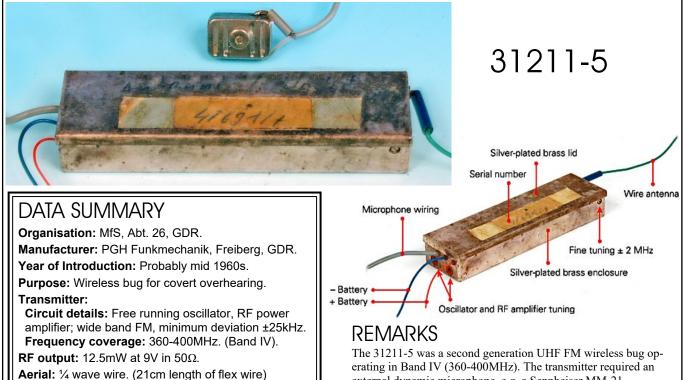
$31211\,\mathrm{series}$ (GDR bugs II) Country of origin: GDR



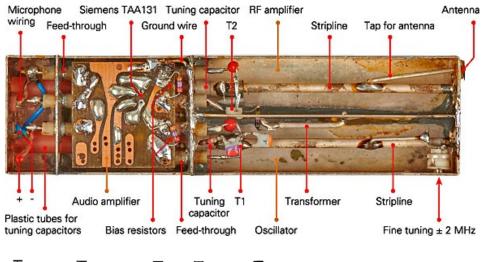
tery or AC mains power unit. Dimensions (cm): Height 1.5, Length 9.7, Width 2.6.

Power Supply: 5.5-12V: Derived from an external bat-

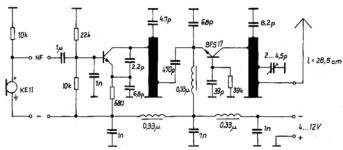
Weight: 73 grams.

Range: 400m

erating in Band IV (360-400MHz). The transmitter required an external dynamic microphone, e.g. a Sennheiser MM-21. Though only information on the /5 and /6 of the 31211 could be retrieved, other variations of this series of Band IV bugs are noted such as the 31221, 311217-100 with integrated SVM, 31211-613 (Vlocka) and 31211-614 (KOS-8) both believed imported from Czechoslovakia and Bulgaria. The associated receiver was probably a 31210 or 31220. (Chapters 123 and 130).



Top view of the 31211-5 bug showing audio board (left), oscillator compartment (bottom right) and RF amplifier compartment (top right). (Circuit next page.)



Circuit diagram of believed to be a prototype of the 31211-5 bug using an electret microphone.

References:

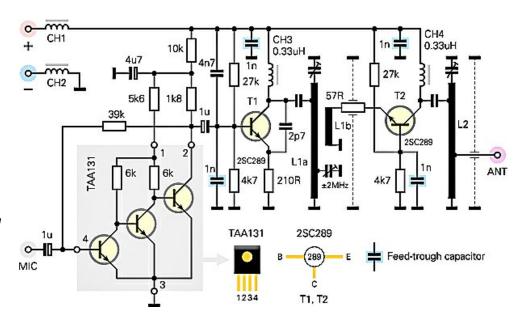
- With thanks to Detlev Vreisleben, DC7KG, Germany for taking excellent photographs and scans, and providing further technical and historical information.
- Beschreibung und Bedienungsanleitung fur das Gerät 1211-6. n.d. (Description and user instructions for equipment 1211-6.)
- Photographs 31211-5 and further detailed information courtesy Cryptomuseum, Eindhoven, Holland.
- See museum website www.cryptomuseum.com.

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Circuit diagram of the 31211-5 believed to be the production version, traced and drawn by Cryptomuseum.

There were a considerable number of design changes, particularly in the microphone amplifier, an inductive coupling to the RF power amplifier (which had a different type transistor) and continuous tuning of the strip lines.

(Circuit diagram courtesy Paul Reuvers, Cryptomuseum.)



DATA SUMMARY

Organisation: MfS, Abt. 26, GDR.

Manufacturer: PGH Funkmechanik, Freiberg, GDR.

Year of Introduction: Probably mid 1960s. **Purpose:** Wireless bug for covert overhearing.

Transmitter:

Circuit details: Free running oscillator; modulator amplifier; wide band FM, minimum deviation ±25kHz. **Frequency coverage:** 360-398MHz. (Band IV);

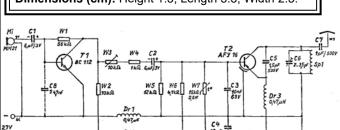
variable over ±15-20MHz.

AF frequency response: 50Hz-60kHz.

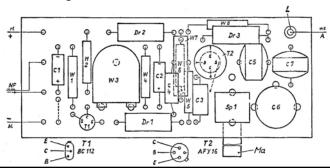
Aerial: 1/4 wave wire. (25cm length of flex wire.)

Power Supply: 2.5V nominal -up to 6V-; Normally two Mallory RM 12 or ZM 12 mercury cells, giving 75 days continuous operation life. As an alternative an AC mains power unit type 31211-6 N, providing 2.7V DC. could be used.

Dimensions (cm): Height 1.3, Length 5.3, Width 2.3.



Circuit diagram (above) and layout of components of the 31211-6 bug.



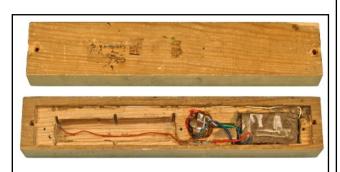


31211-6

REMARKS

The 31211 was a second generation UHF FM wireless bug operating in Band IV (360-400MHz). The transmitter required an external dynamic microphone. The design of this bug was very simple, comprising a free running oscillator and a modulator amplifier. The frequency and deviation could be set according the operational requirements and type of dynamic microphone.

The associated receiver was probably a 31210 or 31220. (Chapters 123 and 130).



A 31211-6 bug, microphone and battery compartment hidden in a hollow wooden lath. (Above). This assembly could be fitted under a table or wooden furniture.

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