

AN6480

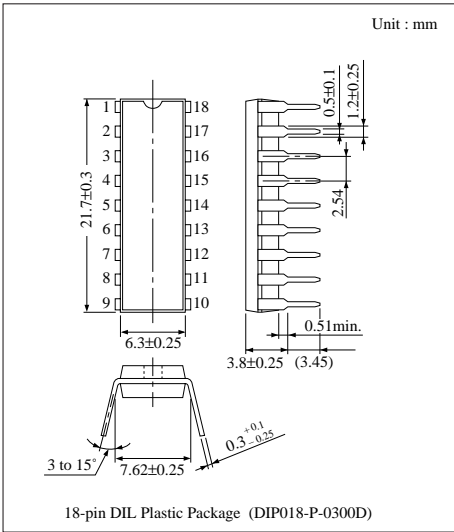
IF Amplifier for Car Telephone

Overview

The AN6480 is an integrated circuit designed for IF amplifier for car telephone and wireless installation.

Features

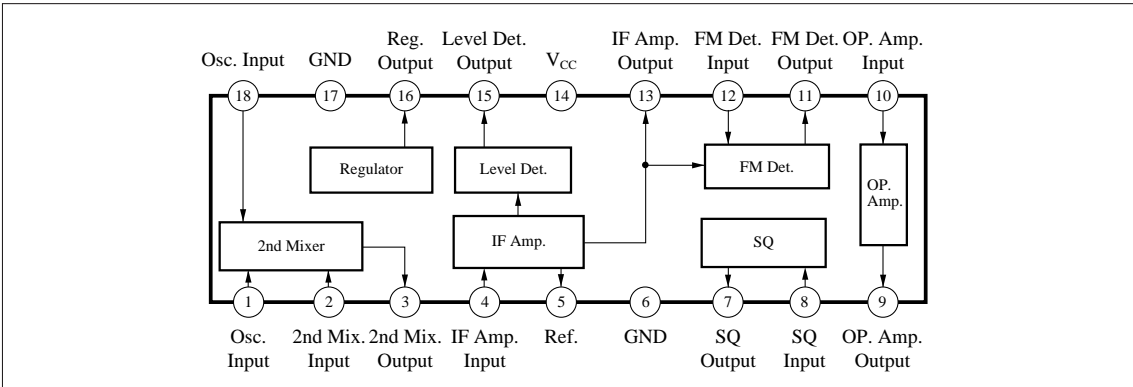
- Excellent output voltage linearity for level detector
- Low temperature coefficient of output voltage for level detector
- Voltage stabilizer built-in



Pin Descriptions

Pin No.	Pin name	Pin No.	Pin name
1	Oscillator input	10	OP. amp. input
2	Second mixer input	11	FM detector output
3	Second mixer output	12	FM detector input
4	IF amp. input	13	IF amp. output
5	Reference input	14	V _{CC}
6	GND	15	Level detector output
7	Squelch output	16	Voltage regulator output
8	Squelch input	17	GND
9	O.P amp. output	18	Oscillator input

