



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 1080~1220 MHz
- 2-2. Supply voltage 12V+/-0.2V
- 2-4. Consumption current 480+/-30 mA
- 2-5. 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+/-2°C and humidity of 65+/-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 1.0 Vp-p(82 ohm load)
- (2) Audio -- 1.0Vp-p of sine wave 1KHz

4. ELECTRICAL PERFORMANCE						
4-1. Video system characteristics						
		Specification				
	Parameter	min	typ	max	unit	Remark
4-1-1	Input impedance		1.3		K	measure at 0.5 ~ 5 MHz
4-1-2	Input signal level		1		Vp-p	load of 82 ohm connected negative synchronous
4-1-3	Modulation fp 1200 MHz (sine wave 1KHz 1Vp-p)	5	6	7	MHz	Superimposed sinuous wave (2.58 MHz) is 20% of the step input level. Measure with under the APL
4-1-4	Differential gain	-8		8	%	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 1080~1220MHz.
4-2. Audio system characteristics						
4-2-1	Input impedance		1.4		Kohm	Measure at 0.1-10khz
4-2-2	Modulation	35	50	65	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	-100	fp	+100	KHz	Test at 25°C temperature and 65% RH of humidity
4-3-2	Video output level	28	30	31	dBm	
4-3-3	Audio output level difference(P/S ratio)	22	27	32	dB	Fp 1080~1220 Mhz Fs1 6.5 mhZ *output channel
4-3-4	Audio carrier frequency	-10	fs	+10	KHz	Input signal:none the measurement is taken after 30 sec. from the power-on.
4-3-5	Audio modulator fs1 fs2	35	50	65	KHz	Measurement difference video of carrier frequency output level for 1080~1220 MHz except to fp. fp+/-fs against video carrier output level.
4-3-6	Out-band spurious	45			dB	
4-3-7	In-band spurious within bandwidth	60			dB	
4-3-8	Output impedance		75		ohm	Unbalanced.

