

**1/2" - Helmet Mounted Display
(HMD)**

- Weighs just 50 g
- 13 mm dia. useful area
- High brightness
- High resolution
- Combat aircraft environmental conditions





TH 8529

The TH 8529 is a miniature cathode ray tube (CRT) weighing just 50 grams (without leads). Its compact design and light weight mean it is ideally suited to helmet mounted displays (HMD) for combat aircraft pilots, who are subject to high accelerations.

The standard version of the TH 8529 includes the deflection coil and mechanical shielding. The front panel features a concave fiber-optic screen that considerably improves distortion and resolution performance versus a conventional optical flat clear glass screen. Using this basic design, other configurations

can also be supplied on request (coil, type of screen, etc.).

Throughout the world, our CRTs enjoy the total support of Thomson Tubes Electroniques. Eleven subsidiaries around the world and representatives in most countries are your guarantee of dedicated support both before and after you purchase a Thomson tube.

Thomson Tube Electroniques cathode ray tubes are designed, developed and manufactured in a production plant certified to ISO 9001.

Mechanical characteristics

Length	73	mm max.
Weight	50	g max.
Useful diameter	13	mm min.
Phosphor (on standard tube)	P53 (green)	

Typical operating conditions

Heater	11 V / 85	mA
Screen voltage (VG4)	8.5	kV
Focus voltage (VG3)	900 - 1400	V
Grid 2 voltage (VG2)	500 - 900	V
Maximum focus current	45	μ A
Cut-off voltage (VG1) with cathode voltage = 0 V	-75	V
Maximum cathode current	50	μ A
Deflection coil :	X : 100 μ H	2.2 ohms max.
	Y : 120 μ H	2.2 ohms max.
Sensitivity at 8.5 kV	0.9 A per 6.5 mm	

Typical performances (at screen center)

In stroke mode :			
• Writing speed	25 μ m/ μ s at 50 Hz refresh		
• Max peak beam current	45 μ A at max drive voltage : 25 V		
Luminance (cd/m ²)	4,000	15,000	24,000
(ft. L)	1,170	4,390	7,000
Linewidth at 50% brightness (μ m)	20	23	25



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