



communications

Electron Devices

L5859 Klystron

The L5859 is a fixed frequency mod-anode klystron amplifier capable of producing a peak power output of 12 megawatts at .0017 duty. DS58591102

Typical Operation

Frequency	805 MHz
Bandwidth (0.5 dB points)	3.0 MHz
Peak Power Output	12.0 MW
Average Power Output	20.7 KW
Gain	50 dB
Pulse Width (R-F)	115µs
Duty	.0017
Beam Voltage	180 KV
Beam Current, peak	155 A
Efficiency	45%

Absolute Ratings

Heater Voltage, Ef	30 VAC
Heater Current, If (Surge)	80 AAC
Anode Voltage	190 KV
Anode Voltage inverse, epx	63 KV
Cathode Current, peak	175 A
Beam Input Power, peak	30 MW
Beam Input Power, average	60 KW
Pulse Length	128µs
R-F Input Power, peak	0.5KW
R-F Input Power, average	100 W
Load VSWR (non-failure)	1.5:1
Cathode Heating Time, minimum	45 min.
Window Pressure	30 psia
Cathode Seal Temperature	175°C
Hydrostatic Pressure	125 psig
Coolant Outlet Temperature	70°C

Electrical Data-General

Heater Voltage	25 VAC
Heater Current	22 AAC
Focusing	Electromagnetic
Solenoid	Model 5046

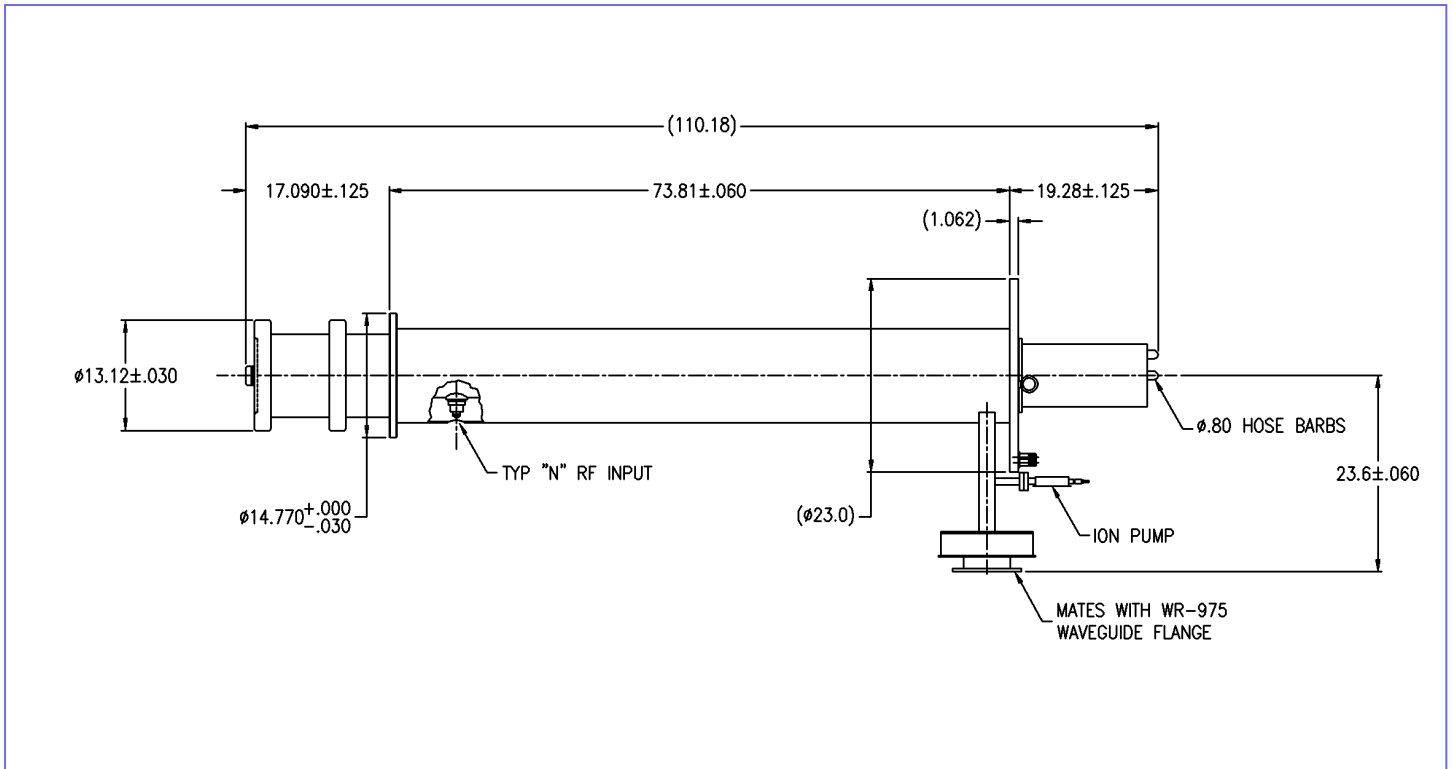


Mechanical Data-General

Physical Dimensions	115 x 24 x 33 in.
Klystron Weight	800 lbs.
Solenoid Weight	3200 lbs.
Mounting Position	Vertical,
.....	Cathode end down
R-F Input Connector	Coax, Type N
R-F Output Connector	WR975 waveguide
Cathode and Heater Connector	Mates to
.....	M5047 Socket
Coolant Connectors	See Outline Drawing
Coolant, Water	
Collector, flow	25 gpm
Body, flow	7.0 gpm
Solenoid, flow	3.0 gpm
Pressure Drop	50 psi
X-Ray Shielding Required	Model 5045
.....	X-Ray Shield Kit Recommended (weight, 1300lbs)

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L5859 Outline Drawing



Current detailed outline drawings are available on request. Specifications and features are subject to change without notice.