

Traveling Wave Tube: L113A

Features

Frequency range 1,0 to 1,5 GHz RF peak output power 10 kW

RF average output power 100 W minimum Gain 27 dB minimum

Duty cycle 1 %

Description

The L113A 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 10 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, periodic permanent magnet focusing structure, and single-stage depressed collector with normal closed (NC) thermostat.



TECHNICAL DATA	MIN	MAX	UNITS
Frequency range	1,0	1,5	GHz
RF peak output power	10	-	kW
RF average output power	100	-	W
Gain	27	-	dB
RF drive power	-	20	W
Load VSWR	max 2:1		

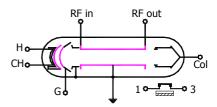
Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-12	-14.5	kV
Collector voltage	80±5 % cathode voltage		
Grid bias voltage	-250	-350	V
Grid pulse voltage	+350	+650	V
Cathode pulse current	-	4,5	Α
SWS pulse current	-	2,2	Α
Duty cycle	-	1,0	%
Pulse width	-	80	μs
Heater voltage	8,0	10	V
Heater current	4,0	4,8	Α
Heater warm-up time	3	-	min

Notes

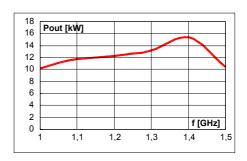
- The cathode voltage is measured with respect to the ground.
- The heater, grid and collector voltages are measured with respect to the cathode.





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

Charts



Output power versus frequency

Mechanical Description

Dimensions See Outline Drawing Weight 7,5 kg

Cooling Fan – min 160 m³/h Mounting Position Any

RF input connector Type N
RF output connector Type SC

Thermal switch Binder - type 719

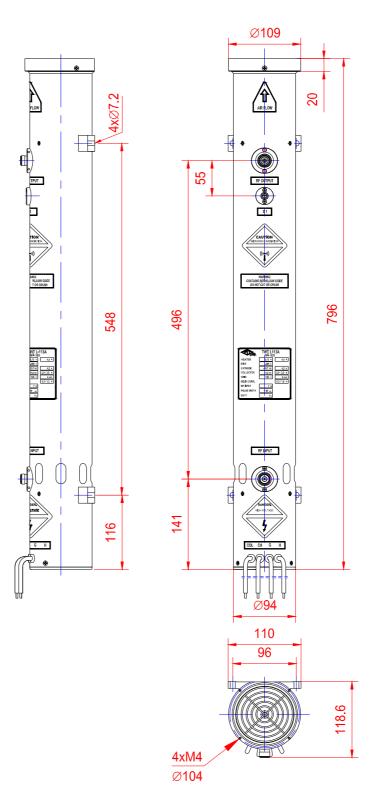
connector

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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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