

Communications Electronics, Inc. and Watkins-Johnson Equipment Guide

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This is an ongoing project. I'm always looking for more information, particularly on the variants denoted by the -x suffixes.

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All units are rack mount
3.5" high unless noted.

Receivers:

Model	Coverage	Bandwidths	Notes
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112	1-18gHz TH-series drop-in tuners	100kHz/2/4/10/ 20mHz	receiver, AM/FM/pulse, filmstrip dial, AFC, DAFC, "aural enhancement", dual conversion, IFs: 160 & 21.4mHz, center tune and signal strength meters, solid-state, 23lbs
112-1	1-18gHz	100/500kHz/1/ 10/20mHz	same as 112 except for BW
112-5	4-8gHz	1/2/4/10/20MHz	same as 112 except for BW and coverage
112R	1-18gHz		EMC version of 112
205	2-1000mHz HH-, VH- or UH- series tuners	10/50/300khz/ 1mHz	Pan-Man receiver, filmstrip dials, AM/FM/pulse, scans pan (full band) or sector (adjustable width centered on tuner frequency), center tune and signal strength meters, 21.4mHz IF, solid- state, 19lbs
205-2			similar to 205 except with additional scan mode of pan/sector (alternates traces), and remote tune
205-3		300kHz/1/3/5mHz	otherwise similar to 205-2
205-28		50/300kHz/1/2mHz	otherwise similar to 205-2
205-46		300kHz/1/2/3mHz	otherwise similar to 205-2
215			similar to 205-2 except w/ TTL digital remote interface

232-1	2-32mHz	6kHz	tunable filter, basically a triple conversion rcvr w/o demod, IFs=65mHz/10mHz and 15kHz, 6kHz BW filter, COR, DAFC input (from DRO-307-1), 1/2 rack width
232-2	2-32mHz	6kHz	same as 232-1 except with 25kHz final IF
301A	3-30kHz	200Hz	round dial, AM/CW, three band 3-6/6-14/14-30kHz, 45kHz IF, AGC, solid-state, 14lbs, cost \$1000 (1967)
301A-1	3-30kHz	200Hz	same as 301A but w/optional internal rechargeable batt, cost \$1200 (1967)
302	30-300kHz	2kHz	round dial, AM/CW, three band 30-60/60-140/140-300 kHz, 455kHz IF, AGC, solid-state, 13.5lbs, cost \$1000 (1967)
340A	1-900kHz	1/6/20/50kHz	5 digit LED counter, AM/FM/CW, DAFC, ant attn, 50/600 ohm ant, remote control, solid-state
340A-4	1-900kHz	0.15/1/3/30kHz	same as 340A except for BW
340A-6	1-900kHz	0.15/1/20/75kHz	same as 340A except for BW
340A-7	1-900kHz	0.4/1/2/5/10kHz	same as 340A except for BW
340A-8	1-900kHz	0.3/1/3/20/50kHz	same as 340A except for BW
351	1-600kHz	0.15/1/3/6kHz	4 digit Nixie counter, decimal shift, DAFC, AM/SSB/CW/FSK, BFO w/zero/variable/1kHz/USB/LSB, ant attn, audio BW filters, solid-state, 20lbs, cost \$4000 (1967)
351-1	1-600kHz	1/6/20/50kHz	AM/FM/USB/LSB/CW/Pulse, filmstrip dial, solid-state, ant. atten., BFO w/var/5.5kHz/USB/LSB
354	1-600kHz	0.15/1/3/6kHz	filmstrip dial, AM/SSB/CW/FSK, BFO w/zero/variable/5.5kHz/USB/LSB, ant attn, audio BW filters, solid-state, 20lbs, cost \$2500

(1967)

355	1-600kHz	1/6/20/50kHz	filmstrip dial, AM/SSB/CW/FSK, BFO w/zero/variable/5.5kHz/USB/LSB, ant attn, audio BW filter, solid-state, 20lbs, cost \$3000 (1967)
355-1	1-600kHz	1/6/20/50kHz	same as 355 w/addition of X-Y outputs to driver plotter, cost \$3200 (1967)
355-2	1-600kHz	1/6/20/50kHz	same as 355 w/addition of internal rechargeable batteries, cost \$3700 (1967)
357	1-600kHz	0.15/1/3/6kHz	4 digit Nixie counter, decimal shift, DAFC, AM/SSB/CW/FSK, BFO w/zero/variable/5.5kHz/USB/LSB, noise limiter, audio BW filter, 2mHz IF, solid-state, (have manual) (mil versions: R-1401 and R-1490A/G), 20lbs, cost \$4200 (1967)
371A	0.5-10mHz	6/20/100/400kHz	AM/FM/CW, filmstrip dial, dual conversion on 6&20kHz IF BWs (21.4mHz & 455kHz), LO out, SM out (21.4mHz), designed for RFI detection, solid-state, 25lbs, cost \$3000 (1968)
372A	0.5-30mHz	6/20/100/400kHz	AM/FM/CW, filmstrip dial, designed for RFI detection, solid-state
372A-2	0.5-30mHz	6/20/100/400kHz	same as 372A except has X-Y outputs for recording spectral
373A	0.5-30mHz	6/20/100/400kHz	AM/FM/CW, filmstrip dial, dual tuner version of 371A, 25lbs, cost \$3500 (1968)
373A-2	0.5-30mHz	6/20/100/400kHz	same as 373A except has X-Y outputs for recording spectral analysis
373A-6	0.5-30mHz	0.15/1/20/75kHz	same as 373A except for BW
373A-10	0.5-30MHz	2/20/100/400kHz	same as 373A except for BW
377A	0.5-10mHz	6/20/100/400kHz	AM/FM/CW, 6 digit Nixie

counter display, DAFC,
dual conversion on 6&20kHz
IF BWs, SM output, solid-
state, 25lbs, cost \$4500
(1967)

402-1	20-40mHz	10kHz	1 chan xtal controlled, AM/CW, 21.4mHz IF, 1/5 rack width, 5.25" high, 4.5lbs, cost \$995 (1965)
402-2	40-60mHz	10kHz	same as 402-1
402-3	60-90mHz	10kHz	same as 402-1
410	20-80mHz	10kHz	plug-in receiver, AM/FM, activity operated relay (AOR), DAFC input, mounts in EF-158 as part of RS-158
410-2	20-80mHz	20kHz	same as 410
410-3	20-80mHz	50mHz	same as 410
415-1	60-90mHz	50kHz (100kHz - special order)	4 chan xtal controlled, AM only, 21.4mHz IF, 1/4 rack width, 3.75" wide, 6.75" high, 6.5lbs, cost \$995 (1966)
415-2	75-110mHz	50kHz	same as 415-1
415-3	90-130mHz	50kHz	same as 415-1
415-4	110-150mHz	50kHz	same as 415-1
416-1	30-90mHz	2mHz	4 chan xtal controlled, pulse only, other specs like 415
416-2	75-110mHz	2mHz	4 chan xtal controlled, pulse only, other specs like 415
416-3	90-130mHz	2mHz	4 chan xtal controlled, pulse only, other specs like 415
416-4	110-150mHz	2mHz	4 chan xtal controlled, pulse only, other specs like 415
416-6	30-90mHz	unknown	4 chan xtal controlled, other specs unknown
416-12	60-260mHz	unknown	same as 416-6

440-1	30-48mHz	20/50/75 or 100 kHz	xtal control rcvr, AM only, 1/6 rack width, second suffix denotes bandwidth -1 =50kHz, -2 =20kHz, -3 =75kHz -4 =100kHz
440-2	45-72mHz		other specs same as 440-1
440-3	70-105mHz		other specs same as 440-1
440-4	100-160mHz		other specs same as 440-1
440-5	150-220mHz		other specs same as 440-1
440-6	210-260mHz		other specs same as 440-1
441-1	30-48mHz	20/50/75 or 100 kHz	xtal control rcvr, FM only, 1/6 rack width, second suffix denotes bandwidth -1 =50kHz, -2 =20kHz, -3 =75kHz -4 =100kHz fit EF-506B rack
441-2	45-72mHz		other specs same as 440-1
441-3	70-105mHz		other specs same as 440-1
441-4	100-160mHz		other specs same as 440-1
441-5	150-220mHz		other specs same as 440-1
441-6	210-260mHz		other specs same as 440-1
461-1	300-450mHz	see descrip	single xtal channel, AM/FM, BWs noted by 2nd suffix: -1 =50kHz, -2 =20kHz, -3 =75kHz -4 = 100kHz 1/6 rack width, fit EF-506 rack
461-2	450-550mHz		same as 461-1
480 series			these tuners are listed under components as they require the supply in the EF-180A or EF-182A rack
501	54-260mHz	10/300kHz	round dial, AM/FM/CW, video BW filters, built-in speaker, center tune and signal strength meters, 21.4mHz IF, solid-state, nuvistors & 7077
501A	54-260mHz	10/300kHz	filmstrip dial, AM/FM/CW, video BW filters, built-in speaker, center tune and signal strength meters,

			21.4mHz IF, solid-state, 15lbs, cost \$1600 (1967)
501A-1	54-260mHz	10/300kHz	same as 501A except w/AFC
504A	54-260mHz	10/300kHz	same as 501A w/addition of 1 & 5mHz marker generator, cost \$1750 (1967)
519	20-70mHz	10/50/300kHz	filmstrip dial, AM/FM/CW, squench, built-in SDU, dual conversion, 10mHz & 455kHz IFs, DAFC input (for DRO-290A), solid-state, 18lbs, cost \$3100 (1967) (have manual)
521A	20-70mHz	4/10/50kHz	filmstrip dial, AM/FM/CW, COR, built-in SDU, dual conversion, 10mHz & 455kHz IFs, DAFC input (for DRO-209A), solid-state, 18lbs, cost \$3200 (1967)
521A-1	20-80mHz	4/10/50kHz	other specs same as 521A
555	90-180mHz	10/20/50kHz	other specs similar to 521A
555-1	90-180mHz	4/10/50kHz	other specs similar to 521A
565	20-1000mHz (VH- & UH- plug-in tuners)	10/50/100kHz/ 3mHz	AM/FM/CW/pulse, built-in SDU, DAFC input
565A	20-1000mHz	opt w/ WJ-9930 modules	same as 565 except uses drop-in IF/BW/demod units
595	220-440mHz	10/20/50kHz	other specs similar to 521A
601A	54-260mHz	50/100kHz	round dial, AM/CW, squench, dual conversion, 21.4mHz & 2.5mHz IFs, two separate IF strips, 50 & 100kHz BWs avail. simultaneously, solid-state & nuvistor, 12lbs, (1964)
701	235-1000mHz	300kHz/2mHz	round dials, AM/FM/CW, two tuners: 235-500/490- 1000mHz, COR, dual conv., 60mHz & 21.4mHz IFs, two separate IF strips, 300kHz & 2mHz BWs avail. simult., solid-state, nuvistor, 7077s & 7486, 21lbs
701A	235-1000mHz	300kHz/2mHz	same as 701 except 7077s

