

Features

Frequency range	1,0 to 1,5 GHz
RF peak output power	3,5 kW
RF average output power	130 W
Gain	20 dB
Duty cycle	2 %

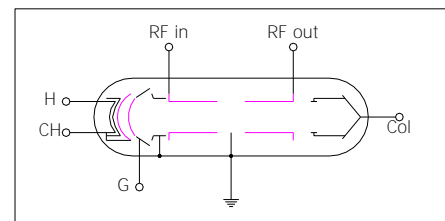
Description

The L113B is a ring and loop, grid-pulsed traveling wave tube for use as a driver or output tube in advanced radar system and test equipment. Each tube delivers at least 3,5 kW of RF peak power and minimum 100 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.



RF Performance Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Frequency range	1,0	1,5	GHz
RF peak output power	3,5	-	kW
RF average output power	-	100	W
Gain	20	-	dB
RF drive power		30	W
Load VSWR	max 2:1		

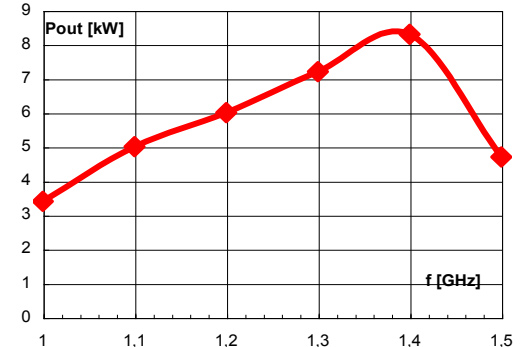


H – heater; CH – cathode-heater; G –grid; Col – collector

Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-11	-13	kV
Collector voltage	80±5 % cathode voltage		
Grid bias voltage	-200	-300	V
Grid pulse voltage	+200	+300	V
Cathode pulse current	-	3,0	A
SWS pulse current	-	0,4	A
Duty cycle	-	4,0	%
Pulse width	-	80	μs
Heater voltage	8,0	9,5	V
Heater current	4,3	4,8	A
Heater warm-up time	3	-	min

Chart



Output power versus frequency

Notes

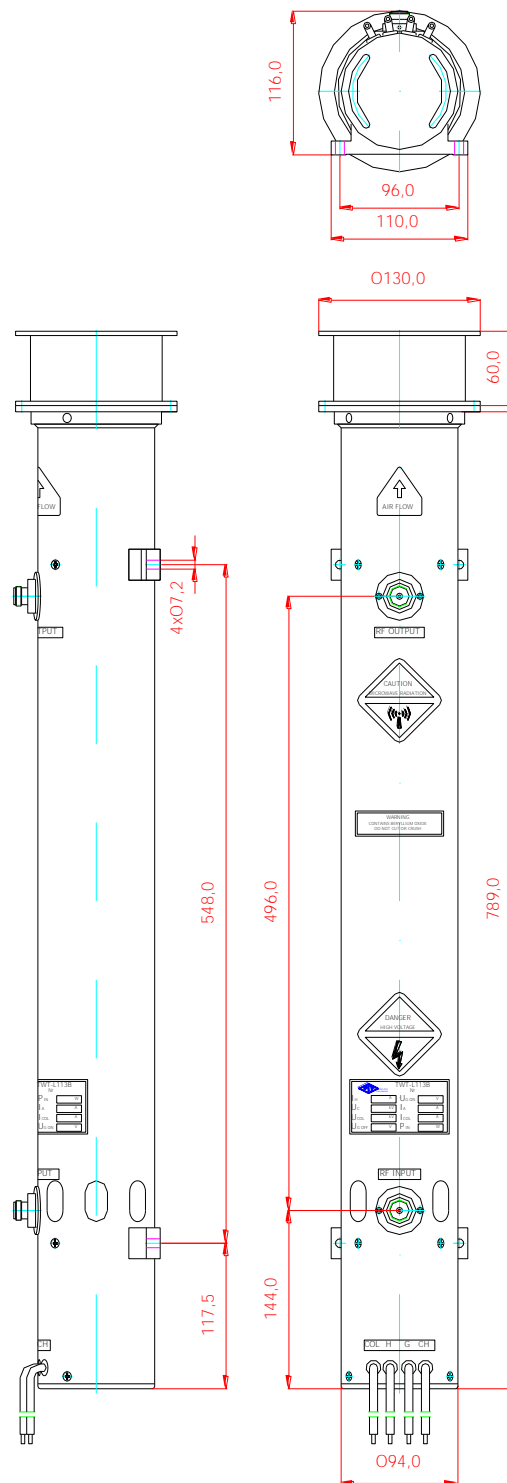
- The cathode voltage is measured with respect to the ground.
- The heater, grid and collector voltages are measured with respect to the cathode.

Mechanical Description

Dimensions	See Outline Drawing
Weight	9,5 kg
Cooling	Air Forced
Mounting Position	Any
RF input connector	Type N
RF output connector	Type SC

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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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