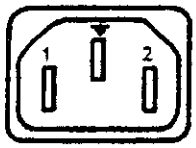
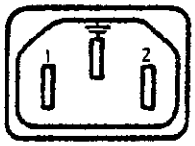
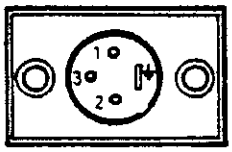
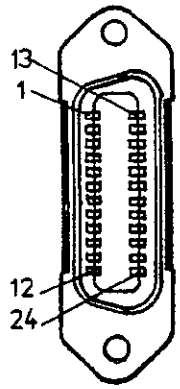
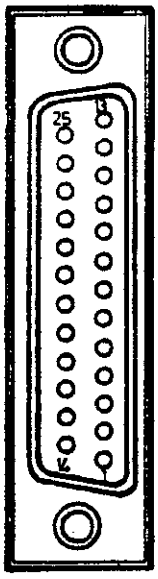
6.11 External Interfaces

Connector	No.	Contact	Signal designation/level
Power Supply N1 AC ST1, Mains 	401 401.3	 1 2	 Mains voltage 115 to 235 V, 47 to 420 Hz Mains voltage 115 to 235 V, 47 to 420 Hz Non-fused earthed conductor
Power Supply N3 AC/DC St1, Mains  ST2, Battery 	402 402.4 402.3	 1 2 1 2 3	 Mains voltage 100 to 240 V, 47 to 420 Hz Mains voltage 100 to 240 V, 47 to 420 Hz Non-fused earthed conductor Battery +10.8 to 30 VDC Battery -10.8 to 30 VDC Shield
IEC Processor BU97 IEC Bus 	 411	 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Standard interfaces acc. to IEC 625 DIO 1 Data input/output 1 DIO 2 Data input/output 2 DIO 3 Data input/output 3 DIO 4 Data input/output 4 EOI End or identify DAV Data valid NRFD Not ready for data NDAC No data accepted IFC Interface clear SRQ Service request ATN Attention shield DIO 5 Data input/output 5 DIO 6 Data input/output 6 DIO 7 Data input/output 7 DIO 8 Data input/output 8 REN Remote enable

(Continuation)---

---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
IEC Processor			Standard interface acc. to IEC 625
BU97 IEC Bus	411	18 19 20 21 22 23 24	Ground 6 Ground 7 Ground 8 Ground 9 Ground 10 Ground 11 Ground
V.24 Processor			Standard interface V.24
BU97	412	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	E1 (101) Protective ground D1 (103) Send data D2 (104) Receive data S2 (105) Switch on transmitter M2 (106) Ready for sending M1 (107) Ready for operation E2 (102) Return line M5 (109) Receive level $\overline{D2}$ With V.10: return line to D2 RC Ground S5 (126) Switch on high transmitting frequency level T2 (114) Send. signal-element timing T4 (115) Rec. signal-element timing $\overline{D1}$ HS2 (120) Switch on auxiliary channel transmitter S1.2 (108/2) Data terminal ready S4 (111) Switch on high baud rate Receiving address recognized



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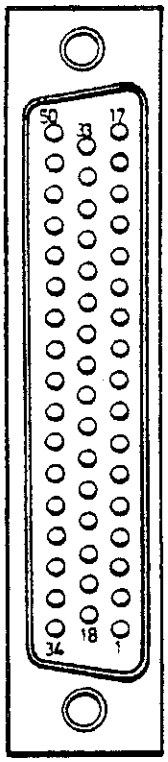
---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
Interface J3			
BU82 Data output	423.1	1	10 Hz — BCD-Code
		2	20 Hz
		3	40 Hz
		4	80 Hz
		5	100 Hz
		6	200 Hz
		7	400 Hz
		8	800 Hz
		9	1 kHz
		10	2 kHz
		11	4 kHz
		12	8 kHz
		13	10 kHz
		14	20 kHz
		15	40 kHz
		16	80 kHz
		17	100 kHz
		18	200 kHz
		19	400 kHz
		20	800 kHz
		21	1 MHz
		22	2 MHz
		23	4 MHz
		24	8 MHz
		25	10 MHz
		26	20 MHz
		27	Tuning pulse
		28	20 dB on
		29	Level threshold exceeded
		30	IF filter No. 1 — Binary code
		31	IF filter No. 2
		32	IF filter No. 4
		33	IF filter No. 8
			Internal setting level output
		34	Level 1 — Binary code in 5-dB (µV) steps
		35	Legel 2
		36	Legel 4
		37	Legel 8
		38	Legel 16
		39	Fast