			& 7486 replaced by nuvistors, cost \$3000 (1965)
702	235-1000mHz	50/300kHz/2mHz	same as 701 except w/50kHz bandwidth
702A	235-1000mHz	50/300kHz/2mHz	same as 702 except 7077s & 7486 replaced by nuvistors, cost \$3500 (1965)
770	235-1000mHz	100/500kHz/4mHz	round dials, AM/FM/CW/ pulse, two tuners: 235-500/ 490-1000mHz, IFs: 60, 21.4mHz (all BWs), 2.5mHz (100kHz only), nuvistors, several 7077s & 7486, solid-state
770A	235-1000mHz	100/500kHz/4mHz	same as 770 except 7077s and 7486 replaced by nuvistors
775	235-1000mHz	100/500kHz/4mHz	same as 770A except w/COR
775-3	235-1000mHz	100/500kHz/4mHz	same as 775 except w/115/ 230VAC supply, cost \$3700 (1967)
775-9	235-1000mHz	100/500kHz/4mHz	difference unknown
901B	30-300mHz	20/300kHz	filmstrip dials, AM/FM/CW, two tuners: 30-90/60-300 mHz, nuvistor and solid- state, 18lbs, cost \$1925 (1966)
901-5	30-300mHz	20/30/300kHz	same specs as 905A except for additional IF BW
903B	30-300mHz	50/300kHz	round dial, AM/FM/CW, ANL, COR, two tuners: 30-60/60- 300mHz, 21.4mHz IF, nuvistors (8058, 7587 & 6CW4) & solid-state, 20lbs, cost \$2400 (have partial schematic)
904A	30-300mHz	20/300kHz	same as 901B except with 1mHz & 5mHz xtal marker osc, cost \$2075 (1966)
905A	30-300mHz	20/300kHz	same as 901B except with COR, cost \$2025 (1966) (mil R-1420/URR)
906A	30-300mHz	20/300kHz	same as 901B except with

			1mHz & 5mHz xtal marker osc and COR, cost \$2175 (1966)
906A-4	30-300mHz	20/300kHz	same as 906A except with narrow band FM demod
907	30-300mHz	20/300kHz	round dial, AM/FM/CW, two tuners: 30-100/60-300 mHz, special DC outputs from detectors, 21.4mHz IF, nuvistor & solid-state, 15lbs, cost \$1975 (1965)
952	30-300mHz	50/300kHz	filmstrip dial, AM/FM/CW, two tuners: 30-90/60-300 mHz or six xtal controlled chan between 100-150mHz, COR, 21.4mHz IF, 18lbs, cost \$2400 (1967)
960	30-300mHz	20/200kHz	round dials, AM/FM/CW, two tuners: 30-90/60-300 mHz, 21.4mHz IF, nuvistors, 7077 & solid-state, 16lbs
960B	30-300mHz	20/200kHz	same as 960 except 7077s replaced by nuvistors, cost \$2550 (1966)
960B-2	30-300mHz	20/300kHz	same as 906B except with wider IF BW
965	10-90mHz	10/50/200kHz	round dials, AM/FM/CW, two tuners: 30-90/10-30mHz, 21.4mHz IF, 17lbs, cost \$2900
970A	30-300mHz	60/300kHz/3mHz	round dials, FM/AM/CW/ pulse, special AGC for pulse, dual conversion (60kHz BW only) 21.4mHz & 2.5mHz IFs, cost \$2700 (1965)
975	30-300mHz	60/300kHz/3mHz	same as 970A except with COR, cost \$2800 (1965)
975-2	30-300mHz	60/300kHz/3mHz	newer version of 975, cost \$2700 (1967)
977	30-300mHz	60/300khz/3mHz	filmstrip dials, AM/FM/CW/ pulse, solid-state, DAFC w/DRO-300A or DRO-302A-2, cost \$2700 (1968)
977-1	30-300mHz	10/300kHz/3mHz	other specs same as 977

CT-4080	4-8GHz	8mHz minimum	tuner, one 160mHz output, two 21.4mHz output, 18dB max noise figure, AGC & DAFC inputs, 25lbs, used in RS-125, cost \$6250 (1968)
CV-1750	235-1000mHz	2mHz minimum	military version of FE-25-1
FE-1-2A	0.95-2.05GHz	8mHz minimum	converter, filmstrip dial, 160mHz IF out, 18dB max noise figure, four section YIG preselector, LO out, 20lbs, cost \$4000 (1965)
FE-1-2B	0.99-2.0GHz	8mHz minimum	same as FE-1-2A except DAFC in, AGC in, slightly wider frequency range, 25lbs, cost \$4000 (1967)
FE-1-4.5	0.95-4.5GHz	8mHz minimum	converter, consists of the tuner sections of FE-1-2B and FE-2-4.5 in one box, cost \$8500 (1967)
FE-2-4	2.0-4.0GHz	8mHz minimum	converter, round dial, 160mHz IF out, 18dB max noise figure, tunable YIG preselector, AGC in, rack mount 5.25" high, 20lbs, cost \$4000 (1965)
FE-2-4.5	1.95-4.5GHz	8mHz minimum	same specs as FE-1-2B except freq coverage
FE-4-8	4-8GHz	8mHz minimum	converter, filmstrip dial, 160mHz IF out, 18dB max noise figure, four section YIG preselector, DAFC in, AGC in, LO out, 25lbs, cost \$6500 (1967)
FE-8-12	8-12GHz	8mHz minimum	converter, filmstrip dial, 160mHz IF out, 18dB max noise figure, four section YIG preselector, DAFC in, AGC in, LO out, 25lbs, cost \$6500 (1967)
FE-25-1	235-1000mHz	2mHz minimum	converter, round dials, two tuners: 235-500/490-1000mHz, 60 mHz IF out, 10 dB noise figure, 7077s, 7486 & nuvistors, 18lbs, cost \$1400 (1967) (mil version: CV-1750)

FE-26	235-1000mHz		other specs unknown
FE-103	10-30mHz	2mHz minimum	converter, 60 mHz IF out, filmstrip dial, 6dB max noise figure, solid-state, 12lbs, cost \$1000 (1965) (mil version available, number unknown)
FE-3442	3.7-4.2gHz	20mHz	converter, 160mHz IF out, 20mHz BW, 15dB noise figure compnent of TDS-100 system
HF-1000	0.005-30mHz	58 digital filters	AM/FM/CW/USB/LSB/ISB/ synchronous AM, fully synthesized, green LED digital readouts, 3 scanning modes, notch filter, bandpass tuning, RS-232 or CSMA remote control, rack mount 5.5" high, 97-253VAC, 47-440Hz, current issue commercial version of WJ-8711
HT-10	0.5-10mHz	400kHz	converter, 21.4mHz out, 7dB noise figure, input attn, 15lbs, cost \$2000 (1967) used in RS-125
LT-1-2	1.0-2.0gHz	8mHz minimum	converter, round dial, 21.4mHz IF out, 18dB max noise figure, four section YIG preselector, solid-state except for ceramic triode LO, rack mount 5.25" high, 20lbs, cost \$4500 (1965)
LT-1020A	0.95-2.05gHz	8mHz minimum	converter, 21.4mHz out, filmstrip dial, 18dB max noise figure, four section YIG preselector, dual conversion, 160mHz and 21.4mHz IFs, DAFC in, AGC in, 25lbs, cost \$4200 (1967)
MT-112	1-18gHz*		microwave tuner frame, uses up to four TH- series tuning heads, 160mHz IF out, rack mount 5.25" high
R-1279	30-300mHz	20/300kHz	round dials, nuvistor & solid-state (mil)
R-1401			military version of 357

R-1420			military version of 905A
R-1490A/G			military version of 357
RS-111-1B	30-1000mHz	20/75/300kHz/ 2mHz	round dials, AM/FM/CW, four tuners: 30-60/60-300/ 235-500/490-1000mHz, built-in SDU, separate 2mHz IF w/AM and FM continuously available, seperate antenna inputs for VHF and UHF, nuvistors, 7077s, 7486 and solid-state, rack mount 5.25" high, 35lbs, cost \$6250 (1967) (have manual) (mil URR-52B)
RS-111-1B-7	30-1000mHz	20/75/300kHz/ 2mHz	same specs as RS-111-1B except has single antenna input switched to all tuners internally and video output switched between AM & FM by front panel mode control, cost \$6250 (1968)
RS-111-1B-12	30-1000mHz	20/75/300kHz /2mHz	same specs as RS-111-1B except contains a 21.4mHz marker oscillator for SDU cost \$6250 (1968)
RS-111-1B-12B	30-1000mHz	20/75/300kHz /2mHz	same specs as RS-111-1B except contains a 21.4mHz marker oscillator for SDU and DAFC input, cost \$6250 (1969)
S302	30-300kHz	2kHz	scanning version of 302
SCT-4080	4-8gHz	8mHz minimum	scanning version of CT-4080, 30lbs, cost \$7250 (1968)
SHT-10	0.5-10mHz		scanning version of HT-10
SLT-1-2	1.0-2.0gHz	8mHz minimum	scanning version of LT-1-2, 23lbs, cost \$5000 (1965) specs unknown
SLT-1020A	0.95-2.05gHz	8mHz minimum	same as LT-1020A except w/ motorized automatic tuning, 30lbs, cost \$5600 (1967)
SST-1045	0.95-4.5gHz	8mHz minimum	same as ST-1045 except w/ motorized automatic tuning, 30lbs, cost \$10500 (1967)
ST-1045	0.95-4.5gHz	8mHz minimum	converter, 21.4mHz out, filmstrip dials, two

