

DIP Switch Settings

STD

CH.	VIDEO	ONES CHANNEL				TENS CHANNEL			
	FREQ(MHz)	1	2	3	4	5	6	7	8
2	55.25	0	1	0	0	0	0	0	0
3	61.25	1	1	0	0	0	0	0	0
4	67.25	0	0	1	0	0	0	0	0
5	77.25	1	0	1	0	0	0	0	0
6	83.25	0	1	1	0	0	0	0	0
7	175.25	1	1	1	0	0	0	0	0
8	181.25	0	0	0	1	0	0	0	0
9	187.25	1	0	0	1	0	0	0	0
10	193.25	0	0	0	0	1	0	0	0
11	199.25	1	0	0	0	1	0	0	0
12	205.25	0	1	0	0	1	0	0	0
13	211.25	1	1	0	0	1	0	0	0
A	121.2625	0	0	1	0	1	0	0	0
B	127.2625	1	0	1	0	1	0	0	0
C	133.2625	0	1	1	0	1	0	0	0
D	139.25	1	1	1	0	1	0	0	0
E	145.25	0	0	0	1	1	0	0	0
F	151.25	1	0	0	1	1	0	0	0
G	157.25	0	0	0	0	0	1	0	0
H	163.25	1	0	0	0	0	1	0	0
I	169.25	0	1	0	0	0	1	0	0
J	217.25	1	1	0	0	0	1	0	0
K	223.25	0	0	1	0	0	1	0	0
L	229.2625	1	0	1	0	0	1	0	0
M	235.2625	0	1	1	0	0	1	0	0
N	241.2625	1	1	1	0	0	1	0	0
O	247.2625	0	0	0	1	0	1	0	0
P	253.2625	1	0	0	1	0	1	0	0
Q	259.2625	0	0	0	0	1	1	0	0
R	265.2625	1	0	0	0	1	1	0	0
S	271.2625	0	1	0	0	1	1	0	0
T	277.2625	1	1	0	0	1	1	0	0
U	283.2625	0	0	1	0	1	1	0	0
V	289.2625	1	0	1	0	1	1	0	0
W	295.2625	0	1	1	0	1	1	0	0
A-5	91.25	1	0	1	0	1	0	0	1
A-4	97.25	0	1	1	0	1	0	0	1
A-3	103.25	1	1	1	0	1	0	0	1
A-2	109.275	0	0	0	1	1	0	0	1
A-1	115.275	1	0	0	1	1	0	0	1

IMPORTANT!!

WARNING: Holland Electronics LLC does NOT represent this product to be WATERPROOFED. To reduce risk of electrical shock, fire hazard, or damage to the unit, do not expose to rain or moisture.

CAUTION: To prevent electric shock, do not use this plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

NOTE TO INSTALLER: This reminder calls the system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

WARNING:
**TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE
THIS UNIT TO RAIN OR MOISTURE**

HPM55

Audio Video Modulator (Channel : 2 ~ W)

The HPM55 is a phase locked loop, single channel television modulator providing Low, Hi, Mid and Super band performance at an economical price. The HPM55 provides 55dBmV minimum output level from 54 to 300MHz. The modulator is shipped with all internal adjustments preset and FCC Docket 21006 offsets are standard. The unit conforms to FCC Docket 21006 for frequency accuracy.

- **55 dBmV minimum @54-300 MHz**
- **PLL Controlled Frequency**
- **Excellent selectivity**
- **Front panel -30dB test point**
- **Rear panel auxiliary AC outlet**

HOLLAND ELECTRONICS LLC LIMITED WARRANTY

Holland Electronics LLC, warrants that the product enclosed with this Limited Warranty statement will conform to the manufacturer's specifications and be free of defects in the workmanship and material for a period of five years (5) from the date of original purchase.

WARRANTY PROCEDURE:

If the product appears to be defective contact Holland Electronics LLC at (805)339-9060. We will analyze the problem and offer solutions to prevent removing the unit from service. If the unit is to be returned for evaluation, you will be issued a Return Authorization (RA) number.

Holland Electronics LLC will, at its option, repair or replace the defective unit, under warranty, without charge for parts or labor. This repair will be subject to charges if signs of tampering or misuse are detected. Incoming shipping costs will be the customers responsibility. Returns will not be accepted without an RA number.

The warranty and remedy provided above are exclusive and in lieu of all other express warranties and unless stated herein, any statements or representations made by any other person or firm are void. The duration of any implied warranties of merchantability or fitness for a particular purpose on this product shall be limited to the duration of the express warranty set fourth above. Except as provided in this written warranty, Holland Electronics LLC shall not be liable for any loss, inconvenience, or damage, including direct, special, incidental, or consequential damages, resulting from the use or inability to use this product, whether resulting from breach of warranty or any other legal theory.

Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To arrange for Warranty Service: Call Holland Electronics LLC. (805) 339-9060

SPECIFICATIONS

Channels:	Channels 2-W
Frequency Range:	54 - 300 MHz
Output Level:	55 dBmV min., adjustable from front panel
Output Impedance:	75 ohm
Output Return Loss:	15 dB
Audio/Video Ratio:	Adjustable -10 to -24 dB below video carrier
Frequency Stability:	±5 kHz in aeronautical band. Conforms to FCC Docket 21006
Spurious Output:	-60 dB below video carrier with A/V ratio @ -15 dB
Visual C/N:	>60 dB @ 4 MHz BW
Input Type:	clamped video negative sync
Frequency Response:	±1.5 dB (30 Hz to 4.2 MHz)
Hum and Noise:	-60 dB @87.5% modulation
Baseband Input Impedance:	600 ohms unbalanced
Baseband Input Level:	0.5V p-p for 25 KHz deviation
Pre-Emphasis:	75 microsecond
Flatness:	1.5 dB (50 Hz to 15 KHz)
Power Input:	110 VAC, 60 Hz
Operating Temperature:	-10°C to +50°C
Dimensions:	19"L x 3"D x 1.75"H
Weight:	3.75 pounds
Connectors:	"F" Type

REQUIRED EQUIPMENT:

1. Spectrum Analyzer or Field Strength Meter
2. TV or Monitor

INSTALLATION INSTRUCTIONS:

1. Your HPM55 may be mounted in any standard 19" rack using one or two screws on each side.
2. Use 3 F type input/output cables to your HPM55 as follows:
 - A: Connect Video from any VCR, Satellite Receiver, Demod or Character generator to the video input.
 - B: Connect Audio from any VCR, Satellite Receiver or Demod to the audio input.
 - C: Connect output to system or system combiner

OPERATION INSTRUCTIONS:

Please note: A 30-Minute warm up prior to adjustments is necessary.

1. Plug the power cord into either a 110VAC outlet, or another HPM55 via the auxiliary outlet on the rear panel. It is recommended that a SURGE PROTECTOR be used between the modulator(s) and the 110VAC outlet.
2. Connect your analyzer or field strength meter to the HPM55's test port (-20dB) or combiner.
 - A. Adjust the RF output to the desired level (See Specifications)
 - B. Adjust aural carrier @ -12dB to -16dB below the picture carrier by turning trim pot on the front panel. Connect the TV or Monitor to the test port (-20dB) or to your combiner output, using proper attenuation in order to prevent overdriving the TV or Monitor
3. Adjust the audio deviation (sound level) until the sound on the TV set is an equal level to that of an off-air channel.
4. Adjust video modulation until the proper viewing level is achieved. Overmodulation causes buzzing, overly bright scenes, and distortion. Undermodulation results in dull white levels and dark colors.