

1962 OSCILLOSCOPE DIRECTORY

This condensed list of the primary specifications and capabilities of over seventy oscilloscopes, currently in production, is based on a broad survey recently completed by Electronics World.

Model	Vertical Channel			Horizontal Channel			Sweep	CRT Size	Price	Remarks
	Frequency Response	Sensitivity	Input Z (meg.- μ f.)	Frequency Response	Sensitivity	Input Z (meg.- μ f.)				
DU MONT, ALLEN B. LABS, 750 Bloomfield Ave., Clifton, N.J.										
304-A	d.c.-coupled down no more than 10% @ 100 kc.; a.c.-coupled down no more than 10% @ 10 cps & 100 kc. and no more than 50% @ 300 kc.	.025 d.c. volt/in.	2-50	Same as vertical channel	1.2 d.c.v./full scale	2.2-50	2 cps-30 kc. with sweep expansion 1 μ sec./in.	5"		Rack mount 304-AR; 12 μ sec. rise time
401-B	d.c.-500 kc.	10 mv./cm.	1-47	d.c.-500 kc.	10 mv./cm.	1-47	200 msec./cm.-5 μ sec./cm.	5"		Rack mount 401BR; 5X sweep expand; .8 μ sec. rise time
403-B	150 kc.-500 kc.	50 μ v./cm.	1-47	d.c.-coupled, d.c.-500 kc.	10 mv./cm.	1-47	15 sec./cm.-1 μ sec./cm.	5"		Rack mount 403BR; 5X sweep expand; .7 μ sec. rise time
411	flat from d.c. to down not more than 30% @ 100 kc. on 2 mv.-50 v. positions	100 μ v./cm.	Balanced 4-30	d.c. to down not more than 30% @ 100 kc.	.3 p-p v./cm.	2-50	1 sec./cm.-1 μ sec./cm.	5"		Rack mount 411R; dual-beam vertical amplifiers are identical; 5X sweep expand; 3.3 μ sec. rise time
425	d.c.-35 mc.	5 mv./cm.					2 sec./cm.-.05 μ sec./cm.	5"		Rack mount 425R; 5X sweep expand; 10 nsec. rise time
4201: Y Preamp for 425. vertical channel: freq. resp., d.c.-3 mc. down 3 db; sensitivity 50 mv./cm.; input Z, 1 meg., 25 μ f.										10 nsec. rise time
4202: Dual-trace preamp for 425. vertical channel: freq. resp., d.c.-33 mc.; sensitivity 50 mv./cm.; input Z, 1 meg., 23 μ f.										11 nsec. rise time
4202: Y preamp for 425. vertical channel: freq. resp., d.c.-21 mc. down 3 db; sensitivity 5 mv./cm.; input Z, 1 meg., 23 μ f.										17 nsec. rise time
4204: X input for 425. horizontal channel: freq. resp., d.c.-4 mc. down 3 db \pm 1 db; sensitivity 2 v./cm.; input Z, 1 meg., 23 μ f.										90 nsec. rise time
430	d.c.-10 kc.	10 mv./cm.	1-47	d.c.-10 kc.	10 mv./cm.	1-47	2 sec./cm.-50 μ sec./cm.	5"		5X sweep expand; 35 μ sec. rise time
440	d.c.-5 mc.	50 mv./cm.	1-47	d.c.-500 kc.	10 mv./cm.	1-47	20 msec./cm.-1 μ sec./cm.	5"		Rack mount 440R; 5X sweep expand; .08 μ sec. rise time
766: 76-01:Y amp. 74-03 timebase	d.c.-25 mc. down 3 db \pm 1 db	5 mv./cm.					2 sec./cm.-.05 μ sec./cm.	6 X 10 cm.		Transistorized scope; 5X sweep expand; 14 nsec. rise time. Model 765 field version; 676 rack mount type
76-02: Dual-trace amp. for 766. vertical channel: freq. resp. d.c.-25 mc. down 3 db \pm 1 db; sensitivity 5 mv./cm.										14 nsec. rise time
HEWLETT-PACKARD CO., 1501 Page Mill Rd., Palo Alto, California										
120A	d.c.-200 kc.	10 mv./cm.	1-50	d.c.-200 kc.	.1 v./cm.	1-100	200 msec./cm.-5 μ sec./cm.	5"	\$ 450	5X sweep expand
120B	d.c.-450 kc.	10 mv./cm.	1-50	d.c.-300 kc.	.1 v./cm.	1-100	200 msec./cm.-5 μ sec./cm.	5"	\$ 475	5X sweep expand
122A	Same as 120 except dual trace									\$ 675
130B	d.c.-300 kc.	1 mv./cm.	cabinet 2-25 rack 2-125	d.c.-300 kc.	1 mv./cm.	same as vertical	5 sec./cm.-1 μ sec./cm.	5"	\$ 650	5X sweep expand
150A	main vertical amp d.c.-more than 10 mc.			d.c.-over 500 kc.	200 mv./cm.	1-31	5 sec./cm.-1 μ sec./cm.	5"	\$1300	5X, 10X, 50X, 100X sweep expand; .035 μ sec. rise time
151B: High-gain amp. for 150A. vertical channel: freq. resp. d.c.-10 mc.; sensitivity 5 mv./cm.; input Z, 1 meg., 31 μ f.; .035 μ sec. rise time.										\$ 200
152B: Dual-channel amp. for 150A. vertical channel: freq. resp. d.c.-10 mc.; sensitivity .05 v./cm.; input Z, 1 meg., 30 μ f.; .035 μ sec. rise time both inputs to 1 channel.										\$ 250
153A: Differential amp. for 150A. vertical channel: freq. resp. d.c.-500 kc.; sensitivity 1 mv./cm.; input Z, balanced 2 meg., 17 μ f.; single-ended 1 meg., 35 μ f.										\$ 150
154A Voltage-current amp. for 150A	current, 50 cps-8 mc.; voltage, d.c.-10 mc.	1 ma./cm. .05 v./cm.	current channel .01 Ω -1 μ hy. voltage channel 1 meg.-30 μ f.						\$ 430	
160B	main vertical amp d.c.-15 mc.			d.c.-1 mc.	.1 v./cm.	1-30	5 sec./cm.-.1 μ sec./cm.	5"	\$1850	*
*1X, 2X, 5X, 10X, 20X, 50X, 100X sweep expand; 166B time mark gen. \$130; 166C display scanner \$300; 166D sweep delay gen. \$325.										

