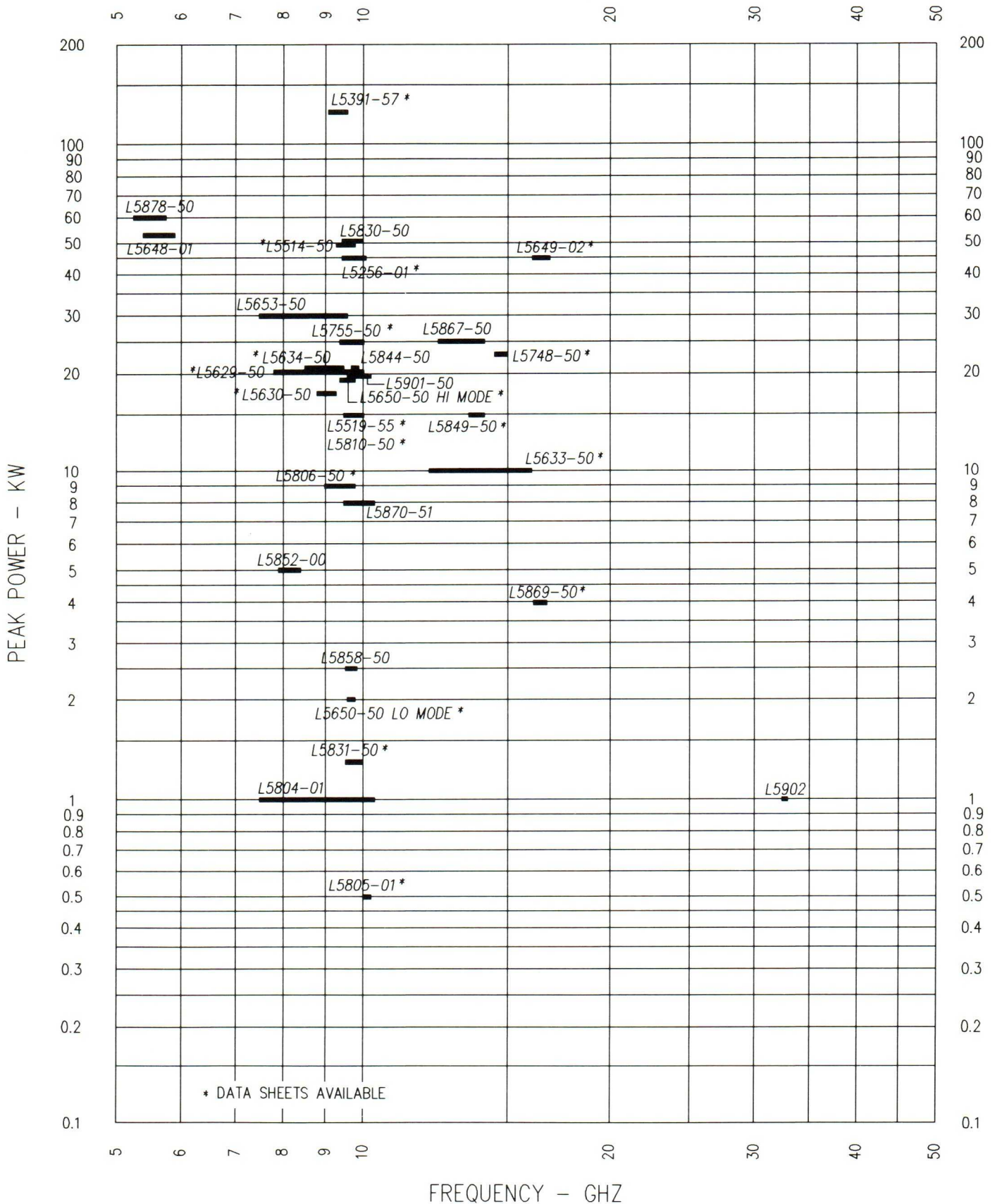


**Litton Coupled Cavity
Traveling Wave Tubes**

COUPLED CAVITY TWT'S PEAK POWER VS FREQUENCY

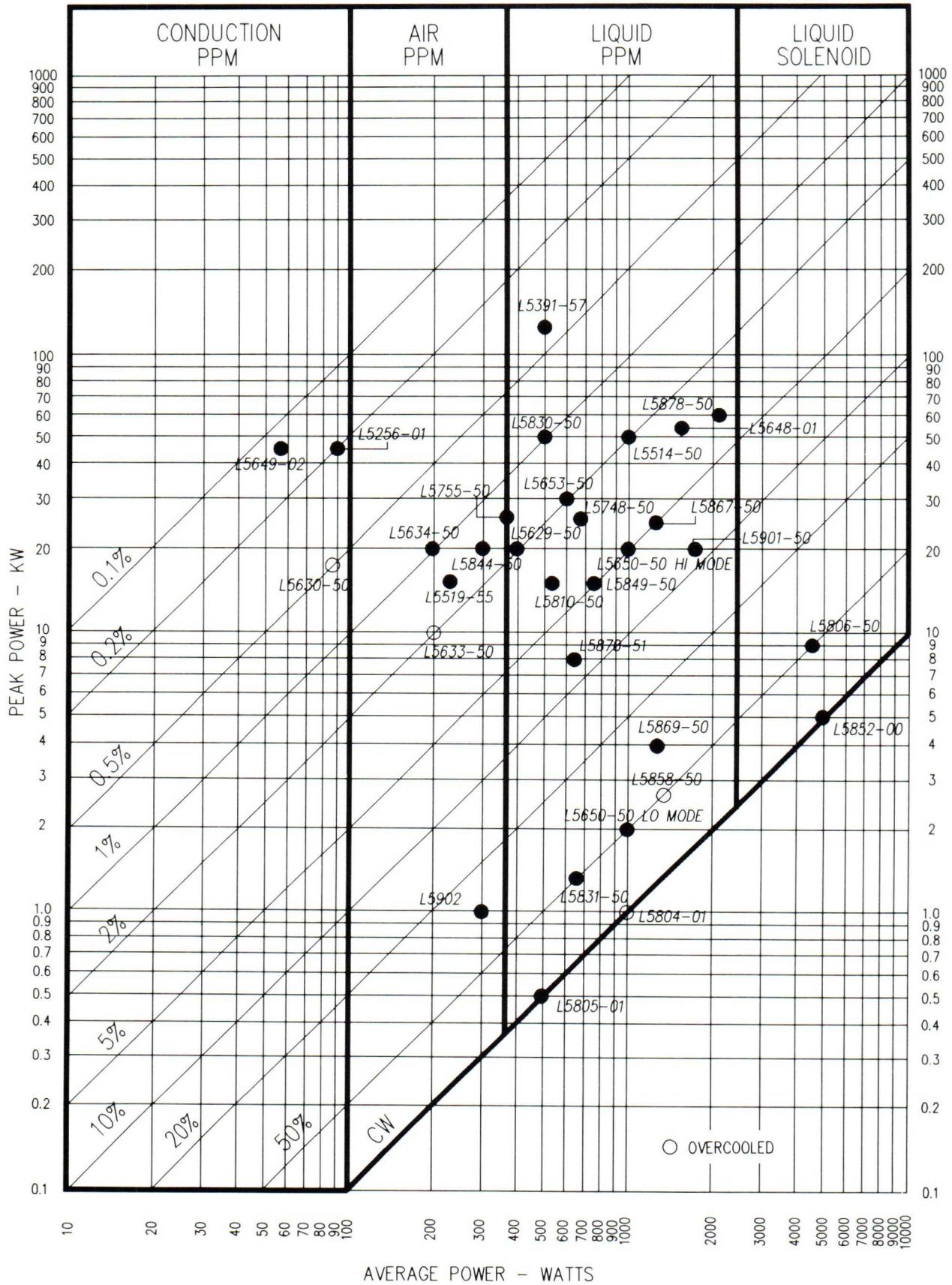


COUPLED CAVITY TWT'S

| CATALOG | TUBE TYPE | BEAM CONTROL | CATHODE VOLTAGE KV | PEAK CURRENT A | FREQUENCY RANGE GHZ | MAXIMUM BANDWIDTH % | MINIMUM PEAK POWER KW | AVERAGE POWER WATTS | MAXIMUM DUTY % | SATURATION GAIN DB | # OF COLLECTOR SUPPLIES | FOCUSING | COOLING | WEIGHT LBS |
|---------|-------------|--------------|--------------------|----------------|---------------------|---------------------|-----------------------|---------------------|----------------|--------------------|-------------------------|----------|---------|------------|
| * + | L5256-01 | K | -33 | 8.5 | 9.45-10.05 | 6.3 | 45 | 90 | 0.2 | 47 | 0 | P | C | 13 |
| * + | L5391-57 | G | -45.3 | 13.5 | 9.1-9.6 | 5.5 | 125 | 500 | 0.4 | 45 | 1 | P | L | 24 |
| * | L5514-50 | G | -32.5 | 7.6 | 9.3-9.8 | 5.4 | 50 | 1000 | 2 | 56 | 1 | P | L | 14 |
| * + | L5519-55 | G | -23 | 4.5 | 9.5-10 | 5.3 | 15 | 225 | 1.5 | 56 | 1 | P | A | 11 |
| * + | L5629-50 | G | -33 | 6.7 | 7.8-10 | 28.2 | 20 | 400 | 2 | 40 | 1 | P | L | 35 |
| * + | L5630-50 | G | -24.5 | 4.8 | 8.8-9.3 | 5.7 | 17.5 | 88 | 0.5 | 55 | 1 | P | A | 15 |
