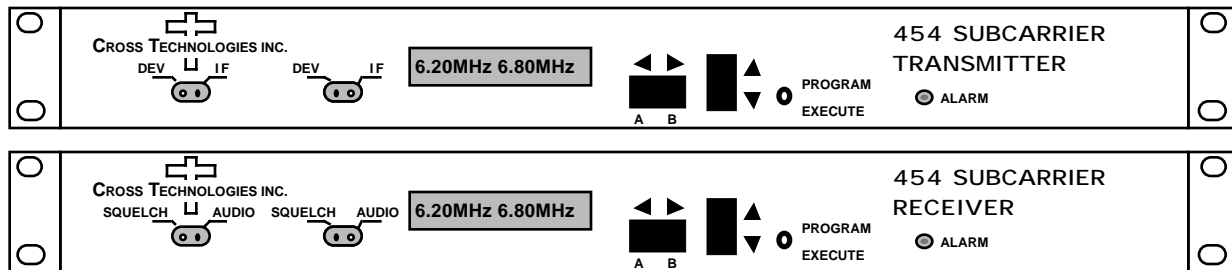


Model 454 Dual Channel Subcarrier System

The 454 is a dual channel, frequency agile, synthesized FM subcarrier system for multi-channel applications above a video signal with low distortion and flat frequency response from 50 Hz to 15 kHz. Frequency from 1 MHz to 9.99 MHz, subcarrier "off", and emphasis settings appear on the front panel LCD display. The 454 is a standard subcarrier system with selectable 75 usec or J17 emphasis networks and provides >75 dB dynamic range. Connection to video is via a passive directional coupler which does not load the video signal even when power is lost. The 454 demodulator's threshold extension allows receiving signals under severe fades.



Model 454T Transmitter and Model 454R Receiver

454 EQUIPMENT SPECIFICATIONS*

System - Audio

Peak program level (PPL)	+9 or +18 dBm, selectable
Frequency response	± 0.25 dB from 50 Hz to 15 kHz
Distortion	< 0.2% at 1 kHz (De-emph, 30 kHz bandwidth)
Compressor type	None
Emphasis	75 usec or J17, selectable
Dynamic Range	> 75 dB from PPL, clean signal

System - Other

Frequency range	1.0 to 9.99 MHz in 10 kHz steps
Channel spacing (min)	600 kHz with ± 250 kHz deviation
Deviation (at PPL)	± 150 kHz to ± 250 kHz, adjustable
Connectors	BNC, female, subcarrier in/out; terminal strip, audio and alarm
Power	115/230 VAC (47-63 Hz) < 30 W
Size	1.75" X H 19" W X 15" D, each

Modulator Characteristics:

Subcarrier output level	25 to 100 mV P/P (adj.)
Output impedance	Bridging (>4 k ohms) to 75 ohm line
Audio Impedance	600 Ω, balanced transformer coupled or high impedance (> 50K Ω)
Alarms	Synthesizer out of lock; Carrier frequency out of lock
Indications	Frequency, Emphasis, Alarm, Off

Demodulator Characteristics

Subcarrier input level	20 mV to 200 mV P/P
Input impedance	Bridging (>4 k ohms) to 75 ohm line
Audio Impedance	600 Ω, balanced transformer coupled
C/No for threshold	63 db - Hz
Alarms	AFC; Carrier below squelch level; Synthesizer out of lock
Indications	Frequency, Emphasis, Alarm, Off

*+10 to +40 degrees C; Specifications subject to change without notice