

Technical data

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| Frequency range | : 10 kHz to 29999,99 kHz. |
| Frequency resolution | : 10 Hz lowest frequency decade |
| Frequency tuning | : Keyboard direct entry or single knob. Single knob is 16 x selected tuning step / revolution. |
| Tuning steps | : Keyboard selectable entry between 10 Hz and 9999 kHz. |
| Frequency synthesizer | : Triple PLL, lowest reference frequency 1 kHz. |
| Frequency stability After 15 minute warmup TXCO ageing | : $\leq 5 \cdot 10^{-7}$: $\leq 1 \cdot 10^{-6}$ per year. |
| BFO | : 500...1200 Hz adjustable. |
| Channel memory | : 99 channels capable of being loaded with receiver parameters: mode, frequency, bandwidth, RF gain and preselector. |
| SCAN functions | : SCAN by frequency. : SCAN channel per channel. : When SCAN is on, preselector is disabled. |
| Modes of operation | : A1A, A1B, A2A, A2B, A3E B7B, B8E, B9W F1A, F1B, F1C, F3C H2A, H2B, H3E J2A, J2B, J3E, J7B R2A, R2B, R3E, R7B |
| Antenna impedance | : 75 Ω asymm. SWR $\leq 3 : 1$. |
| Max. antenna input voltage | : protection by incandescent bulb. $\leq 30 V_{EMF}$ without filament destruction. $\geq 30 V_{EMF} \leq 100 V_{EMF}$ with filament destruction. |
| Spurious level at antenna input | : $EMF_{eq} \leq 0.5 \mu V$. |
| Image and IF rejection | : ≥ 80 dB. |
| Intermediate frequencies | : 1 st IF 70.2 MHz. : 2 nd IF 200 kHz. |

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| IF Output 2 | : 200 kHz, $\geq 50\text{mV}$. |
| AGC characteristics | : between $2\mu\text{V}$ and 200mV (100 dB) automatic $\leq 6\text{dB}$ manual |
| AGC time constants | |
| For $\Delta_{\text{EMF}} = +40\text{dB}$ | : $\leq 5\text{ms}$ |
| For $\Delta_{\text{EMF}} = -40\text{dB}$ | : 0.3 or 4s, switchable automatic / manual or combined automatic / manual between $2\mu\text{V}$ and 200mV |
| Sensitivity without HF preselection | : A1A |
| 10 dB SINAD | B = 150 Hz 10....150 kHz $\leq 3 \mu\text{V}_{\text{EMF}}$ 150 kHz....30 MHz $\leq 0.5 \mu\text{V}_{\text{EMF}}$ |
| | A3E |
| | B = 6 kHz 150 kHz....30 MHz $\leq 5 \mu\text{V}_{\text{EMF}}$, m = 0.5 |
| | J3E |
| | B = 0.25 ...3 kHz 150 kHz....30 MHz $\leq 1.5 \mu\text{V}_{\text{EMF}}$ |
| | J3E |
| | B = 0.25 ...6 kHz 150 kHz....30 MHz $\leq 2.2 \mu\text{V}_{\text{EMF}}$ |
| IF Bandwidth | |
| Filter bandwidth (kHz) | : Nominal bandwidth (kHz) 6 dB |
| B1 | 0.15 |
| B2 | 0.4 |
| B3 | 0.75 |
| B4 | 1.75 |
| B5 | 3.1 |
| B6 | 6.0 |
| B7 | - 0.256.0 |
| B8 | + 0.256.0 |
| Intermodulation | : Out of band: $\geq 80\text{dB}$ for two equal signals of 30mV_{EMF} each at $\Delta_f +20\text{ kHz}$ and $\Delta_f +40\text{ kHz}$. In band: Unwanted signals $\geq 40\text{dB}$ for two equal signals of $30\text{ mV}_{\text{EMF}}$ |
| Blocking | : $100 \mu\text{V}_{\text{EMF}}$ |
| Level indication | |
| RF LED-band | : 0 to $120\text{ dB}\mu\text{V}$. |

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FUNKWERK DABENDORF EKD500 RECEIVER
SERIAL N° EKD 515 - 1340.42 A5 – ELN 137 22 500
FNR 91 6 CA 0412

AF LED-band : -20 to +6 dBm.

Audio outputs

Internal or external speaker : ≥ 0.5 W into 8 Ω .
Headphones : 2 x ≥ 10 mW into 250 Ω , adjustable.
Recorder output : 140 to 500 mV , 200k Ω .

Audio distortion : $\leq 10\%$ at P = 0.5W speaker output.
: $\geq 3\%$ at 0 dBm AF output.

IF output : 200 kHz, ≥ 50 mV, 50 Ω asym.

Power supplies

AC operation : 127 - 220V $\pm 10\%$ - 45 to 65 Hz.
Power consumption ≤ 55 VA $\pm 20\%$.

DC operation : 12 – 24V floating +10% - 15%
Power consumption ≤ 45 VA .

Environmental conditions

Temperature
Operating : -25 to +55 $^{\circ}$ C.
Storage : -25 to +45 $^{\circ}$ C.
Transport : -40 to 70 $^{\circ}$ C.
Humidity : $\leq 95\%$ up to 40 $^{\circ}$ C.

Mechanical vibration : 10 – 500 Hz 1g acceleration.
Mechanical shock : 15g, ≥ 6 ms.
Maximun height : 3000 m above sealevel.

Weight : approx. 25 kg.

Dimensions

Height : 198 mm.
Depth : 395 mm (345 mm without handles).
Width : 540 mm.