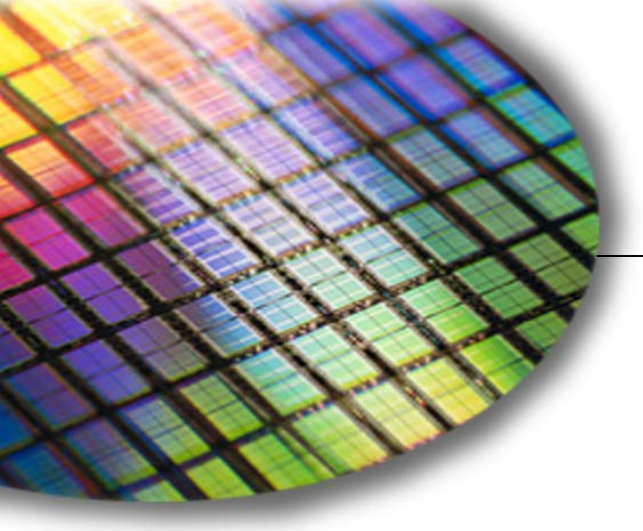


The World Leader in High-Performance Signal Processing Solutions

The AD8221
Setting a New Industry Standard for Instrumentation Amplifiers

ANALOG DEVICES

What is Your Main Design Consideration?

Price and Package Size

- AD8221ARM (MSOP)
  - Half the size of SOIC
  - Only $1.99 at 1k pcs
  - Matches LT1167I (SOIC) performance and is $2 cheaper
  - Beats INA129UA (SOIC) performance and is $1 cheaper

AD8221ARM
Cheap!
Small!
Great Performance!

Pure Performance

- AD8221BR (SOIC)
  - Best Performance Available
  - Beats LT1167AI performance and is cheaper
  - Beats INA129U performance and is cheaper
- AD8221AR (SOIC)
  - Better Performance than the AD8221ARM but higher price and larger package
  - Beats both LT1167I and INA129UA performance and is cheaper too

ANALOG DEVICES

The AD8221 vs. the LT1167

High Grade

High Grade			8221BR	LT1167AI
Package			SOIC	SOIC
CMRR DC (G=1)	Min	dB	90	86
CMRR 10KHz (G=1)	Typ	dB	80	62
Vosi	Max	uV	25	40
Vosi Drift	Max	uV/C	0.3	0.3
Voso	Max	uV	200	200
Voso Drift	Max	uV/C	5	5
$ 1k			$4.06	$5.40

Pure Performance

- Look at the Numbers
  - AD8221BR Meets or Beats Every Parameter of the LT1167AI
  - It's Cheaper Too!

Beats LT1920 Too!

Low Grade

Low Grade			8221AR	LT1167I	8221ARM
Package			SOIC	SOIC	MSOP
CMRR DC (G=1)	Min	dB	80	81	80
CMRR 10KHz (G=1)	Typ	dB	80	62	80
Vosi	Max	uV	60	60	70
Vosi Drift	Max	uV/C	0.4	0.4	0.9
Voso	Max	uV	300	300	600
Voso Drift	Max	uV/C	6	6	9
$ 1k			$2.32	$3.80	$1.99

Best Value

- Look at the Numbers
  - AD8221AR Meets or Beats Every Parameter of the LT1167I
  - It's Cheaper Too!
- The AD8221ARM Matches the Performance but is $2.00 LESS and half the size!