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	Frequency Response	Sensitivity	Input Z (meg.- μ f.)	Frequency Response	Sensitivity	Input Z (meg.- μ f.)					
162A: Dual-trace amp. for 160B. vertical channel: freq. resp. d.c.-14 mc.; sensitivity .02 v./cm.; input Z, 1 meg., 25 μ f. *Alternate-sweep switching or chopped. .025 μ sec. rise time.									\$ 350	*	
162F: Fast-rise amp. for 160B. vertical channel: freq. resp. d.c.-15 mc.; sensitivity .05 v./cm.; input Z, 1 meg., 25 μ f.									\$ 145	23 nsec. rise time	
170A	main vertical amp d.c.-30 mc.			same as 160B	same as 160B	1-30		5"	\$2150	Same accessories as 160B	
185A (with 187B dual-trace amp.)	greater than 800 mc. @ 3 db point; less than .5 nsec. rise time for any input signal; d.c.-1000 mc. @ 3 db point; less than .4 nsec. rise time	10 mv./cm.	.1-2				.1 nsec./cm.-1 μ sec./cm.	5"	\$2000 + 187B-\$1000	Sampling scope; 2X, 5X, 10X, 20X, 50X, 100X sweep expand	
185B with 187B dual-trace amp.	vertical channel: freq. resp. d.c.-800 mc.; sensitivity 10 mv./cm.; input Z, .1 meg., 2 μ f.						10 nsec./cm.-10 μ sec./cm.	5"	\$2300 + 187B-\$1000	Sampling scope; 1X, 2X, 5X, 10X, 20X, 50X, 100X sweep expand	
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio											
675A	d.c.-4.5 mc. \pm 3 db	20 r.m.s. mv./in.		1 cps-450 kc. \pm 3 db	250 r.m.s. mv./in.			10 cps-100 kc.	5"	\$ 290.90	10X sweep expand
770	d.c.-5 mc. \pm 3 db wideband; d.c.-2.5 mc. narrow band	35 r.m.s. mv./in. wideband; 10 r.m.s. mv./in. narrow band	2.2-50	d.c.-500 kc. \pm 3 db	75 r.m.s. mv./in.	2.2-50		2 cps-30 kc.	5"	\$ 470	6X sweep expand; .07 μ sec. rise time
ITT INDUSTRIAL PRODUCTS DIV., 15191 Bledsoe St., San Fernando, Calif.											
1735D 2135D	series yoke conn. -3 db @ 200 kc.; par. yoke conn. -3 db @ 270 kc.	series yoke conn. 10 p-p mv./in.; par. yoke conn. 20 p-p mv./in.	2-35	-3 db @ 200 kc.	10 p-p mv./in.	2-50	1 sec./in.-10 μ sec./in.	17" or 21" mag. defl.	\$1980 \$2095		
1740D 2140	series yoke conn. -3 db @ 85 kc.; par. yoke conn. -3 db @ 100 kc.	series yoke conn. 1 p-p mv./in.; par. yoke conn. 2 p-p mv./in.	2-35	-3 db @ 100 kc.	1 p-p mv./in.	2-50	1 sec./in.-10 μ sec./in.	17" or 21" mag. defl.	\$2210 \$2300		
