

15-1215 Theory of Operation

General

This Product Is Designed To Convert the Audio/Video Signal to Standard NTSC CH3 or CH4 RF Signal. The Product Provides Both RCA Jack And S-Video Jack For The Video Input Signal. The Auto Select Switch Is Designed To Slide S-Video (First Priority) And Composite Input Signal.

Audio Input

The Stereo R/L Audio Signal Couples from the L/R RCA Input Port Combines to Mono Audio in And Amplified by Q1, Then the Mono Audio Signal feeds To the PIN2 of Modulation IC U2.

Video and S-Video Input

This Product Provides Both Composite Video And S-Video Input Jacks. Q3 and D1 Is Used To Detect the Synchronization Signal in the S-Video. Here The Detected Out DC Controls The Video Switch Q2, Q8 To Cut Or Pass The Video Signal Feeds From The Video Input Jack. The Composite Video Signal or The Luminance Signal Couples to Both DC Detect Circuit Q7, D2 and PIN5 of U2.

Modulator

U2 Is A RF Integrated RF Signal Generator And Modulator. When The Input Of PIN6 Is High State, U2 Can Generate The Standard NTSC RF Signal Modulated By The Mono Audio And Composite Video Or S-Video Signal. The Output Channel Is Selectable By The SW2.

RF Channel

The Cable TV Signal Pass Feeds From The ANT IN To TV Through A HPF, When This Product Is Active, The Switch Contains Of Q11, Q5, Q6 And Q10 Will Shut Off The Cable TV And Feeds The Converted Signal Through Q4 To TV.

Input Selector

This Product Provides 4 Sets Input Ports, The Input Signal Can Be Selected By The 4 Key Inter Lock Push Switch.