

# >> FC 502F (1408) UHF tetrode

■ *peak-of-sync output power in combined amplification: 1.1 kW*

*Peak-of-sync output power in combined amplification: 2.2 kW*

## General characteristics

Cathode .....	Thoriated tungsten
Heating .....	Direct, DC or single phase AC
Filament voltage .....	6V (1)
Filament current .....	34A (1)
Interelectrode capacitances ,approx:	
Cathode-control grid .....	40pF
Control grid-Screen grid .....	50pF
Screen grid-anode .....	8.2pF
Transconductance (1a=1.5A, U <sub>g2</sub> =400V) .....	40mA/V
Internal amplification factor, average .....	7
Operating position .....	Vertical
Weight, approx, .....	2.3kg
Dimensions .....	See page 95
Anode cooling (2) .....	Forced air
Air flow, min, .....	2500L/min
Pressure at air inlet, max, .....	300Pa
Temperature at air outlet, max, .....	100°C
Cooling at the sealing between electrode terminal and ceramic .....	Forced air
Temperature on the surface of the tube, max, .....	250°C

(1) The operating filament voltage must be defined according to each particular situation, the range of the filament voltage being 6V ± 3%.

As an indication for equipment design purposes only, a given heater voltage of 6V produces a given filament current of 34A.

(2) Values for cooling given for 2.5kW anode dissipation



## Maximum ratings

Frequency .....	1000MHz
Anode voltage .....	5kV
Anode current .....	2A
Anode dissipation .....	4.5kW
Control-grid dissipation .....	5W
Screen-grid dissipation .....	25W

## Typical operation

	Common amplification	Vision only	
Frequency	800	800	MHz
Peak-of-sync output power	1.1	2.2	kW
Bandwidth (-1dB)	8	6	MHz
Intermodulation distortion	-54	-	dB
Gain	15.5	15.5	dB
Anode voltage	4	4	KV
Screen-grid voltage	400	400	V
Anode current (with signal)	0.8	1.5	A
Anode current (at zero signal)	0.5	0.5	A
Control-grid current	negligible	2	mA
Screen-grid current	5	8	mA