1770A	-3 db @ 110 kc.	1 in./volt	.25-15	-3 db @ 110 kc.	1 in./volt	.25-15		17"	\$1595	Magnetic deflection	
1770H	-3 db @ 110 kc.	10 in./volt	.25-15	-3 db @ 110 kc.	10 in./volt	.25-15		17"	\$1720	Magnetic deflection	
JACKSON ELECTRICAL INSTRUMENT CO., 124 McDonough St., Dayton, Ohio											
CR0-2	20 cps-4.5 mc. \pm 1 db	.018 r.m.s. v./in.						20 cps-50 kc.	5"	\$ 225	
600	20 cps-4.9 mc. \pm 1 db	20 mv./in.		20 cps-200 kc. \pm 2 db				10 cps-100 kc.	5"	\$ 355	
PACKARD BELL ELECTRONICS, P.O. Box 337, Newbury Park, Calif.											
5Mc-2P/R	d.c.-5 mc. \pm 3 db	a.c.-coupled 2.5 cps-20 kc. 1 mv./cm.	1-30	d.c.-200 kc. \pm 3 db	.2 v./cm.		1 sec./cm.-1 μ sec./cm.	3"	\$ 570	Dual-gun scope; 1X, 2X, 5X, and 10X sweep expand; .07 μ sec. rise time	
RADIO CORPORATION OF AMERICA, Harrison, N.J.											
WO-91A	3 cps-4.5 mc. wideband \pm 1 db; 3 cps-1.5 mc. high sensitivity; 3.5 cps-1.5 mc. flat within -6 db	.15 p-p v./in. wideband; .05 p-p v./in. high sensitivity	1-40	3 cps-500 kc.; flat within -6 db	.18 r.m.s. v./in.	2.2-30		10 cps-100 kc.	5"	\$ 239.50	Sensitivity and input impedance with "V Input" conn.; rise time .1 μ sec. (4.5 mc. pos.); 5 μ sec. (1.5 μ sec. pos.)
SIMPSON ELECTRIC CO., 5200 W. Kinzie St., Chicago 44, Ill.											
458	wideband flat within \pm 1 db to 4.5 mc.; narrow band flat within \pm 2 db 10 cps-300 kc.	wideband 30 r.m.s. mv./in.; narrow band 20 r.m.s. mv./in.						up to 200 kc.	7"	\$ 395	
466	15 cps-100 kc. flat within \pm 1 db; 6 db down @ 250 kc.	30 r.m.s. mv./in.	.5-35 @ att. X100	15 cps-20 kc. flat within \pm 1 db; 6 db down @ 100 kc.	.7 r.m.s. v./in.			15 cps-80 kc.	5"	\$ 149.95	
2610	d.c.-8 mc. \pm 1.5 db	2.5 r.m.s. mv./in. without delay line	1-30	2 cps-1 mc. \pm 1.5 db	2.5 r.m.s. v./in.	1-45		3 cps-500 kc.	5"	\$ 575	Four calibrated sweeps 5, 50, 500, 5000 μ sec.; rise time .1 μ sec. in transient pos.
TEKTRONIX, INC., P.O. Box 500, Beaverton, Oregon											
310A	d.c.-4 mc.	a.c.-coupled .01 v./div.	1-40		1.5 v./div.		.2 sec./div.-5 μ sec./div.	3"	\$ 625	5X sweep expand; 90 nsec. rise time	
316	d.c.-10 mc.	a.c.-coupled .01 v./div.	1-40	d.c.-500 kc.	1.4 v./div.		2 sec./div.-.2 μ sec./div.	3"	\$ 750	Rack mount RM16; 5X sweep expand; 35 nsec. rise time	

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