

Product Summary – Tubes

Pulsed Travelling Wave Tubes

Part	Type	Freq Range	Peak Power	Duty Cycle	Gain (Min)	Pulse Length	Structure Voltage	Peak Beam Current	Collector Volts (Wrt. Cathode)	Focussing	Weight
		GHz	kW	(max)	dB	us	kV	A	kV		kg
PT6019	ring bar	1.2 - 1.4	150	0.035	45	100	40	14	UD	IS	110
PT6049	ring bar	1.2 - 1.4	170	0.05	45	100	43	14	36	IS	115
PT6055	coupled cavity	2.75 - 3.05	50	0.023	50	30	33	9	22	PPM	41
PT6062	ring loop	8.5 - 9.5	8	0.02	60	10	14.5	3	9.5	PPM	2.5
PT6067	ring loop	8.7 - 9.2	8	0.002	60	30	14.5	2.7	11	PPM	2.5
PT6088	ring loop	8.9 - 9.4	8	0.02	60	30	14.5	2.7	11	PPM	2.5
PT6074	ring loop	9.0 - 9.5	5.3	0.03	60	40	13.5	2	10	PPM	2.5
PT7105	ring loop	9.0 - 9.5	8	0.02	60	10	14.5	2.7	11	PPM	2.5
PT6073	ring loop	9.2 - 9.4	8.5	0.02	60	20	14.5	2.7	11	PPM	2.5
PT6226	ring loop	9.2 – 10.0	4	0.04	45	30	13.0	2.0	9.1	PPM	2.0
PT6109	ring loop	9.5 - 10.0	8	0.02	60	30	14.5	2.7	10	PPM	2.5
In the Ku band range, the main generic types are listed below. However additional custom designs are available in the range 200-1000 W peak power and up to 250 W mean power, up to 1 GHz bandwidth - anywhere between 13 and 18 GHz. In addition many of the variants are fast-warm - < 3 seconds (FW)											
PT6713	ring loop	14.5 - 17.0	2	0.02	63	40	11-15	1	8.5	PPM	1
PT6715	ring loop	16.0 - 17.0	2	0.02	63	40	11.5	1	8	PPM	1
PT6745 ^{FW}	ring loop	16.0 - 18.0	0.4	0.33	35/55*	20	8	0.35	4/5 dual stage	PPM	1.5/2.0
PT6789 ^{FW}	ring loop	17.0 - 18.0	0.8 – 1.0	0.25	35/55*	40	11	0.55	5/6 dual stage	PPM	1.5/2.0

Notes

PPM – Periodic Permanent Magnet

IS – Integral solenoid

UD – Undepressed

* with saturating amplifier



Product Summary – Tubes

Broadband Klystrons

Part	Type	Freq	Peak Power	Duty Cycle	Gain (Min)	Pulse Length	Peak Beam Volts	Peak Beam Current	Mod	Focussing	Weight
		GHz	kW	(max)	dB	us	kV	A			kg
PT6006	cathode pulsed	1.2 - 1.4	100	0.0115	25	8.5	33	12.6	CA	S	85
PT1120	pulsed	2.85 - 3.05	1000	0.0115	31	40	79	41	G	S	85
PT6014	pulsed	3.09 - 3.25	2	0.11	43.5	8.5	12.5	2.5	MA	ES	13.7
PT6015	pulsed	3.25 - 3.40	2	0.11	43.5	8.5	12.5	2.5	MA	ES	13.7
PT6203	pulsed	9.5 – 10.0	50	0.03	40	100	29.5	8.25	G/MA	PPM	5

Notes S – Solenoid , ES – Electro-static, CA – cathode, G – grid, MA – modulating anode, PPM – Periodic Permanent Magnet



Product Summary – Tubes

Magnetrons

Part No	Type	Freq Range	Peak Power	Tuning Range	Duty Cycle	Peak Anode Volts	Peak Anode Current	Agility Rate	Tuning Mechanism	Weight
		GHz	kW	MHz	(max)	kV	A	Hz		kg
PT6271	fixed	X Band	4	-	-	0.85	2	-	-	-
PT6250	fixed	16.0 – 17.0	29-60	-	0.00126	11	8.5	-	-	2.5
PT6240	agile	16.0 – 17.0	35	230	0.0012	13.5	9	100	Dither	2.2
PT5065	fixed	16.0 – 17.0	50	-	0.0015	13	13	-	-	1.3
PT5064	agile	16.0 – 17.0	70	200	0.0012	14	15	133	Dither	3.2

Under development

5% X-Band TWT 8 kW, 1 GHz BW
 33% Ku-Band TWT 1 kW

S-Band rugged Klystron: 1 MW 10% BW, with long life cathode for Airborne application.

© TMD Technologies Ltd
 Swallowfield Way Hayes Middx UB3 1DQ
 Telephone +44 (0)20 8573 5555
 Fax +44 (0)20 8569 1839
 www.tmd.co.uk

This document gives only a general description of the products and/or services and is liable to update or improvement without notice. TMD Technologies accepts no responsibility for any interpretation of or reliance placed in this document.

