BZ5MXI401UX
Application for Certification
Heterodyne Processor Input
500 Watt UHF Translator

Operational Description

This application requests authorization for a video/audio input driven 500 Watt translator, BZ5MXI401UX. The translator is driven directly by a color television Heterodyne processor. The intended use of the MXI401U is to rebroadcast a television relay station or other legal source of video and audio.

The MXI401U is a solid state translator designed to operate a 500W sync peak visual RF power and 50W average aural single carrier RF power.

The MXi401U consists of four components: a 1RU modulator, a 3 RU RF amplifier, a 3 RU Power supply for said amplifier and an output filter. The power supply and amplifier employ integral cooling fans. The simplicity of design, the employment of modular subassemblies and the use of standard components also enhance serviceability.

The specific unit tested for this application was on channel 39, with the exception of frequency stability measurements which were conducted on channel 60.

The Heterodyne Processor section of this translator will accept an off-air signal from the television relay station, frequency spacing, deviation and other characteristics including distortion are therefore determined for the most part by the originating television station. No provision is made for tampering with or adjustment of the composite video or audio signal except for the depth of video and audio modulation.

The MXI401U meets all requirements for unattended operation. A description of the automatic shutdown and 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 or protected against accidental contact by operating personnel.