

SANYO	No.1840A	LA1186N
		FM FRONT END FOR RADIO-CASSETTE RECORDERS, MUSIC CENTERS

Features and Functions

- . Contains RF amp, MIX, OSC, AFC diode.
- . Operating voltage: 1.8 to 8.0V.
- . Improvement in cross modulation characteristic due to the use of double-balanced MIX.
- . Improvement in strong input characteristic.
- . Minimum number of external parts required.
- . Less spurious radiation from local OSC.
- . TV (CH1 to CH12) receive capability.

Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V_{CCmax}	8.0	V
Maximum Pin Voltage	V_{3-5}	12	V
	V_{6-5}	$V_{CC}+0.8$	V
Allowable Power Dissipation	P_{dmax}	$T_a \leq 80^\circ C$	150 mW
Operating Temperature	T_{opr}	-20 to +80	°C
Storage Temperature	T_{stg}	-40 to +125	°C

Operating Conditions at Ta=25°C

			unit
Recommended Supply Voltage	V_{CC}	4.5	V
Operating Voltage Range	V_{CCOP}	1.8 to 7.5	V

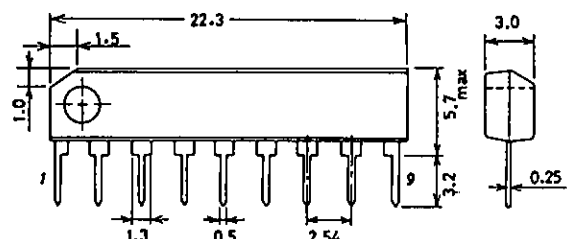
Operating Characteristics at Ta=25°C, $V_{CC}=4.5V$, $f_r=108MHz$, $f_{osc}=118.7MHz$,

			min	typ	max	unit
Current Dissipation	I_{CC}	Quiescent		7.0	9.5	mA
Output Saturation Voltage	V_o	$V_i=100dBu$	95	115	135	mVrms
Local OSC Voltage	V_{OSC}	$V_{cc}=2V$	200	315		mVrms
Oscillation Stop Voltage			1.4	1.8		V

Package Dimensions

(unit: mm)

