

LOW PROFILE VIDEO MODULATOR

1.0 DESCRIPTION AND THEORY OF OPERATION

1.1 Purpose

The LNR type LVM-70 Modulator is designed to provide high quality, reliable generation of video signals as may be associated with satellite transmissions. The modulator is a 1 3/4 inch high, 19 inch wide, rack mountable aluminum mainframe. (Figures 1-1 and 1-2)

The LNR Model LVM-70 Video Modulator converts a video signal to a 70 MHz IF signal. The Video Modulator is capable of processing a standard 525/60 or 625/50 video format and can also multiplex audio subcarriers for either full or half transponder transmissions. The modulator is ideally suited to both domestic and international satellite systems. The modulator mainframe can accommodate a maximum of 4 (four) subcarrier frequencies as an option. The standard unit accommodates two subcarrier frequencies.

When a fault in Modulator performance, IF Level AFC or Video occur, the SUMMARY ALARM and the respective fault LEDS indicate red. Adjustments on the Video Conditioner, Audio Subcarrier units are available to set the audio deviations and levels. The video pre-emphasis function can be by-passed or selected for 525 or 625 with a switch located in this unit. Front panel controls permit disabling of audio subcarriers. A BB mute function can be activated by front panel switch. Form "C" contact closures for remote alarms as well as performance related analog signals are provided at the rear connector for remote monitor purposes.