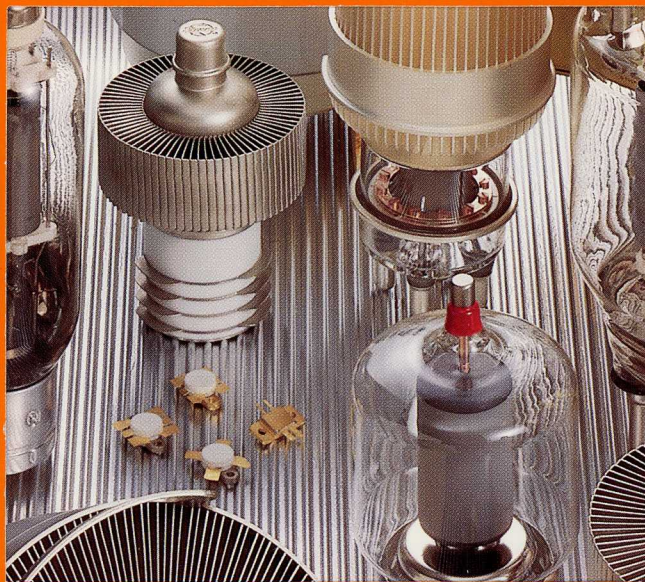
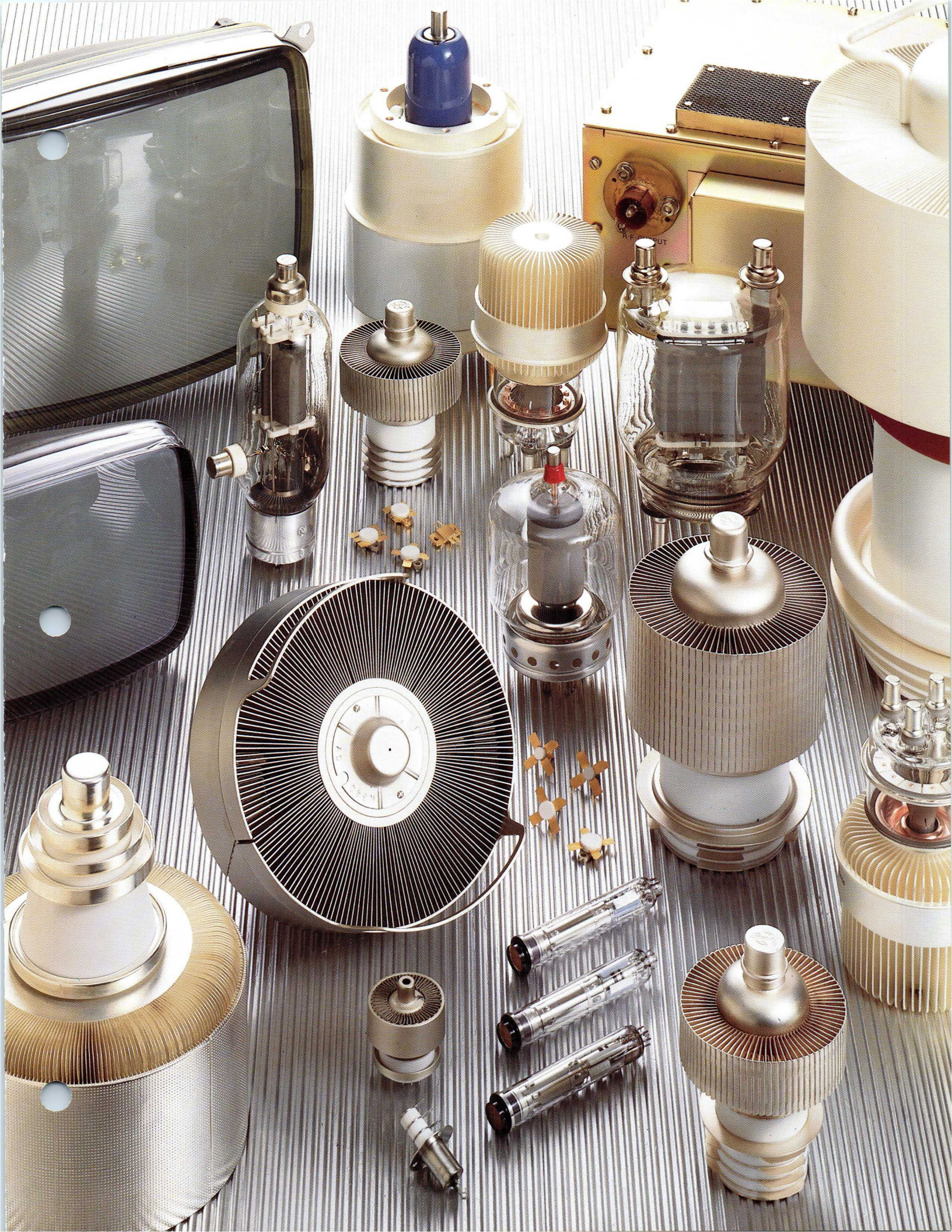

 **Richardson
Electronics, Ltd.**



Broadcast Catalog

- **Power Grid Tubes**
- **Camera Tubes**
- **Vacuum Capacitors**
- **Cathode Ray Tubes**
- **RF Transistors**



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Power Grid Tubes/Planar Trides	
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Klystrons and TWTs for Studio Transmitter Links	
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• **Service** — The broadcast industry demands a dependable source. Lost air time is not only an inconvenience, its costly. Richardsons extensive inventory and efficient distribution system assures you delivery of the products you need when you need them.

