



LA1185

FM Front-end for Radio-cassette Recorder, Home Stereo Applications

Overview

The LA1185 is an FM receiver front-end IC for radio-cassette recorder, music center applications. Its mixer is of double-balanced type. The built-in oscillator and buffer amplifier improves the strong input characteristic.

Use

- FM front-end IC for radio-cassette recorders and music centers

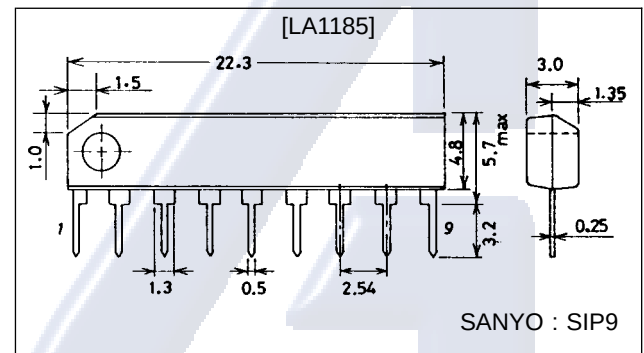
Functions and Features

- RF amplifier, mixer, local oscillator
- Improvement in cross modulation characteristics due to the use of double-balanced mixer.
- Improvement in strong input characteristic.
- Minimum number of external parts required.
- Less spurious radiation from local oscillator.
- Operating voltage range : 1.5 to 8.0 V

Package Dimensions

unit : mm

3017C-SIP9



Specifications

Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		8	V
Maximum pin voltage	V_{3-5}		12	V
	V_{6-5}		$V_{CC} + 0.8$	V
Allowable power dissipation	P_d max	$T_a \leq 80^\circ\text{C}$	150	mW
Operating temperature	T_{opr}		-20 to +80	°C
Storage temperature	T_{stg}		-40 to +125	°C

Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		4.5	V
Operating voltage range	V_{CCop}		1.5 to 8.0	V

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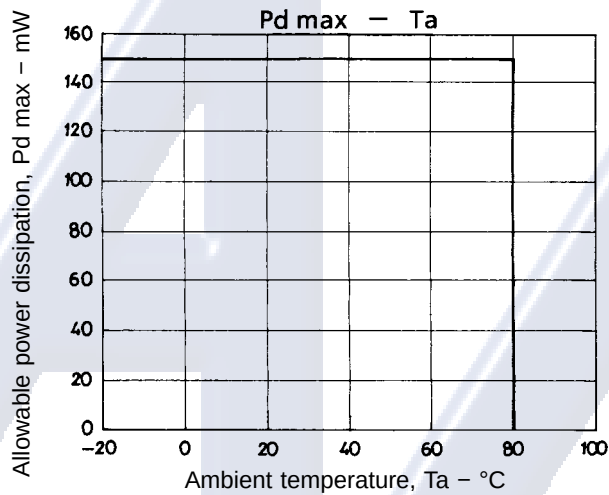
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

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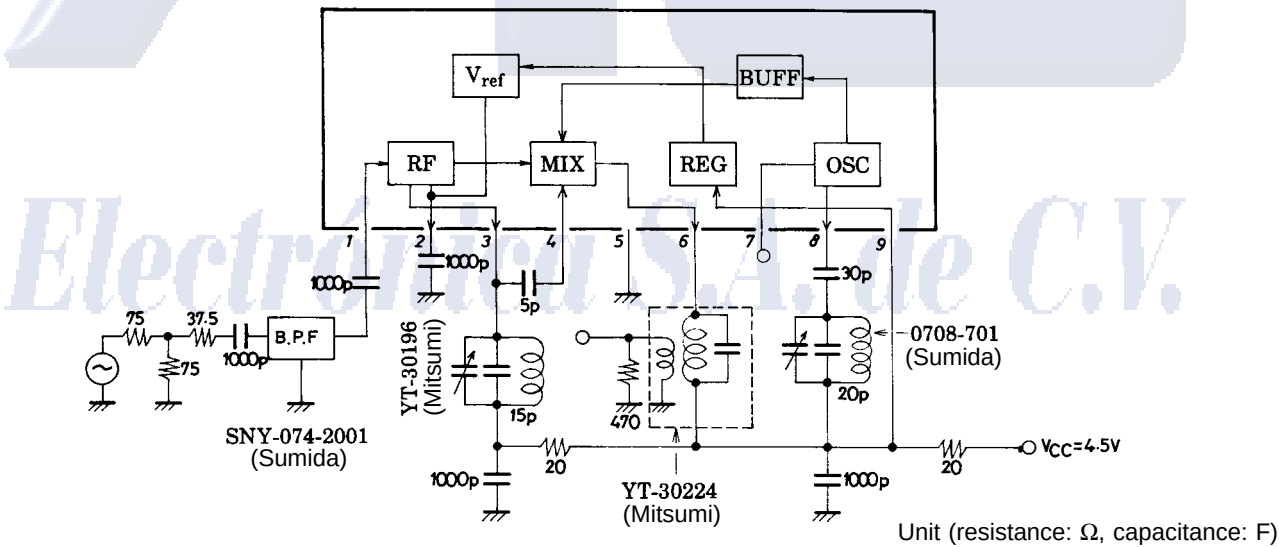
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Operating Characteristics at Ta = 25°C, VCC = 4.5 V, fr = 108 MHz, fOSC = 118.7 MHz,
See specified Test Circuit