ANALOG DEVICES

The AD8221 vs. the LT1167 over Frequency

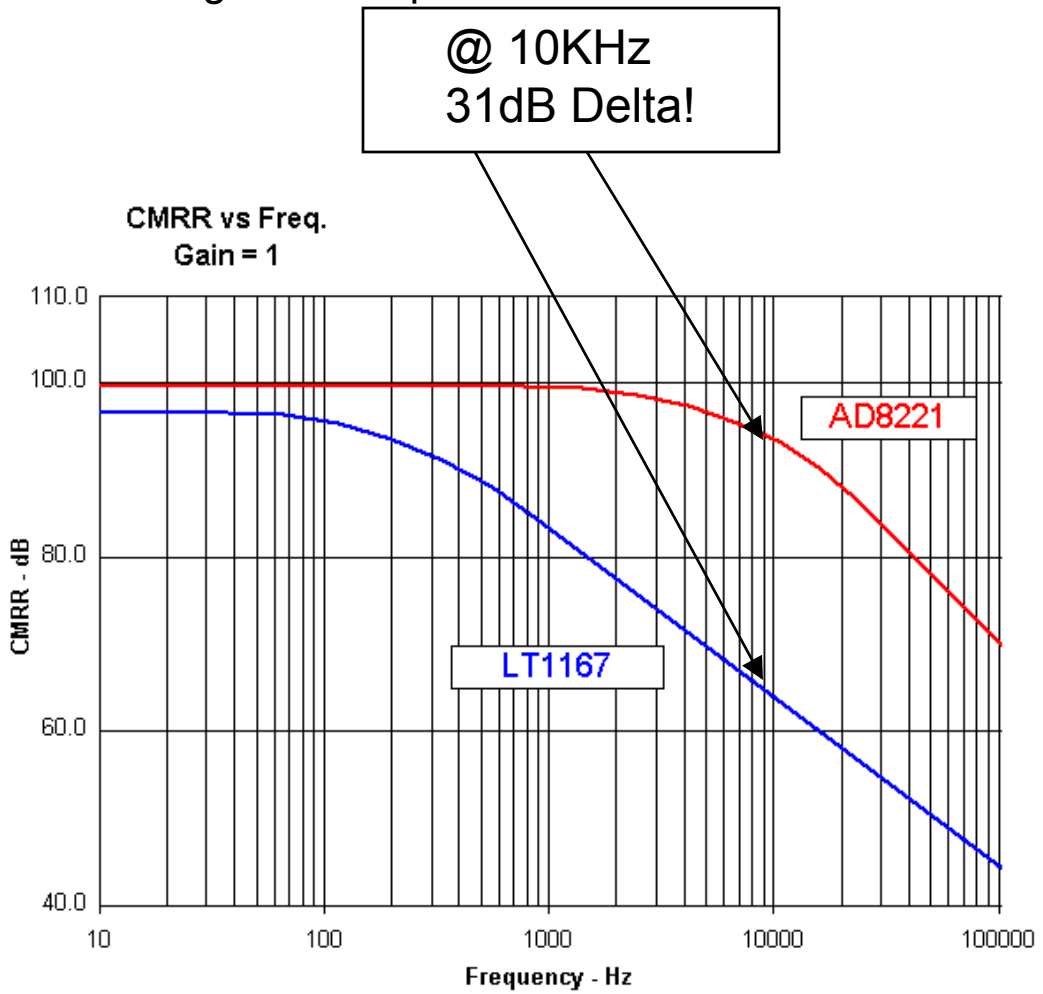
The AD8221 rejects common mode voltage on its inputs better than the LT1167.

At 10Khz:

AD8221 CMR is 95dB.
LT1167 CMR is 64dB.

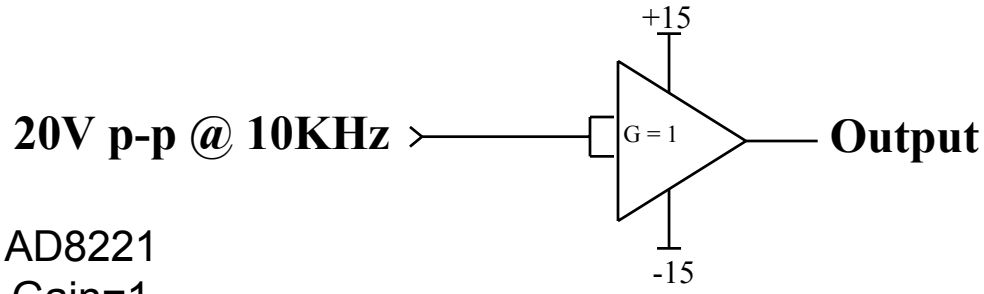
That is a difference of 31 dB.

