The YL 1042 is a very small forced-air-cooled metal-ceramic planar tetrode for frequencies up to 2 kHz, particularly suited for application in commercial radio communications SSB transmitters and TV-Transposers. Due to its stability under severe shock and vibration the tube is ideal for use in mobile equipment.

Weight approx. 60 g

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**General Data**

**HEATING**

- Heater Voltage: 6.3 volts
- Heater Current: 1.1 amps
- Matrix-Oxide-Cathode

**Grid-Screen Amplification Factor**

- 20 at DC Plate Voltage = 1000 volts
- DC Screen Voltage = 200 volts
- DC Plate Current = 100 mA

**Transconductance**

- 20,000 µmhos at DC Plate current = 100 mA

**INTERELECTRODE CAPACITANCES**

- Measured with special socket
  - Grid-Cathode: 9 µF
  - Grid-Plate: 0.03 µF
  - Grid-Screen: 15 µF
  - Screen-Cathode: 0.2 µF
  - Screen-Plate: 3.5 µF
  - Plate-Cathode: 0.01 µF

**Maximum Ratings**

- DC Plate Voltage (f ≤ 1250 Mc) max. 1000 volts
- DC Screen Voltage max. 300 volts
- DC Grid Voltage max. —75 volts
- DC Cathode Current max. 180 mA
- Plate Dissipation max. 130 watts
- Screen Dissipation max. 2 watts
- Grid Current max. 16 mA
- Grid Resistor max. 30 kohms
## Typical Operation

**Linear RF Power Amplifier, SSB**

<table>
<thead>
<tr>
<th></th>
<th>one tone</th>
<th>two tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class</td>
<td>AB *)</td>
<td>AB **)</td>
</tr>
<tr>
<td>Frequency</td>
<td>60</td>
<td>900</td>
</tr>
<tr>
<td>Power Output</td>
<td>55</td>
<td>30 ***)</td>
</tr>
<tr>
<td>DC Plate Voltage</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>DC Screen Voltage</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>DC Grid Voltage</td>
<td>-14</td>
<td>-8.5</td>
</tr>
<tr>
<td>Peak RF Grid Voltage</td>
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<td>7</td>
</tr>
<tr>
<td>Zero Signal DC Plate Current</td>
<td>40</td>
<td>140</td>
</tr>
<tr>
<td>DC Plate Current</td>
<td>120</td>
<td>150</td>
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<tr>
<td>Plate Input</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td>65</td>
<td>117</td>
</tr>
<tr>
<td>3rd order Intermodulation Products</td>
<td>36 **')</td>
<td>db</td>
</tr>
<tr>
<td>Gain</td>
<td>15</td>
<td>db</td>
</tr>
</tbody>
</table>

1) Grounded cathode  
2) Grounded grid  
**) Peak envelope power at 90 % circuit-efficiency  
**') at plate Load resistance of 300 ohms  

**Other kind of operation:**

**TV-Transposer**

Power Output (sync. Level) = 12 watts  
DC Plate Voltage = 900 volts  
DC Screen Voltage = 300 volts  
Zero-Signal  
DC Plate Current = 100 ma  
DC Plate Current = 120 ma  

## Characteristics

![Graph showing characteristics](image-url)