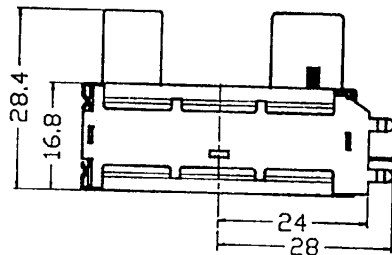
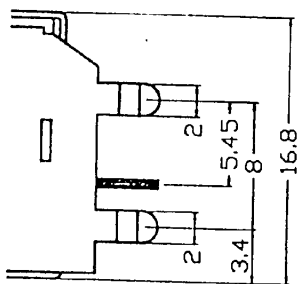



NO	FUNCTION
1	VIDEO IN
2	AUDIO IN
3	MOD +B
4	GROUND
5	BST +B



 <b>HWA LIN</b>		
TOLERANCE	UNIT	mm
DIM	ANGLE	SCALE   1 / 1
± 0.5	±	DATE   10/08/82
t=	DRAWN   <i>Andy</i>	
MODEL	RMBT-E36LS	

## RF MODULATOR WITH BOOSTER AND MIXER

## 6 . MECHANICAL CHARACTERISTICS

6.1 OUTLINE-VIEW AND DIMENSION : SEE DRAWING SHEET

6.2 INSERTION AND PULLING STRENGTH OF THE TERMINAL

	MIN.	TYP.	MAX.	UNIT
IEC-TERMINAL	0.8	-	5:0	Kg

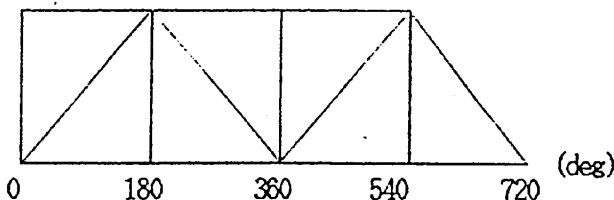
6.3 CHANNEL SELECTOR

	MIN.	TYP.	MAX.	UNIT
TORQUE	50	-	700	g-cm
ANGLE	0	-	360	deg

DIRECTION : FOLLOW

H.E.F.

L.E.F.



H.E.F. : HIGH END OF FREQUENCY

L.E.F. : LOW END OF FREQUENCY

D.

## HL-RMBT-E36LS

## RF MODULATOR WITH BOOSTER AND MIXER

## 4 . TEMPERATURE STABILITY

NO.	I T E M	SPECIFICATIONS			UNIT	TEST CONDITION
		MIN.	TYP.	MAX.		
4.1	VIDEO MODULATION	-6	-	+6	%	REF. TO 25 °C
4.2	VIDEO CARRIER FREQUENCY	-600	-	+600	KHz	REF. TO 25 °C
4.3	AUDIO MODULATION	-12	-	+12	%	REF. TO 25 °C
4.4	AUDIO SUBCARRIER FREQUENCY	-15	-	+15	KHz	REF. TO 25 °C
4.5	VIDEO CARRIER OUTPUT LEVEL	68	74	80	dBu	FROM 0 TO 60 °C
4.6	AUDIO CARRIER OUTPUT LEVEL	10	15	20	dB	FROM 0 TO 60 °C
4.7	V / S RATIO	66/34	70/30	74/26	-	FROM 0 TO 60 °C

## 5 . AMBIENT CONDITION

NO	I T E M		SPECIFICATIONS			UNIT	TEST CONDITION
			MIN.	TYP.	MAX.		
5.1	OPERATING CONDITION	TEMPERATURE	0	25	60	°C	
		HUMIDITY	-	-	85	%	
5.2	STRAGE CONDITION	TEMPERATURE	-10	-	70	°C	
		HUMIDITY			90	%	

# HL-RMBT-E36LS

## RF MODULATOR WITH BOOSTER AND MIXER

### 3.5 BOOSTER SECTION CHARACTERISTICS

NO.	ITEM	SPECIFICATIONS			UNIT	TEST CONDITION
		MIN.	TYP.	MAX.		
3.5.1	POWER GAIN (ANT. IN =>TV OUT)	0	3	7	dB	
3.5.2	NOISE FIGURE (ANT. IN => TV OUT )	-	-	11	dB	
3.5.3	V.S.W.R	ANT. IN	-	-	3.5	-
		TV OUT	-	-	3.0	-
3.5.4	ANT. IN TERMINAL VOLTAGE LEAKAGE	-	-	35	dBu	EACH TERMINAL : 75 Ω TERMINATE

3.5.5	INTER MODULATION	<table border="1" style="width: 100%; border-collapse: collapse; margin: 20px auto;"> <thead> <tr> <th style="width: 15%;">F1 (MHz)</th> <th style="width: 15%;">F2 (MHz)</th> <th style="width: 15%;">F (IM) (MHz)</th> <th style="width: 20%;">INPUT LEVEL (dBu)</th> <th style="width: 15%;">IM. (dB)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">175</td> <td style="text-align: center;">230</td> <td style="text-align: center;">55</td> <td style="text-align: center;">80</td> <td style="text-align: center;">50 MIN.</td> </tr> <tr> <td style="text-align: center;">500</td> <td style="text-align: center;">700</td> <td style="text-align: center;">200</td> <td style="text-align: center;">80</td> <td style="text-align: center;">50 MIN.</td> </tr> <tr> <td style="text-align: center;">200</td> <td style="text-align: center;">210</td> <td style="text-align: center;">220</td> <td style="text-align: center;">80</td> <td style="text-align: center;">50 MIN.</td> </tr> <tr> <td style="text-align: center;">600</td> <td style="text-align: center;">650</td> <td style="text-align: center;">700</td> <td style="text-align: center;">85</td> <td style="text-align: center;">50 MIN.</td> </tr> </tbody> </table>					F1 (MHz)	F2 (MHz)	F (IM) (MHz)	INPUT LEVEL (dBu)	IM. (dB)	175	230	55	80	50 MIN.	500	700	200	80	50 MIN.	200	210	220	80	50 MIN.	600	650	700	85	50 MIN.
F1 (MHz)	F2 (MHz)	F (IM) (MHz)	INPUT LEVEL (dBu)	IM. (dB)																											
175	230	55	80	50 MIN.																											
500	700	200	80	50 MIN.																											
200	210	220	80	50 MIN.																											
600	650	700	85	50 MIN.																											
ANT. IN => TV OUT MODULATOR : POWER OFF																															