• **Quality** — Products manufactured by the most-respected names in the industry — Acrian, BURLE (RCA), EIMAC, Hitachi, Motorola, MPD (G.E.), Panasonic, SGS-Thomson, Siemens, Varian and more — line our shelves. The acquisition of the Philips transmitting tube lines has added to our capabilities and places our manufactured brand — National — among leading producers of broadcast components.

• **Savings** — Our prices are typically 25-50% lower than original equipment manufacturers. Technical support is also provided to save you time and money in meeting your exact requirements.

• **Warranty** — A full manufacturers warranty is provided on all products sold by Richardson.

• Turn to the back cover for a complete listing of Richardson Sales Locations.

History

4 **1947** — Richardson Electronics is founded by Arthur Richardson Sr.

5 **1979** — RF Gain, Ltd. is established in New York. RF Gain specializes in semiconductors with an emphasis on RF.

8 — RF Gain becomes distributor for solid state microwave division of Thomson.
8 — Richardson and RF Gain sign distribution agreements with CTC.

9 **1981** — National Electronics and Cetron Electronic Corporation are acquired.

9 **1982** — Richardson Electronics (Europe) Ltd. ("REEL") is established in Lincoln, England.
11 — RCA's small power tube product line is acquired.

1984 — Calvert Electronics, Inc., East Rutherford, N.J., is acquired.
11 — AT&T's cold cathode and moly code tube lines are acquired.

12 — Acrian acquires CTC; Richardson continues distribution agreement with Acrian.

1985 — Richardson Electronics Canada Ltd. opens in Brampton, Ontario.

— Richardson Electronics France S.A.R.L. opens in Colombes, France.

— Ceco Communications, Brooklyn, N.Y., merges with Richardson.

1986 — Richardson establishes a joint venture with Varian Associates, Inc. of Palo Alto, Calif. ("VASCO" agreement)
— Richardson's new corporate headquarters facility

is completed in LaFox, Ill.
— Zaerix Electronics, Ltd. and Hall Electronics, Ltd., both of London, are acquired.

— Richardson signs distribution agreement with Thomson.

1987 — Giant Electronics Brand, Florence, Italy, is acquired.

— Alpha Electronics, Brooklyn, N.Y., is acquired.

— Richardson signs distribution agreements with Motorola and TRW.

— REEL and Richardson Electronics Canada Ltd. each move into larger facilities.

— Richardson Electronics Iberica S.A. opens in Madrid, Spain.

1988 — Richardson and MPD, Inc. (formerly General Electric Microwave Products Department and based in Owensboro, Ky.,) form a joint-venture agreement

— Richardson Electronics GmbH opens in Lauterbach/Rohrdorf, West Germany.

— Westinghouse Electric Corporation's power tube line is acquired.

— **Philips' transmitting tube product lines are acquired**

— Richardson begins manufacturing operation in Brive, France.

1989 — Richardson Electronics Japan KK opens in Tokyo.

— Richardson Electronics GmbH moves into larger facility in Puchheim, a suburb of Munich.

— Richardson Electronics Iberica S.A. moves into new facility in Madrid, Spain.

— Richardson opens technical support office in The Netherlands.



Capabilities

Richardson Electronics, Ltd. is the largest distributor of broadcast-related tubes and components in the world, serving thousands of radio and television stations worldwide. With our recent acquisition of the Philips transmitting tube lines, we are prepared to address new OEM applications, as well as the replacement business.

Our technical expertise saves you time and money, whether it means choosing the exact replacement component or retrofitting an existing unit.

Richardson is prepared to meet the requirements of the replacement market and OEMs with an unsurpassed level of service. An extensive product inventory is supported by a unique communications network that links our 19 locations worldwide. Each of our offices has instant access to our inventory and customer data, assuring every order is handled with the same attention. The result of our efforts is that 90% of all orders are shipped the same day.

For the products you need, when you need them, look to Richardson Electronics — your one-stop broadcast source.



Amperex®



CETRON®



BURLE



Panasonic



Products

Backward Wave Oscillators
 Camera Tubes
 Cathode Ray Tubes (CRTs)
 Cold Cathode Tubes
 Closed Circuit Television
 Diodes
 Display Devices
 Duplexers
 Electro-Optical Devices
 Gas Relays
 Glow Modulators
 Hydrogen Thyratrons
 Ignitrons
 Image Converters
 Image Intensifiers
 Integrated Circuits
 Klystrons
 Klystron Amplifiers
 Magnetrons
 Microwave Tubes
 Microwave Semiconductors
 Photomultiplier Tubes
 Phototubes
 Planar Triodes
 Power Modules
 RF Amplifiers
 RF Capacitors
 RF Resistors, Terminations
 RF Transistors
 Readout Tubes
 Receiving Tubes
 Rectifiers
 Relays
 Silicon Controlled Rectifiers (SCRs)
 Solid State Replacements
 Spark Gap Tubes
 Tetrodes
 Thyratrons
 Thyristors
 Transistors
 Transmitting Tubes
 Traveling Wave Tubes
 Triodes
 Tube Sockets, Accessories
 Vacuum Capacitors
 Vacuum Interrupters
 Vacuum Relays
 Vibrators
 Vidicons
 X-Ray Tubes

