



Product Specification

XBLW TL064

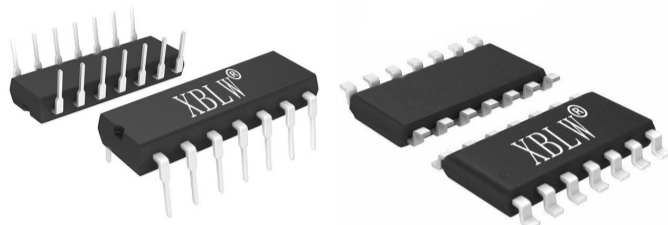
Industry-standard J-FET Quad-channel Operational Amplifier

WEB | www.xinboleic.com



Descriptions

Consisted of high voltage J-FET and bipolar transistors, the TL064 is a high speed J-FET input quad- channel operational amplifier, featured with high slew rate, low input offset and bias current and low offset voltage temperature rate.



DIP-14

SOP-14

Feature

- Wide Common-Mode And Differential Voltage Ranges
- Low Input Bias And Offset Currents
- Output Short-Circuit Protection
- High Input Impedance
- Internal Frequency Compensation
- Latch-up-free operation
- High Slew Rate: 16V/us

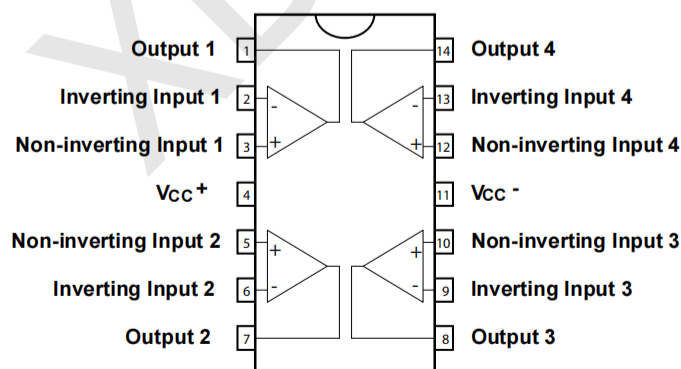
Applications

- Battery test equipment
- Pro audio mixers
- Single phase online UPS
- Solar energy: string and central inverter
- Three phase UPS
- Motor drives: AC and servo drive control and power stage modules

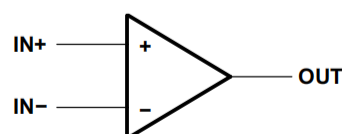
Ordering Information

Product Model	Package Type	Marking	Packing	Packing Qty
XBLW TL064CN	DIP-14	TL064CN	Tube	1000pcs/Box
XBLW TL064CDTR	SOP-14	TL064C	Tape	2500pcs/Reel

