



ELEMENT SELECTION GUIDE

MODEL	TABLE(S)	MODEL	TABLE(S)
3128A	1, 2, 3, 4, 6, 13, 14	4391A	1, 2, 3, 4, 5, 6, 13, 14
3170B	1, 2, 3, 4, 6, 13, 14	4410A, 4412A	13
43	1, 2, 3, 4, 6, 13, 14	4431	1, 2, 3, 4, 6, 13, 14
43P	1, 2, 3, 4, 5, 6, 13	4526	1, 2, 3, 4, 6, 13, 14
4314C	1, 2, 3, 4, 5, 6, 13, 14	4527	2 MHz to 512 MHz elements in 1, 2, 6, 13, 14

Plug-In Elements

FOR 7/8 IN LINE SECTIONS & WATTMETERS

All Bird Plug-In Elements are calibrated in accordance with meticulous Bird calibration procedures supported by a long history of mean deviation values to assure adherence to advertised specifications of current instruments, as well as field interchangeability with equipment purchased, used and trusted in all the years since its introduction.

TABLE 1 STANDARD ELEMENTS

POWER RANGE	FREQUENCY BANDS (MHz)						
	2 to 30	25 to 60	50 to 125	100 to 250	200 to 500	400 to 800	800 to 1000
5 W	—	5A	5B	5C	5D	5E-400	5E-800
10 W	—	10A	10B	10C	10D	10E-400	10E-800
25 W	25H	25A	25B	25C	25D	25E-400	25E-800
50 W	50H	50A	50B	50C	50D	50E-400	50E-800
100 W	100H	100A	100B	100C	100D	100E-400	100E-800
250 W	250H	250A	250B	250C	250D	250E-400	250E-800
500 W	500H	500A	500B	500C	500D	500E-400	500E-800
1000 W	1000H	1000A	1000B	1000C	1000D	1000E-400	1000E-800
2500 W	2500H	2500A	2500B	2500C	2500D	2500E-400	2500E-800
5000 W	5000H	5000A	5000B	5000C	5000D	5000E-400	5000E-800

TABLE 2 LOW-POWER ELEMENTS

POWER RANGE	FREQUENCY BANDS (MHz)										
	40 to 50	50 to 60	60 to 80	80 to 90	95 to 125	110 to 160	150 to 250	200 to 300	275 to 450	425 to 850	800 to 1000
1 W	040-1	050-1	060-1	080-1	095-1	110-1	150-1	200-1	275-1	425-1	801-1

POWER RANGE	FREQUENCY BANDS (MHz)											
	25 to 30	30 to 40	40 to 50	50 to 60	60 to 80	80 to 95	95 to 150	150 to 250	200 to 300	250 to 450	400 to 850	800 to 1000
2.5 W	025-2	030-2	040-2	050-2	060-2	080-2	095-2	150-2	200-2	250-2	400-2	801-2



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4314C	1, 2, 3, 4, 5, 6, 13, 14	4527	2 MHz to 512 MHz elements in 1, 2, 6, 13, 14

Directional Coupler Elements

FOR 7/8 IN LINE SECTIONS & WATTMETERS

TABLE 3 HIGH-FREQUENCY ELEMENTS, ACCURACY $\pm 8\%$ OF FULL SCALE

POWER RANGE	FREQUENCY BANDS (MHz)	
	950 to 1100	1100 to 1260
1 W	1J-950	1J-1100
2.5 W	2.5J-950	2.5J-1100
5 W	5J-950	5J-1100
10 W	10J-950	10J-1100
25 W	25J-950	25J-1100
50 W	50J-950	50J-1100
100 W	100J-950	100J-1100
250 W	250J-950	250J-1100
500 W	500J-950	500J-1100
1000 W	1000J-950	1000J-1100
2500 W	2500J-950	2500J-1100
5000 W	5000J-950	5000J-1100