Open Collector — High = true



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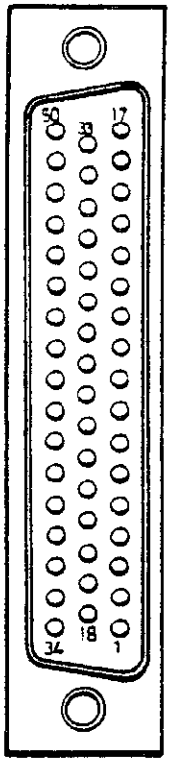
---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
Interface J3			
BU82 Data output	423.1	40 41	ABL, MGC — See following truth table for gain control — Open collector
		42 43	BFO 1, BFO 2 — Binary code x 100 Hz to 3.1 kHz — High = true
			Internal setting BCD address
		34 35 36 37 38 39 40 41	Address 1 Address 2 Address 4 Address 8 Address 10 Address 20 Address 40 Address 80 — BCD-Code — Open collector / High = true
		42 43	BFO 1, BFO 2 — Binary code x 100 Hz to 3.1 kHz — Open collector / High = true
			Internal setting 1-out-of-10 address
		34 35 36 37 38 39 40 41 42 43	Address 1 Address 2 Address 3 Address 4 Address 5 Address 6 Address 7 Address 8 Address 9 Address 10 — Selection 1-out-of-10 — Open collector / Low = true
			Internal beacon frequency
		42 43 44 45 46 47	BFO 1 BFO 2 BFO 4 BFO 8 BFO 16 BFO 32 — Binary code x 100 Hz to 3.1 kHz
		48 49 50	Class of emission F1 Class of emission A3 Ground — High = true

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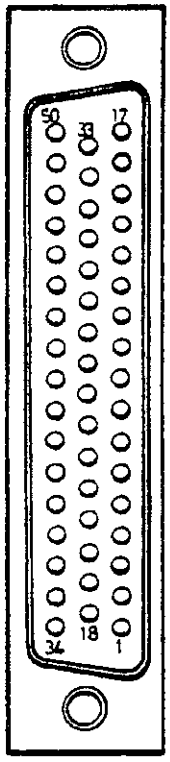
---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
Interface J3 BU82 Data output	423.1		Truth table, gain control



MGC	ABL	Front panel	Meaning
0	0	AGC on MGC off	AGC
0	1	AGC off MGC off	DGC (threshold)
1	0	AGC off MGC on	MGC
1	1	AGC on MGC on	MGC + AGC

1 = true = High

There are no pull-up resistors
in interface J3.
Max. voltage: 30 V
Max. current: 30 mA

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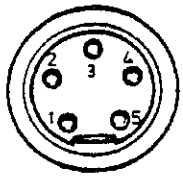
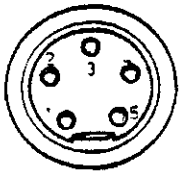
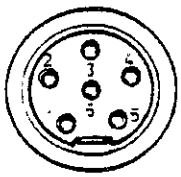
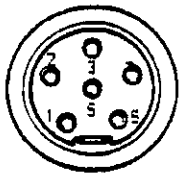
---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
Demodulator			
BU72, Line 	57	1 2 3 4 5	Line 1 -10 dBm +3 dBm / 600 ohms (USB) Line 1 -10 dBm +3 dBm / 600 ohms (USB) Ground Line 2 -10 dBm +3 dBm / 600 ohms (LSB) Line 2 -10 dBm +3 dBm / 600 ohms (LSB)
BU73 	44	1 2 3 4 5	Ground Recording output 12.5 kHz 0 dBm/600 ohms Loudspeaker 1 W into 5 ohms Return line loudspeaker
BU74 	43	1 2 3 4 5 6	Ground V.28 TTY signal TTY 40 to 60 mA single current (+receiver magnet) Return line to 3 and 5 (-receiver magnet) TTY 20 mA single current Ground
IF Amplifier			
BU64 Control voltage 	56	1 2 3 4 5 6	Control voltage B 5.0 to 5.6 V (5 V is full amplification) Output, R_i = 10 kohms Diversity B Diversity A If these points on several EK 070s are linked, the strongest signal determines the IF gain. Control voltage A (interface as pin 1) +5.00 V, R_i = 1 kohm Ground
BU65 IF 	45		IF output 1.4 MHz, 50 mV into 50 ohms

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---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
IF Filter BU54 Panorama 	55		Panoramic output IF 1.4 MHz, unfiltered
PLL 1 BU42 Oscillator 2 	54		2nd oscillator 80 MHz; 224 mV into 50 ohms
BU43 1 MHz synchr. ext. 	48		1-MHz output, squarewave 150 mV EMF, R_i = 100 ohms (INTernal) 1-MHz input for synchronization 50 mV to 1.0 V, sine- or squarewave, R_i = 50 ohms (EXTernal)
PLL 2 BU32 Oscillator 1 	53		1st oscillator 81.4 to 111,39999 MHz 224 mV into 50 ohms

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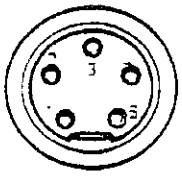
---(Continuation) External Interfaces

Connector	No.	Contact	Signal designation/level
RF Section			
BU24 Antenna 	50		Antenna input 10 kHz to 30 MHz, 50 ohms max. 10 V EMF/50 ohms
BU27 Control 	52	1 2 3 4 5 6	Output frequency below 1.5 MHz (open collector, Low = true) *) Output level threshold exceeded (open collector, High = true) Ground +14 V Inhibit input 0 Volt, receiver input blocked Standby *)
BU28 Broadband output 	51		Broadband signal output 6 to 10 dB amplification to Antenna f = 81.4 MHz
Control Section			
BU10 Headphones	19	1 sleeve	Headphones 2.2 V/R_i = 100 ohms Ground

*) Converted units - for use with an additional built-on attenuator - are provided with an input at contact 1 of socket 27 for the control of the indicating light (contained in measuring instrument on front panel). Contact 6 of the same socket carries an analog control signal for the built-on attenuator.