Manufacturers

AEG-Telefunken
 Acrian
 Amperex
 Amperite
 Brown Boveri (BBC)
 BURLE (RCA)
 Cetron
 Clinton
 Conrac
 Dumont
 EEV
 E.G.&G.
 EIMAC
 General Electric
 Genalex
 Germanium Power Devices
 Hitachi
 ITT
 Jennings
 Lifton
 MPD (G.E.)
 Machlett
 Matsushita
 M.E.D.L.
 Microwave Assoc.
 Motorola
 Mullard
 National
 NJRC
 Omniwave
 Panasonic
 Philips
 RCA
 Raytheon
 SGS-Thomson
 Samsung
 Sanyo
 Semicon
 Semikron
 Siemens
 STC/Stantel
 TRW
 Thomson-CSF
 Toshiba
 Varian
 Vicon
 Victoreen
 Westinghouse

Power Grid Tubes/Rectifiers



For: AM, FM, SW

QEL1/150
 QEL2/275
 2E26
 3-400Z/8163
 3-500Z
 3-1000Z/8164
 QB3.5/750GA
 QQVO3/20A
 QB3/200
 QB3/300GA
 3CX1000A7/8283
 3CX1500A7/8877
 3CX2500A3/8161
 3CX2500F3/8251
 3CX3000A1/8238
 3CX3000A7
 3CX3000F1/8239
 3CX3000F7/8162
 3CX10000A1/8158
 3CX10000A3/8159
 3CX10000A7/8160
 3CX15000A3
 3CX15000A7

3CX20000A3
 3CX20000A7
 4-65A/8165
 4-125A/4D21
 4-250A/5D22
 QY4-400
 4-400A/8438
 4-400AX
 4-400B/7527
 4-400C/6775
 4-500A
 4-500B
 4-1000A/8166
 QB4/1100
 QB4/1100GA-A
 QB4/1100GA-C
 4CV50000E
 4CV100000C/8351
 4CV100000CP
 4CV100000E
 4CV100000EP
 4CV250000B
 4CX250B/7203
 4CX250BC/8957
 4CX250K/8245
 4CX250R/7580W
 4CX300A/8167
 4CX300Y/8561
 4CX600B
 4CX1000A/8168
 4CX1000K/8352
 4CX1500A
 4CX3000A/8169
 4CX3500A
 4CX5000A/8170
 4CX5000J/8909
 4CX5000R/8170W
 4CX7500A

4CX10000D/8171
 4CX10000J
 4CX12000A/8989
 4CX15000A/8281
 4CX15000J/8910
 4CX15000R
 4CX20000A/8990
 4CX20000B
 4CX20000C
 4CX20000D/9015
 4CX25000A
 4CX30000G
 4CX35000C/8349
 4CX35000D
 4CX40000G
 4X150A/7034
 4X500A
 5-500A
 5CX1500A
 5CX1500B
 5CX3000A/8966
 5F23
 5F23A
 6F50R
 7F25A
 YU148
 Q201
 575A
 807
 810
 811A
 812A
 813
 828
 832A
 833A
 845
 866A

872A
 892R
 YD1001/RS2021L
 RS1002
 RS1002A
 1099/F1099
 YD1101
 YD1102
 C1108
 C1112
 C1134
 C1136
 YL1460
 YL1461
 YL1530
 YL1631/9018
 YL1640
 YL1650
 YL1740
 6146A
 6166A/7007
 6252/QQE03/20
 6360A
 6816
 7527A
 8008
 8122
 8122W
 8791/V1
 8792/V1
 8874/3CX400A7
 8875
 8984
 8985
 8986
 9011



For: TV

QQV03/20A
 3CX10000U7
 3CX12000U7
 4-1000A/8166
 4CX3500A
 4CX5000A
 4CX7500A

4CX12000A/8989
 4CX15000A
 4CX15000R
 4CX25000A
 4CX30000G
 4CX40000G
 QBL5/3500
 7F254A
 8F76R
 TH298
 TH382
 Y579
 829B
 Y863
 RS1054L
 YL1056
 YL1057
 YD1335
 YL1420
 YL1430
 YL1440
 YL1520

YL1530
 YL1540
 YL1560
 YL1580
 YL1610
 YL1630
 YL1631/9018
 YL1750
 5762/7C24
 6076/QBL5/3500
 6076A/BL5/3500C
 6161
 6166A/7007
 6252/QQE03/20
 7094
 8122
 8122W
 8226
 8501
 8791
 8791/V1
 8792

8792/V1
 8794
 8806
 8807
 8812/YL1420
 8813/YL1430
 8814/YL1440
 8890
 8891
 8915/YL1520
 8916
 8976
 8977
 8984
 8985
 8986
 8987/YL1540
 8988
 9007
 9018

