact us for details.
- 24 months free software update
- 24 months warranty on hard - and software.

# Analysis tools

<b>Signal Analysis</b>	<b>Function</b>
	Signal Classification
	Phase Spectrum
	Phase Oscilloscope
	Phase Plane
	Phase Constellation
	Waterfall
	Waterfall and Sonogram
	FSK Oscilloscope
	AFP Oscilloscope
	MFSK Oscilloscope
	Analog Oscilloscope
	Eye Pattern
	Straddle
	FFT Special with Zoom
	Syn/Asyn Oscilloscope
<b>Data Analysis</b>	<b>Function</b>
	Correlation Bit
	FSK Speed (Correlation mod)
	PSK Speed VHF
	Speed Bit Analysis
	ITA-2 Analysis
	Bit Analysis
	Character Analysis Simplex
	Character Analysis Duplex
	Character Count
<b>Demodulator</b>	<b>Type</b>
	Universal Demodulator
	PSK Demodulator
	MFSK Demodulator graphical
<b>Audio Recording</b>	<b>Type</b>
	Radio quality
<b>Tools</b>	<b>Function</b>
	Generator
	DCF 77
	Data and text editor

# Autoclassification Capabilities

Classification by baud speed and bit pattern	Classification by baud speed only
Sitor A	POCSAG *
Sitor A IRS	8181
FEC B	AMOR
TDM ARQ 342 1 ch	BEE
TDM ARQ 242 2 ch	PSK AM 50
TDM ARQ 342 2 ch	ARQ IRA
TDM ARQ 242 4 ch	STANAG 4481 FSK
TDM ARQ 342 4 ch	MIL 188 110 SERIAL
PACTOR	STANAG 4285
PACTOR 100 BAUD	STANAG 4529
PACTOR 200 BAUD	INMARSAT TDMA
PACTOR II	G TOR
ARQ E	ARQ SWED
ARQ N	ARQ E3
FEC A	PSK 10
ARQ 6 70	OLIVIA
ARQ 6 90	PSK 31
ARQ 6 98	PSK 63
ARQ S 4	PSK 125 F
ARQ S 5	PSK 220 F
ARQ S 6	ALE
AKWARIUS	MIL 188 110 39 TONE
BAUDOT	CODAN CHIRP
BAUDOT 1, 1.5 2 ST BIT	HFDL
BAUDOT RUS 200	CODAN
CV 786	CODAN 8580
MD 674	CLOVER 2
FEC S	CLOVER 2000
TOR G	STANAG FSK 5065
POL ARQ	SKYFAX
IDLE FECS	ERMES
IDLE ARQ 242	MFSK 16
COQUELET 8	MFSK 18
COQUELET 8 FEC	MFSK 20
PICCOLO 6	CROWD 36
PICCOLO 12	MFSK 16 15
ROU FEC	405 395
AUTOSPEC	GW DATAPLEX
HC ARQ	DGPS
ASCII	DGPS 200
ARTRAC	GMDSS
MEROD	FEC 100
MFSK 8 HAM	TOR 7B
MMFSK 16 HAM	HNG FEC
VISEL	NUM 13
RS ARQ	AUM 13
MERLIN	SITA
PACKET	PACKET 1200 *
	PACKET 2400 *
	FLEX
	ATIS
	MORSE
	JAPANESE NAVTEX
* requires a sound card with low error rate and correct offset	AK 10

# Alphabets

## Alphabet

ITA-2 Latin	
ITA-2 Baghdad 70 Arabic	
ITA-2 Baghdad 80 Arabic	
ITA-2 Cyrillic	
ITA-2 Hebrew	
ITA-2 Third Shift Cyrillic	
ITA-2 Third Shift Greek	
ITA-5 German	
ITA-5 US	
Morse Latin	
HEX	
User defined 5-bit	
User defined 7-bit	

# Demodulators

## Type

CW Morse OOK	
FSK	
FEK	
MFSK	
BPSK	
DPSK, DBPSK, DQPSK, D8PSK, D16PSK	
OQPSK, QPSK	
CTCSS	
DTMF	
F7B	
R37, R38, R39, R39A	
BR 6028	

