

## LMS 13 - German Experimental Pulse Magnetron



LMS 13 was just in a quasi-prototypal sampling stage when the war ended. In the table below we learn that about ten units per month were being made. Similar to LMS 12 but much smaller, it measures approximately 120 mm length by 20 mm diameter.

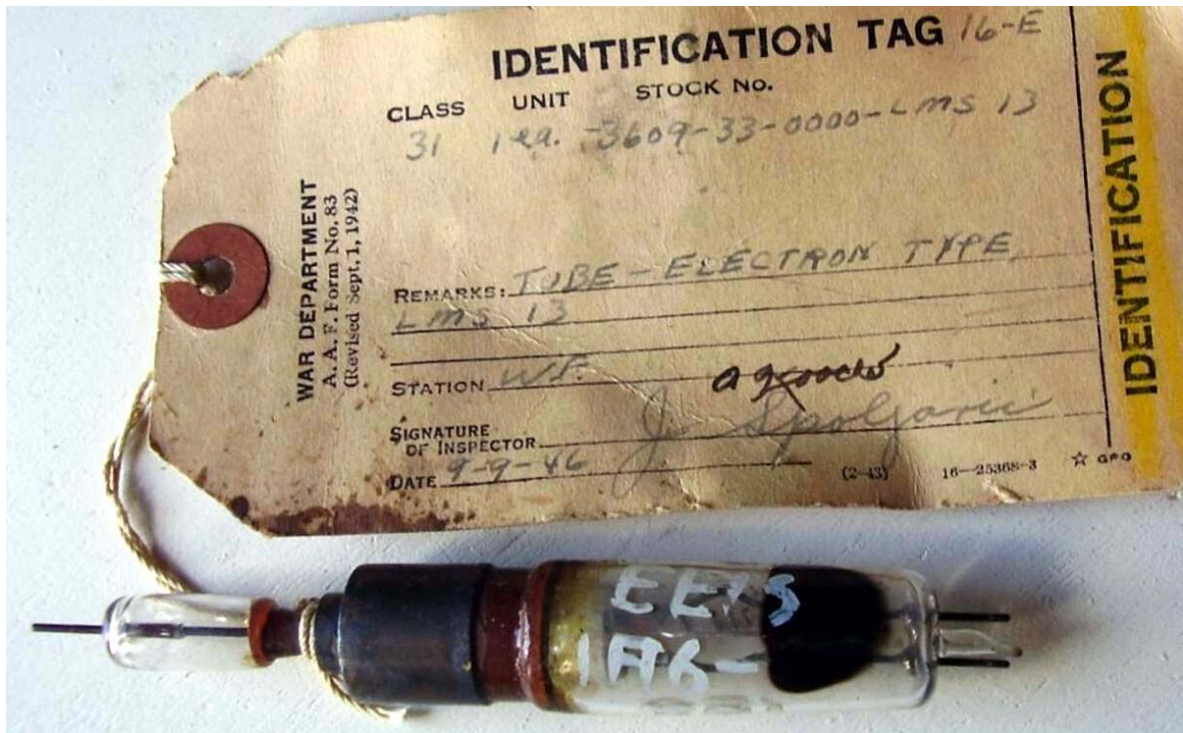
Indirect heated oxide-coated cathode, 18-cavity anode. The two heater pins, one in common with cathode, are at the largest end, while the RF output rod is at the opposite end. A construction that resembles that of British micropups.

The magnetron was rated for pulse applications, giving 5 kW output at 18,5 GHz. No known applications. Maybe it was intended for some gun laying or active guidance systems, never completed before the end of the war.

Data available in the site of Hans Thomas Schmidt:

<p><b>LMS 13</b> Telefunken</p>	<p><math>\lambda = 1,625 \text{ cm}</math>  <math>U_f = 6,3 \text{ V}</math>  <math>I_f = 1 \text{ A}</math>  <math>Feld = 3000 \text{ G}</math>                      Impulslänge = <math>1 \mu\text{s}</math>                      Tastverhältnis 1 : 1000</p>	<p><math>U_a = 12...14 \text{ kV}</math>  <math>I_a = 6...10 \text{ A}</math>  <math>P_{HF} = 5 \text{ kW}</math></p>	<p>In Laborfertigung                      ca 10 Stück / Monat</p> <p>18 Resonatoren                      Impulsmagnetron</p>
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<http://www.hts-homepage.de/Wehrmacht/Magnetronliste.html>



This sample still retains its label from the US War Department, where it was stored in 1946.