BZ5MX30V
Application for FCC Certification
Modulator Input
30 Watt VHF Translator

GENERAL DESCRIPTION

This application requests authorization for video/audio input to our 30W VHF Translator, BZ5MX30V. The Translator will be driven directly by a color television demodulator.

The intended use of the MX30V is to rebroadcast a television translator relay station of other legal source of video and audio.

The MX30V is a solid-state Translator designed to operate at 30W peak sync visual RF power and 3W average aural single carrier RF power. The MX30V Translator accepts an on-channel internally diplexed composition driving signal of 10mW peak visual RF, as input to its RF chain.

The MX30V Translator is self-contained single 19" cabinet with an integral cooling fan. The simplicity of design, the employment of modular subassemblies, and the use of standard, readily available, components also enhance serviceability.

The unit tested specifically for this application was operated on Channel 11. This channel was chosen to provide protection to and from existing radio services, and to facilitate the measurement of possible spurious products conducted or radiated from the 30 VHF Translator.

The input signals used in the equipment application tests were generated by a color bar generator driving a Cadco Modulator which is typically the unit used. However, due to varying customer requirements, other modulators are available upon customer request. The published specifications on any modulator used in this equipment will meet or exceed FCC specifications.

The Cadco Modulator of this translator will accept audio from the television relay station. Frequency spacing, deviation, and other characteristics including distortion are therefore determined solely by the originating television station. It is anticipated that the translator will be driven directly by the demodulator output of an FM microwave repeater. No provision is made for tampering with or adjusting the composite video or audio signal except for depth of video modulation. Therefore, all aspects of the input video signal are determined solely by the originating television station.

The MX30V meets all the requirements for unattended operation. A description of the automatic control circuitry can be found in the user's manual.

Station identification requirements will be supplied by the originating station.

Wiring, shielding and construction are in accordance with accepted principles of good engineering practice. The translator's construction is such that all hazardous components are enclosed of protected against accidental contact by operating personnel.