# BIT stream output

## Bit Stream output via LAN

## Binary output directly on the decoding module

PACTOR I	MIL188-110A Serial	CV768	PSK 125 F
PACTOR I / FEC	MIL188-110 B	MD 674	PSK 220 F
PACTOR I Special	MIL188-110 39 Tones	PSK 31	STANAG 4481 FSK
MEROD	MIL188-110 Var 39 Tones	OLIVIA	STANAG 5065 FSK
SKYFAX	MIL188-110 App A	PSK 10	MIL M 55529 A
GW DATAPLEX	STANAG 4415	PSK 31 FEC	MDT
DGPS SC 104	STANAG 4285	PSK 10 AM	IMARSAT C TDM
CODAN CHIRP	STANAG 4529	PSK 31 AM	IMARSAT C TDM A
COQUELET 8	STANAG 4481 PSK	PSK 50 AM	EPIRB
COQUELET 8 FEC AUTO	LINK 11 Slew	PSK 63	MSFK Demodulator
MFSK UNICERSAL		PSK 125	
PICCOLO MK VI		PSK 220	
		PSK 31 F	
		PSK 63 F	

## Info about status available via LAN

MIL 188 141 A	
CODAN 8500	
GMDSS HF	
GMDSS VHF	
GMDSS VHF ATIS	

# Generator

## System included on Generator

CW only carrier	FEC S	CCITT
CCIR 625 mode A	PICCOLO MK VI	DTMF
CCIR 625 mode B	COQUELT 13	EEA
Baudot	COQUELET 8 FEC	EIA
Baudot Sync	CROWD 36	EURO
ARQ E	FIRE	NATEL
ARQ E3	FIRE Q	VDEW
ARQ 6 70	ANNEX 10	ZVEI 1
ARQ 6 90	BOS FMS	ZVEI 2
ARQ 6 98	CCIR 1	DPSK 2
POL ARQ	CCIR 2	PSK 4
CCIR 242 2 ch		OQPSK
CCIR 342 2 ch		

This feature it was designed to generate emissions with known and repeatable signal to noise ratios, shifts and baud speeds from all systems listed The signal to noise figure is S/N in a 3KHz channel with AWGN. The generated text is fixed .

# PP Options – Post Processing for Code300-32

Post processing is a off-line, stand-alone application that tries to restore received transmissions to the data originally transmitted. Success or failure off doing so depends completely on the received data being correct. There is absolutely NO guarantee that the original data or parts there off can be restored. Only complete and flawless input data will produce the originally send data. PP are available for :

- Medav/SAAB Option for Pactor I,II,III, combined, or Pactor I,II,III, IV combined including post processing for FFB FORWARD for Pactor III / Pactor IV
- Medav/SAAB Options for Clover II, 2000, 2500 including post processing for PKLib available with Clover II / 2000 / 2500 Medav/SAAB Options
- Codan 9001/3012 post processing for recover FAX (pictures), Document .DOC and text included with Codan 9001/3012
- AQFormat post processing for recover damaged text included with Aquarius decoding module

# PC Requirement

Element	Note
Sound card input	LINE IN / MIC IN recommended LINE IN compatible AUX IN Compatible with Virtual Audio Cable, Winradio VSC
Sound card sampling rate	48 kHz
Sound card sampling rate precision	<50 ppm, recommended <20ppm
Sound card	One Sound card for Standard Version Two Sound card for Extended Version or Multichannel Sound Card
Screen Resolution	SVGA min.1024x768 recommended 1280x1024
Network Card	10/100/1000
CPU	Minimum requirements P IV 1.6 GHz *
RAM	Minimum requirements 512 MB *
OS Supported	WINDOWS 98, WINDOWS XP Home & Professional, Windows 32/64-bit, Windows 8/8.1 32/64-bit, Windows 10 32/64-bit recommended Windows 7
	* depends on the operating system in use