Block Diagram



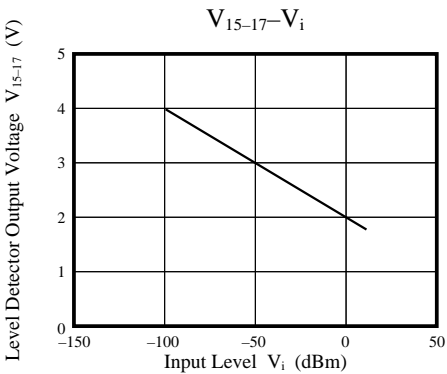
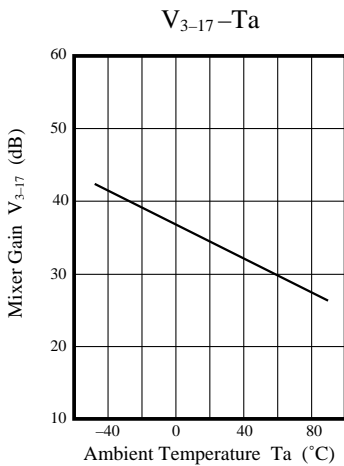
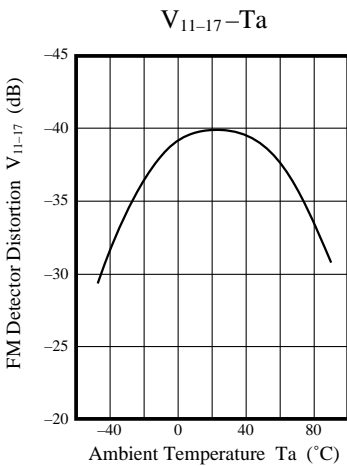
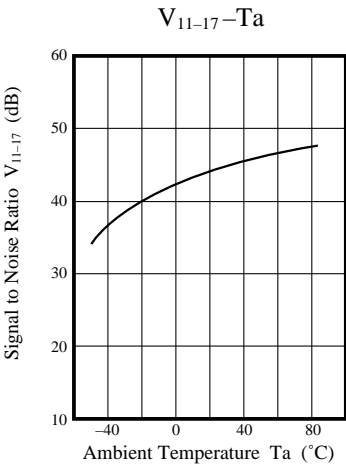
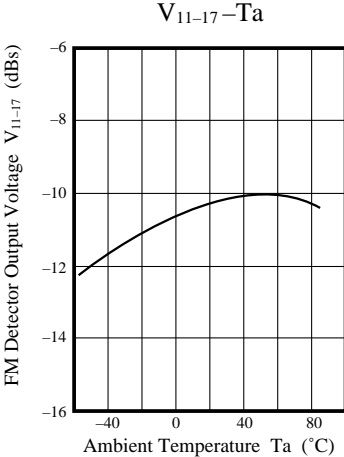
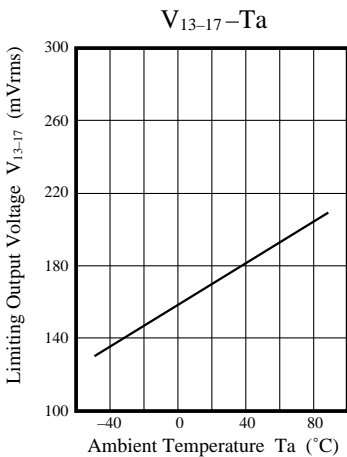
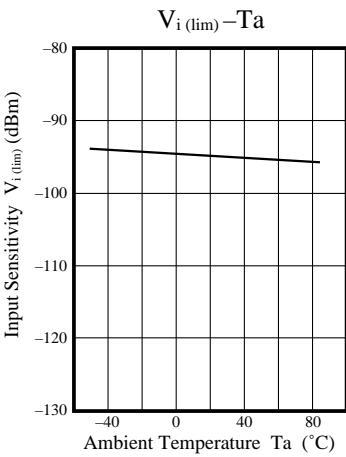
■ Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Supply voltage		V _{CC}	8.5	V
Supply current		I _{CC}	15	mA
Power dissipation (Ta=75°C)		P _D	130	mW
Temperature	Operating ambient temperature	T _{opr}	−30 to + 85	°C
	Storage temperature	T _{stg}	−55 to +125	°C

■ Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Current consumption (no-signal)	I _{CC}		5	9	12.5	mA
IF amp. bias	V ₄₋₁₇		5.8	6.1	6.4	V
IF amp. bias	V ₅₋₁₇		5.8	6.1	6.4	V
Regulator output voltage	V ₁₆₋₁₇		3.8	4.1	4.4	V
OP. amp. input voltage	V ₁₀₋₁₇		1.7	2.0	2.3	V
OP. amp. output voltage	V ₉₋₁₇		1.7	2.0	2.3	V
Level detector balance	I _{I5}		−20	—	25	μA
SQ output “L” voltage	V ₇₋₁₇		− 0.05	—	0.2	V
SQ output “H” voltage	V ₇₋₁₇		4.7	—	5.1	V
Level detector voltage (no-signal)	V ₁₅₋₁₇	SW ₁ ⋯OFF, SW ₂ ⋯OFF	2.9	—	4.3	V
Level detector min. output voltage	V ₁₅₋₁₇	SW ₁ ⋯OFF, SW ₂ ⋯ON	1.3	—	2.25	V
FM detector output voltage	V _{no (FM Det.)}	SW ₁ ⋯ON, SW ₂ ⋯ON ±3kHz modulation	−8.5	—	—	dBs
FM detector residual noise	V _{0 (FM Det.)}	SW ₁ ⋯ON, SW ₂ ⋯ON Non-modulation	—	—	−58	dBs

■ Characteristics Curve



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