

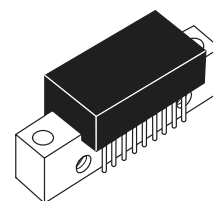
The RF Line VHF/UHF CATV Amplifiers

Designed for broadband applications requiring low-distortion and high output capability. Specifically intended for CATV/MATV market requirements. These amplifiers feature ion-implanted arsenic emitter transistors and an all gold metal system.

- Specified Characteristics at $V_{CC} = 24\text{ V}$, $T_C = 25^\circ\text{C}$
 - Frequency Range — 40 to 860 MHz
 - Power Gain — 17 dB Typ @ $f = 40\text{ MHz}$
 - Noise Figure — 7.0 dB Typ @ $f = 500\text{ MHz}$
 - 123 dB μV DIN45004B @ 860 MHz
- All Gold Metalization for Improved Reliability
- Superior Gain, Return Loss and DC Current Stability with Temperature
- Improved 2nd Order IMD Available (CA922A)

CA922
CA922A

17 dB
40–860 MHz
VHF/UHF
CATV/MATV
AMPLIFIERS



CASE 714P-03, STYLE 2

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V_{CC}	26	V
RF Input Power Per Tone	P_{in}	+16	dBm
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$
Operating Case Temperature Range	T_C	-20 to +100	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$, $V_{CC} = 24\text{ V}$, 75 Ohm System)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	I_{dc}	—	400	440	mA
Power Gain ($f = 40\text{ MHz}$)	PG	16.5	17	17.5	dB
Bandwidth	BW	40	—	860	MHz
Slope (40 – 860 MHz)	S	0.2	0.8	1.5	dB
Gain Flatness	FL	—	—	1.0	dB
Input/Output Return Loss $f = 40\text{--}100\text{ MHz}$ $f = 100\text{--}800\text{ MHz}$ $f = 800\text{--}860\text{ MHz}$	IRL/ORL	20 15 10/13	— 17 12/15	— — —	dB
Second Order Intermodulation Distortion ($V_o = +50\text{ dBmV/ch.}$)	IMD ₂	— —	— —	-63 -67	dB dB
DIN45004B (See Figure 1) $f = 400\text{--}860\text{ MHz}$	DIN	124 123	— —	— —	dB μV
Noise Figure $f = 860\text{ MHz}$	NF	— —	7.0 8.0	8.5 9.5	dB



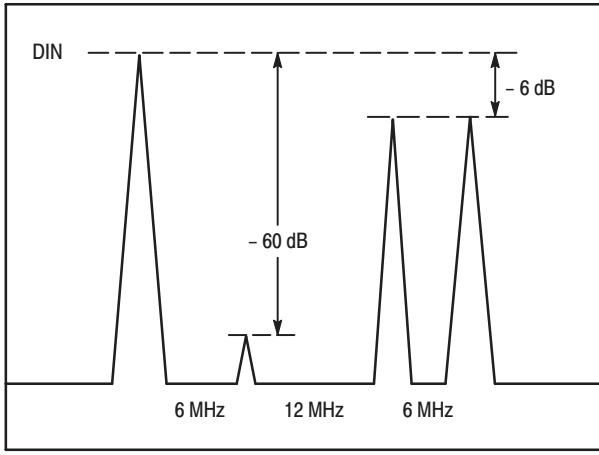


Figure 1. DIN45004B Test

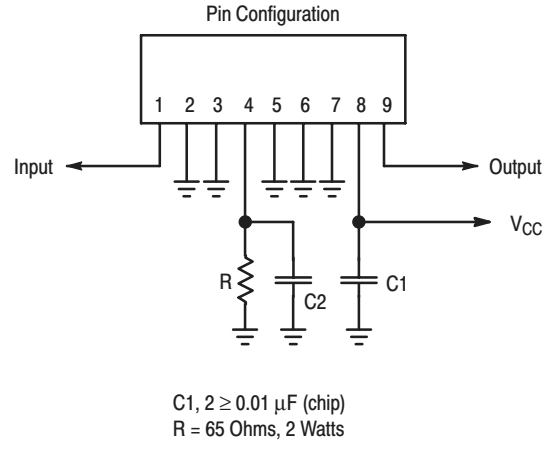



Figure 2. External Connections

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