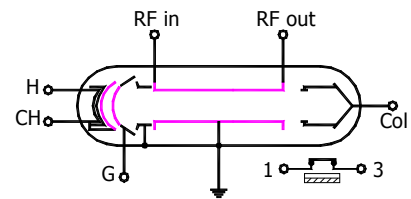


## Features

Frequency range	1,5 to 2,0	GHz
RF peak output power	7	kW
RF average output power	70	W minimum
Gain	27,5	dB minimum
Duty cycle	1	%

## Description

The L114 is a ring and loop, grid-pulsed and air cooled traveling wave tube for use as a driver or output tube in advanced radar system and test equipment. Each tube delivers at least 7,0 kW of RF peak power and minimum 70 W of average output power without adjustment. The tube has a metal-ceramic vacuum envelope, periodic permanent magnet focusing structure, and single-stage depressed collector with normal closed (NC) thermostat.



H – heater; CH – cathode-heater;  
G – grid; Col – collector

## RF Performance Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Frequency range	1,5	2,0	GHz
RF peak output power	7,0	-	kW
RF average output power	70	-	W
Gain	27,5	-	dB
RF drive power	-	12,5	W
Load VSWR	max 2,5:1		

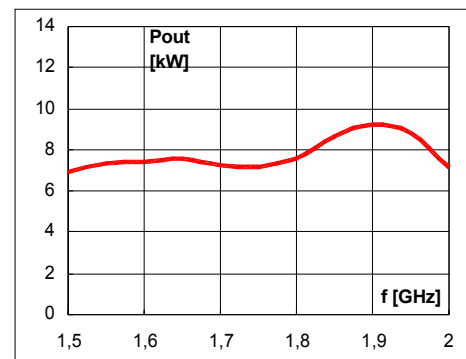
## Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-12	-14,5	kV
Collector voltage	75-85 % cathode voltage		
Grid bias voltage	-250	-350	V
Grid pulse voltage	+350	+650	V
Cathode pulse current	-	4,5	A
SWS pulse current	-	2,2	A
Duty cycle	-	1,0	%
Pulse width	-	80	μs
Heater voltage	8,0	10	V
Heater current	4,0	4,8	A
Heater warm-up time	3	-	min

## Notes

- The cathode voltage is measured with respect to the ground.
- The heater, grid and collector voltages are measured with respect to the cathode.

## Charts



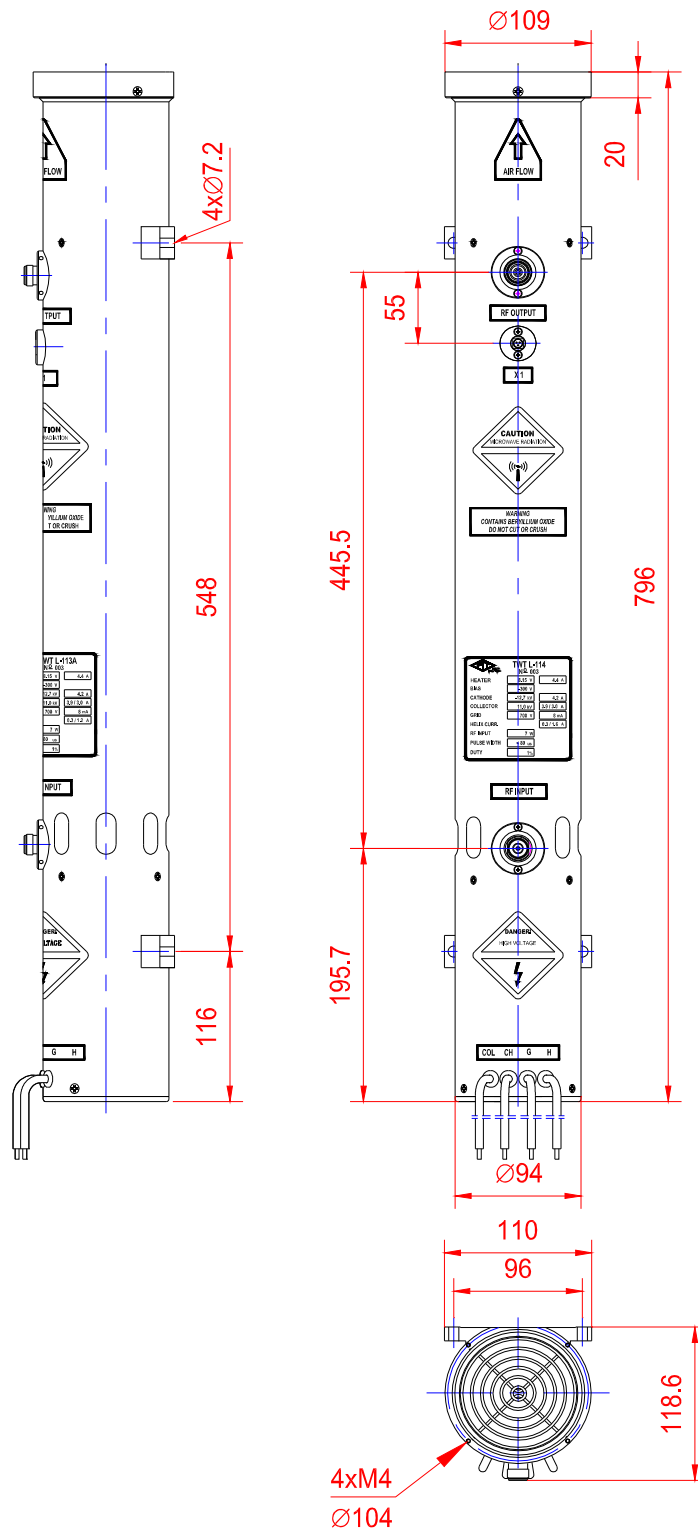
Output power versus frequency  
U<sub>cath</sub>=const, P<sub>in</sub>=const

## Mechanical Description

Dimensions	See Outline Drawing
Weight	7,5 kg
Cooling	Fan – min 160 m <sup>3</sup> /h
Mounting Position	Any
RF input connector	Type N
RF output connector	Type SC
Thermal switch connector	Flying leads

**PIT - RADWAR S.A.**  
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The mechanical dimensions can be modified. Current detailed outline drawings are available on request. All mechanical dimensions are in [mm].

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