

<u>Name</u>	<u>Function</u>
<u>Receiver Tray (Optional)</u>	
<u>Samples</u> - BNC Connectors mounted on front panel.	
f(IF) Output	A Sample of the IF Output taken from the IF Filter/ALC Board.
f(s) Oscillator	A Sample of the Channel Oscillator Output taken from the Sample Jack of the Channel Oscillator Assembly.
<u>UHF Exciter Tray</u>	
Meters	
Meter (A1-A18)	Reads power in terms of a percentage of the calibrated Output Power level. A full scale reading is 100% which is equivalent to the full rated Peak of Sync Exciter Output Power. Also reads Audio, Video and ALC reading.
Switch (S3), Meter	Selects the desired % Exciter Power, Video, or Audio Levels or the ALC Voltage reading.
Audio (0-100 kHz)	Reads the Audio Level. (± 25 kHz Balanced or ± 75 kHz Composite)
ALC (0-1 V)	Reads the ALC Voltage Level. (.8 VDC Typical)
% Exciter (0-100)	Reads the % Exciter Output Power. (Level needed to attain 100% Output Power)
Video (0-1 V)	Reads the Video Level. (1V = 140 IRE)
Switches	
Transmitter (S1) Operate/Standby	The momentary switch (S1) applies a ground to K1, a latching relay, located on the Transmitter Control Board. K1 will switch either to Operate or to Standby depending on which direction S1 is pushed. When switched to Operate, a low, Enable Command, is applied to each Amplifier Array which are split and connected to each Amplifier Tray. These Enables turn on the UHF Amplifier Trays. The opposite occurs when switched to Standby.
Mode Select (S2) Auto/Manual	The momentary switch (S2) applies a ground to K2, a latching relay, located on the Transmitter Control Board. K2 will switch the Transmitter to Automatic or Manual depending on which direction S2 is pushed. In Automatic, the Video Fault Command from the ALC Board will control the Operation of the Transmitter. The Transmitter will switch to Standby, after a slight delay, if the input video is lost and will switch back to Operate, quickly, when the Video is restored. In Manual, the Transmitter is controlled by the Operator using the front panel Operate/Standby Switch or by remote control.

<u>Name</u>	<u>Function</u>
<u>UHF Exciter Tray</u> - Continued	
Fault Indicators	
Video Loss (DS9 Red)	Indicates that the Input Video has been lost to the Transmitter. The Fault is generated on the ALC Board located in the UHF Exciter Tray.
VSWR Cutback (DS7 Amber)	Indicates that Reflected Power Level of the Transmitter has increased above 20% which will automatically cutback the Output Power Level to 20 %. The Fault is generated on the Transmitter Control Board located in the UHF Exciter Tray.
Samples	
f(IF)	A Sample of the Visual IF taken from the Sample Jack on the IF Carrier Oven Oscillator Board.
f(IC)	A Sample of the 4.5 MHz Inter-carrier taken from the Aural IF Synthesizer Board.
f(s)	A Sample of the Channel Oscillator Output taken from the Sample Jack of the Channel Oscillator Assembly.
Exciter O/P	An Output Power Sample of the Exciter taken from the UHF Upconverter Board.
Transmitter O/P	A Forward Power Sample of the Transmitter taken from the Visual/Aural Metering Board.
<u>UHF Amplifier Trays</u>	
Meters	
Meter (A9)	Reads power in terms of a percent of the calibrated power output value. A full scale reading is 100% which is equivalent to the full rated Peak of Sync Visual Output Power + Aural (600 Watts). Also reads Power Supply and AGC Voltage.
Switch (S2), Meter	Selects the desired % Power or the Voltage reading.
% Output Pwr	Reads the % Output Power of the Tray. (100% = 600 Watts pk of Sync + Aural)
% Refl (Reflected)	Reads the % Reflected Output Power of the Tray. (<5% with all Amplifier Trays operating)
Power Supply	Reads the Power Supply Voltage. (+26.5 VDC)
AGC Voltage	Reads the AGC Voltage Level. (1-2 VDC Typical)
Status Indicators	
Enable (DS4 Green)	Indicates that an Enable, Operate Command, is applied to the Trays from the UHF Exciter Tray.

<u>Name</u>	<u>Function</u>
<u>UHF Amplifier Trays- Continued</u>	
Status Indicators	
Overdrive (DS2 Red)	Indicates that the level of the drive to the output amplifiers is too high. The protection circuit will limit drive to the set threshold. The Fault is generated on the Amplifier Control Board.
VSWR Cutback (DS1 Red)	Indicates that Reflected Power Level of the Tray has increased above 50% which will automatically cutback the Output Power Level to 50 %. The Fault is generated on the Amplifier Control Board.
Overtemperature (DS3 Red)	Indicates that the temperature of (A5-A6-A3 & A5-A6-A4) one or both of two Thermal Switches mounted on the heatsink assembly for the output amplifiers is above 175° F. When this Fault occurs the Enable to the Switching Power Supply in the effected Amplifier Tray is removed immediately.
Sample	
Module O/P (0 dBm)	A Sample of the Combined Output of the four Dual Stage Amplifier Boards taken from the Dual Peak Detector Board.
<u>Variable Phase/Gain Trays</u>	
Meters	
Switch (S1), Meter	Selects the desired % Power or the ALC Voltage reading.
% Output Power	Reads the % Output Power of the Tray. (100% = +23 dBm pk of Sync + Aural)
ALC	Reads the ALC Voltage, from the UHF Exciter, which connects to the Amplifier Trays.
Sample	
Output (J4), (0 dBm)	A front panel Sample of the RF Output of the Phase/Gain Tray which connects to the Amplifier Array, taken from the Variable Gain/Phase Board.