That means that the AD8221 performs **30X better** than the LT1167 in rejecting common mode voltage. (ex at 10KHz)



ANALOG DEVICES

Compare the CMRR Performance Side by Side

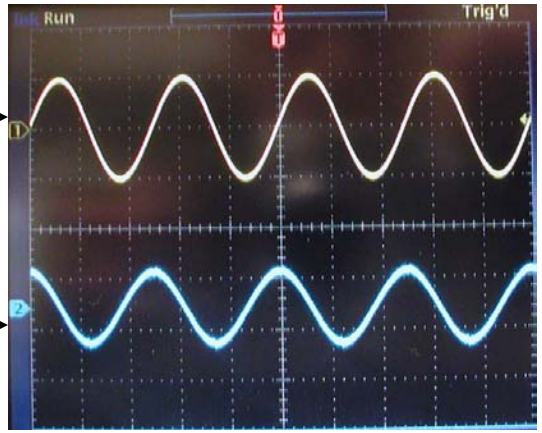


AD8221
Gain=1

LT1167
Gain=1

Input Signal
(10V Scale)

Common Mode Error
at the Output
(10mV Scale)



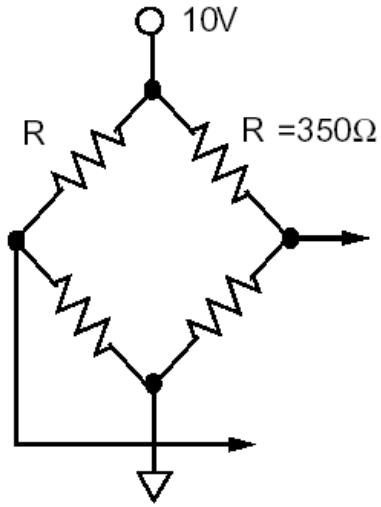
AD8221 common mode error = 0.450mV
LT1167 common mode error = 13.5mV

The LT1167 gives you 30x the error at a higher cost!

ANALOG DEVICES

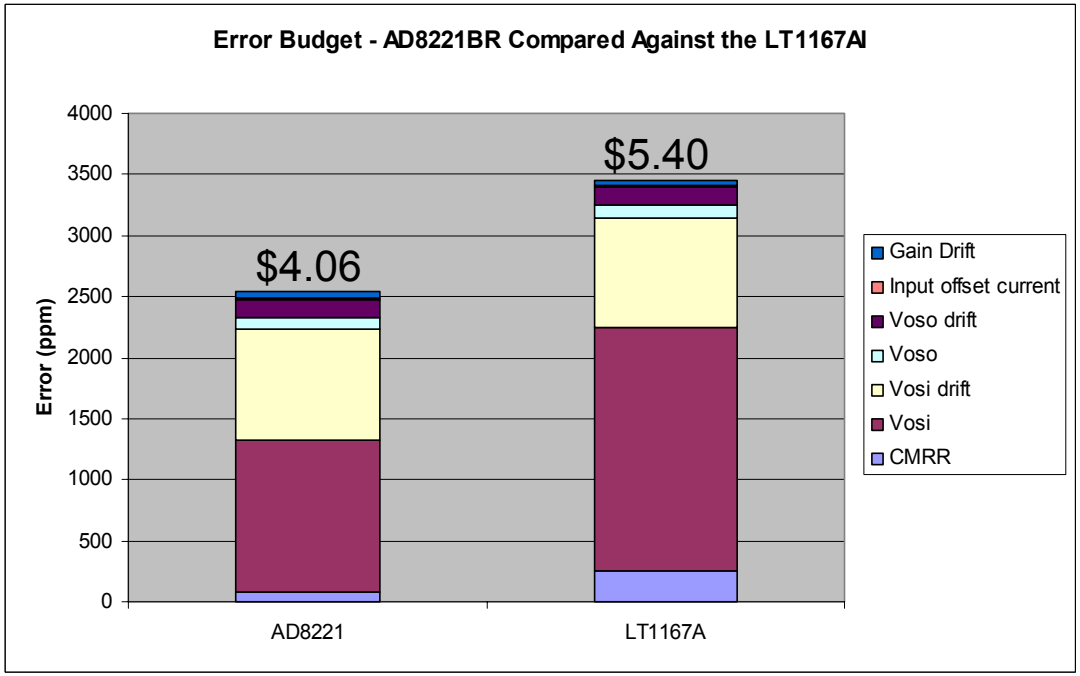
The AD8221 vs. the LT1167 at DC

Comparison of the
AD8221 and the LT1167
in a typical application*



* - 5V common mode signal - G=100 configuration

- 20mV full scale signal - .02% resistor matching



The AD8221 gives you lower cost and lower total error than the LT1167.

