

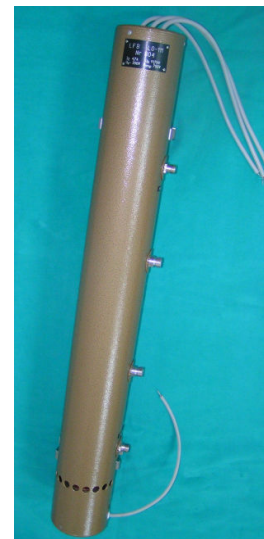


AQAP 2110:2009
 PN-EN ISO 9001:2009
 PN-EN ISO 14001:2005
 PN-N 18001:2004

DOLAM

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TRAVELING WAVE TUBE: LO-111

High Power Pulse TWT (with Ring and Loop Slow Wave Circuit)

The pulsed traveling wave tubes are used as drivers or as output tubes in test equipment

I. RF Performance Requirements

Technical data	min.	typical	max.	Units
Frequency range	1,2		1,4	GHz
RF Peak output power	5	7	8	[kW]
Gain	26			[dB]
Duty			1	[%]
Load VSWR			2	-

II. RF Other Parameters

Technical data	min.	typical	max.	Units
Noise		34	40	[dB]
RF input connector	N 50			
RF output connector	N 50			

III. Electrical Requirements

Technical data	min.	typical	max.	Units
Cathode voltage	10,0		12,5	[kV]
Grid-bias voltage	-180		-200	[V]

Positive pulse grid voltage	600		900	[V]
Cathode pulse current			4,0	[A]
Grid pulse current			0,5	[A]
SWS pulse current			1,0	[A]
Pulse width		15		[μ s]
Number stage depresset collector	1			
Collector voltage	-4,0		0	[kV]
Heater voltage	8,0		10,0	[V]
Heater current	4,5		5,5	[A]
Preheating time			4	minutes

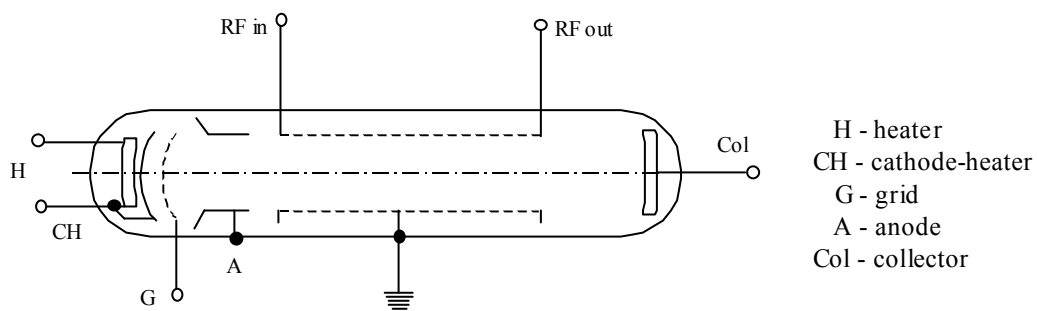


Fig. 1. Scheme connections of electrodes tube LO-111

IV. Mechanical Description

- | | |
|----------------------------|--|
| 1. Dimensions | See Outline Drawing, Fig. 2. |
| 2. System cooling | Liquid - 1 l/minutes; Air - 100m ³ /h |
| 3. Max coolant inlet temp. | 60°C |
| 4. Mounting Position | Any |
| 5. Weight | 16 kg (35,5 lbs) |

V. Notes

1. The cathode and collector voltage is measured with respect to the ground.
2. The heater and grid voltage is measured with respect to the cathode.
3. Focusing - Periodic Permanent Magnet.
4. Each tube delivers a peak output power in the given frequency range without tuning adjustment.
5. Optimum peak output power and gain may occur after fine tuning of beam voltage and RF input power.
6. Helix over current protection should be provided in the power supply.
7. Environment temperature from 233 K to 343 K.
8. A ceramic-metal construction provides exceptional mechanical strength.

