

CAV TV TRANSMITTER

The TV Transmitters belonging to the CAV series have both a compact size and a pleasant and functional look. How does the Cav reach this goal? The mother board is completely built in SMD technology and mounted by automatic machine to obtain high level of reliability. The filter and amplification stage has been made compact, while keeping a good ventilation to limit working temperature, by mounting it all on a single heat sink with a bent steel conveyor. All connectors and controls placed on the front panel are directly connected to the mother board. The connections between the mother board and the control board are made through a single 20-pin connector. All wiring between the mother board and the other sections of the CAV is made with detachable connectors (see clamps for power supply and control of the final stage) to make repair easier. The output connector of the transmitter, the air inlet of the cooling system of the final stage, the power supply box including the main switch and fuses, the telemeasuring connector and the external reference input, if any, have been placed on the back of the CAV. The user interface has been kept simple and intuitive with the use of an alphanumeric display and only two push-buttons. All the functions have been remoted by the RS232 rear panel connector.



MAIN CHARACTERISTICS:

- Rack 19" 2U (5W-15W), 3U (50W-100W)
- 115/230Vac 50/60Hz Power Supply
- Indication of the main parameters on LCD display
- Alarm Thresholds for FWD Power, REF Power and Temperature
- Power Supply Input on IEC box with double fuse on the check
- RF Output with N connector on the rear
- Video Input with BNC connector on the front panel
- Audio Input with XLR connector on the front panel
- IF Link with SMB connector on the front panel
- Level adjustment (Video, Audio, SC) with multi-turn trimmer on front panel
- Class AB three-cell pre-corrector, selectable from front panel
- Automatic or Manual Gain Control on front panel
- Multifunction Display with two selection keys and buzzer
- Remote Control by wired or serial (RS232) connection

TECHNICAL CHARACTERISTICS

MODELS				
	5W	15W	50W	100W
UHF	CAV/5U	CAV/15U	CAV/50U	CAV/100U
VHF	CAV/5V	CAV/15V	CAV/50V	CAV/100V

OPTIONS	
•	Dual Sound (See TV Stereo Coder)
•	High Stability
•	Output Filter

RF SECTION

Frequency Range	VHF I, VHF III, UHF
Output Power	5W, 15W, 50W, 100W
Output Power Control	Automatic or Manual (switch-selectable)
I.M.D.	< -60dB (with IF Pre-corrector)
Spurious and Harmonics Level	< -60dB
RF Output Impedance	50 Ω
RF Output Connector	N Female
Intermediate Frequency	38.9 or 45.75MHz (on request)
IF Output Level	-15dBm

AUDIO SECTION

Input	600 Ω / 10k Ω balanced
Nominal Level	2.2Vpp, -10dB + +6dB
Pre-emphasis	Flat, 50 μ s, 75 μ s
Low Pass Filter	15kHz, 100kHz
Limitation Circuit	Δ nom +1dB
Frequency Response	\leq 0.5dB
THD	\leq 0.5%
Intermodulation	d2 \leq -60dB, d3 \leq -60dB
S/N FM CCIR Ratio	\geq 60dB weighted \geq 60dB unweighted (ref. 50kHz)
S/N AM Ratio	\geq 60dB asynchronous \geq 50dB synchronous (ref. 100%)
IF	30.5MHz ... 41.25MHz
IF Level (on external link)	Adjustable

VIDEO SECTION

Input	75 Ω
Nominal Level	1Vpp \pm 6dB
Return Loss	\geq 30dB up to 5MHz
DC Recovery	Clamped to back porch
White Limitation	90% ... 115% non affecting prominence
Group Delay Pre-corrector	8 Cells
Group Delay	\leq 50ns (with professional vestigial filter)
Frequency Response	\leq \pm 0.5dB
Differential Gain	\leq \pm 5%
Differential Phase	\leq \pm 5 $^\circ$
Luminance Non-Linearity	\leq 5%
S/HUM Ratio	\geq 45dB weighted
S/N Ratio	\geq 65dB weighted, \geq 55dB unweighted
Black Level Variation	\leq 2%
2T K Factor	\leq 1%
ICPM	< 3 $^\circ$
IF	32.7MHz ... 45.75MHz
IF Level (on external link)	-15dBm ... -10dBm

LOCAL OSCILLATOR SECTION

Frequency	50MHz ... 900MHz split between band I, III, IV/V
Offset	\pm 32kHz max
Frequency Stability	2.5ppm (0.05ppm with HIGH STABILITY option)
External Reference	5MHz
S/N FM CCIR Ratio	\geq 60dB weighted (ref. 35kHz)

GENERAL

Power Supply	115/230V _{AC} , \pm 10%, 50/60Hz
Cabinet	Rack 19"-2U (5W-15W), 3U (50W-100W)
Weight	9kg (2U), 15kg (3U)
Ambient Temperature	-5 $^\circ$ C to +45 $^\circ$ C
Humidity	20% - 90%
Remote Control	Wired and RS232

NOTE:
SPECIFICATIONS AND CHARACTERISTICS ARE SUBJECT TO CHANGE WITHOUT NOTICE.