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HL-RMBT-E36LS

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3.3 AUDIO CHARACTERISTICS

NO.	ITEM	SPECIFICATIONS			UNIT	TEST CONDITION
		MIN.	TYP.	MAX.		
3.3.1	INPUT IMPEDANCE	10	-	-	KΩ	0.1 - 10 KHz
3.3.2	AMPLITUDE FREQUENCY CHARACTERISTICS	-3	-	+3	dB	0.1 -10 KHz 0 dB REF. 1KHz
3.3.3	MODULATION	38	50	62	%	100% =±50KHz
3.3.4	S / N	45	-	-		15KHz L.P.F USED
3.3.5	DISTORTION	-	-	3.0	%	

3.4 OUTPUT CHARACTERISTICS

NO.	ITEM		SPECIFICATIONS			UNIT	TEST CONDITION
			MIN.	TYP.	MAX.		
3.4.1	VIDEO CARRIER OUTPUT LEVEL		70	74	78	dBu	75 Ω TERMINATE PEAK VALUE LEVEL AT STANDARD MODULATION
3.4.2	AUDIO CARRIER OUTPUT LEVEL		11	15	19	dB	REF. VIDEO O/P LEVEL
3.4.3	VIDEO CARRIER FREQUENCY		590.75	591.25	591.75	MHz	PRESET 38 CH.
3.4.4	AUDIO SUBCARRIER FREQUENCY	PAL G	5490	5500	5510	KHz	
3.4.5	OUTPUT IMPEDANCE		-	75	-	Ω	UNBALANCE
3.4.6	OUT-BAND SPURIOUS		-	-	-42	dB	REF. VIDEO O/P LEVEL
3.4.7	IN-BAND SPURIOUS		-	-	-60	dB	REF. VIDEO O/P LEVEL
3.4.8	CHROMA-BEAT		-	-	-56	dB	REF. VIDEO O/P LEVEL VIDEO IN : 4.43MHz 0.4V <sub>p-p</sub>
3.4.9	NORMAL T.S.G. SW. POSITION		-	OFF	-		

'D.

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RF MODULATOR WITH BOOSTER AND MIXER

3. ELECTRICAL CHARACTERISTICS

3.1 POWER SUPPLY

NO.	ITEM		SPECIFICATIONS			UNIT	TEST CONDITION
			MIN.	TYP.	MAX.		
3.1.1	SUPPLY VOLTAGE		4.8	5.0	5.2	Vdc	ALLOWABLE RIPPLE VOLTAGE: 10mV <sub>p-p</sub> MAX.
3.1.2	CURRENT	MODULATOR		35	45	mA	
	CONSUMPTION	BOOSTER		80	95		

3.2 VIDEO CHARACTERISTICS

NO.	ITEM		MIN.	TYP.	MAX.	UNIT	TEST CONDITION
3.2.1	INPUT IMPEDANCE		0.4	1.0	1.3	KΩ	0 - 4.0 MHz
3.2.2	MODULATION	VIDEO	67	75	83	%	38 ± 1 CH. BST B+:ON
		T.S.G	60	75	90		
3.2.3	V/S		67/33	70/30	73/27	-	VIDEO IN : 1 V <sub>p-p</sub> STAIR STEP SIGNAL V/S = 7/3
3.2.4	AMPLITUDE FREQUENCY RESPONSE		-3		+3	dB	0.5 - 5MHz 0 dB REF. 1MHz
3.2.5	SYNC. LEVEL SHIFT		-	-	5	%	VIDEO CHANGE FROM BLACK TO WHITE
3.2.6	DIFFERENTIAL GAIN		-10	-	+10	%	
3.2.7	VIDEO S/N		45	-	-	dB	VIDEO IN: WHITE 50 %
3.2.8	T.S.G. H. SYNC. CYCLE		63	64	65	μSEC	

I.D.

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1. APPLICATION

1.1 THIS SPECIFICATION APPLIES TO VIDEO - RF (UHF) MODULATOR  
WITH MIX BOOSTER PROCESSING PAL G COLOR SIGNALS.

1.2 RF TRANSMISSION BAND : 47 - 854 MHz

1.3 OUTPUT CHANNEL : CCIR 30 -40 CH. (ADJUSTABLE)

2. TEST CONDITION

2.1.1 AMBIENT TEMPERATURE :  $25 \pm 3^{\circ}\text{C}$

2.1.2 RELATIVE HUMIDITY :  $65 \pm 5\%$

2.1.3 VIDEO INPUT VOLATAGE : 1.0  $V_{p-p}$  STAIR STEP SIGNAL , V/S =7/3 ,  
APL=50%

2.1.4 AUDIO INPUT VOLATAGE : 1.23  $V_{p-p}$  SINE WAVE SIGNAL 1 KHz

2.2 TEMPERATURE STABILITY TEST CONDITION

TEMPERATURE : 0 - 60°C (25 °C =>60°C =>25°C => 0°C)  
(1H) (1H) (1H) (1H)

T.D.