



Miniature Cathode Ray Tubes

Brimar manufactures rugged CRTs suitable for helmet mounted applications. The CRT has been designed, developed and qualified using precision techniques to provide maximum optical performance with minimum mass.

This CRT is currently in volume production and can be supplied with a range of different phosphors and mounting methods to ensure ease of integration into advanced helmet mounted systems.

Brimar HMD CRTs are in service on NATO aircraft including Apache AH-64, Eurofighter Typhoon, SAAB Gripen and Eurocopter Tiger

APPLICATIONS INCLUDE:

- Avionic Helmet Applications
- Man portable thermal sighting systems

TECHNOLOGY

This is a high performing Cathode Ray Tube and deflection coil assembly manufactured using high precision production technology. In addition, there is the option to have a dispenser cathode for improved reliability and life. In addition the Brimar CRT is designed for use with an optical system and can have fiberoptic face plates bonded to the face of the CRT for use in either bicocular or monocular helmet systems. Other features of the tube are low power usage, light physical weight, small physical size and the option for flexibility to be part of a modular system.

TECHNICAL SPECIFICATION

CRT CHARACTERISTICS

Usable screen area: 17mm
 Electromagnetic deflection CRT
 Raster size: 17mm x 12.75mm
 Modulation: @ 600 TVL/RH 0.40 min
 Luminance: 25fL
 Line width/MTF: .50% at 25µm centre and 31 µm half field.

ENVIRONMENT

Operating temperature: -40°C to +71°C
 Storage temperature: -51°C to +85°C

Designed for low pressure, air transportation, and a typical military avionic working environment.

PHOSPHOR SCREEN & FACEPLATE

Fine grain P56 phosphor, other phosphors available

Circular, fiberoptic with concave internal radius of curvature for best compromise between minimum deflection de-focusing and pin-cushion distortion.

MECHANICAL

Length: 104mm max
 Diameter: 26.5mm max OD
 Weight: 90g max (without leads)
 Lead lengths: Standard 2000mm min

NORMAL OPERATING VOLTAGES

Anode:	7.0kV
Focus:	900V to 1300V
Grid 2 for Cut Off	300V
Grid 1	-43V to -70V
Cathode	0V
Heater Voltage	11.0V ±10%
Heater current	75mA.

**FOR MORE
 INFORMATION
 ON BRIMAR HMD
 CRTs**



CONTACT US

BRIMAR LIMITED
 Greenside Way
 Middleton
 Manchester
 M24 1SN

Tel: +44 (0)161 681 7072
 Fax: +44 (0)161 682 3818
 Email: enquiries@brimar-ltd.com
 Web: www.brimar-ltd.com

BRIMAR INC
 2965 Colonnade Drive
 Suite #201
 Roanoke
 VA 24018

Tel: +1 (540) 725 1688
 Fax: +1 (540) 725 1690
 Email: sales@brimarinc.net
 Web: www.brimar-ltd.com