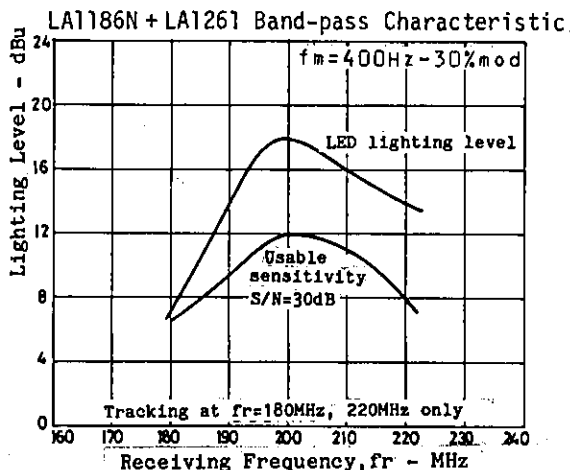
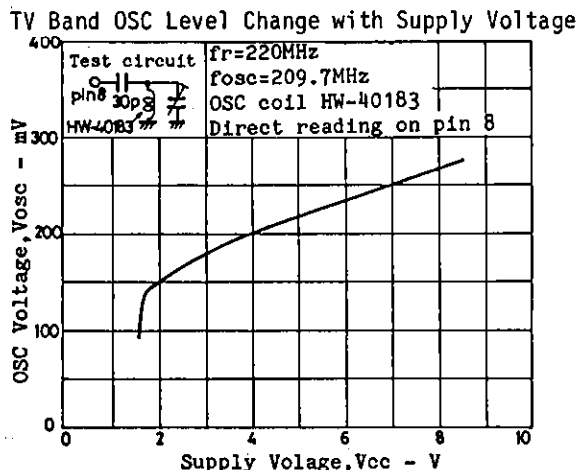
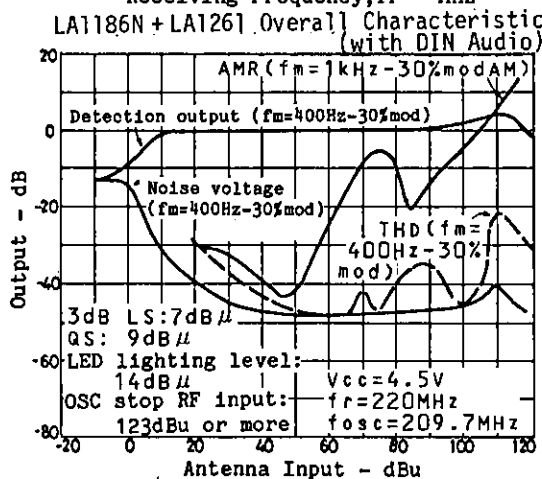
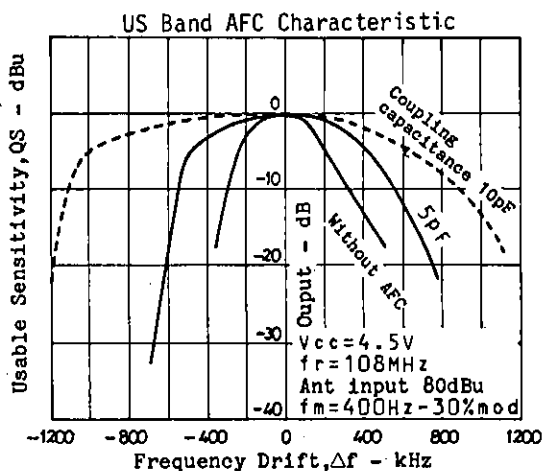
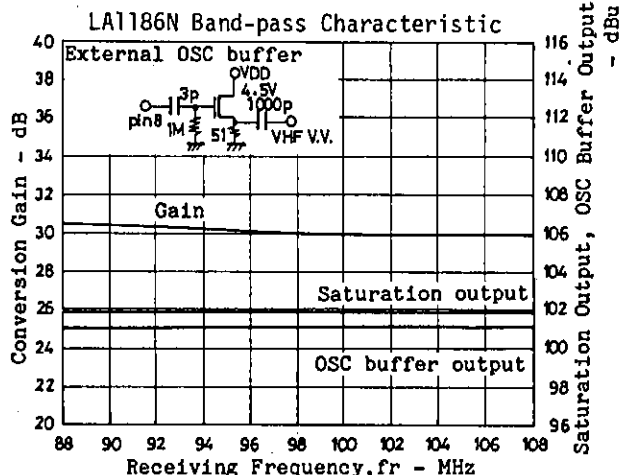
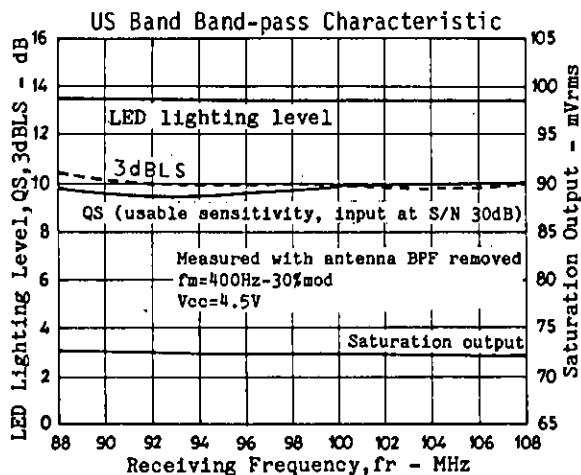
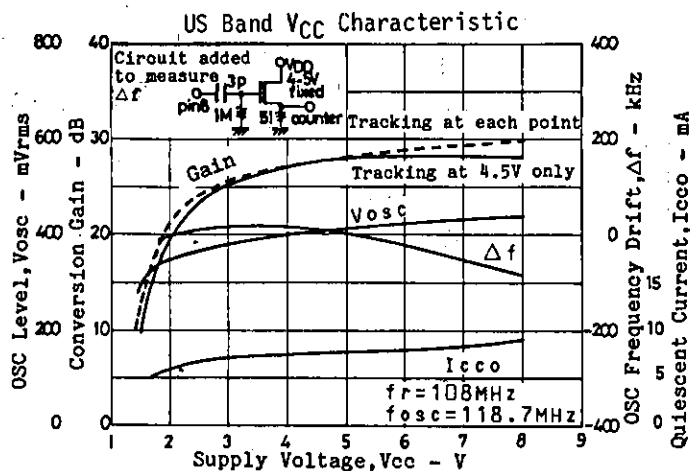
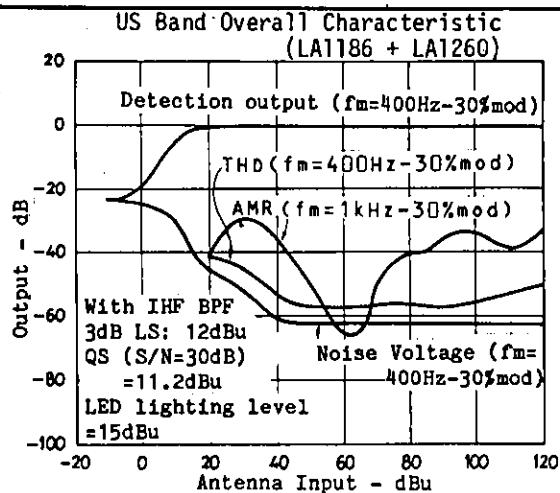
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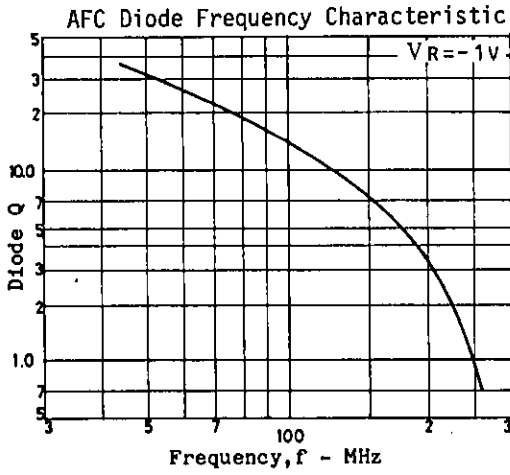
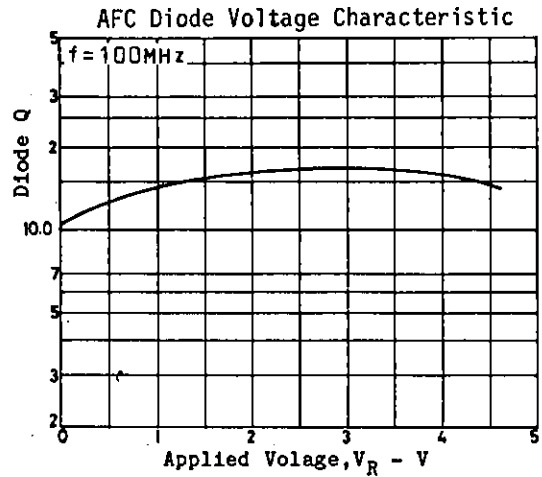
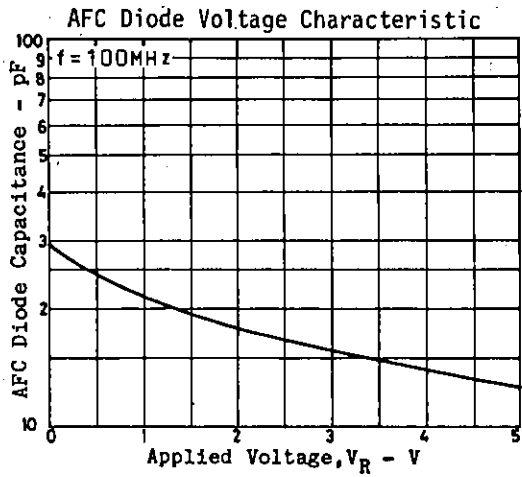