Power Grid Tubes/Planar Triodes

For: UHF TRANSLATORS/TRANSPOSERS & TRANSMITTERS

2C39A
2C39B
2C39BA
TH327/YU167
TH328/Y730
TH331/Y844
TH338/Y831
TH339/Y846
TH347/Y834

Y654
Y667/7211SR
Y667A/7211SRCL
Y840
YD1040
YD1042
YD1054
YL1056
YL1057

YD1101
YD1102
YD1130
YD1270
YD1275
YD1277
YD1333
YD1336
YD1380

YD1381
YL1560
4628
7211SR/Y667
7211SRCL/Y667A
7289
9017

Camera Tubes



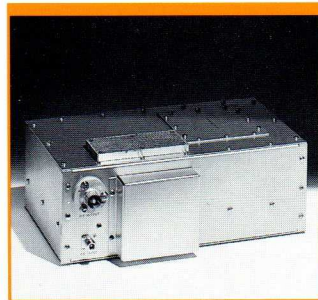
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8-701-022-39
HS302
XQ1020B
XQ1020G
XQ1020R
XQ1023R
XQ1025R/BC4594R
XQ1070B
XQ1070G
XQ1070R
XQ1071B
XQ1071G
XQ1071R
XQ1073R/BC4893R
XQ1074R

XQ1075R/BC4894R
XQ1290
XQ1294
XQ1310
XQ1410B
XQ1410G
XQ1410L
XQ1410R
XQ1413R
XQ1415L
XQ1415R
XQ1427B
XQ1427G
XQ1427R
XQ1428B
XQ1428G
XQ1428R
XQ1430B
XQ1430G
XQ1435R
XQ1500B
XQ1500G
XQ1505R
XQ1560
XQ2075/05R
XQ2170/03B
XQ2170/03G
XQ2170/05B
XQ2173/03R
XQ2177/03G

XQ2177/05G
CT2232A
CT2332A
XQ2427B
XQ2427G
XQ2427R
XQ3070/05B
XQ3427B
XQ3427G
XQ3427R
XQ3467B
XQ3467G
XQ3467R
XQ4087B
XQ4187G
4387/H4101
4389/H8399B
BC4390B
BC4390G
BC4390R
BC4390S
BC4391G
BC4391S
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4542
BC4592B/BC4992B
BC4592G/BC4992G
BC4592R/BC4992R
BC4593R
BC4809

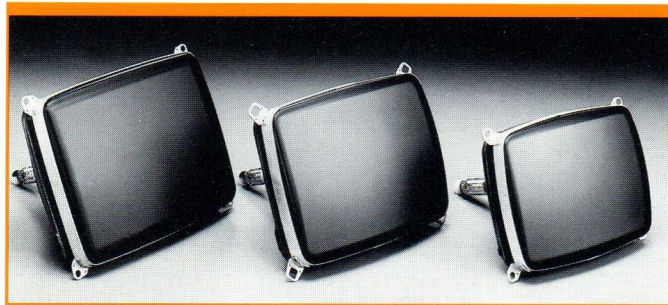
4809/XQ1240
BC4809B
4809B/XQ1240B
BC4809S
BC4908B
BC4908G
BC4908R
BC4908S
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BC4909S
4911/H9311A
BC4994G
BC4994G
BC4994R
7038
7263A
BC7735
8134
BC8134
BC8134B
H8397A
8480
BC8480
BC8507
BC8541
H9324
H9382

Cavity Amplifiers



A full line of Cavity Amplifiers are available for FM, VHF and UHF applications. Call with your requirements.

Cathode Ray Tubes (CRTs)



Conrac

1912P22
9309P4
9388P4
14171P4
14385P4
17269P4
19301P22
520114-022
520115-004
520135-022
520207-022
520234-022
520257-022
520270-022
520271-022
520316-031

Sylvania/Philips

10ST5453B
10ST5497E
10ST6122A
12ST4543A
12ST5427A
12ST5448A
12ST5448B
12ST5448J
12ST5448K
15ST4730C
15ST4730M
15ST4730T
15SC5819POZF
17ST5490C
17ST6124A
19ST6118B

20ST6109A
23ST5468A
23ST5469A
23ST5488A
23ST5499A

Jedec

8QP4
9AEP4
9SP4
9UP4
9UP7
9WP4
12VBQP4
12VCBP4
14BDP4
16CAP4
19VAGP22
19VATP22
19VEGP22
19VLGP22

Foreign

140CB4
140YB4
150ACB4
230BRB4
230MB4
240AB4
240DB4
240YB4

240XB4
310FDB31
330AB22
330GB22
370DYB22
400CTB4
440BFB4
440MB4
500BMB4
510NVB22
N5042
N6031

Viewfinder CRTs

M17-140W
M17-140WE
M17-141W
M17-141WE
M17-142W
M17-142WE
M17-144WE
M17-145WE
170EB4
170FB4

Klystrons and TWTs for Studio Transmitter Links

Description	Part No.	Frequency MHZ	Replaces	Equipment
Klystrons	VA259A VA259B	5960-6500 6500-7125	VA259A VA259B	RCA TVM-6
Klystron Retrofit Kits Including Tubes, Parts & Heat Sink	VJW7310BR	6500-7125	QKK 755A QKK 756A	Collins MW 308C, 408C
	VJW7310BS	6500-7125	QKK 755A QKK 756A	Collins MW 308A, 408A
	VJW7310BH	6500-7125	QKK 755A QKK 756A	Collins MW 308D, 408D
	VJW7311E	7700-8400	QKK 759A	Collins MW 508C
Same Above with Boiler	VJW 7312DD	12700-13200	QKK 1237	Collins MW 808D
Klystrons	QKK 549 QKK 755A QKK 756A QKK 759A QKK 910 QKK 1237	5925-6825 6525-6875 6875-7125 7750-8400 6825-6825 12700-13250	QKK 549 QKK 755A QKK 756A QKK 759A QKK 910 QKK 1237	
TWT	W3/2GC W5/4G	10700-11700 5850-7200	W5/2GC W5/4G	

