



1. SCOPE

This specification outlines the pertinent electrical requirements of the RF output modulator which converts the FM video and FM audio signal into the RF signal for television standard transmission system.

2. GENERAL SPECIFICATIONS

- 2-1. Output frequency 2400~2483MHz
- 2-2. Supply voltage 12v $\pm$ 0.2V
- 2-3. Consumption current 110 $\pm$ 20mA
- 2-4. Operation and storage temperature 0-50°C
Conditions for guarantee humidity 85% or less

3. Test Conditions

- 3-1. Testing ambient conditions
defined as temperature of 25 $\pm$ 2°C and humidity of 65 $\pm$ 5% RH.
Note: That temperatures of 5~30°C and humidity of 45-85%RH may be regarded as standard.
- 3-2. Unit setting conditions
 - (1). Picture --10 step wave signal 1.0Vp-p(82OHm load)
 - (2). Audio -- 1.0Vp-p of sine wave 1KHz

4. Electrical Performance

4-1. Video system characteristics

	Parameter	Specification				Remark
		min	typ	max	unit	
4-1-1	Input impedance		1.3		K	Measure at 0.5-5MHz
4-1-2	Input signal level		1.0		Vp-p	Load of 82ohm connected negative synchronous
4-1-3	Modulation FP2480MHz sine wave 300KHz 1Vp-p	2	3	4	MHz	Superimposed sinuous wave. (3.58MHz)is 20% of the step input
4-1-4	Differential gain	-8		8	%	level measure under the APL of 10-90% differential gain of demodulator unit is to be compensated
4-1-5	Differential phase	-8		8	deg	-ditto-
4-1-6	S/N	45			dB	Measure with respect to standard demodulator output.
4-1-7	Out level taper		4	6	dB	Fp 2400~2483MHz

4-2. Audio system characteristics

4-2-1	Input impedance		1.4		Kohm	Measure at 0.1-10KHz
4-2-2	Modulation	35	40	45	KHz	
4-2-3	Distortion factor			3	%	Audio input signal 1.0Vp-p 1KHz modulation 50% (sine wave) video input signal all black (sync.only) use standard demodulator of inter -carrier system. De-emphasis(50 usec) is on.
4-2-4	S/N	40			dB	The same as 4-2-3

4-3. Output system characteristics

	Parameter	Specification.				Remark
		min	typ	max	unit	
4-3-1	Video carrier frequency	-50	fp	+50	KHz	test at 25°C temperature and 65%RH of humidity Fp 2400~2483MHz Fs1 5.5 MHz *output channel
4-3-2	Video output level	8	10	13	dBm	
4-3-3	Audio output level difference(P/S ratio)	22	27	32	dB	
4-3-4	Audio carrier frequency	-8	fs	+8	KHz	Input signal none the measurement is taken after 30 sec. from the power-on.
4-3-5	Audio modulator fs1	35	50	65	KHz	measurement difference video of carrier frequency output level for 2400~2483MHz except to fp. fp+/-fs against video carrier output level.
4-3-6	Out-band spurious	50			dB	
4-3-7	In-band spurious within bandwidth	60			dB	
4-3-8	Output impedance		75		OHm	Unbalanced.

