Voltage Controlled Transceivers

Features

- Frequency Control
- Input Voltage Available as CW or Pulsed
- High Doppler Sensitivity Levels
- Low AM and FM Noise Levels
- Direction-of-Motion Sensing
- High-Volume Design
- Compact Size

Applications

- FM Doppler Radar Systems
- Altimeters
- Police Radars
- Intrusion Alarm Systems
- Traffic Control Systems
- Industrial Control
- Direction Monitoring
- Amateur Communications
- Automotive Collision Avoidance Systems

Description

These voltage controlled transceivers are designed to provide an affordable, frequency-modulated microwave power at a discrete frequency. The varactor tuning of the transceiver permits carrier frequency modulation for ranging information.

Specifications @ 25°C

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
<th>Operating Voltage (V_{DC})</th>
<th>Output Power (mW)</th>
<th>Operating Current (mA)</th>
<th>Frequency Drift/ Temperature (KHz/°C)</th>
<th>Electronic Tuning Range (V_{DC})</th>
<th>Electronic Tuning (MHz)</th>
<th>Nominal Sensitivity (dBc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Band Voltage Controlled Transceivers</td>
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<td></td>
<td></td>
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<tr>
<td>MO87127-1</td>
<td>Built-In Ferrite Circulator</td>
<td>+8 to +10</td>
<td>10</td>
<td>200</td>
<td>400</td>
<td>+1 to +20</td>
<td>40</td>
<td>-110</td>
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<td>-110</td>
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<td>600</td>
<td>400</td>
<td>+1 to +20</td>
<td>40</td>
<td>-110</td>
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<tr>
<td>K Band Voltage Controlled Transceivers</td>
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<td></td>
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<tr>
<td>MO9071</td>
<td></td>
<td>+5</td>
<td>5</td>
<td>150</td>
<td>1000</td>
<td>+1 to +20</td>
<td>50</td>
<td>-90</td>
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<td>1000</td>
<td>+1 to +20</td>
<td>50</td>
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<td>400</td>
<td>500</td>
<td>+0.5 to +20</td>
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<td>-95</td>
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<td>MO87930</td>
<td>Broadband Electronic Tuning</td>
<td>+5 to +8</td>
<td>5 to 10</td>
<td>400</td>
<td>500</td>
<td>0 to +9</td>
<td>350</td>
<td>-95</td>
</tr>
</tbody>
</table>

X band frequency = 10.300 GHz.
K band frequency = 24.125 GHz.
Other frequencies and power levels available upon request.

Maximum operating temperature is -30°C to +70°C.
Maximum storage temperature is -40°C to +85°C.
Voltage Controlled Transceivers

**MO9072**

![MO9072 Diagram](image)

Dimensions are in inches (mm).

**MO87930**

![MO87930 Diagram](image)

Dimensions are in inches (mm).

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**MO87127-1 thru 3**

![MO87127-1 thru 3 Diagram](image)

Dimensions are in inches (mm).