

BROADCAST
UHF TV

TH 382

UHF tetrode

5.25 kW, common amplification
4 kW DTV / 2.4 kW DVB

- Air-cooling
- High gain
- Excellent linearity
- High stability



THALES



TH 382

The TH 382 is a coaxial ceramic-metal tetrode, designed for analog and digital transmissions in RF amplifiers operating at frequencies up to 1,000 MHz. Featuring excellent linearity, this high-gain tetrode is the perfect solution for digital modulation applications.

The TH 18482 cavity is custom-designed to ensure that the TH 382 tetrode offers top performance in any transmitter.

Over 15 years of operating experience, encompassing several hundred sockets installed by various manufacturers worldwide, have proven the long-life durability of these tetrodes.

This product is designed, developed and manufactured at an ISO 9001 registered production site.

General characteristics

Heater supply (1)	4.2 V / 125	A
Amplification factor	8	
Transconductance ($I_a = 1.5$ A, $V_{g_2} = 300$ V)	80	mA/V
Height	158	mm
Diameter	168	mm
Weight	7	kg approx.
TH 18482 cavity:		
• dimensions	1 143 x 391 x 256	mm
• weight	70	kg approx.
Anode, electrode terminal and ceramic seal cooling	forced air	
TH 18482 cavity cooling	forced air	

(1) For power supply design only. Thomson Tubes Electroniques defines the operating voltage according to each particular operating conditions. These values are maintained to within $\pm 2\%$.

Maximum ratings

Anode voltage	6.5	kV
Anode current	4.5	A
Anode dissipation	12.5	kW
Control-grid dissipation	50	W
Screen-grid dissipation	120	W

Typical operation (with the matched cavity TH 18482)

	Analog service		Digital service	
	Common Amplification	Vision only	DTV (8VSB)	DVB (OFDM)
Peak-of-sync output power	5.25	11		kW
RMS output power (2)			4	2.4
- 1 dB bandwidth	12	12	12	12
Intermodulation products	- 52			dB
Gain	15.5	15.5	15	15
Anode voltage	5.5	5.5	6	6.5
Screen-grid voltage	600	600	700	700
Anode current with signal	2.7	3.25	2.25	1.85
Anode current at zero signal	1.2	1.2	1	1.2
Heater voltage	3.9	3.9	3.9	3.9
Shoulders level (3)			37	32/35

(2) Real measurement. (3) Without correction for non linear distortion.

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