			tuners: 0.95-2.05/1.95-4.5 gHz, 18dB max noise figure, four section YIG tuned preselector, dual conversion, 160mHz & 21.4mHz IFs, AGC in, DAFC in, 25lbs, cost \$8700 (1967)
SST-2045	1.95-4.5mHz	8mHz minimum	sames specs as ST-2045 except with motorized automatic tuning, 30lbs, cost \$5600 (1967)
ST-2045	1.95-4.5gHz	8mHz minimum	same specs as ST-1045 except with one tuner, cost \$4200 (1967)
SUT-1000	235-1000mHz	6mHz minimum	same specs as UT-1000 except with motorized automatic tuning, 25lbs, cost \$3250 (1967)
SVT-10	10-90mHz	2mHz minimum	same specs as VT-10 except with motorized automatic tuning, 22lbs, cost \$2550 (1967)
SVT-11	10-30mHz	2mHz minimum	same specs as VT-11 except with motorized automatic tuning, 20lbs, cost \$1500 (1967)
SVT-30	30-260mHz	3mHz minimum	same specs as VT-30 except with motorized automatic tuning, 21.5lbs, cost \$2750 (1967)
SXT-8012	8-12mHz		scanning version of XT-8012
URR-52B			military version of RS-111
URR-74			military version of WJ-8718
UT-1000	235-1000mHz	6mHz minimum	converter, 21.4 mHz out, round dials, two tuners: 235-500/490-1000mHz, 14dB max noise figure, LO out, AGC in, 18.5lbs, cost \$2500 (1967)
VT-10	10-90mHz	2mHz minimum	converter, 21.4mHz out, filmstrip dials, two tuners: 10-30/30-90mHz, 7dB max noise figure, 16lbs, cost \$1800 (1967)
VT-11	10-30mHz	2mHz minimum	same specs as VT-10 except

			single tuner, 15lbs, cost \$1000, (1967)
VT-30	30-260mHz	3mHz minimum	converter, 21.4 mHz out, round dials, two tuners; 30-60/54-260mHz, 6.5dB max noise figure, LO out, AGC in, 7077s & nuvistors, 15lbs, cost \$2000 (1967)
WJ-1033-1	500-100mHz	20mHz	tuner, 160mHz IF output, 18dB noise figure
WJ-1034	1-2gHz	30mHz	tuner, 160mHz IF output, 15dB noise figure
WJ-1035	2-4gHz	30mHz	tuner, 160mHz IF, 15db NF
WJ-1036	4-8gHz	35mHz	tuner, 160mHz IF, 20db NF
WJ-1037	8-12gHz	25mHz	tuner, 160mHz IF, 20db NF
WJ-1038	12-18gHz	30mHz	tuner, 160mHz IF, 20db NF
WJ-1091	30-50mHz	300kHz	tuner, 21.4mHz IF output, 6dB noise figure
WJ-1092	50-100mHz	300kHz	tuner, 21.4mHz IF, 7dB NF
WJ-1093	100-170mHz	300kHz	tuner, 21.4mHz IF, 7.5dB NF
WJ-1094	170-250mHz	300kHz	tuner, 21.4mHz IF, 9dB NF
WJ-1095	250-500mHz	300kHz	tuner, 21.4mHz IF, 10dB NF
WJ-1096	500-1000mHz	300kHz	tuner, 60mHz IF, 12dB NF
WJ-8604	20-512mHz		same specs as WJ-8607 except smaller package and quick disconnect connector
WJ-8607	20-512mHz	10/20/50/250kHz/4mHz standard (6.4kHz-8mHz available)	miniceptor, AM/FM/CW/Pulse (SSB opt), microprocessor control, 100Hz resolution, HPIL/RS-232 remote interface, scan, step, can be used with WJ-9902 and WJ-9908 equip frames or WJ-9605 and WJ-9607 front panels, 1.5"h x 6.5"w x 10.5d, 5lbs
WJ-8607fe	2-2000mHz		same specs as WJ-8607
WJ-8609A	20-512mHz	0.25-40mHz avail	same specs as WJ-8607 except AM/FM/Pulse only
WJ-8609A-1	0.235-18gHz	5 from 0.25-	wideband version of

		40mHz (SAW files)	WJ-8609A, uses WJ-9290 block downconverter, AM/FM/Pulse, RF preselection, 100Hz resolution, scan, step, remote control: HPIL, RS-232 or RS-422
WJ-8615D	20-500mHz	10/20/50/100/300kHz	AM/FM/CW/USB/LSB/pulse, synthesized, microprocessor controlled w/100Hz steps, LED readout, COR, IEEE-488 interface, 1/2 rack width 3.25"h, opts: coverage to 4.5GHz, IF BWs from 3.2kHz to 4mHz
WJ-8615P	20-500mHz	3 std from 3.2kHz -8mHz (5 as opt)	AM/FM/CW/Pulse, SSB opt, microprocessor control, step, scan, lockout, clock, calendar, integral battery backup, logs signal acquisition w/ date & time to RS-232, printer or audio interface, options include tracking preselector, selected audio, wideband outputs, 3.5"h x 8.25"w x 20"d, 25lbs
WJ-8616	20-500mHz		synthesized, 7 digit LED readout
WJ-8617	20-500mHz (0.5-1100 mHz opt, down to 10kHz on special request)	10/20/100/500khz 2mHz	AM/FM/CW/SSB/pulse, synthesized, microprocessor controlled w/100Hz steps, 7 digit LED readout, 48 programmable search bands, 96 memory channels, search/scan for user-defined processing or signal acquisition, built-in SDU, master/slave operation of up to 29 receivers, rack mount 5.25" high, 50 lbs Wide variety of options (see 8618 configuration list and 8617/8618 option list)
WJ-8618			EMI hardened version on 8617 Wide variety of options (see 8618 configuration list and 8617/8618 option list)
WJ-8619	20-500mHz	5 BWs, 11 avail	AM/FM/CW/Pulse std, SSB

		from 10kHz-4mHz	& var BFO opt, digital remote controlled by IEEE-488 bus or WJ8617B receiver, 100Hz steps, COR, scan module w/X-Y-Z display out
WJ-8619fe	20-1100mHz	as above	same as WJ-8619 except for expanded frequency range
WJ-8625-1	0.2-1.5mHz		AM/FM/CW/USB/LSB, LCD display
WJ-8626A-1			same as A-4 but no front panel, controlled from A-4
WJ-8626A-4	5kHz-30mHz	any 3 from 0.2/0.5/1/2/3/4/6/8/12/16kHz	AM/FM/CW/USB/LSB, synthesized, microprocessor controlled, LCD display, 1/2 rack width 5.25" high
WJ-8628A-1			same as A-4 but no front panel, controlled from A-4
WJ-8628A-4	20-512mHz	four from range of 10khz to 4mHz	AM/FM/CW/SSB/pulse, synthesized, microprocessor controlled w/100Hz steps, LCD display, tuned preselection, synth. BFO, 10mS tuning speed, opt: coverage to 1.4GHz, 1/2 rack width 5.25" high
WJ-8640-1	plug-in 0.5-500mHz	10/50/200kHz 5/20kHz optional	AM/FM/CW/USB/LSB, portable manpack, LED counter w/DAFC, 10 D cell or BA-4386 detachable battery pack or vehicular supply, 4.2"h X 11.4"w X 11.7"d, 18lbs, (mil AN/GRR-8V)
WJ-8650	105-175mHz	5/15kHz	minature receiver, AM/FM, 10 chan, scan, step, tracking preselector, 10-14VDC, 4W, 4.25"dia x 0.6"high, 10oz
WJ-8650-1	200-270mHz	15kHz	same specs as WJ-8650 except 0.8" high
WJ-8652	210-350mHz	100kHz/1/2mHz	minature receiver, AM/FM, 5 chan, scan, step, tracking preselector, 10-14VDC, 2.5W, 0.75"h x 3.25"w x 7.12"d, 1lb
WJ-8653A	400-500mHz	25kHz	minature receiver, FM,

	or 0.8-1.0GHz		scan, step, 10-14VDC, 5W, 0.8"h x 3.5"w x 8.75"d, 11lb
WJ-8654	20-1000mHz	6.4-100kHz	miniceptor, AM/FM/SSB/CW, 100 chan, scan, step, tracking preselector, HPIL & RS-232 remote interface, 9-16VDC, 5W, 1.65"h x 3.0"w x 7.75" d, 2.5lbs
WJ-8700	0.5-32mHz		dual receiver, AM/FM/CW/ USB/LSB, microprocessor control, 8 line by 40 char LCD display, scan, step, lockout, 100 memory channels, suboctave pre- selector, many options, 3.5"h x 8.25"w x 20"d, 18lbs
WJ-8709	5kHz-30mHz	0.3/1/3.2/6/16kHz	AM/FM/CW/MCW/USB/LSB, 7 digit yellow LED display, synthesized: 10Hz steps, 1/2 rack width 5.25" h
WJ-8711	0.005-30mHz	58 digital filters	AM/FM/CW/USB/LSB/ISB/ synchronous AM, fully synthesized, green LED digital readouts, 3 scanning modes, notch filter, bandpass tuning, RS-232 or CSMA remote control, rack mount 5.5" high, 97-253VAC, 47-440Hz, current issue,
WJ-8712	5kHz-30mHz	58 digital filters	remote control version of WJ-8711, half rack 3.5" high, blank front panel, RS-232 or CSMA control
WJ-8718A	5kHz-30mHz	0.3/1/3.2/6/16kHz	AM/FM/CW/ISB/USB/LSB, synthesized, micropro- cessor controlled w/10Hz steps, 7 digit LED readout (yellow), synthesized BFO, many options notably including /MFP - micropro- cessor front panel which allows front panel control of scanning and memory, rack mount 5.25" high, 35lbs
WJ-8718A			special wideband unit with

