

## TECHNICAL SPECIFICATION

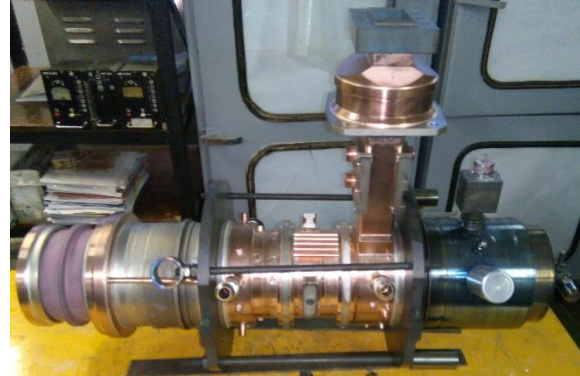
### Multi-beam S-band Klystron type BT258A/B

#### VDBT

The company was created for the development and manufacture of precision microwave vacuum-electron-tube devices (VETD).

The main product areas being manufactured are:

- Linear electron accelerators.
- Vacuum-tube radar devices.
- Multi-beam high power klystrons (MBK).



#### Advantages of BT258A/B

- Low Working voltage (less than half) when compared to similar RF power single beam klystrons.
- Reduction of harmful X-rays during operation.
- High efficiency performance due to the state-of-art Bunching Alignment Collecting (BAC) beam technology.
- Ability to work in air, without an oil tank, which reduces the installation weight.
- It can operate in spatial position and on mobile installations.
- Total cost of ownership (TCO) is much better since you need less power and the overall systems becomes smaller.
- Permanent magnet focusing that significantly reduces the MBK weight and additionally increases overall system efficiency due to absence of solenoid power losses.
- Application for the BT258A/B is Medical, Industry, Science and Defence.

#### Length and weight

80cm, 95kg

#### Environmental conditions

-20 to +50 C

#### Output waveguide

WR284

#### Output window pressure

3 Bar

#### Ion Pump power supply parameters

4kV, <1mA

#### Options

RF Frequency: 2.856 GHz

Parameters	BT258A	BT258B	Units
RF Frequency	2.99855	2.99855	GHz
Peak RF power	3-6	3-8	MW
RF Bandwidth	±5	±5	MHz
RF gain (minimum)	45	45	dB
Number of Beams	40	40	n
Efficiency (minimum)	60	60	%
RF pulse length	5-16	5-16	µs
Pulse repetition rate(max)	150(400)	300(1000)	Hz
RF Duty cycle	0,2	0,5	%
Peak voltage (min/max)	43/53	43/60	kV
Peak current (min/max)	150/220	150/250	A
Filament voltage (min/max)	20/25	20/25	V
Filament current (min/max)	23/30	23/30	A
Average Power	2-12	5-30	kW
Cooling water, Collector	40	70	l/m
Cooling water, Body	15	20	l/m

**Information:** The development of the BAC MBK BT258 was supported by CERN, Switzerland.