Jennings Vacuum Capacitors

Variable Capacitors

Type	Max Capacitance (PF)	Test Voltage (KV)
CADC-30	30	7.5, 10, 15
CADD-30	30	7.5, 10, 15
CAVI	1000	45, 50
CAV2	1000	30, 35, 40
CAV3	1000	40, 45, 50
CMVI	650	5
	1000	3
	4000	5
CSVI	500	3, 5
	1000	5
CSVF	500	7.5, 10, 15
CVCD	3000	3, 5
CVDD	50	7.5, 10, 15
	100	7.5, 10, 15
	300	7.5, 10, 15
	500	7.5, 10, 15
	750	7.5, 10, 15
	1000	7.5, 10, 15
CVDP	1500	7.5, 10, 15
	2300	7.5, 10, 15
CVEP	1000	10, 15, 20

Type	Max Capacitance (PF)	Test Voltage (KV)
CVFP	250	30, 35, 40
	450	30, 35, 40
	750	30, 35, 40
	1000	30, 35, 40
	1500	30, 35
	2000	25, 30, 35
CVFA	75	20, 25, 30
ECS	8	10, 15, 30, 10, 15
UCS	200	7.5, 10, 15
	300	7.5, 10, 15
	400	7.5, 10, 15
	500	7.5, 10, 15
UCSL	250	3.5
	500	3.5
	1500	3.5
	2000	3.5
	3000	2, 3
UCSV	100	7.5, 10, 15
UCSY	700	7.5, 10, 15
	1000	7.5, 10, 15
UCSX1F	1000	7.5, 10, 15
	1200	7.5, 10, 15
	1500	7.5, 10, 12
	2000	7.5, 10, 12
	2300	7.5, 10, 12

Vacuum Fixed Capacitors

Type	Max Capacitance (PF)	Test Voltage (KV)
CFDP	1500	10, 15
	2000	7.5, 10, 12, 15
CFDS	1000	7.5, 10, 12
CFED	150	20, 25, 30
	300	20, 25, 30
	500	10, 15, 20, 25
	750	15, 20, 25
	1000	15, 20, 25
CFEP	2000	10, 15, 20
CFP	2000	25, 30, 35
CFFM	2500	20, 25, 30
CFHM	2000	30, 35, 40
CFHP	450	45, 50, 55
	1000	40, 45, 50
CLFI	6	30, 35
	12	30, 35
	25	30, 35
	50	30, 35
	75	30, 35
	1000	30, 35
	150	30
	200	30
	250	30
CKT	12	35
	200	30

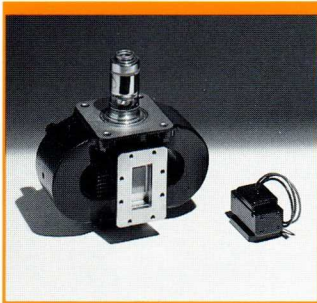
Type	Max Capacitance (PF)	Test Voltage (KV)
JCS	250	7.5, 10, 15
	400	7.5, 10, 15
	500	7.5, 10, 15
JCSF	25	7.5, 10, 15
	40	7.5, 10, 15
	50	7.5, 10, 15
	120	7.5, 10, 15
	150	7.5, 10, 15
JCSL	1000	3, 5
	1500	3, 5
	2000	3, 5
JSLP	5000	3, 5
MC	500	10, 15, 20
	750	10, 15, 20
	1000	10, 15, 20
MCI	500	10, 15
	750	10, 15
	1000	10, 15
MLC	500	25, 30
	750	25, 30
	1000	25, 30

Vacuum Transfer Relays

Type	Coil voltage (VDC)	Type	Coil voltage (VDC)
RBID	26	RF4A	26
RB1H	26	RF5C	12
RB1J	26	RF5D	12
RB2A	26	RF6C	12
RB7A	26	RF6D	12
RB7B	26	RJ1H	26
RD6B	26	RJ2B	26
RF1D	26	RJ4B	26
RF1E	26	RJ8A	26
RF1J	26		

NOTE: Richardson Electronics offers the complete Jennings product line of Vacuum Capacitors, Relays and Mounting Hardware. This listing represents a sampling of types that have broadcast applications. If you have a requirement for a Jennings product not listed here, please contact your Richardson salesperson for further assistance.