TABLE 4 LOW-FREQUENCY ELEMENTS

POWER RANGE	FREQUENCY BANDS (MHz)
	.45 to 2.5
1000 W	1000P
2500 W	2500P
5000 W	5000P
10000 W	10000P



ELEMENT SELECTION GUIDE

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4314C	1, 2, 3, 4, 5, 6, 13, 14	4527	2 MHz to 512 MHz elements in 1, 2, 6, 13, 14

Plug-In Elements

FOR 7/8 IN LINE SECTIONS & WATTMETERS

TABLE 5 PULSE-POWER ELEMENTS, (PEAK ONLY) ±8% OF FULL SCALE

POWER RANGE	FREQUENCY BANDS (MHz)					
	2 to 30	25 to 60	50 to 125	100 to 250	400 to 800	800 to 1000
500 W	—	—	—	—	—	—
1000 W	—	—	—	—	—	—
2500 W	—	2500A	2500B	2500C	2500E-400	2500E-800
5000 W	—	5000A	5000B	5000C	5000E-400	5000E-800
10000 W	10000H	—	10000B	—	10000E-400	10000E-800

Refer to "Transmission Power Rating Chart" for max power ratings. Elements are capable of reading peak and average power.

TABLE 6 MILLIWATT ELEMENTS

POWER RANGE	FREQUENCY BANDS (MHz)									
	40 to 50	72 to 76	108 to 136	135 to 175	320 to 340	328 to 336	400 to 420	420 to 450	450 to 470	800 to 1000
100 mW	—	430-2	430-57	430-86	430-205	430-3	430-7	430-208	430-8	430-263

POWER RANGE	FREQUENCY BANDS (MHz)									
	72 to 76	88 to 108	105 to 120	116 to 126	130 to 150	190 to 210	329 to 336	450 to 470	800 to 1000	
250 mW	430-22	430-217	430-20	430-48	430-13	430-65	430-16	430-61	430-264	

POWER RANGE	FREQUENCY BANDS (MHz)													
	72 to 76	88 to 108	105 to 120	120 to 136	136 to 150	240 to 290	290 to 340	329 to 336	340 to 360	350 to 400	400 to 450	450 to 500	600 to 800	800 to 1000
500 mW	430-33	430-247	430-26	430-248	430-249	430-27	430-253	430-28	430-157	430-254	430-255	430-256	430-258	430-265

TABLE 13 NONDIRECTIONAL SAMPLER ELEMENTS FOR QC-TYPE OR 7/8 IN EIA LINE

MODEL	FREQUENCY BAND (MHz)	NOMINAL COUPLING	MAX MAIN LINE POWER
4274-025	25 to 1000	-50 dB ±2 dB (-66 dB @ 2 MHz)	500 W
4274-050	100 to 400	-35 to -48 dB (±1 dB) Adjustable)	500 W



MADE IN USA

ELEMENT SELECTION GUIDE

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Directional Coupler Elements

FOR RIGID LINE SECTIONS & WATTMETERS

Coupler elements used for RF sampling. The wattmeter display does not read when these elements are installed.

TABLE 14 DIRECTIONAL COUPLER ELEMENTS FOR QC-TYPE OR 7/8 IN EIA LINE

MODEL	FREQUENCY BAND (MHz)	NOMINAL COUPLING	MAX MAIN LINE POWER
400-50	50 to 100	-40 dB	-
400-75	75 to 150	-40 dB	-
400-125	125 to 250	-40 dB	1 kW
400-225	225 to 450	-40 dB	1 kW
400-400	400 to 800	-40 dB	1 kW
400-750	750 to 1250	-40 dB	1 kW

TABLE 15 DIRECTIONAL COUPLER ELEMENTS FOR 1 5/8 IN EIA LINE

MODEL	FREQUENCY BAND (MHz)	NOMINAL COUPLING	MAX MAIN LINE POWER
501-50	50 to 100	-50 dB	10 kW
501-75	75 to 150	-50 dB	10 kW
501-125	125 to 250	-50 dB	10 kW
501-225	225 to 450	-50 dB	10 kW
501-400	400 to 800	-50 dB	5 kW