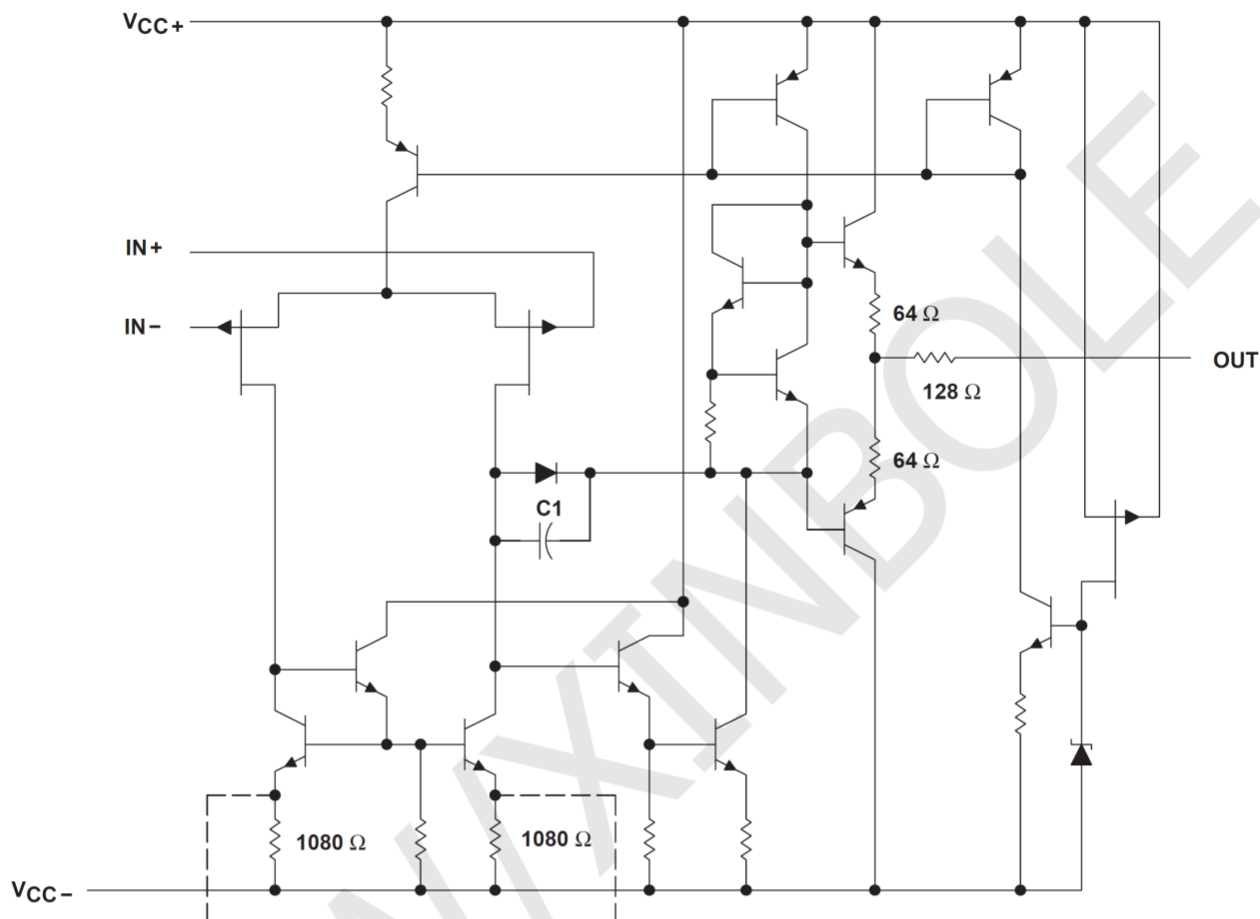
Pins Diagram



Symbol



Schematic(Each Amplifier)



Absolute Maximum Ratings

(T_{amp}=25°C , Unless otherwise specified)

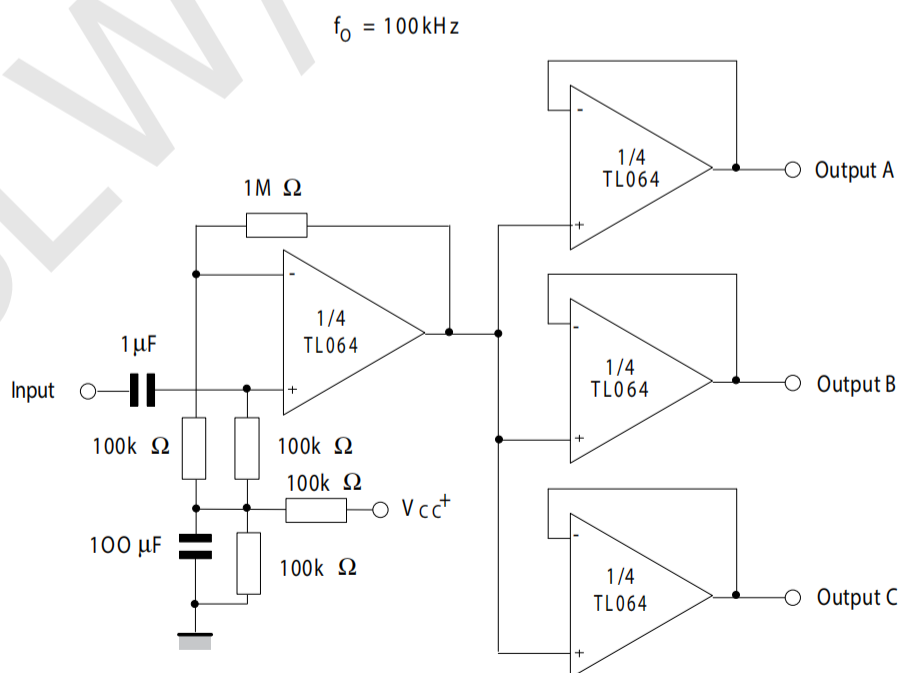
Symbol	Description	Parameter	Unit
V _{CC}	Supply Voltage	±18	V
V _i	Input Voltage	±15	V
V _{id}	Differential Input Voltage	±30	V
P _{tot}	Power Dissipation	680	mW
T _{oper}	Operating Temperature Range	0~70	°C
T _{stg}	Storage Temperature Range	-65~150	°C

