

Bill Of Materials (Aleph J UMS PCB) Draft						
Part			Manufacturer		Supplier	
Designation	Description	Value	Name	Part Number	Mouser	Digi-Key
Capacitors						
C1	MKP Type Polypropylene Film Capacitor	1uF	WIMA	MKP4-1.0/250/10	505-MKP41.0/250/10	
C2, C3	35V Electrolytic Capacitor	220uF	Elna	RFS-50V221MJ6#5	555-RFS50V221MJ6#5	
			Nichicon	UFG1H221MHM	647-UFG1H221MHM	
				UKZ1H221MHM	647-UKZ1H221MHM	
C4	35V Electrolytic Capacitor	10uF	Elna	RFS-50V100MG3#5	555-RFS50V100MG3#5	
			Nichicon	UKZ2A100MPM	647-UKZ2A100MPM	
C5	Silver Mica or Polystyrene Capacitor	5pF	Cornell Dubilier	CD15CD050DO3F	598-CD15CD050DO3F	338-2606-ND
C6	MKP Type Polypropylene Film Capacitor	100nF to 1uF	WIMA	MKP4F031003C00JSSD	505-MKP4.1/250/5P10	
Diodes						
D1	Zener Diode	9V1				
Jumpers						
J1						
J2						
LEDs						
LED2						
LED3						
Transistors						
Q1A, Q1B	Small Signal P-Channel JFET	2SJ74	Toshiba	2SJ74-BL		

Q2	Small Signal PNP BJT	ZTX550	Zetex	ZTX550	522-ZTX550	
		BC560C	Fairchild	BC560CTA	512-BC560CTA	
Q3, Q4	Small Signal NPN BJT	ZTX450	Zetex	ZTX450	522-ZTX450	
		BC550C	Fairchild	BC550CTA	512-BC550CTA	
Q5, Q6, Q7, Q8	N-Channel MOSFET	IRFP240	Vishay	IRFP240PBF	844-IRFP240PBF	IRFP240PBF-ND
Resistors						
R1, R3	0.25W Resistor	22K1	Vishay Dale	RN60D2212FB14	71-RN60D-F-22.1K	
				CMF5522K100FKEK	71-CMF5522K100FKEK	
R2, R4	0.25W Resistor	221K	Vishay Dale	RN60D2213FB14	71-RN60D-F-221K	
				CMF55221K00FHEK	71-CMF55221K00FHEK	
R5	0.25W Resistor	4K75	Vishay Dale	RN60D4751FB14	71-RN60D-F-4.75K	
				CMF554K7500FHEB	71-CMF554K7500FHEB	
R6	0.25W Resistor	562R	Vishay Dale	RN60D5620FB14	71-RN60D-F-562	
				CMF55562R00FHEK	71-CMF55562R00FHEK	
R7	Multi-Trimmer Potentiometer (See Note 1)	2K	Bourns			
R8	Multi-Trimmer Potentiometer (See Note 1)	500R	Bourns			
R9, R10, R11, R12, R13	0.25W Resistor	221R	Vishay Dale	RN60D2210FB14	71-RN60D-F-221	1135-1586-MIL
				CMF55221R00FHEK	CMF55221R00FHEK	CMF221HA-ND
R14	0.25W Resistor	392R	Vishay Dale	RN60D3920FB14	71-RN60D-F-392	
				CMF55221R00FKEB	71-CMF55221R00FKEB	
R15	0.25W Resistor	1K	Vishay Dale	RN60D1001FB14	71-RN60D-F-1.0K	
				CMF551K0000FHEK	71- CMF551K0000FHEK	
R16, R17, R18, R19, R20, R21,	3W Resistor	0R47	Panasonic	ERX-3FJR47	667-ERX-3FJR47	
			Vishay Dale	CPF3R47000JNB14	71-CPF3.475%T00	

R22, R23						
R24	0.25W Resistor	1K2	Vishay Dale	RN60D1201FB14	71-RN60D-F-1.2K	
				CMF551K2000FKR6	71-CMF551K2000FKR6	
R25	0.25W Resistor	1K5	Vishay Dale	RN60D1501FB14	71-RN60D-F-1.5K	
				CMF551K5000FHEK	71-CMF551K5000FHEK	
R26	0.25W Resistor	3K32	Vishay Dale	RN60D3321FB14	71-RN60D-F-3.32K	
				CMF553K3200FKEB	71-CMF553K3200FKEB	
R27	Multi-Trimmer Potentiometer (See Note 1)	100K	Bourns			
R28	0.25W Resistor	3K to 5K	Vishay Dale			
R29	0.25W Resistor	3K to 5K	Vishay Dale			
R30	0.25W Resistor					