

Microdyne

1100-AR

With compliments

Helmut Singer Elektronik

www.helmut-singer.de info@helmut-singer.de
fon +49 241 155 315 fax +49 241 152 066
Feldchen 16-24 D-52070 Aachen Germany

Specifications

ELECTRICAL

Receiver Type

Double superheterodyne; 50 MHz first i-f;
10 MHz second i-f.

Frequency Range

105-6000 MHz as determined by plug-in
rf tuner.

continued

Input Impedance	50 ohms, unbalanced.
Noise Figure	5.5 to 10.0 dB depending on rf tuner used.
VSWR	2:7 maximum depending on rf tuner used.
Image Rejection	80 dB minimum.
IF Rejection	90 dB minimum.
Dynamic Range	Threshold to -7 dBm (threshold is defined as a 6 dB signal-to-noise ratio).
First LO Characteristics:	
Modes	Switch selectable vfo, crystal, off, (external input).
Stability:	
VFO	±0.001% per degree Centigrade.
Crystal	±0.005% without oven; ±0.0005% with oven.
Second LO Characteristics:	
Modes	Switch selectable, vfo, crystal, afc, pm, off (external input).
Stability:	
VFO	±0.001% per degree Centigrade.
Crystal	±0.005%.
AFC Characteristics:	
Tracking Range	±400 kHz in addition to ±250 kHz fine tune control.
Acquisition Range	Up to 400 kHz from center frequency in addition to ±250 kHz fine tune control.
Drift Reduction Factor	Greater than 10,000:1.
Search Range	50 kHz to greater than 800 kHz; approximately symmetrical about second l-o frequency as set by front panel fine tune control.
Search Rate	1.5 MHz/second.

— continued —

PM Characteristics:

Control Range	± 250 kHz in addition to second l-o fine tuning range.
Search Range	50 kHz to greater than 250 kHz; approximately symmetrical about second l-o frequency; set by loop bandwidth control.
Phase Loop Bandwidth	10, 30, 100, 300, 1000 Hz as determined by positioning of pm demodulator loop bandwidth switch.

Demodulation

FM Demodulation	Refer to applicable fm demodulator manual.
PM Demodulation	Refer to applicable pm demodulator manual.

AM Demodulation:

AM Response 5 Hz to one-half i-f bandwidth (1.6 MHz maximum).

AM Distortion Less than 3% with 90% modulation at a 1 kHz rate.

AGC Time Constant Switch selectable; 0.1, 1.0, 10, 100, 1000 msec normally supplied. Others available.

Video Characteristics:

Output Impedance	75 ohms.
Rated Output	4 volts peak-to-peak.
Maximum Output	10 volts peak-to-peak.
Distortion	Less than 0.5% at rated output; less than 1% at maximum output.
Source	Plug-in demodulator or a-m detector.
Coupling	AC or DC; switch selectable.
Response	AC coupled - 5 Hz to 2.0 MHz +1.0 dB -3 dB. DC coupled - DC to 2.0 MHz +1.0 dB -3 dB.

Power Requirements 115/230V ac $\pm 10\%$, 50-400 Hz, 35 watts (1100-AR) or 50 watts (1100-AR(7)) maximum.

continued

1100-AR

ENVIRONMENTAL

Temperature Range:

Storage	-62° to +65° Centigrade.
Operating	0° to +50° Centigrade.

Atmospheric Pressure:

Storage	To 50,000 feet.
Operating	To 15,000 feet.

Humidity To 95% relative humidity.

MECHANICAL

Height	5-7/32 inches 1100-AR; 7-31/32 inches 1100-AR(7).
Width	19 inches.
Depth	19-1/4 inches.
Weight	1100-AR approximately 35 pounds. 1100-AR(7) approximately 42 pounds.