

UHF-TV Transmitter Tube

CEA 4201

The CEA 4201 is the highest efficiency tube operating in the UHF-TV frequency range of 470 – 810 MHz. By combining a multistage depressed collector with an inductive output amplifier, DC input power is made almost proportional to RF output over a wide power range. The amplifier has been designed for use in digital transmitters.

SPECIFICATIONS

RATINGS	MIN	MAX	UNITS
Heater Voltage	5	7	V
Heater Current, Operating	20	30	A
Heater Current, Surge	----	60	A
Heater Warm-up Time	300	----	sec
Beam Voltage	----	38	kV
Quiescent Current	----	0.6	A
Beam Current	----	2.5	A
Solenoid Current	----	25	A
Load VSWR	----	1.5:1	
Bias Voltage (Referenced to Cathode)	----	-250	V
Grid Current	----	±150	ma
Ion Pump Current, Beam On	----	20	µA
Ion Pump Voltage (Referenced to Cathode)	----	4	kV
Peak/Average Output Power (8VSB) kW	----	130/30	KW/ kW
Peak/Average Input Power (8VSB)	----	1500/250W	
IOT MECHANICAL DESCRIPTION			
Dimensions	See Outline		
Weight (approximately)	70 lb		
Mounting Position	Collector, end down		
TROLLEY ASSEMBLY MECHANICAL DESCRIPTION			
Electromagnetic Voltage	4.5	6.3	V
Electromagnetic Current	20	28	A
RF Input	Type N		
RF Output	3 1/8", EIA, 50 Ω		
Net Weight of tuning cavities (approx)	110 lb		
Net Weight of magnet assembly (approx)	300 lb		
Collector Cooling			
Maximum Inlet Oil Pressure	70 psi		
Maximum Inlet Oil Temperature	65 ° C		
Maximum Outlet Oil Temperature	75 ° C		
Minimum Collector Oil Flow (at operating temp.)	15 gpm		
Anode Cooling			
Maximum Inlet Temperature (water or glycol)	65 ° C		
Minimum Anode Flow (water or glycol)	0.9 gpm		
Pressure Drop	10 psi		
Air Flow to Input and Output Cavities	90 cfm		
Minimum Air Pressure at Intake	5 in		
Maximum Air Temperature at Intake	60 ° C		

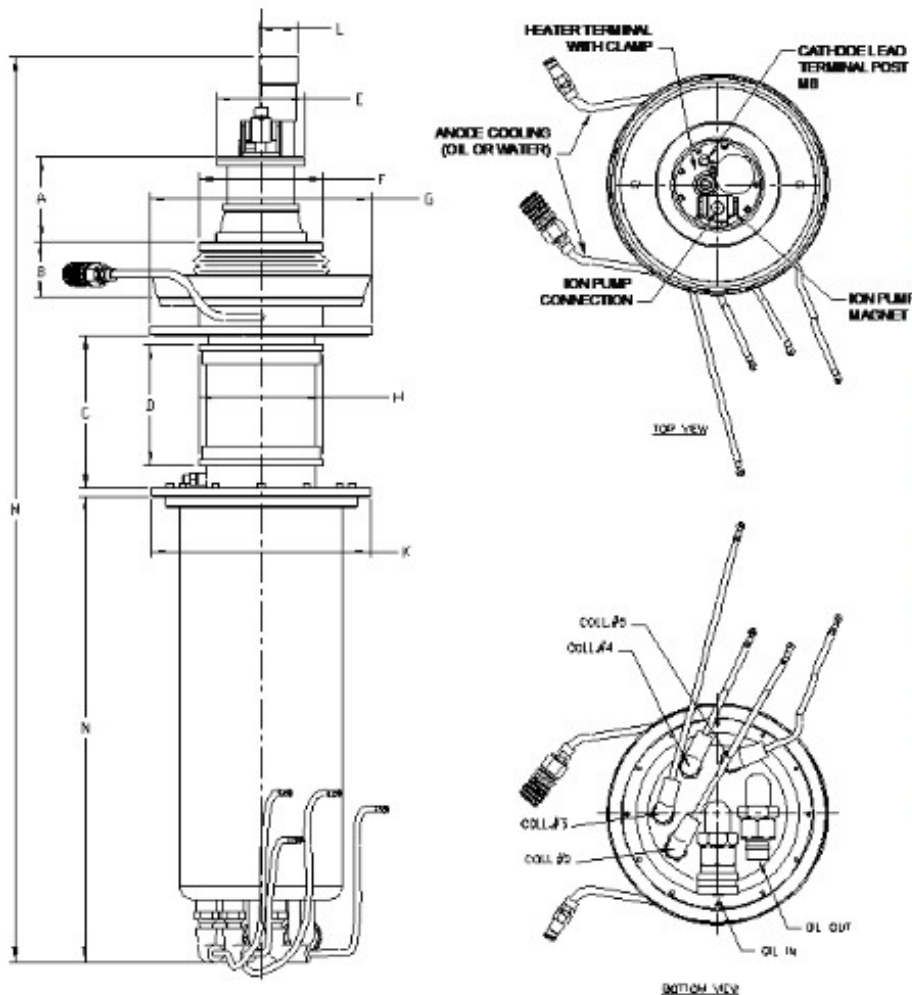
Specifications are subject to change without notice.



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Outline Drawing
(Dimensions in inches)



DIMENSIONS		
LETTER	MIN	MAX
A	3.42	3.47
B	2.30	2.35
C	6.228	6.268
D	4.98	5.02
E	3.64	3.68
F	5.10	5.14
G	9.05	9.09
H	5.11	5.15
K	7.74	7.78
L	1.634	
M	37.17	
N	19.18	

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