

BRIEF DESCRIPTION

The Thomas Electronics 8M250PCT CRT is a 8-inch rectangular, high resolution color shadow mask assembly designed for general aviation and similar applications. The tube conforms to ARINC size "B" format. The CRT comes complete with aligned deflection yoke and convergence coil.

GENERAL CHARACTERISTICS

Electron Gun	Precision In-Line
Deflection Method	Magnetic
Focusing Method	Electrostatic
Heater Voltage	6.3 Volts
Heater Current @ 6.3 Volts	0.600 ± 10% Ampere
Maximum Accelerator Voltage	20,000 Volts
Deflection Angle (Diagonal)	57 Degrees (Approx.)
Screen Type	High Contrast, Black Matrix
Phosphor Dot Pitch	0.31mm (Approx.)
Weight (Approx.)	3.96 lbs. (1.8 kg.)

TYPICAL OPERATING CONDITIONS

Accelerator Voltage	18,000 Volts
Grid #2 Voltage (Notes 1 & 2)	400 to 820 Volts
Focusing Voltage	4,700 to 6,100 Volts
Line Width (Note 3)	0.020" Max.
Light Output (Note 4)	
Red	45.0 fL.
Green	110.0 fL.
Blue	15.0 fL.

NOTES

1. Voltage values are for each gun and are positive with respect to Grid No. 1. Visual extinction of an undeflected, focused spot.
2. With a constant Cathode Voltage of +80 Volts.
3. Measured at 150µA current for each gun at the center and defined as the width at 50% of peak line brightness.
4. Measured using a raster of 100 X 100mm and a peak current of 150µA per gun.

OPTICAL DATA

Light Transmission (center)	88% (Approx.)
Phosphor	
Red	P22 Pigmented
Green	P43
Blue	P22 Pigmented
Phosphor Persistence	Medium Short
Usable Display Area	5.787" X 4.764" Min.

OTHER DESIGN OPTIONS

Custom Neck Components

Bonded Contrast Enhancement Filter or Panel

Integrated External Magnetic Shield

High Voltage Lead Package

8M250PCT DEFLECTION YOKE DATA

BRIEF OUTLINE

- * Tube yoke assembly consists of tube and saddle-saddle deflection yoke type TC01 and a purity and convergence coil YS6742.
- * Low impedance for both horizontal and vertical coils suitable for stroke scan system.

ELECTRICAL

Horizontal Coil:

Inductance (@ 0.5 Vrms, 1 KHz)	0.15 ± 5% mH
Resistance (@ 20°C)	0.30 ± 10% ohm
Deflection Sensitivity (@ 18KV Anode)	5.3 A. Typ. Peak-Peak Full Scan
Resonant Frequency	1.9 MHz Typ.

Vertical Coil:

Inductance (@ 0.5 Vrms, 1 KHz)	0.15 ± 5% mH
Resistance (@ 20°C)	0.24 ± 10% ohm
Deflection Sensitivity (@ 18KV Anode)	5.0 A. Typ. Peak-Peak Full Scan
Resonant Frequency	2.1 MHz Typ.