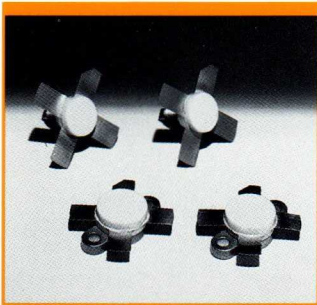
Replacement Magnetrons for Ground Weather Radar



Type
SFD373A
L4698B
L4727

Radar Manufacturer
Enterprise
Ellason
RCA/Sperry

Model
WSR-74C
E250, E300
AVQ-10



RF Transistors for Broadcast Applications

Acrian TV Broadcast

Part Number	Frequency Range (MHz)	P _{out} min (Watts P.Sync)	Typical Gain (dB)	V _{cc} Volts	Package	Application
VTV075	175-225	7.5	11.2	25	H07	Band III TV/Class A
VTV150	175-225	15	9.0	25	H08	Band III TV/Class A
VTV300	175-225	30	7.0	25	H08	Band III TV/Class A
VTV1250	175-225	125**	12	28	J02	Band III TV/Class AB
UTV005	470-860	0.5	11	20	F03	Band IV/V TV/Class A
UTV010	470-860	1.0	11.5	20	F03	Band IV/V TV/Class A
UTV020	470-860	2.0	12	25	F03	Band IV/V TV/Class A
UTV040	470-860	4.0	9.0	25	F03	Band IV/V TV/Class A
UTV080	470-860	8.0	10	26.5	J06	Band IV/V TV/Class A
UTV120	470-860	12	9.5	26.5	J08	Band IV/V TV/Class A
UTV150	470-860	15	9.5	26.5	J06	Band IV/V TV/Class A
UTV200	470-860	20	9.5	26.5	J06	Band IV/V TV/Class A
UTV200	470-860	60**	8.0	28	J06	Band IV/V TV/Class AB

**Class AB

RF Transistors for Broadcast Applications

Motorola/TRW 88-108 MHz, FM Broadcast Band

Device	P _{out} Output Power Watts	P _{in} Input Power Watts (max)	G _{PE} (min) Power Gain dB/MHz	Package
V _{cc} = 28 Volts				
TPV380	75	7	10.3/108	241-11/1
TPV383	150	18	9.2/108	241-11/1
TPV390	250	22.2	11.0/108	397-01/1

VHF Ultra Linear for TV Applications

Device	P _o Watts	G _p (min)/Freq Power Gain dB/MHz	3 Tone IMD dB	θ _{JC} °C/W	Package
V _{cc} = 28 Volts					
TPV394A	5	15/225	-58	2.5	244C-01/1
TPV364	10	10/225	-54	2	145D-01/1
TPV385	14	14/225	-53	1.5	316A-01/1
TPV375	20	8/225	-51	1.5	211-11/1
TPV387	90	12/225	dB Comp	1	316A-01/1
TPV376	30	7.5/225	-53	1	316A-01/1
TPV3100	28	14/225	dB Comp	0.8	827-01/1
V _{cc} = 32 Volts					
TPV3250B	230	11/230	dB Comp	0.55	397-01/1

UHF Ultra Linear for TV Applications

Device	P _o @ 1dB Comp. Point Watts	G _p (min)/Freq Power Gain dB/MHz	3 Tone IMD dB	θ _{JC} °C/W	Package
V _{cc} = 20 Volts					
TPV590	0.25	14/860	-58	30	305B-01/1
TPV591	0.5	13/860	-58	16	305B-01/1
TPV596	0.5	11.5/860	-58	20	244C-01/1
TPV597	1.0	10.5/860	-58	9	244C-01/1
TPV598	4.0	7/860	-60	5	244C-01/1
V _{cc} = 25 Volts					
TPV693	1.8	9.5/860	-60	8	244C-01/1
TPV593	2.0	8.5/860	-60	11	244C-01/1
TPV698	4.0	8.5/860	-54	6.2	244C-01/1
TPV657	6.0	8/860	-58	2.5	744D-01/1
TPV595A	14.0	8.5/860	-47	2.5	395-01/1
TPV695A	14.0	9.5/860	-47	2.5	395-01/1
TPV7025	25.0	8.5/860	-45	1.5	398-01/1
V _{cc} = 26 Volts					
TPV695B	30.0	8.5/860	dB Comp	2.5	395-01/1
V _{cc} = 28 Volts					
TPV5051	50.0	6.5/860	dB Comp	1.8	395-01/1
TPV5055B	50.0	7/860	dB Comp	1.5	398-01/1
TPV6080B	80.0	7/860	dB Comp	0.7	397-01/1

RF Transistors for Broadcast Applications

Philips FM Broadcast 87-108 MHz Bipolar Transistors

Type Number	Load Power @ 108 MHz (W)	Power Gain @ 108 MHz (dB)	Supply Voltage (V)	Envelope
Class B				
2N3866	1.8	10	28	TO-39/1
BLW90	4	20	28	SOT122
BLV21	15	10	28	SOT123
BLW86*	45	7.5	28	SOT123
BLX39*	45	7.5	28	SOT120
BLV80/28	80	10	28	SOT121
BLW76	80	8	28	SOT121
BLW78	100	6	28	SOT121
BLV25	175	10	28	SOT119
BLV37	250	10	28	SOT179

*Load power and power gain measured at 175MHz.