The AD8221 vs. the INA129

High Grade

High Grade			8221BR	INA129U
Package			SOIC	SOIC
CMRR DC (G=1)	Min	dB	90	80
CMRR 10KHz (G=1)	Typ	dB	80	60
Vosi	Max	uV	25	50
Vosi Drift	Max	uV/C	0.3	0.5
Voso	Max	uV	200	500
Voso Drift	Max	uV/C	5	20
$ 1k			$4.06	$4.70

Low Grade

Low Grade			8221AR	INA129UA	8221ARM
Package			SOIC	SOIC	MSOP
CMRR DC (G=1)	Min	dB	80	73	80
CMRR 10KHz (G=1)	Typ	dB	80	60	80
Vosi	Max	uV	60	100	70
Vosi Drift	Max	uV/C	0.4	1	0.9
Voso	Max	uV	300	1000	600
Voso Drift	Max	uV/C	6	20	9
$ 1k			$2.32	$3.15	$1.99

Pure Performance

- Look at the Numbers
  - AD8221BR Beats Every Parameter of the INA129U
  - It's Cheaper Too!

Beats INA128, INA118, INA114, INA115….too!

Best Value

- Look at the Numbers
  - AD8221AR Beats Every Parameter of the LT1167I
  - It's $1.00 Less!
- The AD8221ARM BEATS Every Parameter but is >$1.00 LESS and Half the Size!

ANALOG DEVICES

The AD8221 vs. the INA129 over Frequency

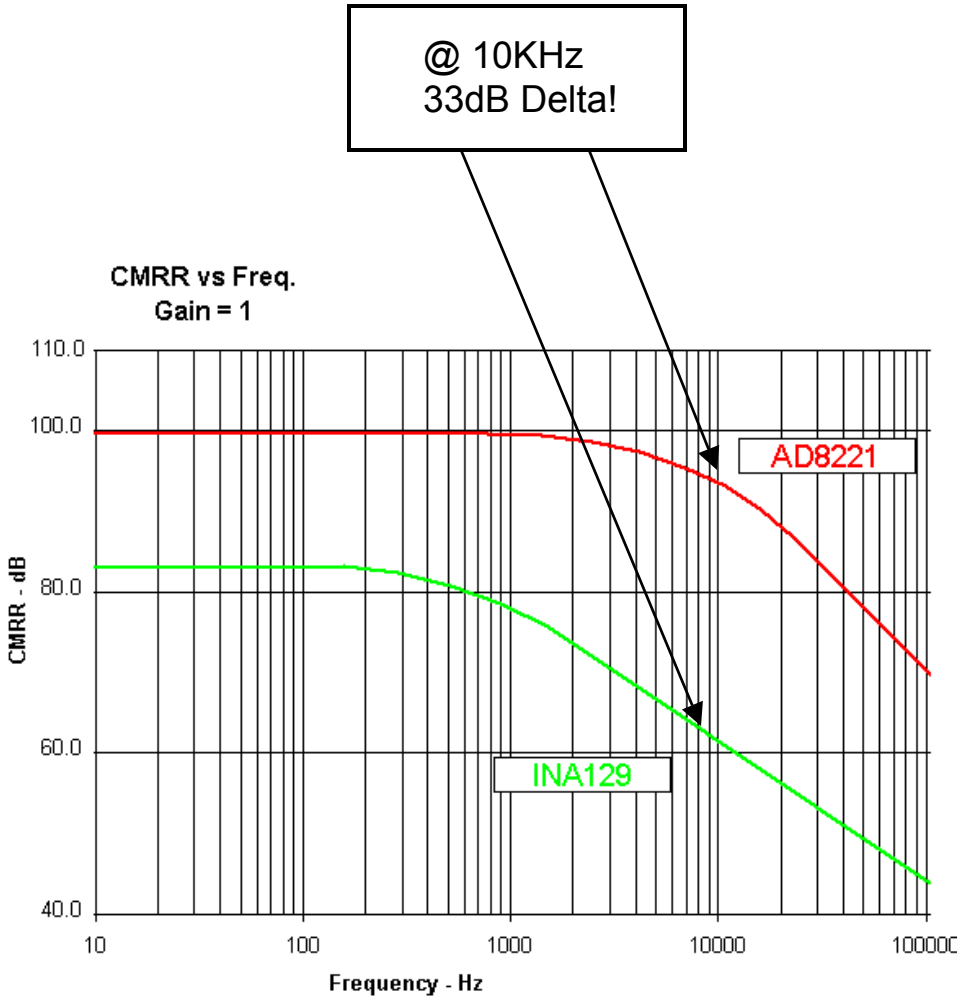
The AD8221 rejects common mode voltage on its inputs better than the INA129.