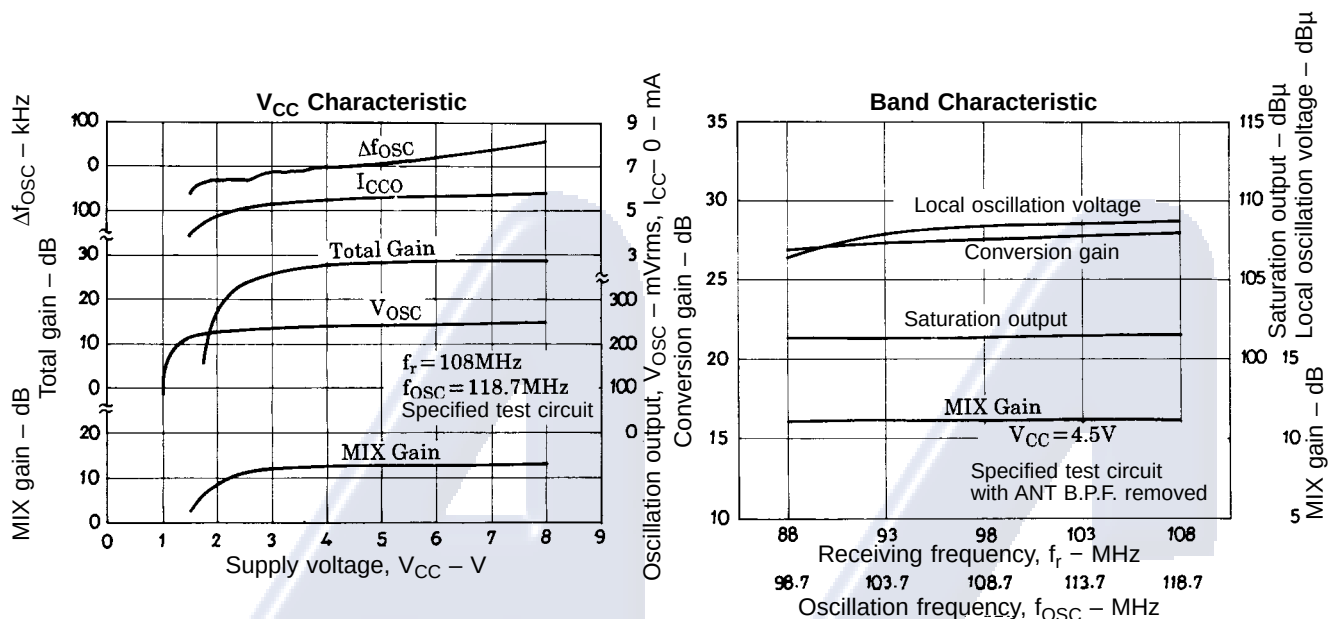
Parameter	Symbol	Conditions	min	typ	max	Unit
Current dissipation	ICC	Quiescent		5.5	8.0	mA
Output saturation voltage	Vo	100 dBμ	95	115	135	mVrms
Local oscillation voltage	VOSC	VCC = 2 V	190	235		mVrms
Oscillation stop voltage	Vstop			1.4	1.6	V