| * + | L5633-50 | G | -33 | 3.8 | 12-16 | 33.3 | 10 | 200 | 2 | 39 | 1 | P | L | 22 |
| * + | L5634-50 | G | -25.9 | 7 | 8.5-9.5 | 11.8 | 20 | 200 | 1 | 44 | 0 | P | A | 17 |
| + | L5648-01 | K | -33 | 10 | 5.4-5.9 | 9.3 | 53 | 1590 | 3 | 52 | 0 | P | L | 45 |
| * + | L5649-02 | K | -38 | 6 | 16.1-16.9 | 5 | 45 | 59 | 0.13 | 60 | 0 | P | C | 9 |
| * + | L5650-50 HI | G | -29 | 3.9 | 9.4-9.8 | 4.3 | 20 | 1000 | 5 | 64 | 3 | P | L | 24 |
| * + | L5650-50 LO | G | -25 | 0.8 | 9.6-9.8 | 2.1 | 2 | 1000 | 50 | 30 | | P | L | 24 |
| | L5653-50 | G | -34 | 6.8 | 7.5-9.6 | 28 | 30 | 600 | 2 | 44 | 1 | P | L | 35 |
| * + | L5748-50 | G | -34 | 3.7 | 14.4-15 | 4.2 | 23 | 690 | 3 | 44 | 1 | P | L | 25 |
| * | L5755-50 | G | -26 | 6 | 9.4-10 | 6.4 | 25 | 375 | 1.5 | 50 | 1 | P | A | 17 |
| + | L5804-01 | M | -9.7 | 1.1 | 7.5-10.3 | 37.3 | 1 | 1000 | 100 | 33 | 1 | S | L | 50 |
| * + | L5805-01 | K | -16 | 0.26 | 10-10.2 | 2 | 0.5 | 500 | 100 | 40 | 0 | P | L | 8 |
| * + | L5806-50 | G | -18.5 | 2.6 | 9-9.8 | 8.9 | 9 | 4500 | 50 | 50 | 1 | W | L | 50 |
| * + | L5810-50 | G | -23 | 4.5 | 9.5-10 | 5.3 | 15 | 525 | 3.5 | 60 | 1 | P | L | 16 |
| + | L5830-50 | G | -32.5 | 8 | 9.4-10 | 6.4 | 50 | 500 | 1 | 60 | 1 | P | L | 13 |