At 10Khz:

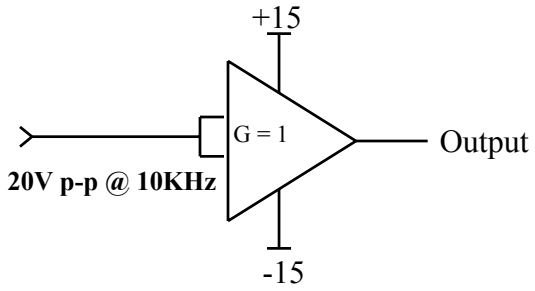
AD8221 CMR is 95dB.
INA129 CMR is 62dB.

That is a difference of 33 dB.

That means that the AD8221 performs **>30X better** than the INA129U in rejecting common mode voltage. (ex at 10KHz)



Compare the CMRR Performance Side by Side

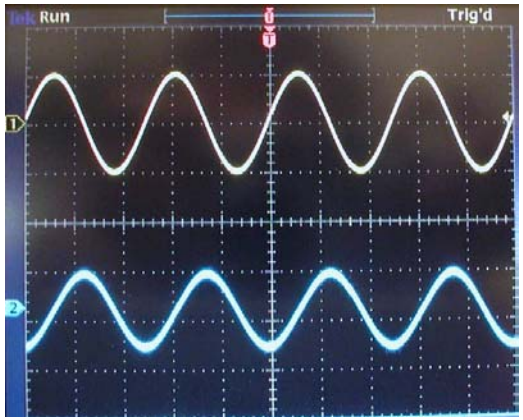


AD8221
Gain=1

INA129U
Gain=1

Input Signal
(10V Scale)

Common Mode Error
at the Output
(10mV Scale)



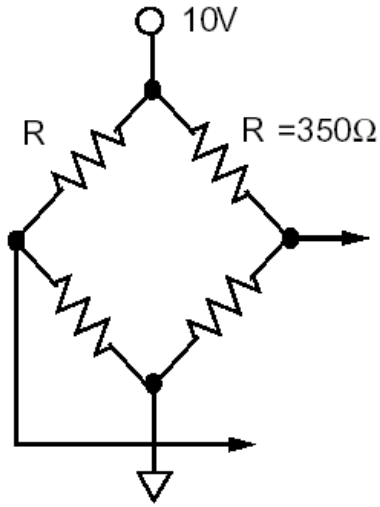
AD8221 common mode error = 0.450mV
INA129U common mode error = 15mV

The INA129 gives you >30x the error at a higher cost!