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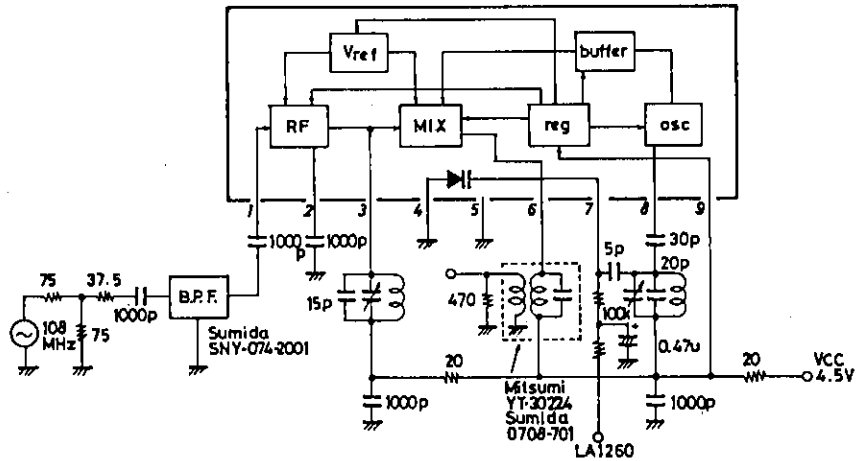
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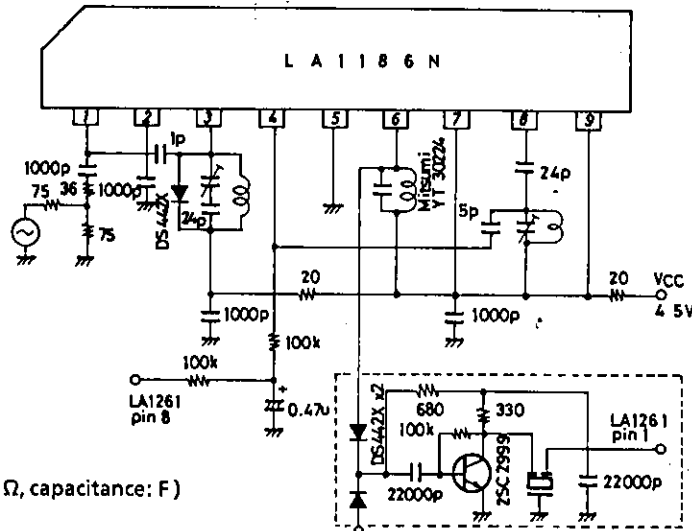
US Band Test Circuit