| * + | L5831-50 | G | -11.2 | 0.75 | 9.6-10 | 4.2 | 1.3 | 650 | 50 | 55 | 1 | P | L | 13 |
| | L5844-50 | G | -23 | 4.5 | 9.7-9.9 | 2.1 | 20 | 300 | 1.5 | 58 | 1 | P | A | 12 |
| * + | L5849-50 | G | -32 | 2.4 | 13.4-14 | 4.5 | 15 | 750 | 5 | 49 | 2 | P | L | 19 |
| | L5852-00 | M | -13.8 | 2.1 | 7.9-8.4 | 6.3 | 5 | 5000 | 100 | 35 | 0 | W | L | 75 |
| | L5858-50 | G | -12 | 1.3 | 9.55-9.85 | 3.1 | 2.5 | 1250 | 50 | 55 | 1 | W | L | 37 |
| + | L5867-50 | G | -37 | 4.5 | 13-14 | 7.7 | 25 | 1250 | 5 | 50 | 1 | P | L | 22 |
| * + | L5869-50 | G | -25 | 1.08 | 16.15-16.75 | 3.7 | 4 | 1200 | 30 | 50 | 3 | P | L | 15 |
| + | L5870-51 | G | -18 | 2.6 | 9.5-10.3 | 8.4 | 8 | 640 | 8 | 48 | 2 | P | L | 16 |
| | L5878-50 | G | -36 | 11.5 | 5.25-5.75 | 9.5 | 60 | 2100 | 3.5 | 50 | 1 | P | L | 70 |
| | L5901-50 | G | -24 | 4.1 | 9.6-10.2 | 6.3 | 20 | 1700 | 8.5 | 57 | 2 | P | L | 17 |
| | L5902 | G | -19.7 | 0.67 | 33.7-34 | 0.9 | 1 | 300 | 30 | 40 | 1 | P | A | 6 |
| | | | | | | | | | | | | | | |
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CATALOG * DATA SHEETS BEAM G GRID PULSE FOCUSING P PPM COOLING A FORCED AIR
+ LITTONCV DISKETTE CONTROL K CATHODE PULSE S PLUG-IN SOLENOID C CONDUCTION
M MOD ANODE W WRAPPED SOLENOID L LIQUID COOLED