NOTE: For use in any line section including BPME

TABLE 16 DIRECTIONAL COUPLER ELEMENTS FOR 3 1/8 IN EIA LINE

MODEL	FREQUENCY BAND (MHz)	NOMINAL COUPLING	MAX MAIN LINE POWER
553-50	50 to 100	-55 dB	25 kW
553-75	75 to 150	-55 dB	25 kW
553-125	125 to 250	-55 dB	25 kW
553-401	400 to 800	-55 dB	15 kW

TABLE 17 DIRECTIONAL COUPLER ELEMENTS FOR 6 1/8 IN EIA LINE

MODEL	FREQUENCY BAND (MHz)	NOMINAL COUPLING	MAX MAIN LINE POWER
606-50	50 to 100	-60 dB	60 kW
606-400	400 to 870	-60 dB	60 kW



ELEMENT SELECTION GUIDE

MODEL	TABLE(S)
3127A	1 5/8 A, 3 1/8 A, 6 1/8 A
3127-040	1 5/8 A, 3 1/8 A, 4 1/16 A, 6 1/8 A
3127-075	1 5/8 B
6810-220	1 5/8 A, 3 1/8 A, 6 1/8 A
6810-230	1 5/8 B

**Plug-In Elements
FOR RIGID LINE SECTIONS**

TABLE 1 5/8 A STANDARD ELEMENTS 100 μA

POWER RANGE	FREQUENCY BANDS (MHz)		
	2 to 30	50 to 125	100 to 250
100 W	—	100B1	100C1
250 W	—	250B1	250C1
500 W	—	500B1	500C1
1000 W	1000H1	1000B1	1000C1
2500 W	2500H1	2500B1	2500C1
5000 W	5000H1	5000B1	5000C1
10 kW	10KH1	10KB1	10KC1
25 kW	25KH1	25KB1	—

TABLE 1 5/8 AA STANDARD ELEMENTS 30 μA

POWER RANGE	FREQUENCY BANDS (MHz)		
	2 to 30	50 to 125	100 to 250
100 W	—	100B12	100C12
250 W	—	250B12	250C12
500 W	500H12	500B12	—
1000 W	1000H12	1000B12	1000C12
2500 W	2500H12	2500B12	2500C12
5000 W	5000H12	5000B12	—
10 kW	10KH12	10KB12	—
25 kW	25KH12	—	—

TABLE 1 5/8 B STANDARD ELEMENTS 100 μA

POWER RANGE	FREQUENCY BANDS (MHz)	
	2 to 30	50 to 125
300 W	—	300B1
600 W	—	600B1
1500 W	1500H1	1500B1
3000 W	3000H1	3000B1
6000 W	6000H1	6000B1
15 kW	15KH1	15KB1
50 kW	50KH1	—



ELEMENT SELECTION GUIDE

MODEL	TABLE(S)
3127A	1 5/8 A, 3 1/8 A, 6 1/8 A
3127-040	1 5/8 A, 3 1/8 A, 4 1/16 A, 6 1/8 A
3127-075	1 5/8 B
6810-220	1 5/8 A, 3 1/8 A, 6 1/8 A
6810-230	1 5/8 B

Plug-In Elements

FOR RIGID LINE SECTIONS

TABLE 3 1/8 A STANDARD ELEMENTS 100 μ A

POWER RANGE	FREQUENCY BANDS (MHz)		
	2 to 30	50 to 125	100 to 250
100 W	—	100B3	—
250 W	—	250B3	250C3
500 W	—	500B3	500C3
1000 W	—	1000B3	1000C3
2500 W	2500H3	2500B3	2500C3
5000 W	5000H3	5000B3	5000C3
1.5 kW	—	1500B3	—
10 kW	10KH3	10KB3	10KC3
15 kW	—	15KB3	—
25 kW	25KH3	25KB3	25KC3
50 kW	50KH3	50KB3	—
100 kW	100KH3	—	—

TABLE 6 1/8 A STANDARD ELEMENTS 100 μ A

POWER RANGE	FREQUENCY BANDS (MHz)
	2 to 30
10 kW	10KH6
25 kW	25KH6
50 kW	50KH6
100 kW	100KH6
250 kW	250KH6