RASTER DISTORTION

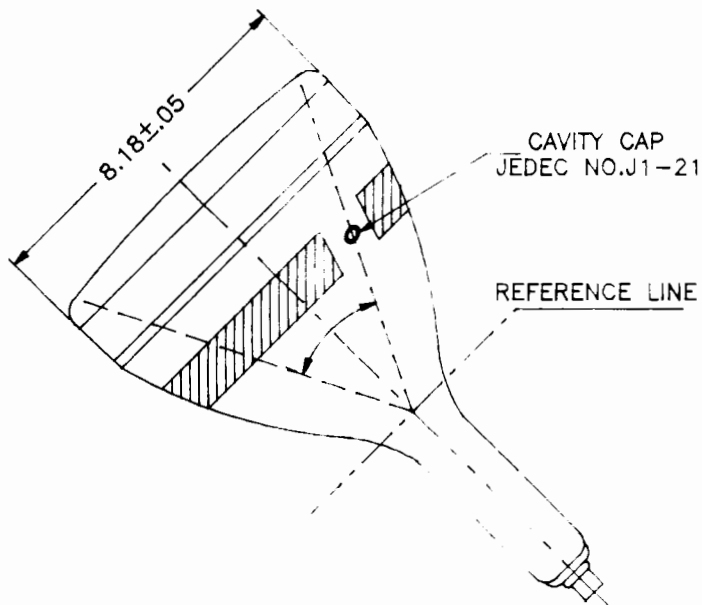
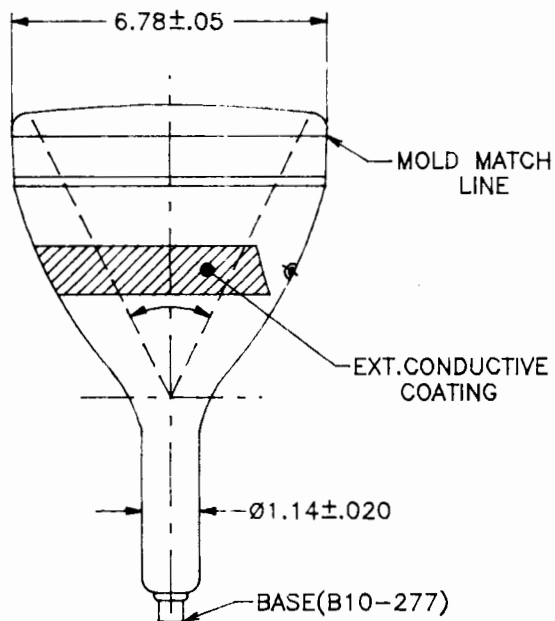
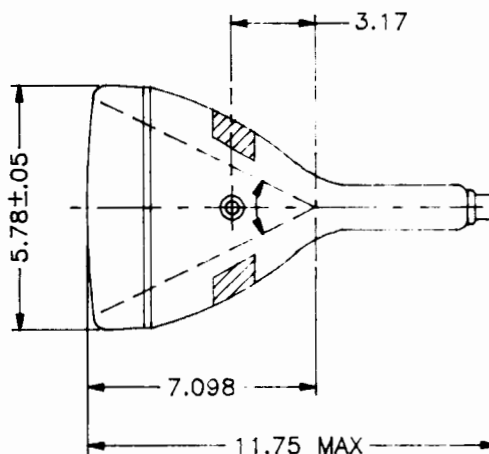
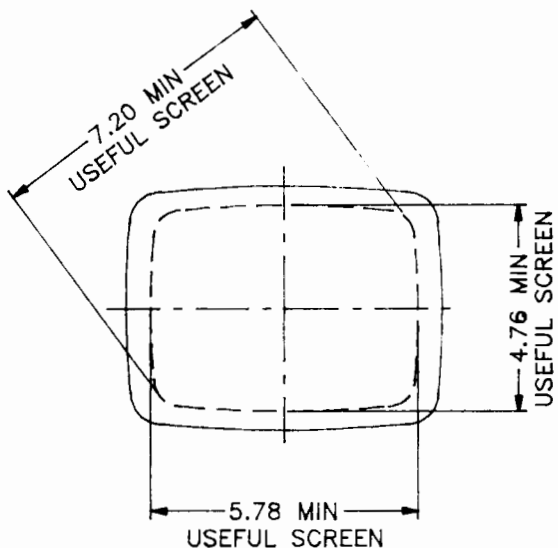
Raster Rotation	± 0.5
Raster Pincushion	
Top/Bottom	1.5% Max.
Right/Left	4.5% Max.

MECHANICAL

Deflection Yoke	
Overall Length	82mm (2.9") Max.
Weight (Approx.)	415 grams
Convergence and Purity Magnets	
Overall Length	31mm (1.2") Max.
Weight (Approx.)	155 grams

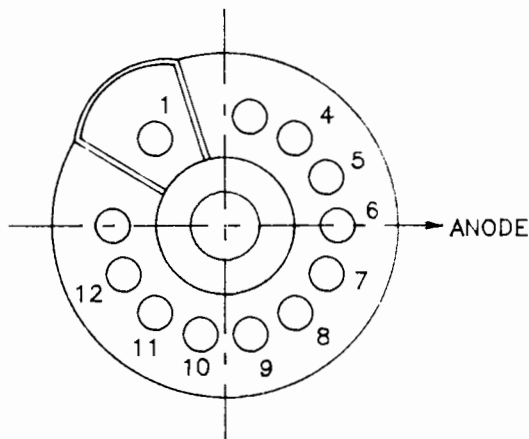
OTHER DESIGN OPTIONS

Preset neck component for self convergence. Dynamic correction not required.