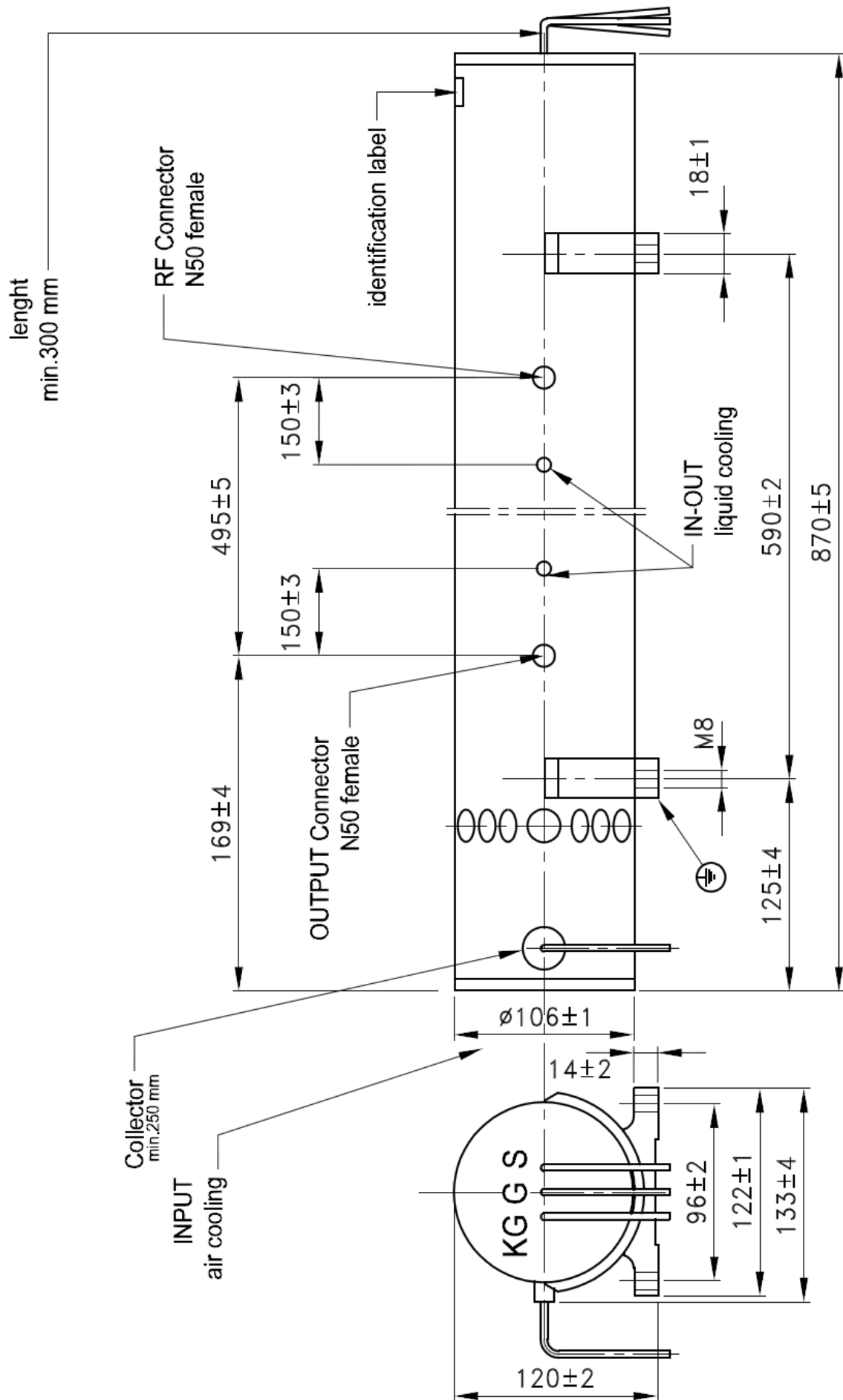


Fig. 2. Dimensions of tube LO-111