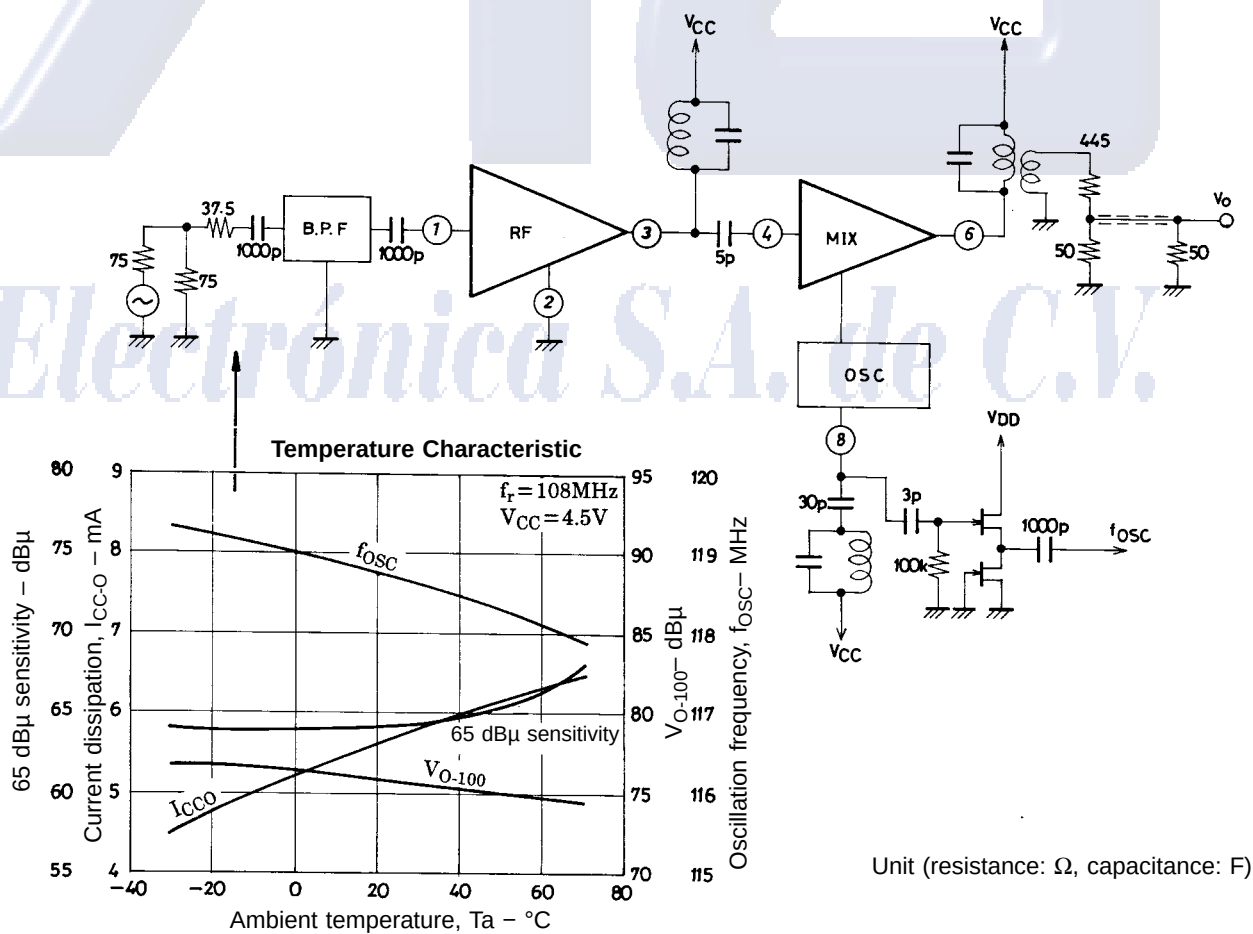
Test Circuit and Equivalent Circuit Block Diagram