-14			bandwidths of 40 & 100 kHz
WJ-8718A			Special E-Systems unit with
-15			green front panel, other differences unknown
WJ-8718A	5kHz-100mHz	0.3/1/3.2/6/50kHz	AM/FM/CW/ISB/USB/LSB, synthesized, micropro- cessor controlled w/10Hz steps, MFP - micropro- cessor front panel which allows front panel control of scanning and memory, built-in remote control, 7 digit LED readout (yellow), synthesized BFO, special DF mode with IF optimized for DF work, many options available, rack mount 5.25" high, 35 lbs
-19/FE			
WJ-8721	5kHz-30mHz	digital	VXI card version of WJ-8711, 1/12 rack width, BITE, 5lbs
WJ-8730A	plug-in 20-1000mHz (WJ-9060 series)	plug-in 10kHz-3mHz (WJ-9930 series)	uses two WJ9060 tuning heads (filmstrip dial), solid-state, built-in SDU
WJ-8731A			same specs as WJ8730A except with tuning meter instead of SDU
WJ-8732A			same specs as WJ8730A except only one WJ9060 tuning head
WJ-8733A			same specs as WJ8730A except only one WJ9060 tuning head and tuning meter instead of SDU
WJ-8770	5kHz-20mHz	1/4/8/16kHz std, 0.5/2/6/12kHz opt	AM/FM/CW/LSB/USB, synth- esized: 10Hz steps, red LED display, ruggedized, military vehicular radio 22-32VDC, internal AC or battery packs opt
WJ-8809	0.1-18.5gHz	5 from 0.5-40mHz	consists of two units, WJ-8809/RX receiver and WJ-8809/MC microwave converter, AM/FM/Pulse, 100Hz resolution, RF preselection,
WJ-8880	0.5-30mHz	six, opt config	AM/FM/CW/USB/LSB/ISB,

			synthesized, microprocessor control, rack mount 5.25" high
WJ-8888A	0.5-30mHz	six, opt config	AM/FM/CW/ISB/LSB/USB, synthesized, 10Hz steps, digitally remote controllable, rack mount 5.25" high
WJ-8888B	0.5-30mHz	six, opt config	same as WJ-8888A except improved circuit board design
WJ-8922	1kHz-3GHz		AM/FM/CW/SSB, scans pan/sector or manual, compact unit fits in a suitcase
WJ-8969	0.5-18GHz		70mHz IF, synthesized, 1kHz steps
WJ-8972	20-500mHz		receiver/DF controller, part of WJ8990 system
WJ-9080	30-1000mHz	n/a	converter, tunes all in one band
XT-8012	8-12GHz	8mHz minimum	converter, one 160mHz IF output, two 21.4mHz outputs, 18dB max noise figure, four section YIG preselector, DAFC in, AGC in, LO out, 25lbs, cost \$6500 (1968)

Spectrum Display Units (SDU):

Model	IF	Bandwidths	Notes
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605	21.4 mHz	variable	solid-state, 1"x3" CRT
IP-751			military version of SM-9310A
IP-1059	21.4mHz	30/100/500kHz/ 3mHz	solid-state, 8cm x 10cm CRT, linear/log, full rack width 5.25" high, military version of SM-7301
IP-1355	10mHz	0-1mHz	military version of WJ-9180-1
PD-102			remote SDU for RS-112 microwave Pan-Man receiving system
PD-201			remote SDU same as PD-102 except 1/2 rack width
PD-602	160mHz	1mHz	solid-state, 8cm x 10cm CRT, component of RS-112, half rack 5.25" high, mount in EF-602
SM-1622	160 mHz	20mHz max	nuvistors or solid-state, 1"x3" CRT, 200kHz resolution, 1/2 rack width
SM-1622-1	160mHz	20mHz max	same as SM-1622 except with 1mHz resolution
SM-1662	160mHz	20mHz	solid-state, 1"x3" CRT, 250kHz resolution, half rack width 3.5" high, 11lbs
SM-1662-1	160mHz	20mHz	same as SM-1662 except with 1mHz resolution
SM-4300	21.4mHz	3mHz	solid-state, 1"x3" CRT, 21.4mHz marker, 1/3 rack width, 5" high
SM-4301A	21.4mHz	3mHz	solid-state, 1"x3" CRT, 21.4mHz marker, 1/4 rack width, 6.75" high, 7.5lbs, cost \$850 (1967)
SM-6108	84kHz	44kHz	solid-state, 1"x3" CRT, designed for displaying 64-108kHz subcarriers, 1/2 rack width, 3.5" high
SM-7301	21.4mHz	30/100/500kHz/ 3mHz	solid-state, 8cm x 10cm CRT, linear/log, part of RS-160 receiving system, full rack

width 5.25" high, SM-7301 occupies half of rack w/ provisions for DRO-308 in the other half

SM-8421	2mHz	3/15/50kHz	solid-state, 1" x 3" CRT, marker generator, sweep disable, H&V outputs, (internally converts 2mHz to 455mHz), for use with VLF receivers like the 354, 355 and 357, 12lbs, cost \$2500 (1968)
SM-8510	500kHz	5/20/50kHz	nuvistors & solid-state, 1"x3" CRT, lin/log display, 15lbs, cost \$1400 (1967) mod kit for pairing w/ Collins 51J-4 or 51S-1 was included
SM-8511	500kHz	5/20/50/200kHz	same specs as SM-8510 except wider sweep width, cost \$1600 (1967)
SM-8512	455kHz	5/20/50kHz	same specs as SM-8510 except for IF input freq, cost \$1400 (1967) mod kit for pairing with R-390 or R-390A was included
SM-8513	455kHz	5/20/50kHz	two SM-8512 units in 5.25" high side by side rack mount, cost \$2900 (1967)
SM-9188	455kHz	5/15/30 kHz	for use with 8718 series
SM-9205	21.4mHz	variable to 5mHz	SDU for use w/up to three receivers, displays three traces simultaneously, digitally refreshed LCD display, common adjustments like sweep rate and centering are automatic, all three traces can be adjusted independently via manual or IEEE-488 remote control, 1/2 rack width 3.5" high.
SM-9206	21.4mHz	0.1/0.2/0.4/1/2/5mHz	simplified 9205, single trace, 3 selectable inputs, CRT display, 1/2 rack width 3.5" high.
SM-9301	21.4mHz	3mHz	solid-state, 1"x3" CRT, 21.4mHz marker, 8lbs, cost \$850 (1967)

SM-9302	21.4mHz	3mHz	half rack version of SM-9301, 7lbs, cost \$800 (1967)
SM-9303A	21.4mHz	3mHz	solid-state, 1"x3" CRT, input bandpass filtering, MOS FET first mixer, 21.4mHz marker, 11lbs, cost \$1000 (1967)
SM-9304A	21.4mHz	3mHz	half rack version of SM-9303, 10lbs, cost \$950 (1967)
SM-9310A	21.4 mHz	variable 3mHz max	nuvistors, 1"x3" CRT (mil IP-751)
SM-9310-1	21.4 mHz	variable 3mHz max	nuvistors, 1"x3" CRT, coaxial switch added for mult sources
SM-9401B	21.4mHz	4mHz	solid-state, 1"x3" CRT, 21.4mHz marker, 8lbs
SM-9402A	21.4mHz	4mHz	half rack version of SM-9401B, 7lbs
SM-9403A	21.4mHz	4mHz	same specs as SM-9303A except wider sweep width
SM-9404A	21.4mHz	4mHz	half rack version of SM-9403A
SM-9801	21.4mHz	8mHz	same specs as SM-9301, cost \$950 (1967)
SM-9802A	21.4mHz	8mHz	half rack version of SM-9801A, cost \$900 (1967)
SM-9803A	21.4mHz	8mHz	same specs as SM-9303A except wider sweep width
SM-9804A	21.4mHz	8mHz	half rack version of SM-9803A
SM-9805A	21.4mHz	8mHz	solid-state, 2.625" x 4.625" CRT, avail with P1 or P7 phosphor
SM-9831	30mHz	8mHz	solid-state, 1"x3" CRT, 30mHz marker, 8lbs, cost \$950 (1967)
SM-9832	30mHz	8mHz	half rack version of SM-9831
SPD-214	21.4mHz	3mHz max	nuvistors, 1/2 rack width
WJ-9180-1	10mHz	0-1mHz	5-25Hz sweep rate, 10uV input sensitivity, battery powered (10 D-cell or magnesium BA-4386 pack) or 24VDC vehicular supply, designed to accompany WJ8640-1

			receiver (mil IP-1355/GRR-8V)
WJ-9188A	455kHz	5/30kHz	solid-state, 1'x3" CRT, marker, half rack width
WJ-9188A-18	455kHz	5/15/30kHz	2.5" x 3" CRT, used with WJ-8888B or WJ-8718 w/ SMO option, full rack width
WJ-9205	21.4mHz	5kHz-5mHz	4" CRT, displays 3 simultaneous traces, auto sweep and centering, IEEE-488 interface, 3.5"h x 8.5"w x 22"d, 18lbs
WJ-9206	21.4mHz	0-5mHz	4" CRT, single trace, 3.5"h x 8.5"w x 22"d, 17lbs
WJ-9207			RF panoramic display unit, digitally refreshed EL flat panel display, display 4 simultaneous scans, companion to WJ-8607 miniceptors (req WJ-8607/DSO option), 5.25"h x 8.75"w x 22"d, 13lbs
WJ-9209	455kHz	5/15/30kHz	combination SDU and speaker unit, 2.5" x 3" CRT, five input selector for speaker, half rack width 5.25" high

Components and Accessories:

Model	Description
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481A	plug-in receiver, 30-60mHz, AM/FM (CW opt), requires ext power from EF-180A or EF-182A equipment frame, component of RS-180 receiving system
482A	same as 481A except 60-120mHz
483A	same as 481A except 100-180mHz
484A	same as 481A except 180-300mHz
485A	same as 481A except 30-90mHz
486A	same as 481A except 80-250mHz
487A	same as 481A except 20-80mHz
488A	same as 481A except 220-440mHz
489A	same as 481A except 250-500mHz
490A	same as 481A except 500-1000mHz
AGC-BC	Box car AGC unit, plugs into DM-4
AGC-PS	Pulse stretching AGC, plugs into DM-4
ANT-101	antenna, 3.7-4.2GHz, 12dB gain, 25 degree beamwidth, component of TDS-100 system
APR-101	antenna/preamplifier, ANT-101 and PR-101 in single unit
AR7-15	antenna, log-periodic, 1-12.4GHz, 8dB gain, 15dB F-to-B
AR7-17	antenna, log-periodic, 0.5-12.4GHz, 8dB gain, 15dB F-to-B
AR12-18	antenna, log-periodic, 30-1100mHz, 8dB gain, 20dB F-to-B
AR12-19	antenna, log-periodic, 90-1100mHz, 8dB gain, 20dB F-to-B
AR12-20	antenna, log-periodic, 250-1100mHz, 8dB gain, 20dB F-to-B
AR12-22	antenna, log-periodic, 30-160mHz, 8dB gain, 20dB F-to-B
AR12-25	antenna, log-periodic, 30-76mHz, 8dB gain, 20dB F-to-B
AR12-29	antenna, log-periodic, 30-300mHz, 8dB gain, 20dB F-to-B
AR19-5	antenna, omnidirectional conical spiral, 1-11GHz, no gain, 5w power handling
AR19-6	antenna, omnidirectional conical spiral, 7-11GHz, no gain, 5w power handling
AR19-8	antenna, omnidirectional conical spiral, 150mHz-2GHz, no

