

TABLE III
MAGNETRONS FOR WAVELENGTHS NEAR 3 CENTIMETERS

	725A, 730A Unpackaged			2J48-50 Unpackaged			2J55-56 Packaged	2J51 Packaged Tunable			4J50, 4J78 Packaged			4J52 Packaged	
<i>N</i>	12			12			12	12			16			16	
<i>r_c</i> (in.).....	0.051			0.051			0.062	0.062			0.104			0.104	
<i>r_a</i> (in.).....	0.102			0.102			0.125	0.125			0.159			0.159	
<i>h</i> (in.).....	0.250			0.250			0.250	0.250			0.250			0.250	
Magnet gap (in.).....	0.625			0.625			0.384	0.384			0.380			0.380	
Weight (lb.).....	1.5, 1.1			1.5			3.8	4.6			9.5			5.5	
Resonators.....	hole and slot			hole and slot			hole and slot	hole and slot			hole and slot			hole and slot	
Unstrapped λ (cm.).....	2.3			~2.3			~2.3	~2.6			2.46			2.46	
Straps.....	double ring			double ring			double ring	double ring			double ring			double ring	
λ (cm.).....	3.2			3.22, 3.3, 3.4			3.2, 3.24	3.33			3.2, 3.3			3.2	
<i>f</i> (mc/s).....	9375 \pm 30			9315 \pm 5, 9080 \pm 80, 8825 \pm 75			9375 \pm 30, 9245 \pm 55	8500 to 9600			9375 \pm 30, 9080 \pm 80			9375 \pm 30	
Nearest mode.....	<i>n</i> = 5			<i>n</i> = 5			<i>n</i> = 5	<i>n</i> = 5			<i>n</i> = 7			<i>n</i> = 7	
λ separation (%).....	-16			-16			~-16	~-16			-14			-14	
Tuning.....	—			—			—	resonator inductance			—			—	
$\Delta\lambda$ (%).....	—			—			—	12.1			—			—	
Tuner travel (in.).....	—			—			—	0.110			—			—	
<i>Q</i> ₀	680			680			680	630-460			850			850	
<i>Q</i> _{ext}	280			280			290	290			350			350	
η_c (%).....	71			71			70	65			71			71	
Output circuit.....	coaxial-wave guide			coaxial-wave guide			coaxial-wave guide	coaxial-wave guide			wave guide			wave guide	
<i>V</i> (kv.).....	10.0	12.0	13.0	10.0	12.0	13.0	12.0	11.0	12.0	14.3	22.0	22.0	22.0	15.0	15.0
<i>I</i> (amps.).....	10	10	12	10	10	12	12	11	12	14	27	27	27	15	13.5
<i>B</i> (gauss).....	4500	5400	5650	4500	5400	5650	3350	3050	3350	4000	6900	6900	6900	4950	4950
τ (μ s).....	1	1	1	1	1	1	1	1	1	1	1	2	5	1	5.5
<i>p</i> ps.....	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	500	200	1000	200
<i>P</i> ₀ (kw.).....	31	44	56	31	44	56	50	33	40	60	280	280	280	110	95
η (%).....	31	37	36	31	37	36	35	27	28	30	47	47	47	49	47
η_c (%).....	44	52	51	44	52	51	50	42	43	46	66	66	66	69	66
<i>PF</i> (mc/s).....	13.5	13.5	13.5	13.5	13.5	13.5	12	12	12	12	12	12	12	12	12