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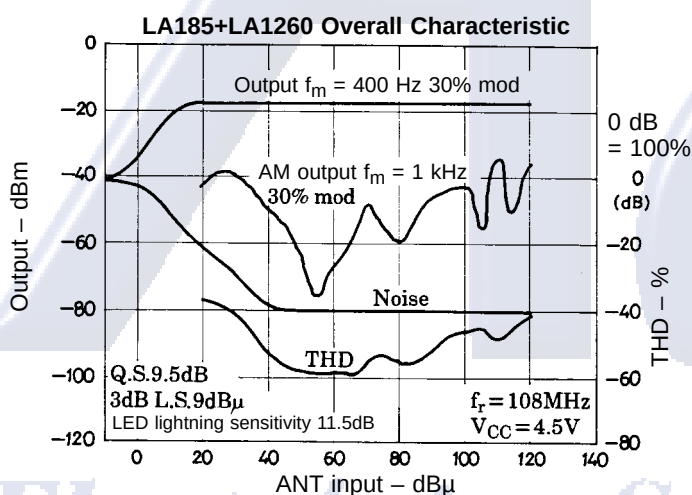
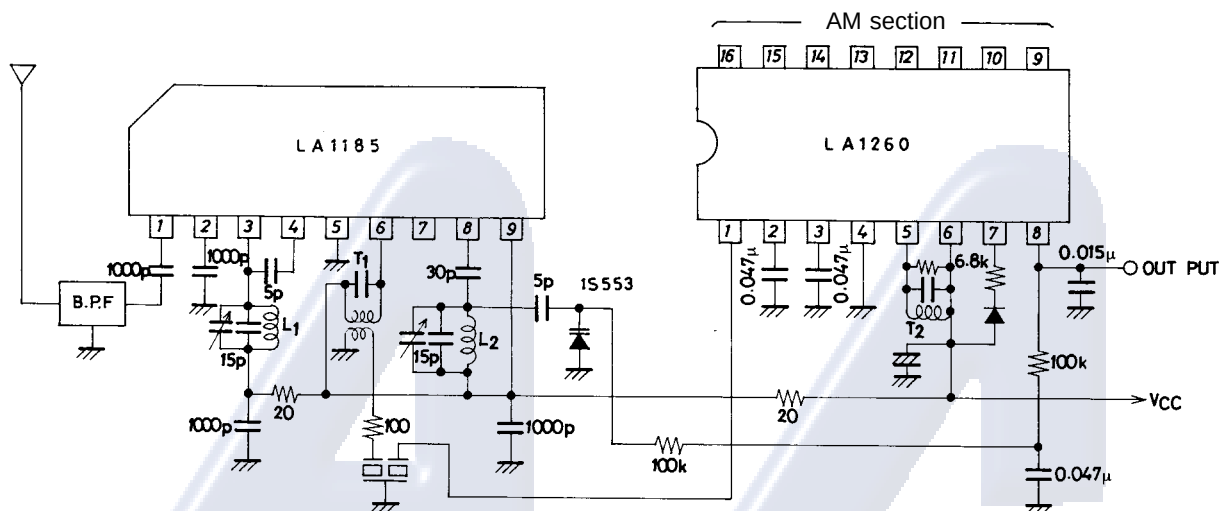


Temperature Characteristic Test Circuit

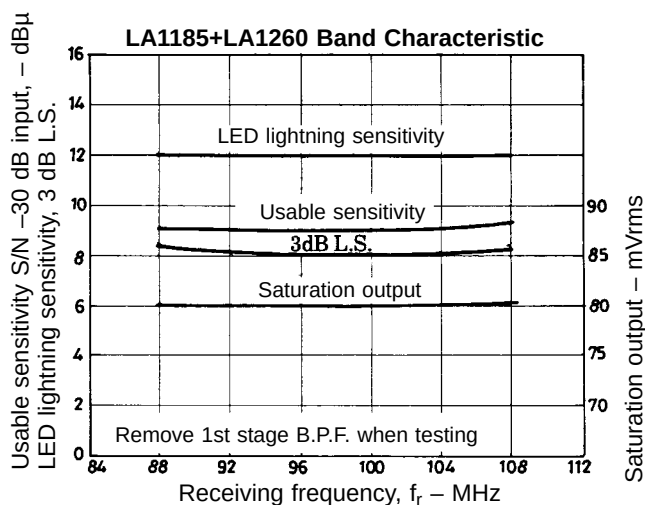


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Sample Application Circuit: LA1185 + LA1260 US band



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