

## Features

Frequency range	4,0 to 6,5 GHz
RF peek output power *	15 W
RF average output power	5 W
Gain	30 dB
Duty cycle	30 %

## Description

The C52 is a helix, cathode-pulsed (customize grid-pulsed) and conduction cooled traveling wave tube for use as a driver for high power traveling wave tubes or as an output tube in test equipment. Each tube delivers at least 15 to 25 W of RF power in C band without adjustment. The tube has a metal-ceramic vacuum envelope, and periodic permanent magnet focusing structure.

## RF Performance Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Frequency range	4,0	6,5	GHz
RF peek output power	15	-	W
RF average output power	5	-	W
Gain	30	-	dB
Load VSWR	max 3:1		

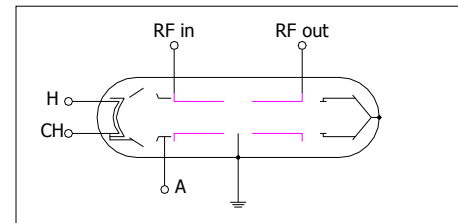
## Electrical Requirements

TECHNICAL DATA	MIN	MAX	UNITS
Cathode voltage	-3,2	-3,8	kV
Anode voltage	-	-500	V
Cathode pulse current	-	100	mA
Duty cycle	-	30	%
Pulse width	-	100	$\mu$ s
Heater voltage	6,0	8,5	V
Heater current	1,6	1,8	A
Heater warm-up time	3	-	min

## Notes

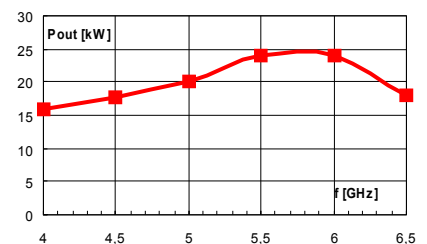
- The cathode voltage is measured with respect to the ground.
- Optimum output power may occur after slight tuning of grid pulse voltage and RF input power at operating frequency.

\* max 2dB depress output power on the edges of frequency range - see chart



H – heater; CH – cathode-heater;  
A – anode;

## Chart



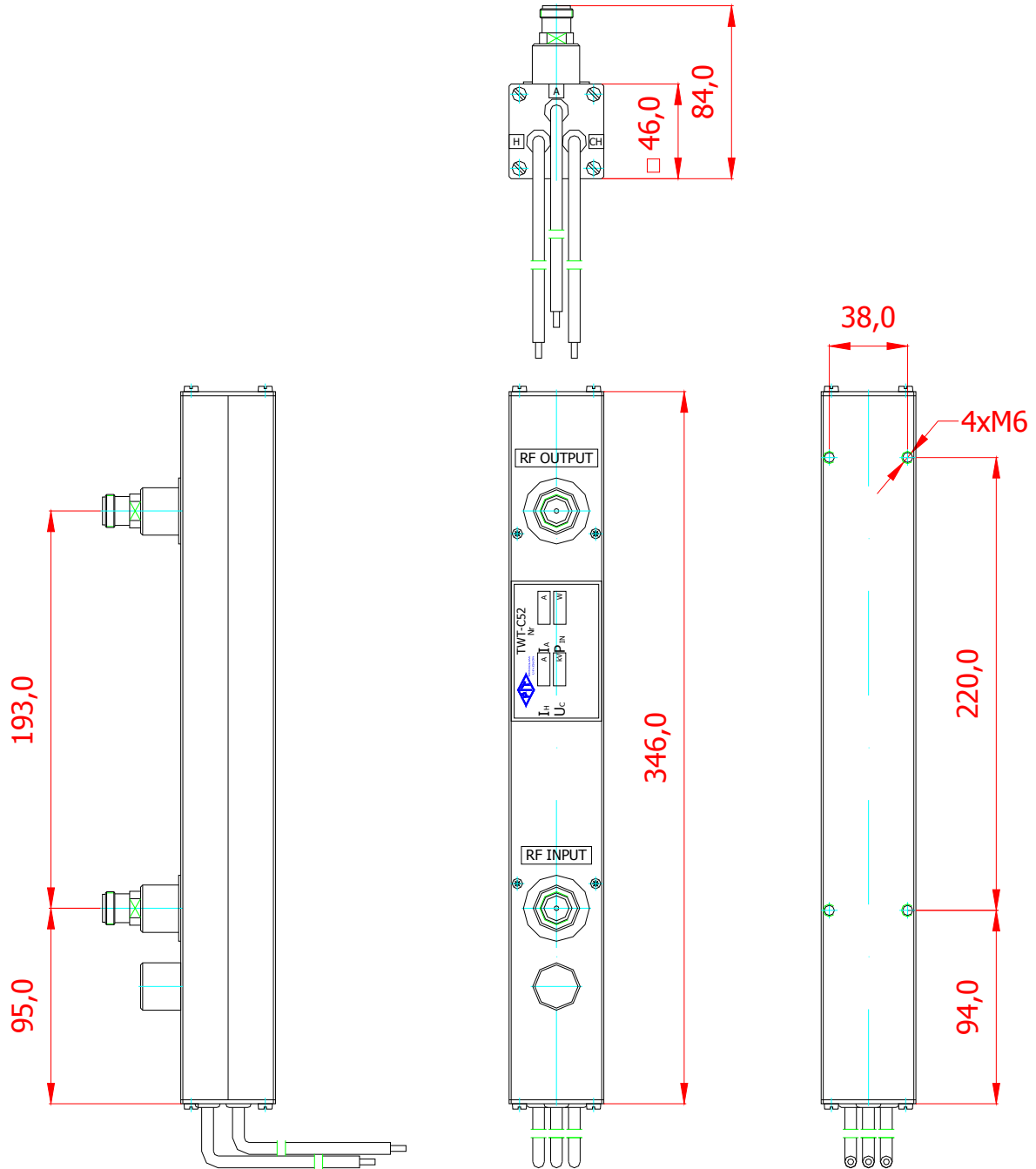
Output power versus frequency

## Mechanical Description

Dimensions	See Outline Drawing
Weight	2,3 kg
Cooling	Conduction
Mounting Position	Any
RF input connector	Type N
RF output connector	Type N
Environment temp.	233-323K

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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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