	gain, 5w power handling
AR19-9	antenna, omnidirectional conical spiral, 0.2-1.4GHz, no gain, 5w power handling
AR19-10	antenna, omnidirectional conical spiral, 0.25-1.1GHz, no gain, 5w power handling
AR19-11	antenna, omnidirectional conical spiral, 0.3-1.3GHz, no gain, 5w power handling
AR23-4	antenna, loop, 2-30MHz, bi-directional figure eight
AR72-4	antenna, loop, 30-160MHz, bi-directional figure eight
AR122-1	antenna, compacted log-periodic, 150MHz-1GHz, 4.3dB gain, 10w power handling
AR132-1	antenna, compacted log-periodic, 20-300MHz, 5dB gain, 1kw power handling
AR272-1	antenna, dual polarization log-periodic, 1-4GHz, 8dB gain, 20dB F-to-B, 10w power handling
AR274-1	antenna, dual polarization log-periodic, 30MHz-1GHz, 8dB gain, 20dB F-to-B, 25w power handling
AR274-2	antenna, dual polarization log-periodic, 30-300MHz, 8dB gain, 20dB F-to-B, 25w power handling
AR274-3	antenna, dual polarization log-periodic, 250MHz-1GHz, 8dB gain, 20dB F-to-B, 25w power handling
CSU-160	tuner switching unit, works with 205, 205-2 or 215 Pan-Man receivers, manual or sequential scan of tuners, holds up to 7 tuners, part of RS-160, see RS-160 for details
DA-1	video distribution amplifier, 91ohms or high impedance, 1.5vrms out, 6 video, 1 oscilloscope & 2 audio out, 9lbs, cost \$1200 (1964)
DA-5	audio distribution amplifier, 10kohm in, 150/600ohm out, 150Hz-10kHz response, five outputs, cost \$595 (1966)
DM-4	demodulator, 21.4MHz input, accepts 4 plug-ins, 6MHz bandwidth, BFO, squelch, tuning and signal strength meters, 3 audio outputs: 100mw into 600ohm, built-in speaker, 3 video outputs: analysis, recorder & tracking
DM-22A	demodulator, 21.4MHz input, AM only, BW=1.5MHz
DM-112	demodulator, 160MHz input, 100kHz/2/4/10/20MHz BWs, AM/FM/pulse, built in SDU, AFC and AGC outputs (to tuner), carrier and center-tune meters, typically paired with MT-112
DM-160	demodulator, 160MHz input, AM/FM/pulse, BW=0.35/1.5/4MHz

DM-161 demodulator, 160mHz input, AM/FM/pulse, BW=1/5/10/20mHz

DM-212 demodulator, 160mHz input, AM/FM/pulse, BW=10/20 mHz

DM-235 demodulator, 160mHz input, BW=30/50 mHz

DMS-105 tunable demodulator, 1-1600kHz, 5 digit Nixie readout, AM/FM/SSB/CW/MCW/FSK, IF BWs in two ranges: SSB - 2.4/3.5/4/8kHz; other modes - 0.15/1/5/7/8/16kHz, DAFC, rack mount 5.25" high

DMS-105A same as DMS-105 except SSB BWs= 2.4/4/8kHz and has translated IF predetection outputs at 15/50/100kHz

DMS-105R EMC version of DMS-105A, also has predetection IF outputs of 10/50/100kHz

DMS-107 tunable demodulator, 0.1-10mHz, filmstrip dial, IF BWs: 20/50/100/300/500kHz/1/2/3mHz, DAFC w/DRO-302 or DRO-320, carrier and center tune meters

DMS-107-1 same as DMS-107 except BW= 20/50/100/300/500kHz/1/3/5.5mHz

DMS-109 tunable demodulator, 5kHz-1mHz, 5 digit Nixie display, USB/LSB, BW=2.8kHz, DAFC

DMS-201 tunable demodulator, 0.5-10mHz, CW/FSK, BW=1/3kHz

DRO-50 digital frequency display, 0.54-54mHz, for use with 455kHz IF receivers, 6 digit Nixie display, included kit for modifying SP-600, cost \$2500 (1967) (variants were available for 500kHz, 3.9mHz and 21.4mHz IFs)

DRO-270 digital frequency display, 20-80mHz, for use with 10mHz IF receivers, 5 digit Nixie readout, DAFC for up to twelve receivers, part of RS-158 receiving system, rack mount 1.75" high

DRO-280A digital frequency display, 20-1000mHz, 6 digit LED display, DAFC, provides control of 12 receivers in 15 msec intervals, 12 position switch for selecting receiver whose frequency is to be displayed, part of RS-180 receiving system

DRO-290 digital frequency display, 20-90mHz, for use with 10mHz IF receivers like CEI 519 and 521A, DAFC, 6 digit Nixie display, rack mount 1.75" high, 10lbs, cost \$3100 (1967)

DRO-290B similar to DRO-290 except with LED display

DRO-300 digital frequency display, 30-300mHz, for use with 21.4mHz IF receivers, 6 digit Nixie display, variants avail for 455/500kHz and 3.9mHz IFs, cost \$2800 (1967)

DRO-302A digital frequency display, 30-300mHz, for use with 21.4mHz IF receivers, 6 digit Nixie display, DAFC output, 1/2 rack width, cost \$3200 (1968)

DRO-302A-2 digital frequency counter, same specs as DRO-302A except with BCD outputs

DRO-302B digital frequency display, 0.1-500mHz, 6 digit LED readout, 21.4 & 60mHz IF presets (modifiable to any IF preset in increments of 0.1 mHz), solid-state, DAFC, half rack width (have manual)

DRO-307 digital frequency display, 30-300mHz, 6 digit Nixie readout, 21.4mHz IF preset, DAFC control of four rcvrs w/ last two digits independently selectable for each rcvr, BCD outputs for all four receivers

DRO-307-1 digital frequency display, 0.5-30mHz, 65mHz IF preset, otherwise similar to DRO-307, used w/232 tunable filters

DRO-308 digital frequency display, 2-300mHz, 21.4mHz offset, 6 digit Nixie display, DAFC, component of RS-160 Pan-Man receiving system, mounts in SM-7301 frame 5.25" high

DRO-309A digital frequency display, 0.1-1060mHz, same specs as DRO-302B (have manual)

DRO-309B same specs as 309A, newer IC counter circuitry

DRO-310 digital frequency display, 0.1-300mHz (4gHz w/plug-in mixers), 6 digit, 21.4mHz presets, multiple inputs, (mil CP-943/GLA-21), has accessory slot for mixers, SDU, ACL tuning heads.

DRO-311 digital frequency display, 20-500mHz, automatic IF offset when used with 565 or WJ-8730 series, time-shares control of four receivers, drives up to four RD-105 remote displays

DRO-312 digital frequency display, 0.01-1000mHz

DRO-315 digital frequency display, 0.1-500mHz, identical to DRO-302B except full rack width, 1-3/4" high (have manual)

DRO-333 digital frequency display, 0.1-1060mHz, identical to DRO-309A except full rack width, 1-3/4" high (have manual)

DRO-333A same as DRO-333 except with ICs instead of discrete components in the counter section

DRX-308 frequency extender for DRO-308, 300-1000mHz, rack mount 1.75" high

DRX-1000 frequency extender for DRO-300 and DRO-302 counters, 235-1000mHz, also extends DAFC operation, half rack width

DTF-101 test module for DM-4 demodulator, test DM-4 by plugging into any of the four module slots, cost \$225 (1965)

EC-101 extender cable for DM-4 module, allows for testing of IFD units outside of DM-4, cost \$150 (1965)

EF-101	equipment frame, single unit rack mount for 1/2 rack width units with front panels 3.25"h X 8.0"w
EF-158	equipment frame for RS-158 receiving system, contains an RF multicoupler for 12 receivers w/ 50 ohm and 5dB max noise figure and an RF test signal generator
EF-160	cabinet for RS-160 Pan-Man receiving system
EF-201	equipment frame, dual unit rack mount for 1/2 rack width units with front panels 3.25"h X 8.0"w
EF-301	equipment frame, single unit rack mount for 1/3 rack width units with front panels 5.0"h X 4.5"w
EF-302	equipment frame, dual unit rack mount for 1/3 rack width units with front panels 5.0"h X 4.5"w
EF-303	equipment frame, triple unit rack mount for 1/3 rack width units with front panels 5.0"h X 4.5"w
EF-401	equipment frame, single unit rack mount for 1/4 rack width units with front panels 6.75"h X 3.75"w
EF-402	equipment frame, dual unit rack mount for 1/4 rack width units with front panels 6.75"h X 3.75"w
EF-403	equipment frame, triple unit rack mount for 1/4 rack width units with front panels 6.75"h X 3.75"w
EF-404	equipment frame, quad unit rack mount for 1/4 rack width units with front panels 6.75"h X 3.75"w
EF-501	equipment frame, single unit rack mount for 1/5 rack width units with front panels 5.0"h X 3.0"w
EF-502	equipment frame, dual unit rack mount for 1/5 rack width units with front panels 5.0"h X 3.0"w
EF-503	equipment frame, triple unit rack mount for 1/5 rack width units with front panels 5.0"h X 3.0"w
EF-504	equipment frame, quad unit rack mount for 1/5 rack width units with front panels 5.0"h X 3.0"w
EF-505	equipment frame, five unit rack mount for 1/5 rack width units with front panels 5.0"h X 3.0"w
EF-506B	equipment frame, rack mount for 440 series receivers
EF-602	equipment frame for RS-112 receiving system
FC-103	3 ch. xtal controlled converter
FT-101A	IF to tape converter, 21.4mHz input, 750kHz center output, 6lbs
FT-201A	half rack unit of FT-101A

