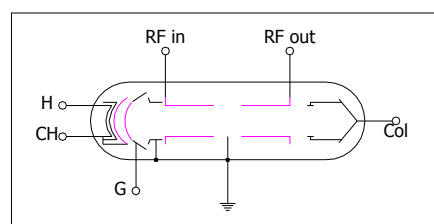
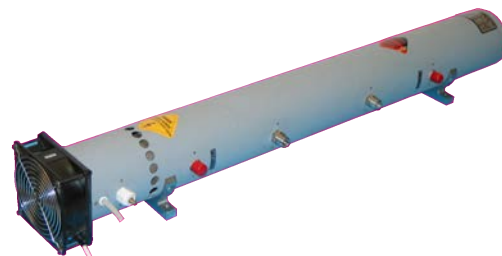


Features

Frequency range	1,24 to 1,44 GHz
RF peak output power	10 kW
RF average output power	130 W
Gain	30 dB
Duty cycle	1,3 %

Description

The LO-112 is a ring and loop, grid-pulsed 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 10 kW of RF peak power and minimum 130 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	10	-	kW
RF average output power	130	-	W
Gain	30	-	dB
RF drive power	-	12	W
Load VSWR	max 2:1		

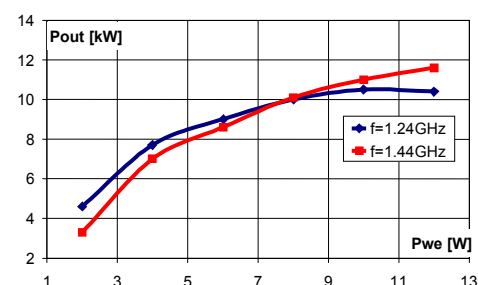
Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-10	-13	kV
Collector voltage	80 % cathode voltage		
Grid bias voltage	-160	-200	V
Grid pulse voltage	+400	+800	V
Cathode pulse current	-	4,5	A
SWS pulse current	-	1,5	A
Duty cycle	-	1,3	%
Pulse width	-	50	μs
Heater voltage	8,0	10,0	V
Heater current	4,3	4,8	A
Heater warm-up time	3	-	min

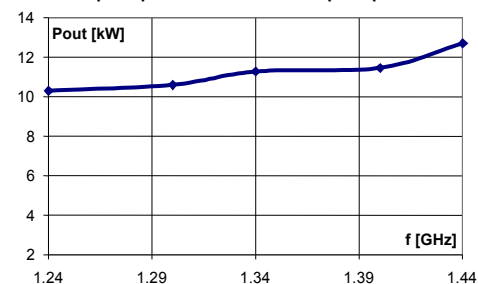
Notes

- 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



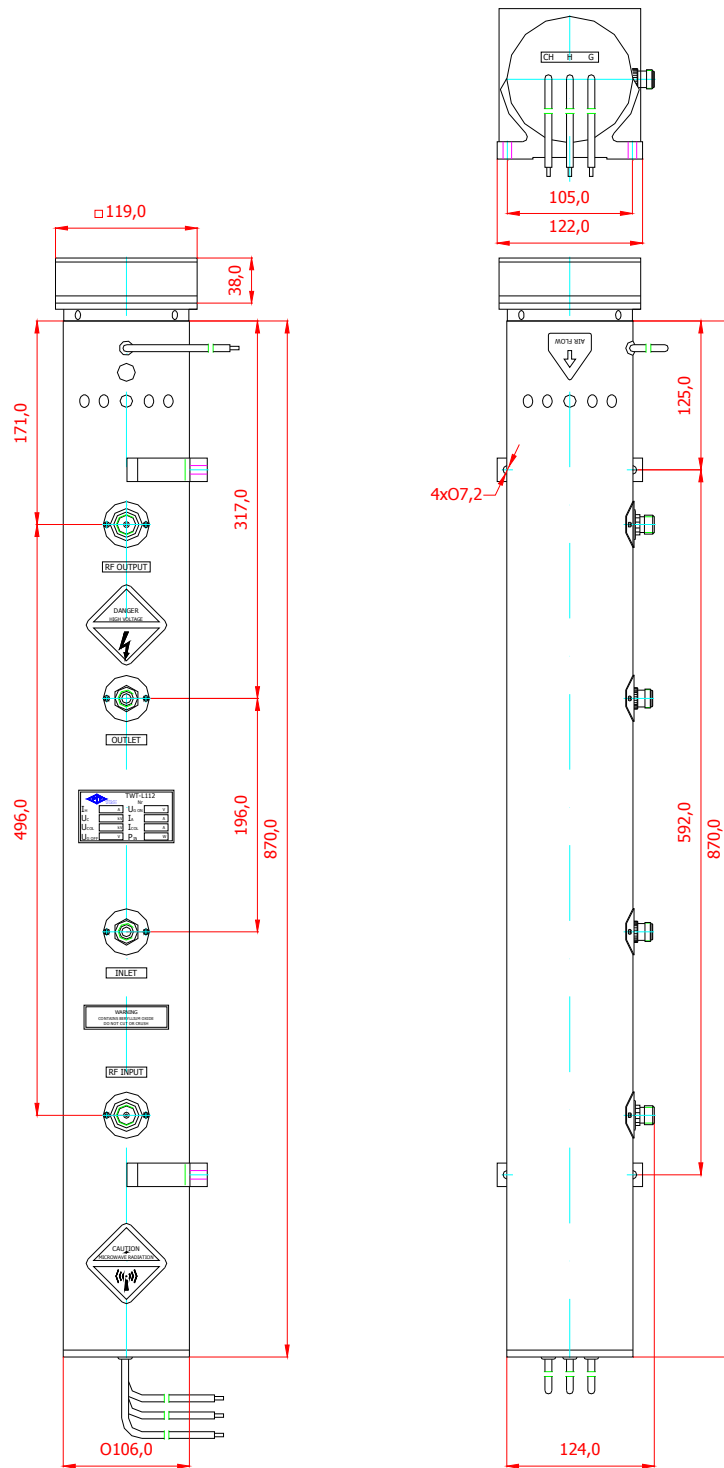
Output power versus input frequency

Mechanical Description

Dimensions	See Outline Drawing
Weight	14,1 kg
Liquid cooling	Air-Forced
Mounting Position	Any
RF input connector	Type N
RF output connector	Type N

PIT - RADWAR S.A.
WROCLAW DIVISION

50-425 Wrocław, ul. Krakowska 64, Poland; tel. (+48) 71-342-65-54; fax (+48) 71-342-58-59; e-mail: sales@dolam.pl
53-439 Wrocław, ul. Grabiszyńska 97 tel. (+48) 71-361-18-19 ; fax. (+48) 71-361-73-19; e-mail: office@pitow.wroc.pl



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

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