COUPLED CAVITY TWT'S COOLING AND FOCUSING



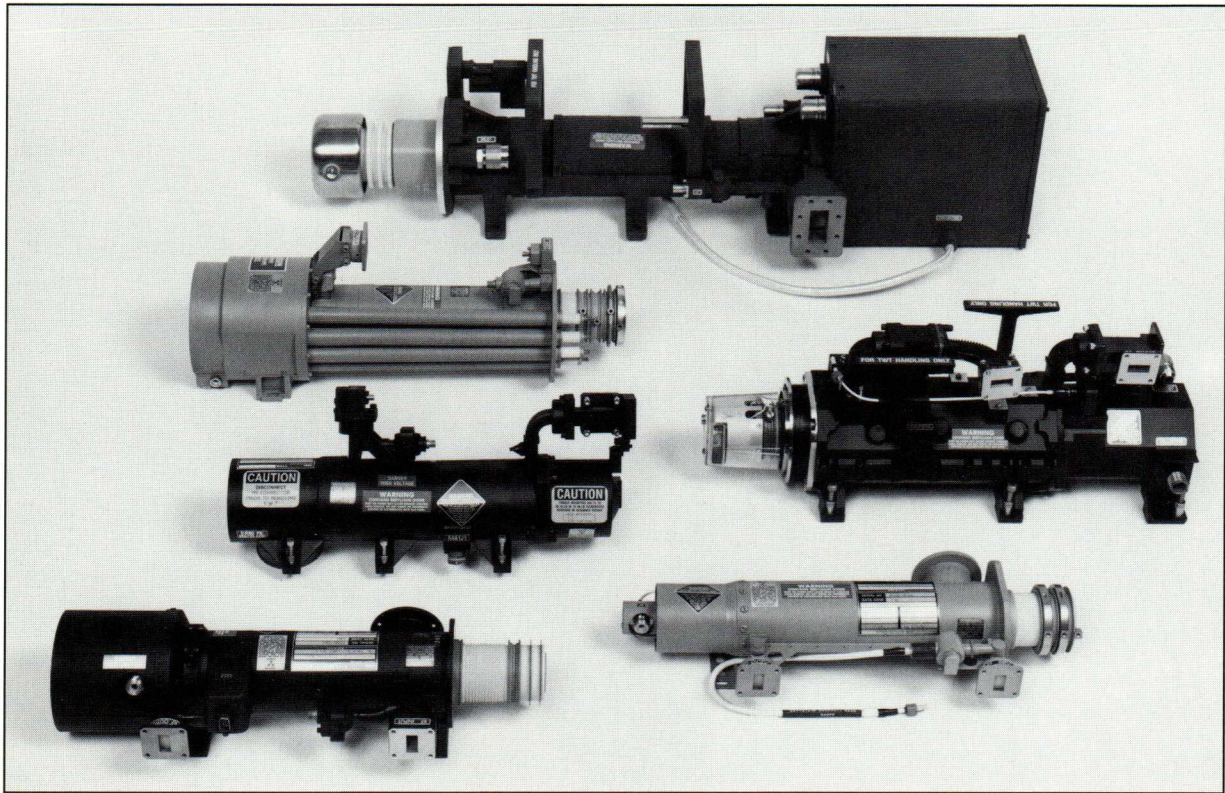
Litton Electron Devices' Coupled Cavity Traveling Wave Tubes (CCTWTs) are ideally suited for radar and ECM systems requiring high power, wide bandwidth and amplification up to 200 kilowatts of peak microwave power. Available in pulsed or continuous wave these CCTWTs are currently used in radar systems for airport surveillance, aircraft weapons control and air-to-ground mapping and tracking.

Litton's engineers custom tailor designs to the customer's exact specifications and needs. They are available with grid, anode or cathode modulation, liquid, air or conduction cooled, single or dual mode. Output power levels range from 0.5kW to 125kW minimum peak power and 59 to 5000 watts average power. The tubes operate over bandwidths from 0.9% to 37.3% and frequencies up to 34GHz.

Litton's CCTWT circuit designs provide high RF efficiencies in excess of 30% when combined with depressed collector technology. Litton has also developed unique designs for the electron gun which provide for extremely fast warm-up, and subsequent stable operation, in less than five seconds.

Litton Electron Devices is a MIL-Q-9858 and MIL-STD-2000 qualified facility. By using high yield, efficient manufacturing techniques, we are able to offer high reliability at a low cost, providing the best value MIL-SPEC CCTWTs in the industry.

The three charts included in this brochure summarize the capabilities of Litton's CCTWTs. The first two charts are graphical and tabular summaries. The third chart provides cooling, focusing, power and duty information. This chart can also be used to estimate cooling and focusing requirements for new applications. Note that "OVERCOOLED" means that the cooling method selected for the Litton CCTWT exceeds the requirements of the power/duty combination.



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PRINTED IN U.S.A. 2.5MJA1292