FT-207	wideband IF to tape converter, 21.4mHz input, 2.15mHz center output, 300kHz or 4mHz BW output to recorder
FT-210	IF-tape converter, 21.4mHz input, 1.075mHz output, data bandwidth of 150kHz-2mHz, half rack width
FT-210E	same as FT-210 except has equalizer for min group delay
FT-222	narrowband IF to tape converter, 21.4mHz input, 20 or 200kHz center frequency output, 500kHz BW
FT-4557	frequency translator, 455kHz input, staggers the IF outputs of up to six receivers between 580Khz and 1330kHz, 50kHz BW, cost \$2900 (1965)
HFM-8	antenna multicoupler, 2-30mHz, 75ohm impedance, 8 outputs, 10dB maximum noise figure, 8dB gain, quick change connector outputs on rear (like RCA video patch bays), 8lbs, cost \$400 (1964)
HFM-8-1	same specs as HFM-8 except connectors on front panel
HFM-8-2	same specs as HFM-8 except BNC on front panel
HFM-8-3	same specs as HFM-8 except BNC on rear panel
HH-11	tuning head, 2-30mHz, for use with 205 series and 215 Pan-Man receivers, low intermod design, dual conversion, 67.8 and 21.4mHz IFs, max noise figure 15dB
HH-11-1	tuning head, 0.9-30mHz, otherwise identical to HH-11
HPF-2	high pass filter accessory for HPM-8 series, attenuates below 2mHz
IFC-162	frequency converter, 160mHz IF input, 21.4mHz output
IFD4-300	dual wideband 21.4mHz IF demodulators
IFD-5	demodulator plug-in for DM-4, AM/FM/CW, 5kHz bandwidth
IFD-15	demodulator plug-in for DM-4, AM/FM/CW, 15kHz bandwidth
IFD-50	demodulator plug-in for DM-4, AM/FM/CW, 50kHz bandwidth
IFD-100	demodulator plug-in for DM-4, AM/FM/CW, 100kHz bandwidth
IFD-103	demodulator, 21.4mHz input, BW=10/50/100/300mHz, provides AM and FM output and predetection IF output for recording
IFD-200	demodulator plug-in for DM-4, AM/FM/CW, 200kHz bandwidth
IFD-201	demodulator, 21.4mHz input, BW=10/50/300/1000kHz, provides AM and FM output and predetection IF output for recording, half rack width
IFD-210	demodulator, 160mHz input, FM, BW=10/22mHz (8.5mHz video),

component of TDS-100 system

IFD-500	demodulator plug-in for DM-4, AM/FM/CW, 500kHz bandwidth
IFD-1000	demodulator plug-in for DM-4, AM/FM/CW, 1mHz bandwidth
IFD-2000	demodulator plug-in for DM-4, AM/FM/CW, 2mHz bandwidth
IFD-4000	demodulator plug-in for DM-4, AM/FM/CW, 4mHz bandwidth
IFD-8000	demodulator plug-in for DM-4, AM/FM/CW, 8mHz bandwidth
LIF-107	Log IF demodulator, component of RS-112 receiving system
MC-103	master control, component of RS-112 receiving system
MD-50	autoscan motor tuning drive, adapts single tuner units to automatic tuning
MD-100	same specs as MD-50 except designed for dual tuner units
MD-104	same specs as MD-50 except designed for four tuner RS-111
MTF-100A	microwave tuner frame, accepts two TH- series tuning heads, 160 and 21.4mHz outputs, AFC, AGC and DAFC inputs
MTF-101	microwave tuner frame, slave to MTF-100A, adds space for two additional TH- series tuning heads
MTF-102A	microwave tuner frame, accepts one TH- series tuning head, 160 and 21.4mHz outputs, AFC, AGC and DAFC inputs
MP-101	carrier level meter panel, read peak or average, 21.4mHz IF input, contains IF strip and AM detector
MP-102	deviation and tuning meter panel, 21.4mHz IF input, contains IF strip and FM detector
MPP-101	microwave pan preselector, contains four YIG preselectors for each of 1-2/2-4/8/8-12GHz, requires PS-103, component of RS-112 receiving system
NS-101	noise silencer demodulator plug-in for DM-4, AM/CW, 2mHz pre-ANL BW, 15kHz overall BW, 2.75lbs, cost \$800 (1965)
PEC-401	portable equipment case, holds one 440 or 441 receiver, battery operation w/ built-in nicad charger, built-in speaker and whip antenna
PR-101	preamplifier, 23dB gain, 4.5dB noise figure, component of TDS-100 system
PS-103	power supply, component of RS-112 receiving system
PTM-101	pan tuner module, contains mixers, LO and IF preamps, component of RS-112 receiving system
RD-105	remote frequency display, for use with DRO-311

S-9203A	speaker panel, half rack version of S-9903D
S-9901A	speaker panel, 2.5"x10" speaker, 600ohm, headphone jack, cost \$75 (1965)
S-9902A	same as S-9901A except with 7 input selector switch cost \$100 (1965)
S-9903D	amplified speaker panel, 2.5"x10" speaker, 5 watt audio amp, 10k input impedance, 7 input selector switch, headphone jack, cost \$160 (1965)
S-9908B	same specs as S-9903D except with eighth input position for microphone and BNC monitor output, cost \$225 (1965)
SFM-1	standard frequency multiplier, 1mHz standard input, 50/100/500/1000mHz output, 1vrms output
SOR-1A	signal operated relay, controls up to two devices with contact closure on voice, positive-going or negative-going DC, self-contained 6"w X 3.5"h X 7.75"d
SP-101	storage panel for modules used with DM-4, cost \$125 (1965)
SWP-101	RF/IF switch panel, 3 inputs, 4 outputs, used in RS-125
SWP-104	RF/IF switch panel, 4 inputs, 4 outputs, used in RS-125
SWP-602	IF switch panel, 6 position, used with SDU to monitor several receivers, 1/2 rack width unit
TDM-101	demodulator, 60-108kHz, SSB, twelve outputs 300-3500Hz, component of TDS-100
TDM-102	demodulator, 12-60kHz, SSB, twelve outputs 300-3500Hz, component of TDS-100
TDM-110	demodulator, ten 60-108kHz inputs, SSB, ten outputs 300-3500Hz, component of TDS-100
TF-101	Tape to IF converter, converts tape recorder output centered at 750kHz into standard 21.4mHz
TF-102	similar to TF-101 except with adjustable output freq
TF-103	tape to IF converter, converts video signals in 40kHz to 4mHz range to 21.4mHz IF output, companion to IFD-103
TF-201	half rack unit of TF-101
TF-202	half rack version of TF-102
TF-210	tape to IF converter, 1.075mHz input center frequency, 21.4mHz output, digital thumbwheel frequency control
TFC-101	converter, 60kHz-4mHz input, twelve outputs in 312-552kHz range (CCITT supergroups 1-10), component of TDS-100 system

TFC-105	converter, 2548-4028kHz input, six outputs in 312-552kHz range (CCITT supergroups 11-16), component of TDS-100 system
TFC-212	converter, 312-552kHz input, five 60-108kHz outputs, component of TDS-100 system
TH-120	1-2GHz drop-in tuner for 112 receiver and MTF-series microwave tuning frames, filmstrip dial, 11dB max noise figure, four section YIG preselector, 160mHz IF out, BW=22mHz @ -3dB, 3.15"h x 7.75"w x 14.9"d, 8lbs
TH-120R-5	wideband version of TH-120, 50mHz @ -3dB, otherwise same
TH-145R	1-4.5GHz, 16dB noise figure, 4 digit LED readout, electronically tuned, otherwise same as TH-120
TH-240	2-4GHz, 18dB max noise figure, otherwise same as TH-120
TH-245	2-4.5GHz, 20dB max noise figure, otherwise same as TH-120
TH-245R-5	wideband version of TH-245, 50mHz @ -3dB, otherwise same
TH-480	4-8GHz, otherwise same as TH-240
TH-480R-5	wideband version of TH-480, 50mHz @ -3dB, otherwise same
TH-812	8-12GHz, otherwise same as TH-240
TH-812R-5	wideband version of TH-812, 50mHz @ -3dB, otherwise same
TH-1218R	12-18GHz, BW=50mHz @ -3dB, otherwise same as TH-240
TSU-103B	tuner switching unit, works with 205, 205-2 or 215 Pan-Man receivers, manual selection of tuners, holds up to 3 tuners, part of RS-160, see RS-160 for details
TSU-160	tuner switching unit, works with 205, 205-2 or 215 Pan-Man receivers, manual selection of tuners, holds up to 7 tuners, part of RS-160, see RS-160 for details
UH-11	plug-in tuner, 250-500mHz, for 205, 205-2 or 215 receivers
UH-12	plug-in tuner, 0.5-1gHz, for 205, 205-2 or 215 receivers
UH-13	plug-in tuner, 220-440mHz, for 205, 205-2 or 215 receivers
UH-101	plug-in tuner for 565 series receivers, 235-500mHz
UH-102	plug-in tuner for 565 series receivers, 500-1000mHz
UH-104	plug-in tuner for 565 series receivers, 490-1000mHz
VDA-4	video distribution amplifier, four outputs, up to 20dB gain, meters four each output, 75ohm impedance, 1.5mHz bandwidth
VH-11	plug-in tuner, 30-60mHz, for 205, 205-2 or 215 receivers

VH-12 plug-in tuner, 60-120mHz, for 205, 205-2 or 215 receivers

VH-13 plug-in tuner, 100-180mHz, for 205, 205-2 or 215 receivers

VH-14 plug-in tuner, 180-300mHz, for 205, 205-2 or 215 receivers

VH-15 plug-in tuner, 20-40mHz, for 205, 205-2 or 215 receivers

VH-16 plug-in tuner, 40-80mHz, for 205, 205-2 or 215 receivers

VH-17 plug-in tuner, 50-100mHz, for 205, 205-2 or 215 receivers

VH-101 plug-in tuner for 565 series receivers, 20-90mHz

VH-103 plug-in tuner for 565 series receivers, 90-260mHz

VH-105 plug-in tuner for 565 series receivers, 200-425mHz

VH-107 plug-in tuner for 565 series receivers, 100-400mHz

VOR-1A voice operated relay, single channel unit, half rack

VOR-2 voice operated relay, twelve channel unit, audio or COR detection, recorder interface for end of tape indication, rack mount 5.25" high, modular

VOR-6 voice operated relay, 6 channel unit, individual delay and threshold controls, 20lbs, cost \$815 (1964)

WJ-1234 System interface unit, multi-functional, microprocessor-based operator/receiver interface, flexible command structure, 48 programmable scan strategies, 3000 emitter mode library file, 500mHz instantaneous bandwidth display.