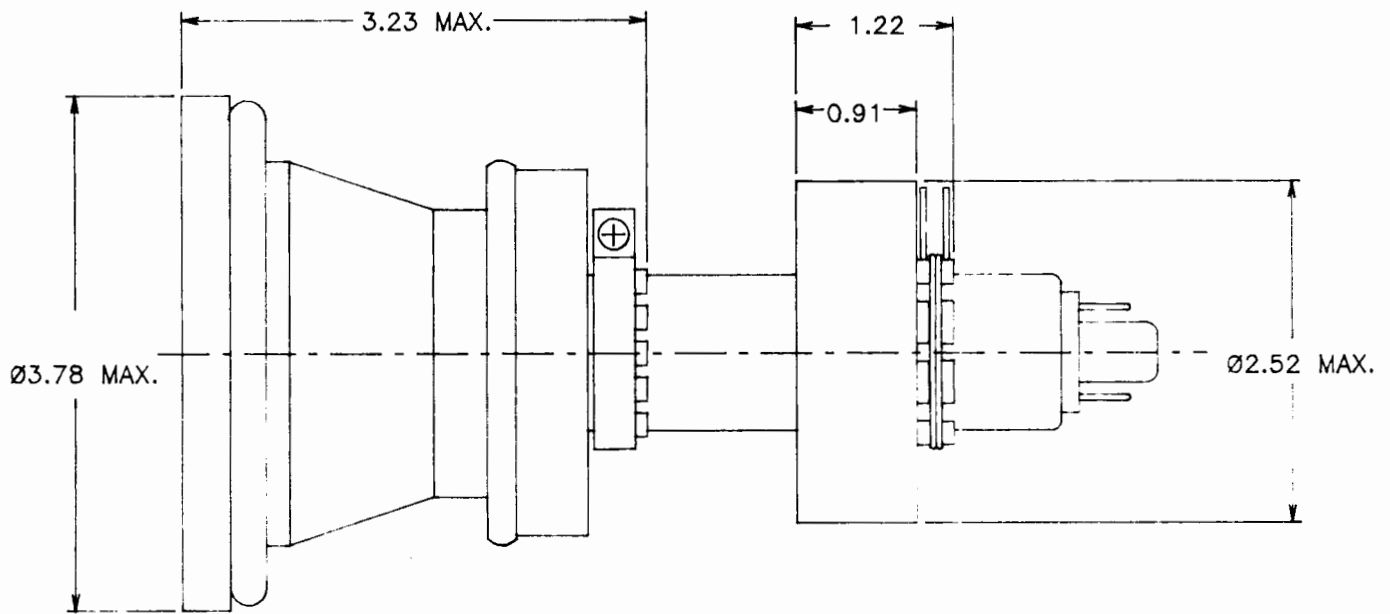


BASING SPECIFICATION (Bottom View of Base)

- | | |
|------------|----------------------|
| PIN NO. 1 | GRID NO. 3 |
| PIN NO. 4 | GRID NO. 1 |
| PIN NO. 5 | GRID NO. 1 |
| PIN NO. 6 | CATHODE OF GREEN GUN |
| PIN NO. 7 | GRID NO. 2 |
| PIN NO. 8 | CATHODE OF RED GUN |
| PIN NO. 9 | HEATER |
| PIN NO. 10 | HEATER |
| PIN NO. 11 | CATHODE OF BLUE GUN |
| PIN NO. 12 | CATHODE OF BLUE GUN |

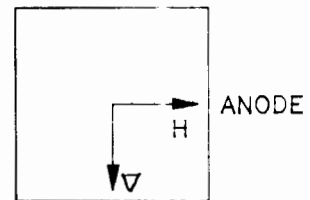


RELEASED	4-16-91
REVISED	



LEAD WIRE COLOR CODE

- RED = HORIZONTAL COIL (+)
- BLUE = HORIZONTAL COIL (-)
- YELLOW = VERTICAL (+)
- GREEN = VERTICAL (-)



FRONT VIEW

RELEASED	5-20-9
REVISED	