



communications

Electron Devices

L6072

Mini-Traveling Wave Tube

Features:

- **6.0 to 18.0 GHz**
- **40 Watts Minimum**
- **50 dB Gain Minimum**

Performance Characteristics

Frequency.....	6.0 to 18.0 GHz
RF Output Power.....	40 W min
RF Input Power.....	22 dBm max
Small Signal Gain.....	50 dB min
Gain Tracking.....	±2.5 dB
Noise Power Density- Beam On.....	-40 dBm/MHz
AM/PM Conversion.....	6°/dB max
Harmonics -6.0 GHz.....	-4 dBc max
Harmonics -7.0 GHz.....	-6 dBc max

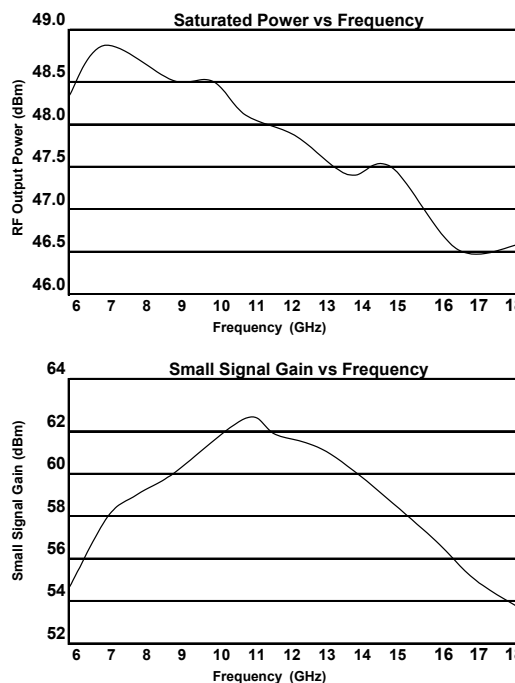
Typical Operating Conditions

Duty.....	CW
Cathode Voltage.....	-3900 ± 22 VDC
Cathode Current.....	135 mA max
Helix Current- no RF.....	0.5 mA min, 3 mA max.
Helix Current-RF.....	10 mA max
Beam Control	
Electrode Voltage.....	-1000 VDC
Electrode Current.....	1 mA
Filament Voltage.....	-6.3 VDC
Filament Current.....	0.5A
Collector 1 Voltage.....	1900 ± 75 VDC
Collector 1 Current.....	130 mA max
Prime Power - RF.....	270 watts max.

Mechanical Description

Dimensions*.....	12.3" x .73" x 1.75"
Weight.....	<1.5 lbs
Cooling.....	Conduction
Baseplate Temp.....	-54° C to +85° C
RF Input Connector.....	SMAF
RF Output Connector.....	SMAF
All voltages with respect to cathode	

The L6072 is a low noise, helix traveling tube with an SSA with power output of 40 to 80 watts over the frequency range of 6.0 to 18.0 GHz. The tube has a metal-ceramic vacuum envelope, a beam control element, a single-stage depressed collector and utilizes periodic permanent magnet focusing. The L6072 is suitable for use in airborne and shipboard applications. DS60721003



Cleared by DoD/DFOISR for public
release under 04-S-0823 9-Mar-04