WJ-8610A-1 Multiple receiver system control hub, up to 14 receivers and a variety of surveillance equipment, software programmable, can be remote controlled by computer

WJ-8610A-5 Similar to WJ-8610A-1 but adds ability to control tape recorders and other equipment

WJ-8610A-7 Similar to WJ-8610A-1 but designed to control demodulators like the WJ-9477 instead of receivers

WJ-8610A-10 Differences from WJ-8610A-1 unknown

WJ-8971A DF processor, interfaces with 21.4mHz wideband IF output, usable with receivers from 20mHz to 1GHz, pseudo-doppler operation using synchronised antenna commutation and signal handling circuitry, LED compass rosette and three digit LED bearing readout, IEEE-488 controllable, 3 degree accuracy, selectable integration times, requires special antenna: WJ-9872A, WJ-9880(-1), WJ-9871A or WJ-9873, rack mount 5.25" high

WJ-8971A mobile DF antenna for use with WJ-8971A or WJ-8975A, 20-235mHz and 150-1000mHz

WJ-8971A-5 DF processor, same as WJ-8971A except with multiple IF BWs, bearing offset correction and remote control of IF BWs and integration times

WJ-8971A-6 DF processor, same as WJ-8971A-5 except all functions are remote controllable through an IEEE-488 interface

WJ-8971A-7 DF processor, same as WJ-8971A except with IEEE-488 remote control interface

WJ-8971/AS DF antenna simulator, for alignment of WJ-8971A system

WJ-8972A fixed site DF antenna for use with WJ-8971A or WJ-8975A, 20-150mHz and 150-1000mHz

WJ-8973 ruggedized DF antenna for use with WJ-8971A or WJ-8975A, 20-235mHz and 150-1000mHz

WJ-8975A manpack DF processor, line of bearing information for signals in the 20-500mHz range, LED compass rosette and three digit LED bearing readout, battery powered (internal 10 D cell or magnesium BA-4386 pack) or vehicular supply, used with WJ8640-1 receiver, (mil C-11495/PRD-11)

WJ-8986/AU-3 DF antenna system, consists of 3,4 or 5 vertically polarized 15' monopoles spaced 14' apart, 2-30mHz, can be used with WJ-8986 with WJ-8986/AAU-1 option

WJ-8986/AU-5 triple interferometer DF antenna bay, 20-1200mHz, ruggedized, 12.7'h, 75lbs

WJ-8992 UHF psuedo doppler DF antenna, 500-1000mHz, used w/WJ-8990

WJ-9061 tuning head, drop-in, 20-90mHz, used in WJ-8730 series

WJ-9062 tuning head, drop-in, 90-300mHz, used in WJ-8730 series

WJ-9063 tuning head, drop-in, 200-425mHz, used in WJ-8730 series

WJ-9064 tuning head, drop-in, 250-500mHz, used in WJ-8730 series

WJ-9066 tuning head, drop-in, 30-90mHz, used in WJ-8730 series

WJ-9068 tuning head, drop-in, 490-1000mHz, used in WJ-8730 series

WJ-9150 tuner series, five units covering 1-18GHz, for use with the WJ-9450 demodulator/control unit

WJ-9203A speaker panel, 7 audio inputs, high-Z in, 5W output, half rack 3.5" high

WJ-9222 1.75" high version of FT-210

WJ-9222E 1.75" high version of FT-210E

WJ-9230 upconverter/demodulator for WJ-8640 (GRR-8), converts 0.5-30 MHz to 100.5-130 MHz, built into extra tall cover for the receiver

WJ-9240 1.75" high version of IFC-162

WJ-9290 microwave block downconverter, extends WJ-8609A-1 miniceptor to microwave range, tailored to specific communication bands, 10-14VDC, 4W, 0.75"h x 3.5"w x 6.0"d, 15oz

WJ-9310 antenna multicoupler, twelve outputs, 20-1000mHz, 2dB gain, noise figure: 6.5dB (20-300mHz; 8.5dB (300-1000mHz), used in RS-180 system

WJ-9311 antenna multicoupler, twelve outputs, 0.5-30mHz, 2dB gain, max noise figure 7dB

WJ-9314 antenna multicoupler, four outputs, 20-1100mHz

WJ-9315 antenna multicoupler, twelve outputs, 20-1100mHz, multiple antenna inputs

WJ-9395 tunable demod, 1-900kHz, AM/FM/SSB, five digit LED readout, DAFC, BWs: 2/4/8/16kHz (AM/FM); 1/2/4/6kHz (USB/LSB), portable packaging 10"w x 12"d x 4"h

WJ-9424 voice grade channel demodulator, up to 30 demods in single half rack case, demodulates VFT, modem & FAX voice grade signals, upgradeable through firmware, 3.5"h x 8.25"w x 22"d, 20lbs

WJ-9450 demodulator/control unit, 160mHz IF input, AM/FM/pulse, 5 digit LED frequency display, 3 independent IFDs w/ 6 BWs per IFD, AFC, works with WJ-9150 series tuners

WJ-9470 FSK/OOK demod system, handoff version of WJ-9472

WJ-9471 VFT FSK demodulator system, up to 24 independent demods, 200Hz-9.999kHz, phase-locked-loop demodulation, built-in diversity operation

WJ-9472 two channel FSK demodulator system, FSK or OOK, digital control to 1Hz of mark and space frequencies from 200-9999 kHz, multipole matched baud rate filters for 10-4000 baud

WJ-9477 precision tunable demodulator, AM/FM/SSB, 0.001-30mHz, 10Hz steps, provision for 9 BW filters (3kHz to 5Mhz), microprocessor controlled

WJ-9477G tunable demodulator, AM/FM (SSB opt), 0-31mHz, 10Hz steps, provision for 9 BW filters (3.2kHz-6mHz), microprocessor controlled, 3.5"h x 8.5"w x 21"d, 20lbs

WJ-9480 tunable demodulator system, consists of 2 units; tuner/IF amp and demod, 0.1-30mHz, 100Hz steps, simultaneous AM/FM/PM detection, 13 IF BWs (3kHz-20mHz), IEEE-488 remote, 21.4 & 160mHz inputs, 21.4/70/160mHz outputs, each section is 5.25"h x 19"w x 22"d, tuner: 44lbs, demod: 54lbs

WJ-9497 tunable demodulator, 0-90MHz or 160MHz IF, 1Hz steps, AM/FM/SSB, programmable bandwidth from 100Hz-20MHz, BITE, 3.5"h x 8.5"w x 21"d, 20lbs

WJ-9518A FDM demodulator, six independent SSB demodulators tunable from 0-15MHz, local or IEEE-488 control, preprogrammed tuning for standard CCITT 960 or 2700 channels, scanning available in increments of 1kHz to 1mHz or discrete frequency tuning. Single control and readout for all six tuners. Rack mount 3U high (5-1/4")

WJ-9518AE same as WJ-9518A except with delay equalized demodulators

WJ-9518B FDM demodulator, six independent SSB demodulators tunable from 0-15MHz, local or IEEE-488 control, preprogrammed tuning for standard CCITT 960 or 2700 channels, scanning available in increments of 1kHz to 1mHz or discrete frequency tuning. Individual control and readout for each tuner. Rack mount 2U high (3-1/2")

WJ-9525 FDM demodulator, consists of four /DU demodulator units, one /CU control unit and one /CRF controller rack frame

WJ-9548 digital FDM demultiplexer, up to 24 tunable FDM channel demods in a single half rack case, channels tune 0-20MHz in 1Hz steps, 4 analog baseband inputs, 8 line by 40 char LCD display, 3.5"h x 8.25"w x 20"d, 20lbs

WJ-9605 receiver front panel, provides local control for 1 or 2 WJ-8607 miniceptors, or remote control of WJ-8700 receiver, 3.5"h x 8.3"w x 3.1"d, 2.2lbs

WJ-9607 multi-receiver front panel, provides for local control of up to 29 HPIL interfaced WJ-8607s, WJ-8609s or WJ-8809s, 3.5"h x 8.3"w x 4.4"d, 3.0lbs

WJ-9644A receiver controller, can operate up to 32 WJ-8718 receivers through RS-232 interface

WJ-9773-1 voice operated relay, two channels, rack mount 1.75" high

WJ-9773-2 voice operated relay, four channels, rack mount 1.75" high

WJ-9880 DF antenna, manpack, for use with WJ-8971A or WJ-8975A, 20-175MHz

WJ-9880-1 DF antenna, manpack, for use with WJ-8971A or WJ-8975A, 20-175MHz and 150-850MHz

WJ-9881 DF antenna, 20-512MHz, used w/WJ-8990 system

WJ-9886-1 DF antenna, 20-1000MHz, 2 bays of vertically polarized elements, used w/WJ-8986 system

WJ-9886-1A DF antenna, 20-2000MHz, 3 bays of vertically polarized elements, used w/WJ-8986 system

WJ-9886-2 DF antenna, 20-1200MHz, similar to WJ-9886-1 except in a smaller package, used w/WJ-8986 system

WJ-9902 equipment frame, houses 1 or 2 WJ-8706 or WJ-8609A miniceptors, integral AC supply, optional host interface, can be fitted with WJ-9605 front panel, 3.5"h x 8.5"w x 20"d, 10lbs

WJ-9903E speaker panel, 7 audio inputs, high-Z in, 5W output, full rack 3.5" high

WJ-9908 equipment frame, houses up to 8 WJ-8706 or 8709A miniceptors, integral AC supply, optional host interface, 8.75"h x 19"w x 21"d, 20lbs

WJ-9930-10 IF amplifier w/ 10kHz BW and limiter discriminator, used in WJ-9028, WJ-8730 series and 565A

WJ-9930-20 same as WJ-9930-10 except 20kHz BW

WJ-9930-50 same as WJ-9930-10 except 50kHz BW

WJ-9930-100 same as WJ-9930-10 except 100kHz BW

WJ-9930-200 same as WJ-9930-10 except 200kHz BW

WJ-9930-300 same as WJ-9930-10 except 300kHz BW

WJ-9930-500 same as WJ-9930-10 except 500kHz BW

WJ-9930-1M same as WJ-9930-10 except 1mHz BW

WJ-9930-2M same as WJ-9930-10 except 2mHz BW

WJ-9930-3M same as WJ-9930-10 except 3mHz BW

WJ-9948 blower module, for cooling a rack, 3,6 or 9 blowers, rack mount 1.75" high

WJ-9949 speaker panel, five input, 1 watt output, half rack

WJ-9950 speaker panel, on/off switch, unamplified

WJ-9951 equipment frame, similar to EF-201

Systems:

Model	Description
AN/PRD-11	VHF/UHF radio DF system, 20-512 mHz, consists of WJ8640-1 receiver, WJ8975A DF processor, WJ-9180-1 SDU and WJ9880A antenna
AN/TLQ-504	communications jamming system, military version of WJ-4810
RS-112	microwave Pan-Man receiving system, continuous four band simultaneous scanning of 1-12GHz, components may include: MPP-101 microwave pan preselector, PTM-101 pan tuner module, PS-103 power supply, LIF-107 log IF demod, MC-103 master control, PD-602 pan display, EF-602 equipment frame, PD-102 pan display, PD-201 pan display, MT-112 microwave tuner, DM-112 demod, 112 microwave receiver, SM1622 SDU
RS-125	receiving system, coverage of 10-2000mHz available with four demodulators provide bandwidths ranging from 5kHz to 8mHz, basic system consists of SM-9401A, UT-1000C, VT-30C, SWP-104, DM-4C and S-9901, versatile sytem available in many configurations with no specialized components
RS-158	receiving system, allows simultaneous monitoring of up to 12 channels in 20-80mHz range using 410 series plug-in receivers, basic components include 410 receiver, DRO-270 counter and EF-158 equipment frame containing multicoupler and RF test signal generator
RS-160	Pan-Man receiving system, allows full band or sector scanning (pan/sector and remote with 205-2 or 215 receiver), basic single band configuration consists of 205 receiver, DRO-308 counter and SM-7301 SDU, uses HH-xx, VH-xx and UH-xx series tuning heads for 2-1000gHz coverage, DRX-308 frequency extender required for digital readout of UH- series tuners, TSU-160 tuner switching unit expands capacity to manual selection of up to 7 tuners, CSU-160 tuner switching unit permits sequential scanning (autostep) of up to 7 tuners, TSU-103B is similar to CSU-160 except it can only hold three tuning heads, additional options include VM-101, UM-101 and UM-160 marker generators, FS-101 2-300mHz synthesizer, FS-102 2-1000mHz synthesizer and EF-160 equipment cabinet, later versions of the system include 205-2 receiver which adds pan/sector and remote scanning or 215 receiver which adds TTL digital control and the DRO-335 counter which counts to 1gHz w/o an extender
RS-168	EMC version of RS-180, other specs unknown
RS-180	receiving system, AM/FM (CW opt), 30-1000mHz with 480 series tuners, components include DRO-280A counter, WJ-9310 multicoupler and EF-180A equipment frame for up to six 480 series rcvrs or EF-182A for up to 12 rcvrs, receivers time share the counter and DAFC functions, all receivers can monitor from a single broadband antenna

TDS-110 carrier demultiplexing system, for microwave telephone signals in the 3.7-4.2GHz, 960 channels in 16 CCITT supergroups, consists of FE-3442 tuner, IFD-210 IF-tape demod, SM-1622 SDU, TFC-101 supergroup converter, TFC-105 supergroup converter, TFC-212 basic supergroup converter, TDM-101 basic group demod, TDM-110 basic group demod, PR-101 LNA, ANT-101 antenna, APR-101 antenna/preamp

WJ-1007 microwave collection system, 1-18GHz, surveillance set for detection and categorization emission parameters, computer controlled

WJ-1026 electronically swept receiving system, 1-18GHz, ruggedized and remote controlled (up to 550 feet) for airborne or shipboard applications

WJ-1047 dual channel receiving system, 0.5-12GHz, digitally tuned system designed for airborne DF and ELINT operation

WJ-1088 airborne receiving system, 0.4-17.5GHz, designed for antenna pattern analysis, all data recorded digitally

WJ-1140 modular microwave receiving system, 0.5-18GHz, extremely ruggedized compact system for ECM, ELINT, surveillance, tracking and broadband communications, digitally controlled

WJ-1154 frequency synthesizer, 1-12.4GHz in 1mHz steps, BCD controllable by appropriate WJ receiver

WJ-1920 Multi-parameter distributed processing system, dual reception using wide-band IFM receiver and a narrow-band superheterodyne receiver design creates high probability of signal intercept, frequency-domain and time-domain processing of signals.

WJ-4810 communications jammer, 2-500mHz, amplifier modules from 20-1000w available, single, multiple and barrage jamming modes, microprocessor controlled.

WJ-8737 receiving system, very similar to WJ-9028

WJ-8940 receiving system, 5kHz-1gHz, (20Hz-18GHz opt), AM/FM/CW and log detection, 17 IF BWS from 200Hz-50mHz (5Hz w/ ELF opt), for EMC, EMI, Tempest and wideband RF ambient signal surveys, similar configuration to newer WJ-9040

WJ-8955 mobile ESM system, signal monitoring and netted direction finding capability over 2-1100mHz range, complete system consists of 3 vehicles, roof mounted DF antenna requires minimal deployment for set-up.

WJ-8965A communications reconnaissance system, rapid detection of HF/VHF/UHF signals, unit will automatically determine line-of-bearing to VHF/UHF target transmitters, housed in transportable shelter or tactical vehicle, complete with antennas and masts.

WJ-8976 three channel DF system, provides azimuth and elevation bearing information for many types of signals, monopulse, continuous and spread-spectrum, consists of three channel slave receiver, digital processor, master tuner and antenna system, basic operation from 20-500mHz, operation from 2mHz to 1.2GHz is also possible.

WJ-8986 correlative vector 3-5 channel DF ssystem, 2-512mHz range, (expandable to 2GHz), 50mHz/sec scan and DF rate, PC/AT design, graphical front panel displays including spectrum FFT, 8.75"h x 19"w x 20"d, 66lbs

WJ-8990 manpack tactical intelligence system (MANTIS), WJ8972 receiver/DF processor and WJ9881 antenna, RF intercept and DF capability over 20-500mHz range, can be expanded for intercept use from 0.5-1200mHz and DF coverage 2-1200mHz, manual or automated control of serach and DF operations, DF accuracy of 2 degrees, RS-232 controllible, 12VDC internal batteries or 24VDC vehicular power (120VAC opt), WJ8972: 6" X 11" X 16", 24lbs, WJ9881 (stowed) 14" X 14" X 35", 29lbs

WJ-8991 manportable correlative vector DF system, consists of WJ-8996 DF processor, WJ-8997 covert/portable DF antenna, handheld controller, and optional handheld antenna for on-the-move operation, 1-1300mHz (2GHz opt), entire system fits into an ALICE pack, 19"h x 22"w x 12"d, 50lbs

WJ-8996 correlative vector DF, 2 or 4 channel, 1-2000mHz, ruggedized, lower power consumption (10w) for covert/field deployment, options include RS-232 or ethernet interface and quick reaction analysis scan (100mHz/sec)

WJ-8999 portable EMC/Tempest test receiver, 1kHz-1gHz coverage (1-12.4gHz opt), AM/FM/CW/Log, operating modes: fixed, scan/plot, scan/monitor, or remote, 18 IF BWs 100Hz-50mHz (100/200mHz opt), optional built-in signal monitor, designed for EMC, wideband ambient RF surveys, signal analysis, 7"h x 16.87"w x 15"d, 42lbs

WJ-9023C wide range receiving system, 30mHz-12.4gHz, high resolution digital tuning, local or remote control, basic ssystem: WJ-9023C/TSU tuner sythesizer unit, WJ-9023C/IFD IF demod, WJ-9023C/DCU digital control unit and WJ-9023C/ICU interface control unit

WJ-9028 receiving system, 20-1000mHz, AM/FM/CW/pulse, consists of two units, WJ-9028/RU receiving unit and WJ-9028/DU display unit, RU contains four tuners, COR, AFC, DAFC and provisions for up to 3 WJ-9930 IF amp/demod modules (10 BWs), DU contains counter and SDU, complete system is rack mount 5.25" high

WJ-9040B receiving system, 5kHz-23gHz, multipurpose system for RFI/EMI compatibility investigations, wide-band surveillance and narrow-band analysis. Composed of digital control unit (DCU), tune/synthesizer unit (TSU), IF demodulator (IFD) and auxiliary synthesizer unit (ASU), TSUs provide

coverage from 5kHz-1gHz (20Hz-23GHz opt), resolution 1Hz across the range, 11 fixed-tuned and varactor-tuned pre-selection bandpass filters, autoranging antenna attenuator, IFDs provide bandwidths ranging from 200Hz-50mHz centered on 100kHz, 21.4mHz & 160mHz, Operator interface consists of 32 key keyboard, tuning wheel, analog controls for audio and IF gain, 256 character LCD alphanumeric display

- WJ-9045 modular tactical receiving system, 5kHz-440mHz using a series of receivers, digital control, DF capable
- WJ-9088 frequency management system, signal collection, measurement, modulation identification, sorting and management of signals from 10kHz to 1gHz in 10Hz steps, AM/FM/FM phase/CW/OOK/LSB/USB and noise, tuning time of 20-250mS, controlled by PDP-11 computer which can record, sort and edit up to 30,000 signals via color monitor and function keys.
- WJ-9103 multichannel digital tuner, consists of up to 8 WJ-9103/DTM digital tuner modules, tunable LOs, equalization signal source, digital controller and support circuitry, 20-500mHz (20-2000mHz w/ extender opt), 2mHz instantaneous bandwidth (4mHz opt), for precision DF, spectral analysis, antenna beamforming, 5.25"h x 19"w x 22"d, 55lbs
- WJ-9104 multichannel digital tuner, similar to WJ-9103 except 20-2400mHz range for each channel, 10mHz instantaneous bandwidth, options include LF/HF capability (0-33mHz), programmable IF BWs (4kHz-10mHz), serial/fiber optic data output, ethernet or high-speed serial control interface, 20mHz instantaneous BW
- WJ-9195 rapid acquisition spectrum processor (RASP), digitally refreshed display unit, controls a specially configured WJ-8618B-2 or WJ-8618B-15 receiver for extremely fast display of radio spectrum. Will not operate properly with any other WJ-8618B receivers. Rack mount 8.75" high.
- WJ-9195C rapid acquisition spectrum processor (RASP), broadband receiver and spectrum display device, 20-512mHz (expandable 2mHz to 4gHz), 1gHz per second scan rate (!!!), 5 or 25kHz resolution, electroluminescent display, six programmable traces, manual or remote computer control, Can act as a system controller for up to 15 WJ904 receivers, rack mount 8.75" high, 89lbs.
- WJ-32320 ELINT/ESM system, 0.5-18gHz, tells you everything you want to know about every kind of emitter in the area including its location as determined by triangulation and GPS. Not for mere mortals.

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