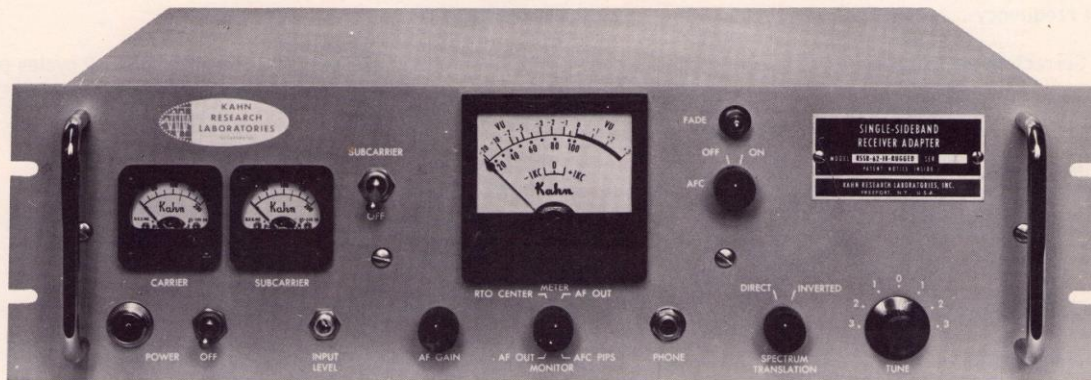


CONVERTER, SINGLE-SIDEBAND CV 1982/TSC-26

www.radiopharos.it



FEATURES

- All Electronic AFC • Dual Meter Tuning • Sub-Carrier Diversity
- Uses Nuvistors and Transistors only • Carrier Loss Protection
- Meets Military Environmental Specs

DESCRIPTION

Kahn Research Laboratories' Converter, Single-Sideband CV 1982/TSC-26, is specifically designed to convert conventional AM receivers to single-sideband operation and it brings to the HF communications field several basic improvements in high performance receiver design.

The Converter uses Nuvistors and Transistors only and includes an all-electronic AFC with an improved correction speed of 50 cycles per second per second. This system eliminates the basic problems encountered in most AFC systems — error caused by drift of the discriminator — and it works on the principle of comparing two frequencies of nearly equal amplitude. In other words, the received carrier is directly compared with a local carrier reference generated by a stable crystal oscillator.

Also included in this Converter is circuitry which allows the use

of a sub-carrier, as well as the main carrier, for AFC purposes. The sub-carrier should be set to 3.0175 kc and when it is greater in amplitude than the main carrier, it automatically takes control of the AFC system. Thus, a frequency diversity effect provides superior AFC performance. Since a failure in the AFC necessitates retuning and is the source of many outages, this diversity AFC offers a most important operational advantage. An added feature is dual carrier level meters which enable rapid tuning of multi-channel tone signals.

Another important feature is carrier loss protection. During severe fades of both main and sub-carrier, a new type of memory device maintains precise tuning until carrier is restored. Thus, the converter preserves the best qualities of a conventional reactance tube and motor-tuned system while eliminating the familiar disadvantages of motors with their attendant mechanical problems and complex temperature-controlled crystal discriminators.



KAHN RESEARCH LABORATORIES, INC.
81 SOUTH BERGEN PLACE, FREEPORT, N. Y. • FReeport 9-8800

Specifications For
CONVERTER, SINGLE-SIDEBAND
CV 1982/TSC-26
www.radiopharos.it

Input Frequency	455-500 KC
AFC Correction Accuracy	Corrects ± 500 cycles per second error to ± 2 cycles per second, corrects ± 1000 cycles per second error to ± 4 cycles per second.
Environmental	
Temperature Range	0°-40°C
Moisture Resistance	Meets five continuous 48 hour cycles of MIL-STD-170
Elevation	15,000 feet
Carrier Reception	Local carrier operation
Reception Modes	Upper or lower sideband but not simultaneously.
AFC Response Speed	50 cycles per second per second
AFC Capture Range	± 25 cycles per second minimum
Audio Response	150 cycles per second, -3000 cycles per second ± 1 db
Audio Output Level	0 dbm
Harmonic Distortion	Less than 3%
Intermodulation Distortion	Greater than -30 db
Hum and Noise	-40 db relative to rated output level
I.F. Input Level	30 MV maximum @ 50 ohms
Input Power Required	35 watts maximum, 105-120V, 50-60 cycles per second.
Carrier Suppression	-20 db
Size	5¼" H x 19" W x 18½" D
Weight	25 lbs