Unit (resistance: Ω , capacitance: F)

LA1186N

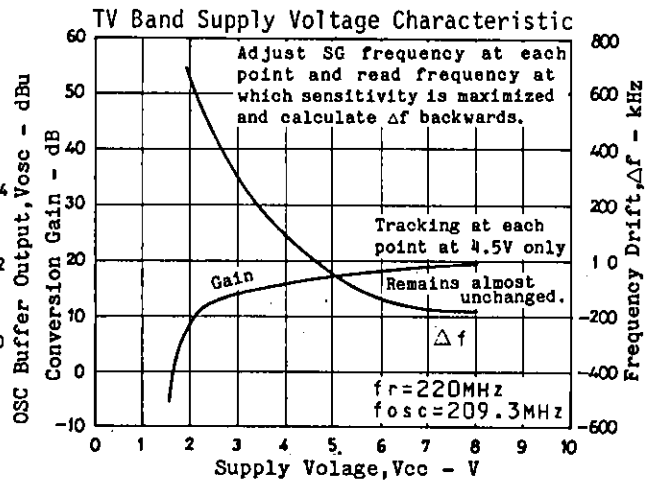
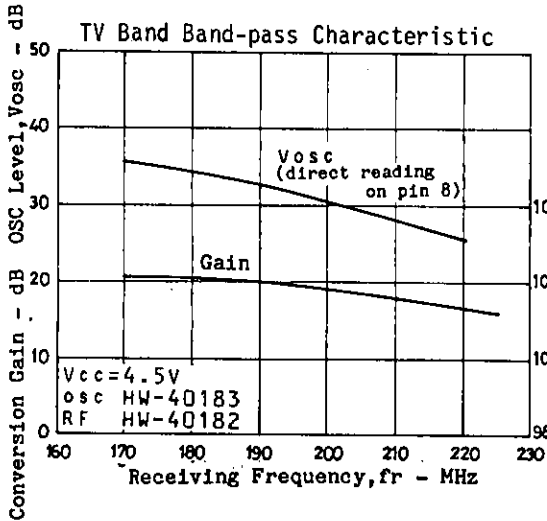
Sample Application Circuit for TV Band



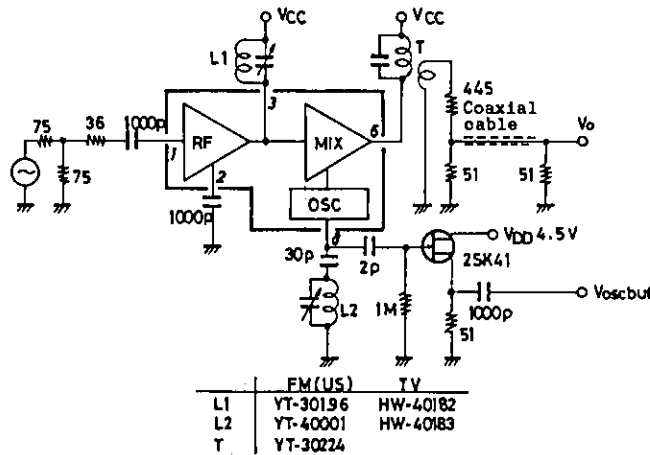
Unit (resistance: Ω, capacitance: F)

