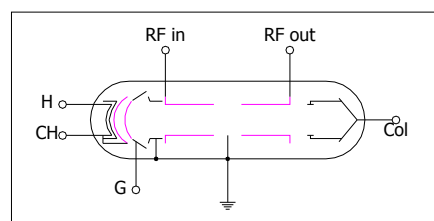
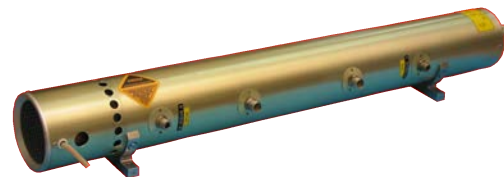


## Features

Frequency range	1,24 to 1,44 GHz
RF peak output power	5 kW
RF average output power	50 W
Gain	26 dB
Duty cycle	1 %

## Description

The LO-111 is a ring and loop, grid-pulsed and forced air and liquid cooled traveling wave tube for use as a driver or output tube in advanced radar system and test equipment. Each tube delivers at least 5 kW of RF peak power and minimum 50 W of average output power in L band without adjustment. The tube has a metal-ceramic vacuum envelope, single-stage depressed collector and periodic permanent magnet focusing structure.



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

## RF Performance Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Frequency range	1,24	1,44	GHz
RF peak output power	5	-	kW
RF average output power	50	-	W
Gain	26	-	dB
RF drive power	-	12	W
Load VSWR	max 2:1		

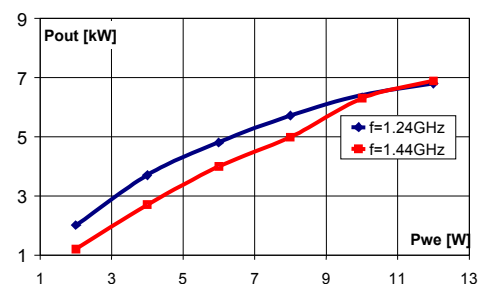
## Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-10	-12	kV
Collector voltage	80 % cathode voltage		
Grid bias voltage	-160	-200	V
Grid pulse voltage	+400	+700	V
Cathode pulse current	2,5	3,5	A
SWS pulse current	-	0,5	A
Duty cycle	-	1,0	%
Pulse width	-	50	μs
Heater voltage	8,5	10,0	V
Heater current	4,3	4,8	A
Heater warm-up time	3	-	min

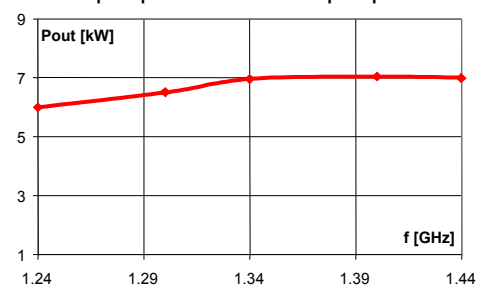
## Notes

- 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 input power



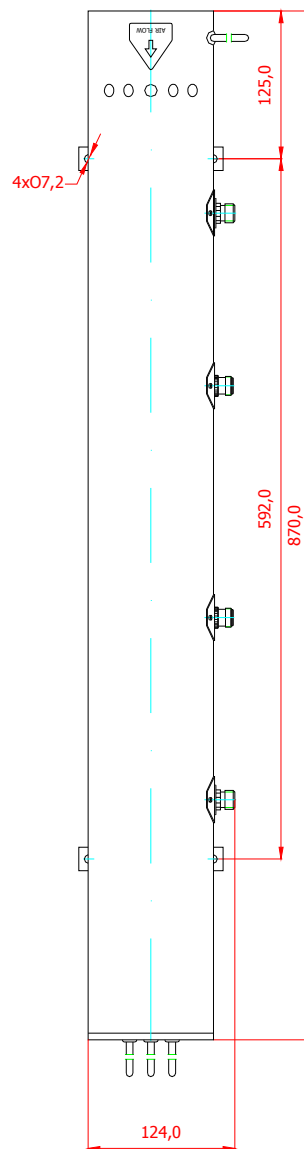
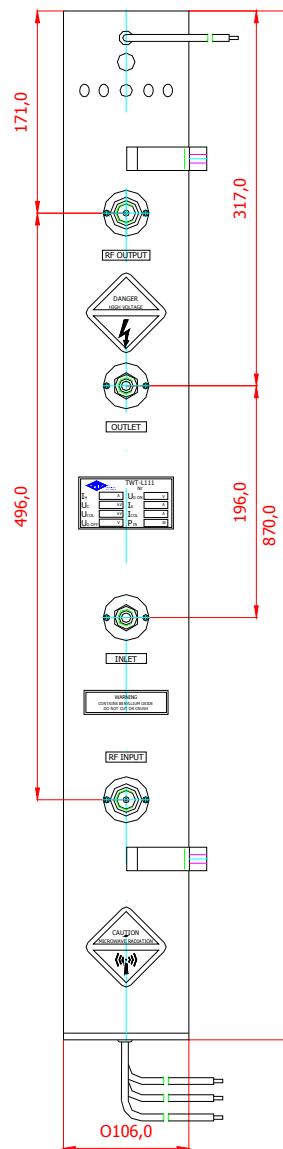
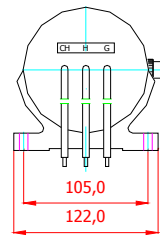
Output power versus input frequency

## Mechanical Description

Dimensions	See Outline Drawing
Weight	14 kg
Cooling	Liquid and Air-Forced
Mounting Position	Any
RF input connector	Type N
RF output connector	Type N

**PIT - RADWAR S.A.**  
**WROCLAW DIVISION**

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The mechanical dimensions can be modified. Current detailed outline drawing are available on request.  
All mechanical dimensions are in [mm].

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