NJR CORPORATION

Product Note

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NJR's NJM2082 vs. TL072 from Motorola and TI

The new J-FET input operational amplifier NJM2082 from NJRC beats the standard TL072 operational amplifiers from competition in AC performance and at lighter loads, with higher slew rate and gain and lower voltage noise. It's priced very aggressively and is available in DIP, SIP, and SOIC packages. Please refer to the chart below:

Parameter (@25°C)		**NJRC NJM2082**	**Motorola TL072**	**TI TL072C**
Input Offset Voltage		✓ 2-10mV	3-10mV	3-10mV
Input Offset Current		5-200pA	5-50pA	5-100pA
Input Bias Current		30-400pA	30-200pA	65-200pA
Large Signal Voltage Gain (R_L>=2KΩ, Vo=+/- 10V)		✓ 110dB	104dB	106dB
Slew Rate		✓ 20V/μs	13V/μs	13V/μs
Common Mode Voltage Range		✓ +15V, -12.5V	+15V, -12V	+15V, -12V
Gain Bandwidth		✓ 5MHz	4MHz	3MHz
Maximum Output Voltage Swing (Vcc=+/-15V)	R_L=200Ω	✓ 18Vp-p	10Vp-p	12.4Vp-p
	R_L=500Ω	✓ 23Vp-p	20Vp-p	16.6Vp-p
	R_L=2KΩ	✓ 26.5Vp-p	26Vp-p	24Vp-p
Maximum AC Output Volt. (Vcc=+/-5V, R_L=2KΩ):	f=1 KHz	8 Vp-p	8 Vp-p	7.5Vp-p
	f=1 MHz	✓ 7Vp-p	5 Vp-p	3Vp-p
(Vcc=+/-15V, R_L=2KΩ):	f=10 KHz	✓ 27Vp-p	26Vp-p	24Vp-p
	f=300 KHz	✓ 20Vp-p	15Vp-p	11Vp-p
Input Noise Voltage in nV/√Hz (Vcc=+/-15V, Rs=100Ω):	f=100 Hz	✓ 15	25	26
	f=1 KHz	✓ 13	18	18
	f=100KHz	✓ 12.5	17	17
Operational Temperature Range		✓ -40 ~ +85°C	0 ~ +70°C	0 ~ +70°C

✓ Advantage: **NJRC**

NOTE: This data has been extracted from NJRC Bipolar, Motorola Linear ICs and TI Op-Amp databooks

If you have any questions, please feel free to contact Sales Engineering at (408) 995-6200.