



FLE Country of origin: GDR

**DATA SUMMARY**

**Organisation:** Hauptverwaltung Aufklärung des MfS. (HVA Ministry of Security)  
**Design/Manufacturer:** OTS/unknown.  
**Year of Introduction:** Estimated mid/late 1970s.  
**Purpose:** Agents short wave receiver.  
**Receiver:** Double superheterodyne with variable 1<sup>st</sup> IF of 26-25MHz and second IF of 10.7MHz.<sup>1</sup>  
**Circuit features:** RF, Mixer, crystal oscillator, 2<sup>nd</sup> mixer, variable oscillator, 2<sup>nd</sup> IF crystal filter, IF amp, detector, BFO, AF output. Ten plug-in units covered 1MHz segments in the range 3-19.5MHz. AM R/T and CW.<sup>1</sup>  
**Power Supply:** External 9V battery.  
**Size (cm):** Height 2, Length 14.3, Width 6.1. (Main unit)  
 Height 2, Length 1.8/3.9, Width 6.1. (Plug-in)  
**Accessories:** Up to 10 plug-in units, earphone, aerial wire on board and battery with extension lead.

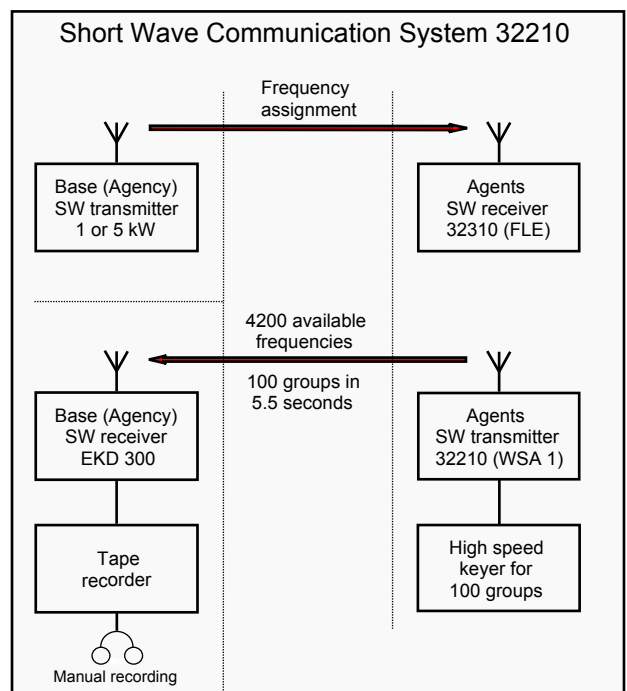
**REMARKS**

Receiver FLE, also known under the covert name 32310, was a miniature shortwave receiver designed for use by GDR agents. It was primarily intended for use in a short wave communication system (covert name 32210) which was developed for a range of up to 5000km (see block diagram below). It is believed that the receiver was used as a stand alone. The FLE was of a rather novel design and had a main unit with a variable 1<sup>st</sup> IF which was tuneable from 26 to 25MHz with a digital readout indicating 000 to 999. Ten different plug-in units, which were principally crystal controlled down converters, determined the receiving frequency. In its design great care was taken of suppressing unwanted radiation of the oscillators.

<sup>1</sup> All technical data according the currently known information.

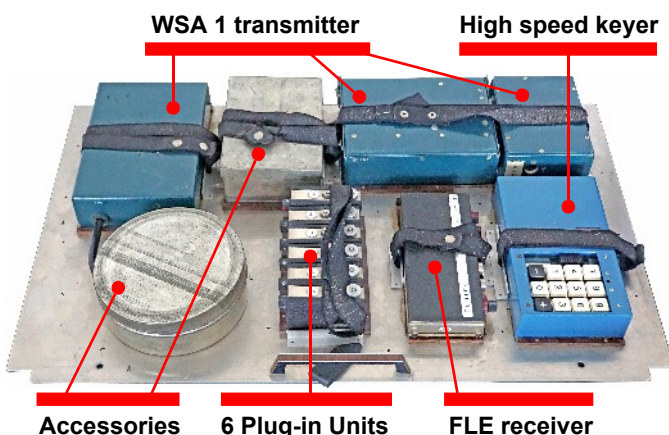


General view of the FLE receiver fitted with a plug-in unit and three additional units for other ranges. The 9V battery could also be plugged in directly to the side of the receiver.



Block diagram of the GDR Short Wave Communication System 32210. 'Agents side' right and 'Base side' (with separate transmitter and receiver sites) left. See next page for details and locations.