Electrical Parameter Characteristics

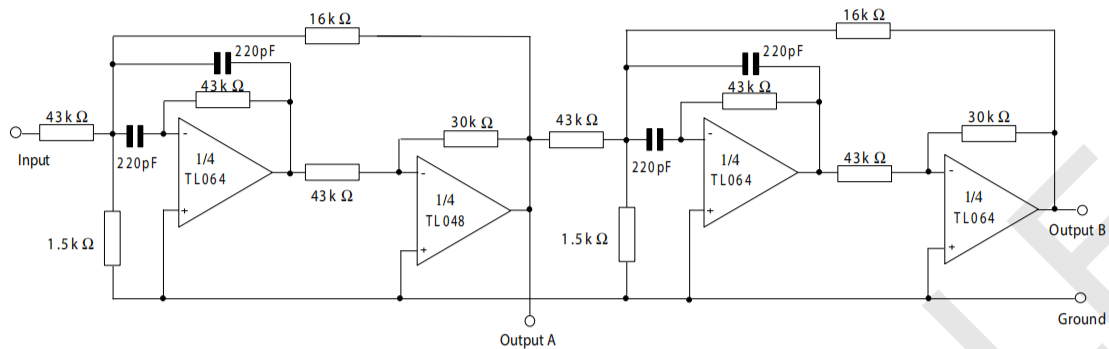
($V_{CC}=\pm 15$, $T_{amp}=25^{\circ}\text{C}$, Unless otherwise specified)

Symbol	Description	Parameter			Unit
		Min.	Typ.	Max.	
V_{IO}	Input Offset Voltage ($R_s=5\ \Omega$)		3	15	mV
I_O	Input Offset Current			4	pA
I_{IB}	Input Bias Current			20	nA
A_{VD}	Large-signal differential voltage amplification ($R_L = 2\ \text{k}\Omega$, $V_O = \pm 10\ \text{V}$)		25		V/mV
SVR	Supply Voltage Rejection Ratio ($R_s=50\Omega$)	65	75		dB
I_{CC}	Static Supply Current(single amplifier)		1.4	25	mA
V_{ICM}	Input Common Mode Voltage Range		± 11	+15 -12	V
CMR	Common Mode Rejection Ratio($R_s=50\Omega$)	65	75		dB
I_{OS}	Output Short Circuit Current	10	50	60	mA
$\pm V_{OPP}$	Output voltage swing $R_L=2\text{K}\Omega$ $R_L=10\text{K}\Omega$	10 12	12 13.5		V
SR	Slew Rate ($V_{in}=10\text{V}$, $R_L=2\text{K}\Omega$, $C_L=100\text{pF}$)	8	16		V/us
t_R	Rise time ($V_{in}=200\text{mV}$, $R_L=2\text{K}\Omega$, $C_L=100\text{pF}$)		0.1		us
GBP	Gain Bandwidth Product ($f=100\text{kHz}$, $V_{in}=10\text{mV}$, $R_L=2\text{K}\Omega$, $C_L=100\text{pF}$)	2.5	4		MHz

