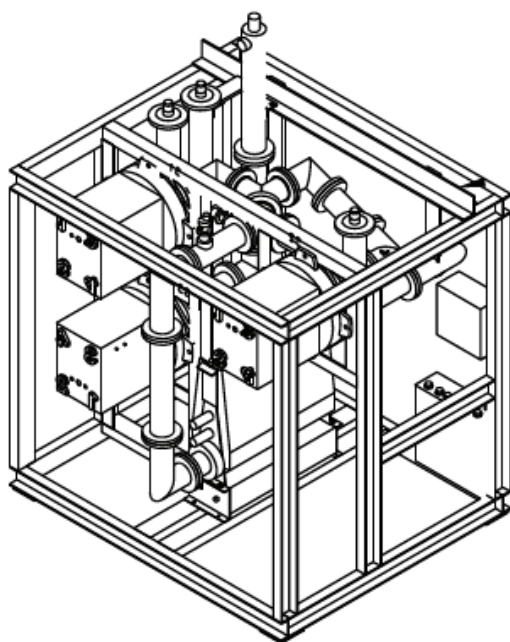


CY314/CY315 UHF Switcher Combiner



ERI builds UHF Switching Combiner Systems for UHF television applications. There are two different assemblies with different part numbers to cover the UHF band. Model CY314 is used for channels in the range 470 MHz to 656 MHz while Model CY315 is used for channels in the range 656 MHz to 806 MHz. The finished assemblies are tuned and optimized for a specific RF channel within their range. They are not tuned or intended for use at other channels within the assembly ranges. They are not wideband devices.

The desire for higher transmitter output power while keeping costs of systems and their installation low has led to the development of the UHF Switching Combiner System.

This unit is normally used to combine the output of two parallel transmitters, which doubles the output power over a single transmitter. Should either of the individual

transmitters fail or require maintenance, that transmitter can be routed to the station load while the second transmitter is temporarily sent at its full power to the antenna.

NOTE: The performance of maintenance on a down transmitter while the other transmitter is on power is not recommended from a personnel safety standpoint.

The UHF Switching Combiner System consists of three coaxial switches, each with their individually housed control circuits and a 3 dB hybrid with other transmission line components including directional couplers, loads and interconnecting transmission line.

A metal frame is utilized to house and support the various components used to make up the Switching Combiner System. The RF inputs and outputs to the unit are located on the top of the unit for easy access. The Interface for the Control Circuits for the Switching Combiner System are housed in an electrical enclosure to prevent exposure to the operating voltages used in the system; this is the DC access box. The circuitry for the mains is located in a separate box labeled AC Access.

All three switches have their mains connections tied to a common junction in the AC Access Box so that only one AC connection needs to be installed by the operator.

CY314/CY315 UHF Switcher Combiner

Specifications

Model:

Operating Frequency Range:

CY314	CY315
470 to 656 MHz	656 to 806 MHz

Any single 6,7 or 8 MHz RF Channel

15 kW, average power ATSC 1.0

Combined Power Output Rating:

VSWR, maximum:

Combined to Air:

1.05:1

Combined to Load:

1.10:1

Bypass Mode:

1.08:1

Insertion Loss (Combined to Air):

-3.1 dB, maximum

Input Isolation:

35 dB, maximum

AC Drive Motor Voltage:

115 or 230 VAC, 50./60 Hz

Control Voltage:

12 or 24 VDC

(specify with order)

Dimension shown in inches.