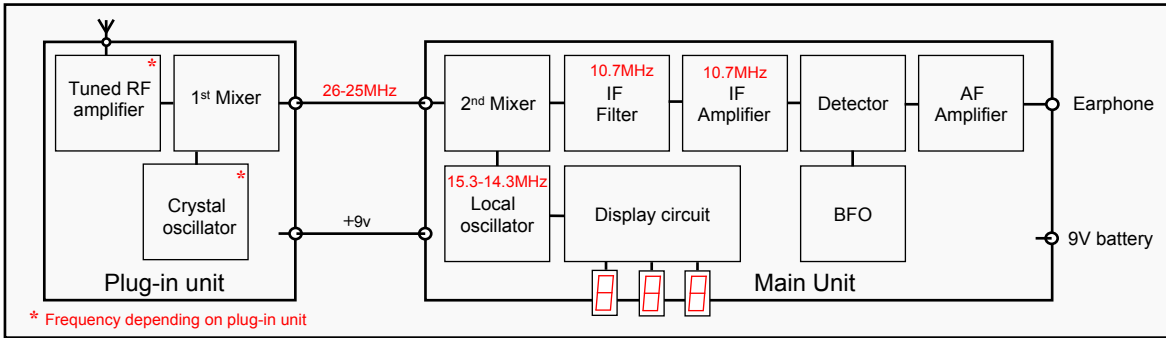
The agent's equipment mounted on a base plate used in this system is shown on the photo on the left.



**References:**

- Photographs, block diagram and detailed information kindly supplied by Detlev Vreisleben, DC7KG, Germany.
- Colour photo of Zeesen transmitter hall courtesy Peter Manteuffel, Germany.

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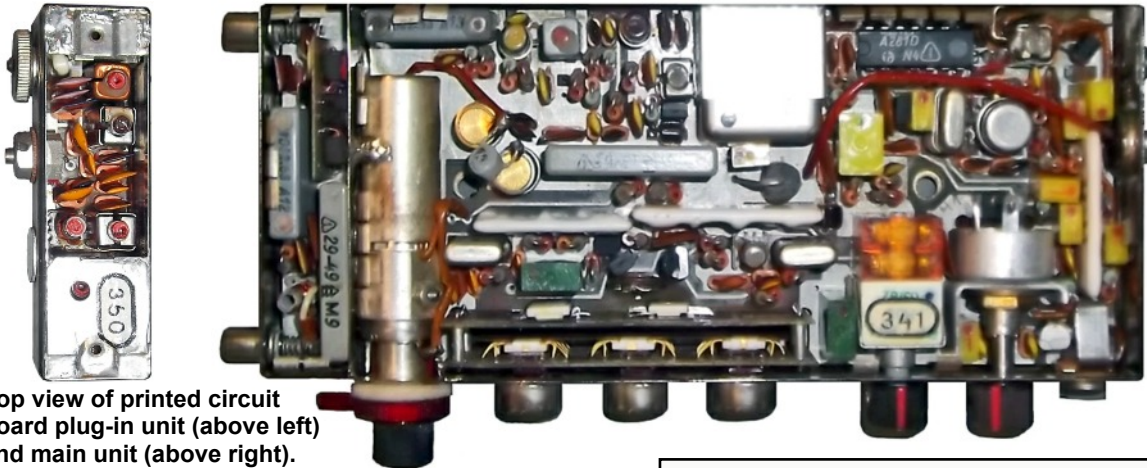
\* Frequency depending on plug-in unit

Block circuit diagram of the FLE main unit and plug-in unit. The receiver was principally a double superheterodyne with variable 1st IF of 26 to 25MHz. Ten plug-in units covered 1MHz segments in the range 3-19.5MHz.

This block diagram was drawn according the currently known information.



Front panel view of the FLE receiver showing (from left to right): Plug-in unit RF amplifier tuning; main tuning control with fine tuning; 7 segment led displays; system switch: AM - display on - CW; volume control; earphone socket.



Top view of printed circuit board plug-in unit (above left) and main unit (above right).



Side view of plug-in unit showing the contacts to the main unit. (left). The units came in two different sizes:  
 - Units 1, 2, 7, 8, 9 and 10 were small in width (1.8cm)  
 - Units 3, 4, 5 and 6 were larger with a width of 3.9cm.

Plug-in unit number	Frequency coverage
1 (3,0)	3.0-4.0MHz
2 (5,7)	5.7-6.7MHz
3 (6,8)	6.8-7.8MHz
4 (7,9)	7.9-8.9MHz
5 (9,1)	9.1-10.1MHz
6 (11,4)	11.4-12.4MHz
7 (13,0)	13.0-14.0MHz
8 (15,5)	15.5-16.5MHz
9 (16,9)	16.9-17.9MHz
10 (18,5)	18.5-19.5MHz

Table of frequencies of the ten plug-in units.



Inside view of the transmitter hall of the MFS HV A transmitting site located in Zeesen near Berlin. (Left) Transmitters with a power ranging from 1 to 20 kW were in use. These were of Russian and GDR manufacture. The main HV A receiving site was in Wernsdorf. Both sites were also used for passing traffic for the Short Wave Communication System 32210.