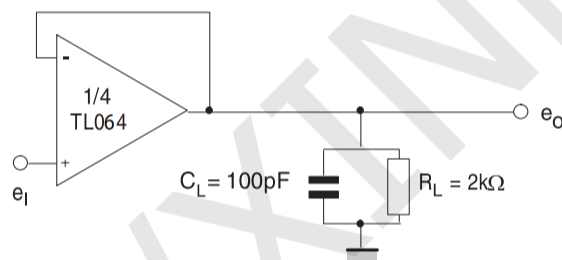
Typical Application



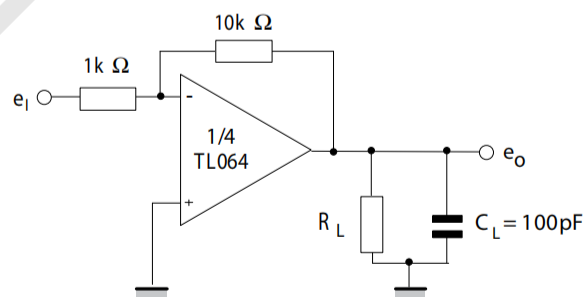
Audio distribution amplifier



Positive feedback bandpass filter



Voltage followe

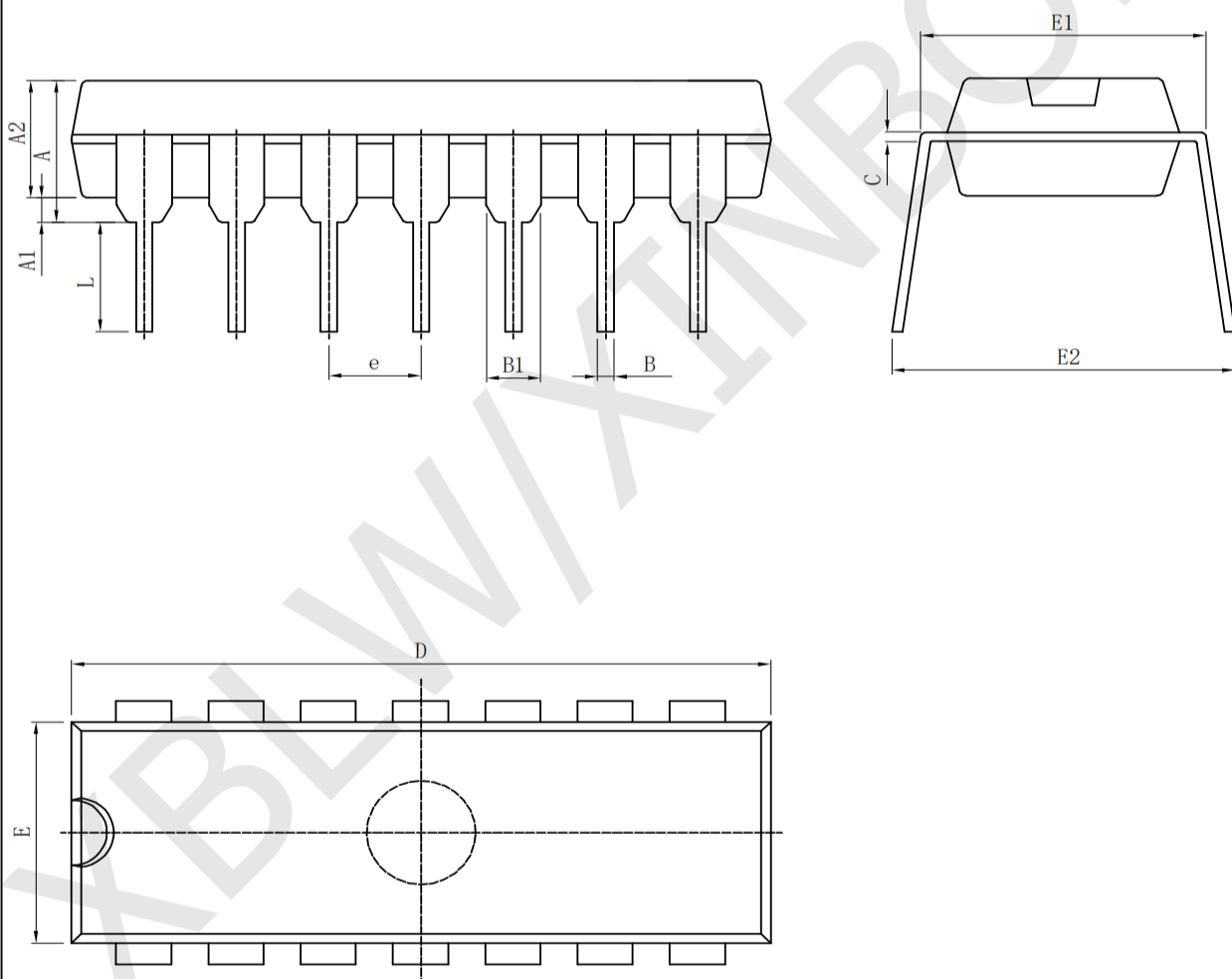


Gain-of-10 inverting amplifier

Package Information

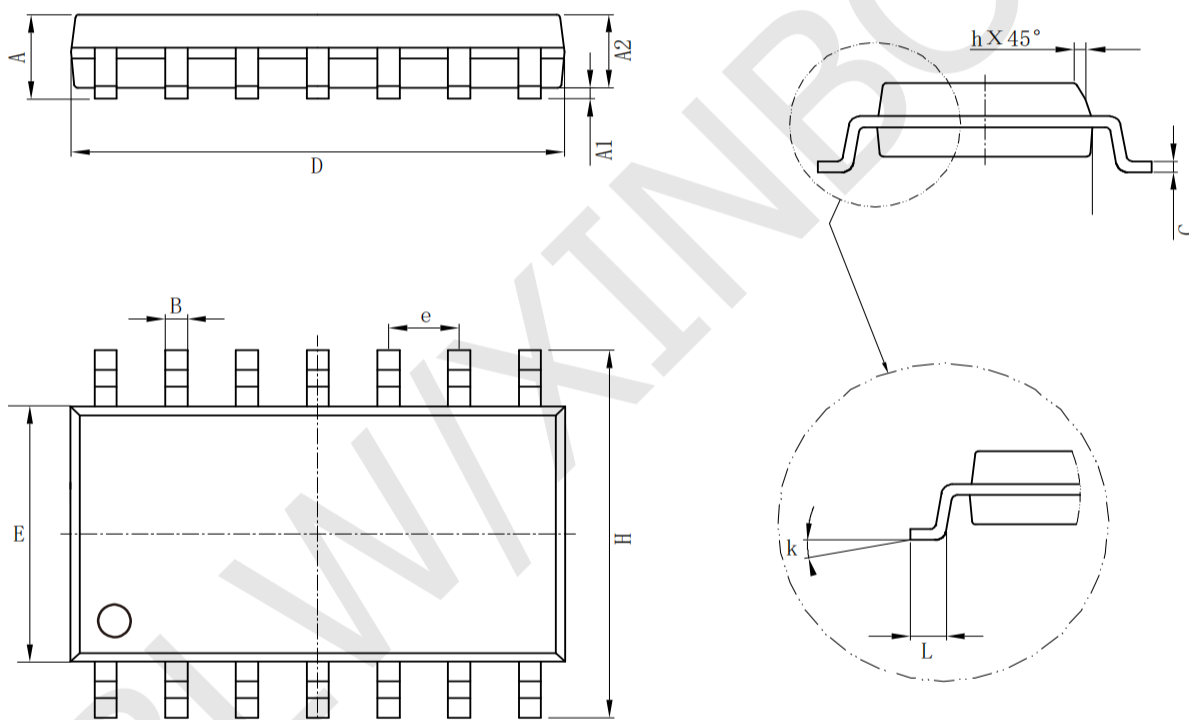
· DIP-14

Size Symbol	Dimensions In Millimeters		Size Symbol	Dimensions In Inches	
	Min (mm)	Max (mm)		Min (in)	Max (in)
A	3.710	4.310	A	0.146	0.170
A1	0.510		A1	0.020	
A2	3.200	3.600	A2	0.126	0.142
B	0.380	0.570	B	0.015	0.022
B1	1.524 (BSC)		B1	0.060 (BSC)	
C	0.204	0.360	C	0.008	0.014
D	18.800	19.200	D	0.740	0.756
E	6.200	6.600	E	0.244	0.260
E1	7.320	7.920	E1	0.288	0.312
e	2.540 (BSC)		e	0.100 (BSC)	
L	3.000	3.600	L	0.118	0.142
E2	8.400	9.000	E2	0.331	0.354



· SOP-14

Symbol	Size	Dimensions In Millimeters		Symbol	Size	Dimensions In Inches	
		Min (mm)	Max (mm)			Min (in)	Max (in)
A		1.350	1.750	A		0.050	0.068
A1		0.100	0.250	A1		0.004	0.009
A2		1.100	1.650	A2		0.040	0.060
B		0.330	0.510	B		0.010	0.020
C		0.190	0.250	C		0.007	0.009
D		8.550	8.750	D		0.330	0.340
E		3.800	4.000	E		0.150	0.150
e		1.27		e		0.05	
H		5.800	6.200	H		0.220	0.240
h		0.250	0.500	h		0.009	0.020
L		0.400	1.270	L		0.015	0.050
k		8° (max)		k		8° (max)	



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