TV Transposer/Transmitter Transistors

Type Number	Output power P_o sync (W)	d_{im} (dB)	Output power (W) $P_o - 1dB$	Power Gain (dB)	Supply Voltage (V)	Envelope
Class A Bands I (41-68MHz) & III (174-230MHz)						
BLV30	1.5	-60	—	18	25	SOT122
BLV31	5	-58	—	15	25	SOT122
BLV32F	10	-55	—	16	25	SOT160
BLV33F	16	-55	—	13.5	25	SOT119
BLV33	19	-55	—	9	25	SOT147
Class AB Bands I (41-68MHz) & III (174-230MHz)						
BLV30	—	—	10	15	28	SOT122
BLV31	—	—	20	12	28	SOT122
BLV32F	—	—	30	13	28	SOT160
BLV33F	—	—	85	10.5	28	SOT119
BLV33	—	—	90	6.5	28	SOT147
BLV36	—	—	115	11	28	SOT161
BLV38	—	—	225	9.0	35	SOT179
Class A Bands IV & V 470-860 MHz						
BFR96S	0.12	-60	—	10	25	SOT37
BFQ34	0.3	-60	—	11	25	SOT122
BLW32	0.5	-60	—	11	25	SOT122
BLX96	0.5	-60	—	6	25	SOT48
BFQ68	0.7	-60	—	10	25	SOT122
BLW33	1	-60	—	10	25	SOT122
BLX97	1	-60	—	5.5	25	SOT48/3
BLW34	1.8	-60	—	9	25	SOT122
BLW98	3.5	-60	—	6.5	25	SOT122
BLX98	3.5	-60	—	5	25	SOT48/2
BLV57	6	-60	—	8	25	SOT161
Class AB Bands IV & V 470-860 MHz						
BLV57	—	—	30	6.5	25	SOT161
BLV59	—	—	30	7	25	SOT171

RF Transistors for Broadcast Applications

SGS-Thomson

55-108MHz Class C for FM Transmitters and Class AB for VHF-TV Band I

Type	Package	Config.	V _{cc} (V)	P _{out} (W)	f _o (MHz)	P _{in} (W)	G _p (dB)	nc (%)
SD1476**	2 X .450 SQ 4LFL	CE	28	240	55-88	20	11	50
SD1476	2 X .450 SQ 4LFL	CE	32	240	55-88	15	12	50
SD1457	.500 4LFL	CE	28	75	108	7.5	10	75
SD1460	.500 4LFL	CE	28	160	108	20	9	75
SD1483	2 X .450 SQ 4LFL	CE	28	250	108	25	10	55

** In development, Class AB Icq = 2 X 400 mA

Linear Transistors for TV Applications, Band III

Type	Package	Config.	Bias V ₁ /I ₁ (V)(mA)	P _{out} min (W)	f _o (MHz)	P _{in} (W)	G _p min (dB)	IMD (3 tones) (dB)
SD1455	.500 4IL STUD	CE	28/2500	14	225	1.75	9	-55
SD1458*	.500 6LFL	CE	28/2500	14	225	0.6	14	-53
SD1459	.550 4L STUD	CE	28/3500	30	225	5.3	7.5	-53
TCC3100	.400BAL FL	CE	28/2x100	100	225	10	11	-
SD1485**	2 X .450 SQ 4LFL	CE	28/2x250	200	230	25	9	-

* Internally input matched ** Class AB

Linear Transistors for TV Applications, Bands IV and V

Type	Package	Config.	Bias V ₁ /I ₁ (V)(mA)	P _{out} min (W)	f _o (MHz)	P _{in} (W)	G _p min (dB)	IMD (3 tones) (dB)
TCC598	.280 4L STUD (C)	CE	25/850	4	860	0.8	7	-58
SD1490	.438 4L BAL FLG	CE	28/2x1500	15	860	1.9	9.0	-58
SD1489*	.438 4L BAL FLG	CE	28/2x150	50	860	10.5	6.5	-
SD1492	2 X .450 SQ 4LFL	CE	28/2x250	150	860	30	7.0	-

*Class AB (in development)

Additional Popular RF Transistors

10AM05	47001	BLV31	C12-28	CD2212	CM80-28
10AM11	47003	BLV32F	C2M100-28	CD2315	CM80-28R
10AM20	47008	BLV33	C2M100-28A	CD2336	D1-12B
2N5016	47026	BLV33F	C2M60-28	CD2337	D1-28
2N5070	47027	BLV36	C40-28A	CD2434	D1-28Z
2N5071	47028	BLV57	C50-28	CD2435	D10-28
2N5641	47046	BLW31	CA2666	CD2711	D2-12B
2N5642	8MOB5	BLW32	CA2810	CD2713	D20-28
2N5643	8MOB15	BLW33	CA2818	CD2810	D2B0
2N5919/2N5919A	A5919	BLW34	CA2820	CD2811	D3-28
2N6166	BAM40SR	BLW64C3	CA2830	CD2812	DHP10-14-15
2N6197	BAM80	BLW75	CA2832	CD2813	DHP10-32-08
2N6198	BFR34A	BLW76	CA2840	CD3100	DM15-12BA
2N6199	BFR65	BLW78	CA2842	CD3262	DM20-12BA
2N6439	BFR90	BLW95	CA2842B	CD3400	DM5-12B
2N6572	BFR91	BLW95M	CA2870	CD3401	DM5-12BA
3729685-2	BFR94	BLW98	CA4418	CD3403	DMB10-12
3729784-1	BFR96	BLX15CF	CA4800	CD3745	DMB5-12
44075	BFR96S	BLX95	CA4812	CD3849MP	E1E5
44085	BFW16A	BLX96	CA5501	CD4633	H100-50
44088	BFX89	BLX97	CA5700	CD4785	H175-50
443766	BFY90	BLX98	CA5800	CD5919	LI1001A
46100	BGY32	BLY94	CD1144	CD5919A	MHW1222
46101	BGY33	BM100-28	CD1193	CHE/CHEO	MHW1224
46104	BGY41B	BYI-1	CD1752	CM10-12A	MHW1341
46110	BGY47A	C1-12	CD1752MP	CM45-12A	MHW1342
46120	BLV25	C1-12Z	CD1979	CM60-12A	MHW252

