

Federal Telephone and Radio Corporation



100 KINGSLAND ROAD • CLIFTON, NEW JERSEY



TYPE 5512

NUTLEY 2-3800

The 5512 is a three electrode tube designed for use as an RF amplifier and oscillator. The anode is water cooled by an integral water jacket and capable of dissipating 25 kilowatts. The cathode is a thoriated tungsten filament. Maximum ratings apply up to 110 megacycles. The ring seal grid connector, co-axial filament terminals, and self contained water jacket facilitate its use in co-axial circuits for high frequency operation.

ELECTRICAL DATA

Filament Voltage	6.2 Volts
Filament Current	435 Amperes
Filament Starting Current	870 Amperes max.
Filament Cold Resistance	0.002 Ohms
Amplification Factor	38
Interelectrode Capacitances	
Grid-Plate	52 μmf
Grid-Filament	72 μmf
Plate-Filament	1.2 μmf

MECHANICAL DATA

Mounting Position - Vertical, Anode Down	
Type of Cooling - Water and Forced Air	
Minimum Water Flow on Anode	7 GPM
Maximum Outgoing Water Temperature	70°C
Air Flow to Seals to Limit	
Maximum Glass Temperature to	150°C
Net Weight, Approx.	18 Pounds

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Radio Frequency Power Amplifier and Oscillator - Class C Telegraphy
Key-down conditions per tube without AM *

Maximum Ratings, Absolute Values

D-C Plate Voltage	9,000 Volts
D-C Grid Voltage	-1,500 Volts
D-C Plate Current	10 Amperes
D-C Grid Current	0.8 Amperes
Plate Input	80 Kilowatts
Plate Dissipation	25 Kilowatts



TYPE 5512

Typical Operation, Grounded-Grid Circuit at 108 Mc.

D-C Plate Voltage	7,000 Volts
D-C Grid Voltage	-270 Volts
D-C Plate Current	5.35 Amperes
D-C Grid Current, Approx.	0.45 Amperes
Driving Power, Approx.	4.2 Kilowatts
Power Output, Approx. /	26 Kilowatts

* Modulation essentially negative may be used if the positive peak of the envelope does not exceed 115% of the carrier conditions.

/ Includes power transferred from driver stage.