FM band LA1186 MIX output

TV band (4 to 12ch),
FM band (FM + TV1 to 3ch)
Select circuit

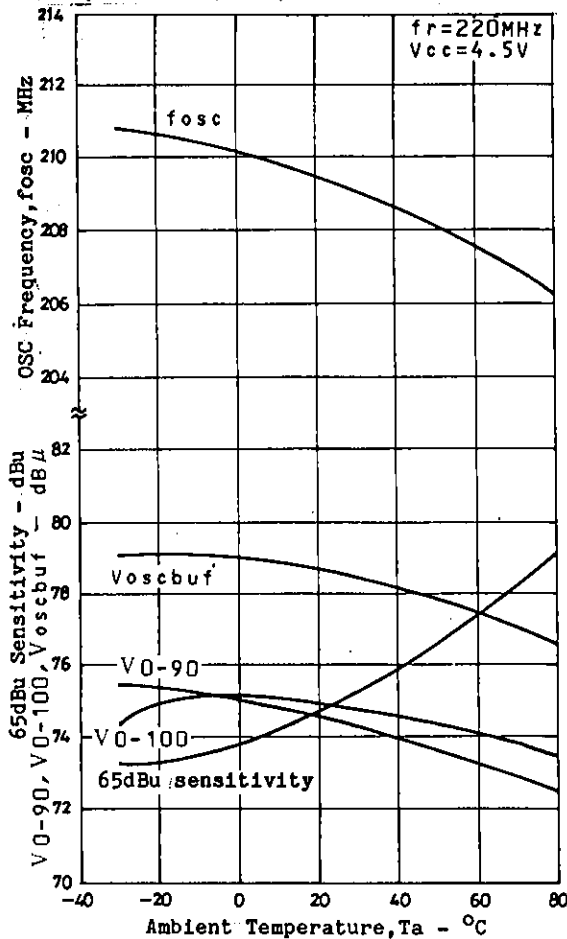


LA1186N Temperature Characteristic Test Circuit

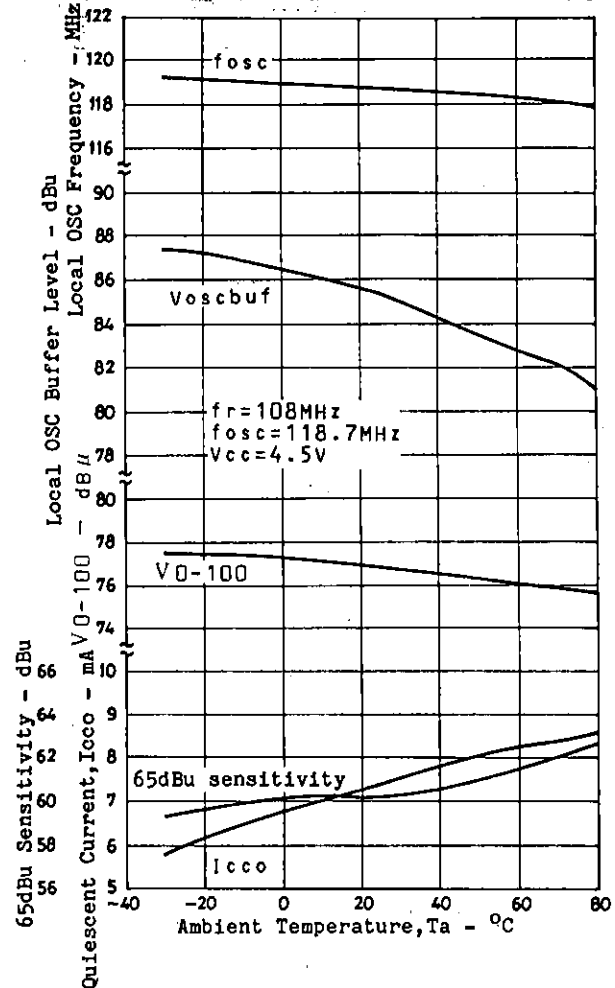


Unit (resistance: Ω, capacitance: F)

TV (H Channel) Temperature Characteristic



LA1186N Temperature Characteristic (US Band)



(Note) 65dBu sensitivity: Input at 65dBu in Temperature Characteristic Test Circuit

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