ANALOG DEVICES

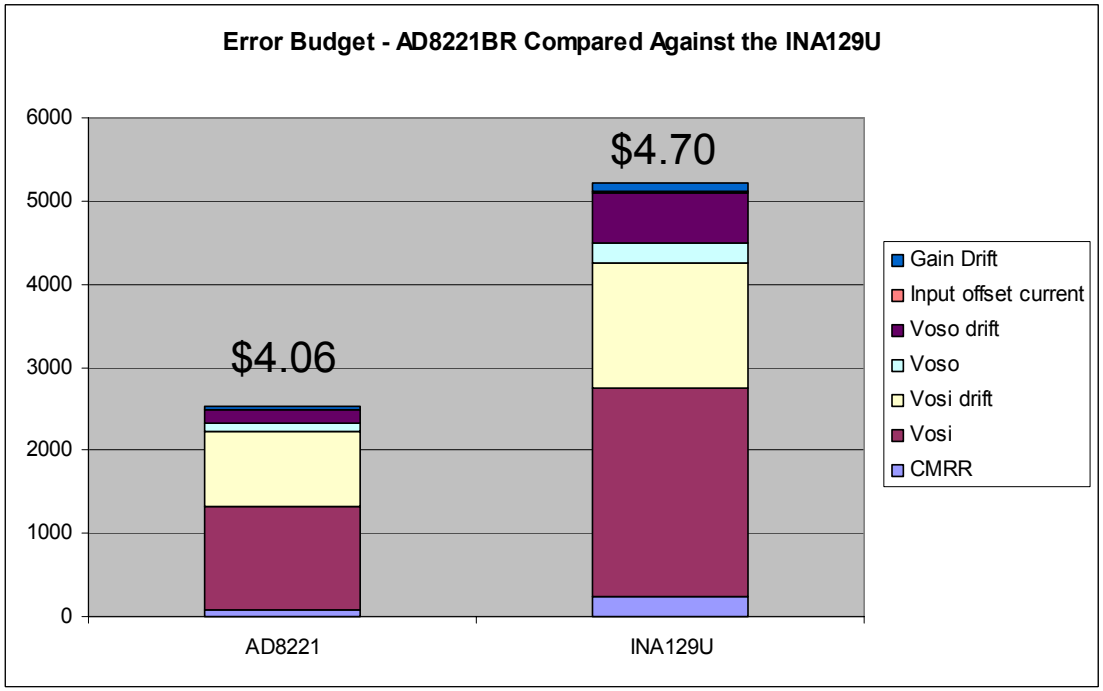
The AD8221 vs. the INA129 at DC

Comparison of the AD8221 and the INA129 in a typical application*



* - 5V common mode signal - G=100 configuration

- 20mV full scale signal - .02% resistor matching

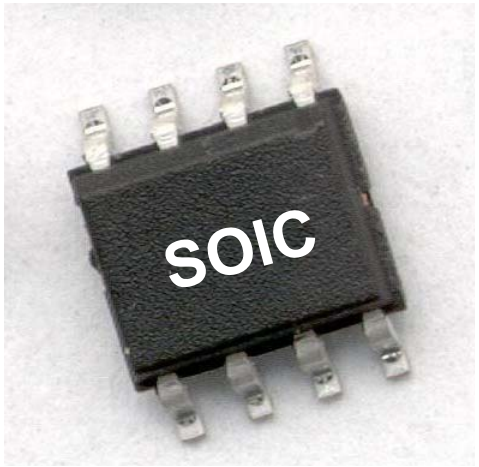


The AD8221 gives you lower cost and lower total error than the INA129

ANALOG DEVICES

The AD8221ARM Gives You What You Need.....

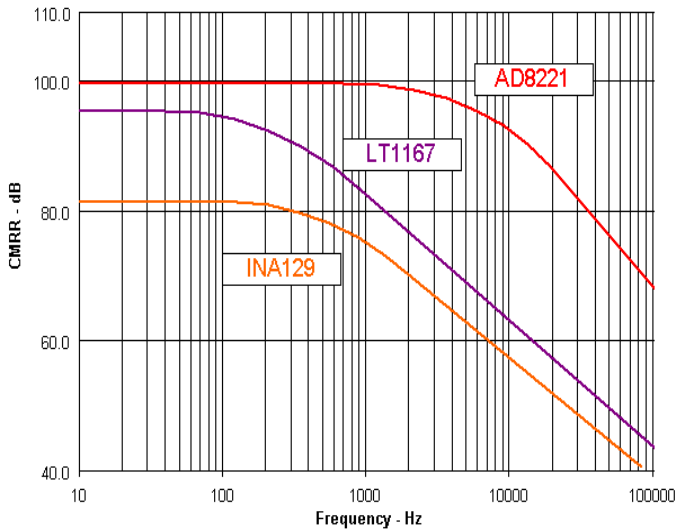
Low Price - $1.99 @ 1kpcs
Smallest Package - MSOP
Great Performance!



Upgrade your AD620 applications to the AD8221

ANALOG DEVICES

AD8221ARM – KILLER IN AMP in MSOP! (Summary)

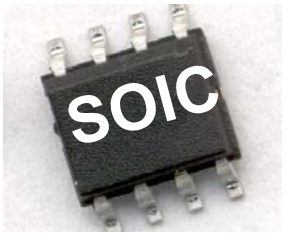


CMRR VS. Frequency; G=1

		8221ARM	LT1167I	INA129UA
Vosi	uV	70	60	100
Vosi Drift	uV/C	0.9	0.4	1
Voso	uV	600	300	1000
Voso Drift	uV/C	9	6	20
$ 1k		**$1.99**	$3.80	$3.15

(MAX specs in table)

- **AD8221ARM vs. LT1167I**
  - Beats CMRR Performance
  - Matches All Other DC's
  - $2 Cheaper and Half Size!
- **AD8221ARM vs. INA129UA**
  - Beats All Parameters
  - $1 Cheaper and Half Size!



MSOP is Half the Size of SOIC

No Competition in MSOP! Upgrade your AD620 designs by using the AD8221ARM!

ANALOG DEVICES