

31211 series (GDR bugs II) Country of origin: GDR



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, RF power amplifier; wide band FM, minimum deviation $\pm 25\text{kHz}$.
Frequency coverage: 360-400MHz. (Band IV).
RF output: 12.5mW at 9V in 50 Ω .
Aerial: $\frac{1}{4}$ wave wire. (25cm length of flex wire)
Power Supply: 5.5-12V; Derived from an external battery or AC mains power unit.
Dimensions (cm): Height 1.5, Length 9.7, Width 2.6.

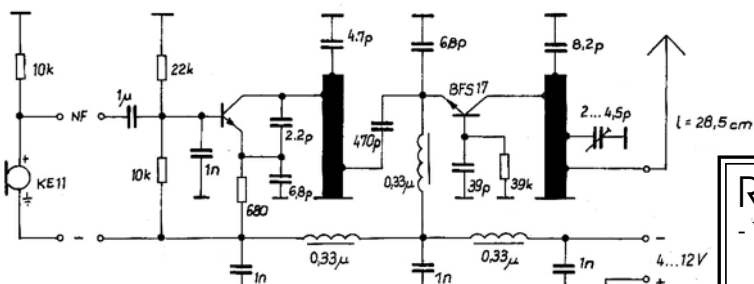
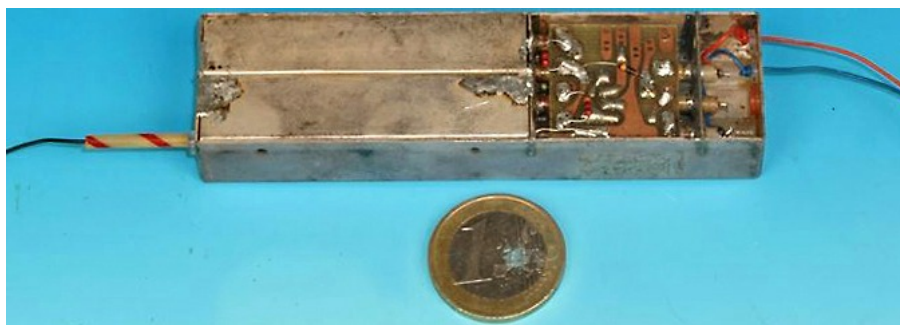
31211-5

REMARKS

The 31211-5 was a second generation UHF FM wireless bug operating in Band IV (360-400MHz). The transmitter required an external electret microphone.
 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 31211-613 (Vlocka) and 31211-614 (KOS-8) which were believed imported from Czechoslovakia and Bulgaria.

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

Bottom view of the 31211-5 bug showing the filter board (right), oscillator compartment (top left) and RF amplifier compartment (bottom left).



Circuit diagram of the 31211-5 showing an (external) electret microphone (left), directly modulating the oscillator (centre) followed by a RF amplifier stage (right) which was matched directly to the quarter wave wire aerial.

References:

- With thanks to Detlev Vreisleben, DC7KG, Germany for taking excellent photographs and scans, and providing further technical and historical information.
- Beschreibung und Bedienungsanleitung für das Gerät 1211-6. n.d. (Description and user instructions for equipment 1211-6.)



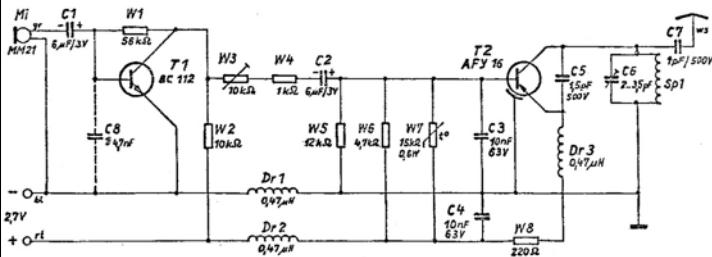
31211-6

DATA SUMMARY

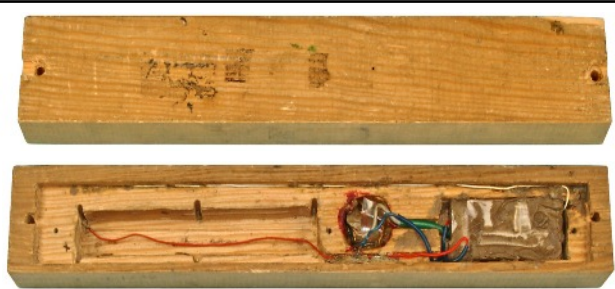
Organisation: MfS, Abt. 26, GDR.
Manufacturer: PGH Funkmechanik, Freiberg, GDR.
Year of Introduction: Probably mid 1960s.
Purpose: Wireless bug for covert overhearing.
Transmitter:
Circuit details: Free running oscillator; modulator amplifier; wide band FM, minimum deviation $\pm 25\text{kHz}$.
Frequency coverage: 360-398MHz. (Band IV); variable over $\pm 15\text{-}20\text{MHz}$.
AF frequency response: 50Hz-60kHz.
Aerial: $\frac{1}{4}$ 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.

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 most likely a 31210 or 31220. (Chapters 123 and 130).



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



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.

