

DATA TABLES

[To be cut out & **pasted** into the Report booklet]

DC CIRCUITS

INVERTER DATA

Inverter #1			Inverter #2		
$R_1 = \dots\dots\dots k\Omega$ $R_2 = 100 k\Omega$ Gain = -			$R_1 = \dots\dots\dots k\Omega$ $R_2 = \dots\dots\dots k\Omega$ Gain = -		
V_i volts	V_o volts	Gain	V_i volts	V_o volts	Gain

SUMMING-INVERTER DATA

#1			#2		
$R_a = \dots\dots\dots k\Omega$ $R_b = \dots\dots\dots k\Omega$			$R_a = \dots\dots\dots k\Omega$ $R_b = \dots\dots\dots k\Omega$		
V_a volts	V_b volts	V_o volts	V_a volts	V_b volts	V_o volts

NON-INVERTER DATA

Non-Inverter #1			Non-Inverter #2		
$R_1 = 100 k\Omega$ $R_2 = 100 k\Omega$ Gain = + 2			$R_1 = \dots\dots\dots \Omega$ $R_2 = \dots\dots\dots \Omega$ Gain = +		
V_i volts	V_o volts	Gain	V_i volts	V_o volts	Gain

VOLTAGE-FOLLOWER DATA

Input V_i volts			
Output V_o volts			

DIFFERENTIAL AMPLIFIER DATA

All 100kΩ Resistors, Gain = 1

V_a volts	V_b volts	V_o volts

TA Signature :

BLANK

AC CIRCUITS

[Note: For the LPF, ‘cutoff frequency’ f_c is the frequency at which $A_v = \frac{1}{\sqrt{2}} = 0.707$, ie when $\omega CR = 1$. With $R_1 = R_2 = 2\text{ k}\Omega$ and $C = 0.1\text{ }\mu\text{F}$, the ‘cutoff

frequency’ $f_c = \frac{1}{2\pi CR} \approx 796\text{ Hz}$. [Note that at 100 Hz, $A_v = 0.992 \approx 1$]

LOWPASS FILTER

Input $V_i = 2\text{ volt RMS}$

f Hz	ω Radians/sec	Output V_o Volts RMS	$A_v = V_o/V_i$
100	628		
200	1257		
500	3142		
1000	6283		
2000	12566		
5000	31415		
10,000	62830		

TA Signature:

BLANK