Additional Popular RF Transistors (Continued)

MHW590	MRF502	S175-50	TP3400
MHW591	MRF511	SD1008	TP9383
MHW592	MRF517	SD1013	TPV3100
MHW593	MRF5174	SD1015	TPV364
MHW602	MRF5176	SD1019	TPV375
MHW603	MRF5177	SD1019-13	TPV376
MHW710-1	MRF651	SD1019-5	TPV385
MHW710-2	MRF646	SD1224-13	TPV394
MHW710-3	MRF648	SD1407	TPV5051
MHW720-2	MRF817	SD1407-3	TPV508
MM1551	MRF818	SD1407-8	TPV593
MM1557	MRF838	SD1412-3	TPV595A
MPS3866A	MRF840	SD1422	TPV596/TPV596A
MRA0610-40A	MSC85107/85107	SD1429	TPV597
MRAL000-14L	MSC85837/85837	SD1434	TPV598
MRAL2023-12	MWA110	SD1438-2	TPV599A
MRAL2023-3	MWA120	SD1450	TPV695A
MRAL2023-6	MWA130	SD1455	TRW2020
MRAL2327-3	MWA310	SD1457	TRW3005
MRF141G	MWA320	SD1458	TRW53602
MRF150	MWA330	SD1459	TTC47027
MRF161	NE02136	SD1460	TV30U
MRF163	PT3134A	SD1460-5	TV60U
MRF171	PT3134B	SD1468	TV120U
MRF2005	PT3134C	SD1480	UMIL100
MRF2005B	PT3134D	SD1485	UMIL3
MRF2010M	PT3134E	SD1489	UMIL60
MRF2016M	PT3134EMP	SD1490	UMIL80
MRF314	PT4572A	SD1492	UTV005
MRF314A	PT9701	SD1920-2	UTV010
MRF315	PT9732	SRF2604	UTV040
MRF315A	PT9733	SRF3176	UTV050
MRF316	PT9780	SRF3344	UTV080
MRF317	RFTV364	TA150-50	UTV120
MRF321	RFTV394	TA7344	UTV150
MRF323	RFUV599	TC250-50	UTV200
MRF327	RK200-50	TCC20L15	VMIL100
MRF331	RL50-50	TCC3100/TLV3100	VMIL120FT
MRF338	RM250-100	TCC596	VMP4
MRF342	RN300-100	TCC597	VTV-075
MRF344	RP40-100	TCC598	VTV-150
MRF392	RSMQ01	TH513	VTV-300
MRF422	S100-28	THA15	VTV-1250
MRF428	S100-50	THA16	ZO-28
			ZO-28F

Please call for additional types not listed.

Conditions of Sale

United States and Canada

Terms of Payment: Net 30 days from date of invoice for accounts with established credit. Open credit may be established by submitting credit satisfactory information with or before placement of an initial order.

Prices: All quoted prices refer to components meeting commercial specifications unless military approval is specifically indicated. All prices are subject to change without notice.

Transportation: All orders are F.O.B. shipping point. Shipment will be made via United Parcel Service within their service area, except cathode ray tubes and power tubes more than 7" in length, which will be shipped via

truck, F.O.B. point of shipment. Alternate shipping methods may be specified, with additional expenses billed to the purchaser.

Shipping Damages and Claims: All merchandise is inspected prior to shipment and upon receipt it should be inspected immediately. If damages are found, notify the carrier for a damage inspection. Retain all original shipping containers for inspection, pending instructions from the carrier. All claims for shortages must be made within 7 days after receipt of shipment.

Warranty: All products are sold with the manufacturers guarantee. We expressly limit our liability to any guarantees extended by the manufacturer. No war-

ranty will apply if product are altered or modified in any way.

Returns: All returns must be accompanied by a "Return Authorization" which may be obtained from our Customer Service Department. Return shipments must be prepaid.

International

Terms of Payment: 1. Irrevocable Letter of Credit, payable at sight, confirmed by a first class U.S. bank preferably Continental Bank N.A., 231 S. LaSalle Street, Chicago, Il 60693. All bank charges in country of origin and in U.S. are for buyers' account. 2. Payment with order, in U.S. funds, by check, bank draft or telex transfer to our account No. 77-

06588 at Continental Bank N.A. **Minimum Order:** \$300.00 per shipment.

Transportation: All shipments are F.O.B. Richardson warehouse. All charges, including inland freight, documentation and handling are for buyers' account. Shipments will be handled by our freight forwarders unless other arrangements are mutually agreed upon.

Special Certifications: Requests for Certificate of Origin, Warranty certificates or any other certification must be made at time of inquiry to avoid possible misunderstandings and delays.

Other Conditions: Same as U.S. and Canada.

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