APPLICATION FOR FCC CERTIFICATION
BZ5MX20U
MODULATOR INPUT
20 WATT UHF TRANSLATOR

EXHIBIT 1 PAGE 2

PART 74.750(c)(2):
Observations were made on a properly operating translator video to Channel 50 using a Hewlett-Packard 8591E Spectrum Analyzer with a cut to frequency dipole antenna at 10 meters from the translator and rotated to detect maximum radiation. The following signals were present:

		SPECIFICATION	
FREQUENCY(MHz)	SOURCE	LIMIT uV	MEASURED uV
1374.50	2nd Harmonic	700	50
733.00	LO	238133	10

Radiation from the modulator was nil. No spurious products could be detected at 10 meters that were less than 90dB down.

Antenna terminal measurements with the 8591E Spectrum Analyzer showed no change due to the modulator since the power amplifier stages are not affected by this modulation.

The above tests were performed using the same equipment hook up and methods described in Exhibit 3a. The translator test data compiled for this application was video to Channel 50. Translator operating with a standard video test signal input (modulated stair step and color burst) and a modulated audio carrier at –10dB of peak visual. Results are typical of performance on all channels.

PART 74.750(c)(3)(ii):
Variations of input voltage $\pm$15% (reference +28VDC or 120VAC) during the temperature tests resulted in no discernible frequency variation traceable to the power supply. This is reasonable due to the modulator's internal regulation.

PART 74.750(c)(4):
The stability of the modulator's self-generated RF carrier must be considered to determine the overall 20 Watt UHF Translator's frequency stability. Exhibits 4a and 4b document the performance measurements made including methods and equipment.

PART 74.750(c)(5):
This equipment meets all the requirements for unattended operation. A description of the automatic control circuitry can be found in Exhibit 2a.

PART 74.750(c)(6):
Measurements can be taken while the equipment is in operation. Normal operating constants of the power output stage average +28 volts at 2.9 amps.

PART 74.750(c)(7) AND PART 74.783(a)(2):
Station identification requirements will be supplied by the originating station.