

Capacitors, Diodes, Light Emitting Diodes, Resistors, Transistors, Integrated Circuits

Device	Value	Function	Notes
C061	.047uF	All_Pass	
C062	.047uF	All_Pass	
C063	.047uF	All_Pass	
C064	.047uF	All_Pass	
C061N	.1uF	All_Pass	
C061P	.1uF	All_Pass	
C062N	.1uF	All_Pass	
C062P	.1uF	All_Pass	
R061	10K	All_Pass	
R062	10K	All_Pass	
R063	10K	All_Pass	
R064	10K	All_Pass	
R065	10K	All_Pass	
R066	10K	All_Pass	
R067	10K	All_Pass	
R068	10K	All_Pass	
R069	10K	All_Pass	
R070	10K	All_Pass	
R071	10K	All_Pass	
R072	10K	All_Pass	
R060	47K	All_Pass	
U061	LF353 OR TL-082	All_Pass	
U062	LF353 OR TL-082	All_Pass	
C201	.001uF	Clipper	Third LPF
C201N	.1uF	Clipper	
C201P	.1uF	Clipper	
D201	1N914	Clipper	
Q201	2N3904	Clipper	
Q202	2N3904	Clipper	
Q203	2N3904	Clipper	
Q204	2N3904	Clipper	

R211	Jumper	Clipper	
R212	Open	Clipper	
R201	4.7K	Clipper	
R203	4.7K	Clipper	
R204	4.7K	Clipper	
R205	4.7K	Clipper	
R206	4.7K	Clipper	
R209	4.7k	Clipper	
R210	100K	Clipper	
R202	5K trim-pot	Clipper	
U201	LF-353 OR TL-082	Clipper	
C103	.001uF	Compressor_Limiter	
C101P	.1uF	Compressor_Limiter	
C102	.1uF	Compressor_Limiter	
C107	.1uF	Compressor_Limiter	
C108	4.7uF	Compressor_Limiter	
C110	4.7uF	Compressor_Limiter	
C104	10uF	Compressor_Limiter	
C105	10uF	Compressor_Limiter	
C106	10uF	Compressor_Limiter	
C101E	47uF	Compressor_Limiter	
C109	47uF	Compressor_Limiter	
R101	Open	Compressor_Limiter	
R112		180 Compressor_Limiter	
R111	1K	Compressor_Limiter	
R107	6.8K	Compressor_Limiter	
R110	9.1K	Compressor_Limiter	
R103	10K	Compressor_Limiter	
R104	10K	Compressor_Limiter	
R105	10K	Compressor_Limiter	
R106	22K	Compressor_Limiter	
R108	1Meg	Compressor_Limiter	
R109	1Meg	Compressor_Limiter	
U101	SSM2166	Compressor_Limiter	
C234	.001uF	Custom / Patch	Not required
C231	10uF	Custom / Patch	Not required
C232	10uF	Custom / Patch	Not required

C233	10uF	Custom / Patch	Not required
R231	10K	Custom / Patch	Not required
R232	10K	Custom / Patch	Not required
R235	10K	Custom / Patch	Install for stability
R233	100K	Custom / Patch	Install for stability
R234	100K	Custom / Patch	Not required
R236	100K	Custom / Patch	Not required
C221	Jumper	Driver	
C222	.001uF	Driver	Second LPF
R221	4.7K	Driver	Second LPF
R222	100K	Driver	
U221	LF-353 OR TL-082	Driver	
C181	47uF	Gain Gate	
D181	1N34	Gain Gate	
Q181	2N3904	Gain Gate	
R184	Jumper	Gain Gate	
R181	4.7K	Gain Gate	
R182	10K	Gain Gate	
R183	100K	Gain Gate	
D159	LED_WHITE_5MM	Gain_Gate_Indicator	Connect to header "LEDS" pin 9 +, pin 10 -
C151N	.1uF	Level_Indicator	
C151P	.1uF	Level_Indicator	
C152P	.1uF	Level_Indicator	
C165	.1uF	Level_Indicator	
C161	1uF	Level_Indicator	
C162	1uF	Level_Indicator	
C152E	47uF	Level_Indicator	
D151	1N914	Level_Indicator	
D152	1N914	Level_Indicator	
D153	1N914	Level_Indicator	
D154	1N914	Level_Indicator	
D155	LED_BLUE_5MM	Level_Indicator	Connect to header "LEDS" pin 7 -, pin 8 +
D156	LED_GREEN_5MM	Level_Indicator	Connect to header "LEDS" pin 5 -, pin 6 +
D158	LED_RED_5MM	Level_Indicator	Connect to header "LEDS" pin 1 +, pin 2 -
D157	LED_YELLOW_5MM	Level_Indicator	Connect to header "LEDS" pin 3 +, pin 4 -
Q151	2N3906	Level_Indicator	
Q152	2N3906	Level_Indicator	

Q153	2N3906	Level_Indicator	
Q154	2N3906	Level_Indicator	
R150	Open	Level_Indicator	
R152	1K	Level_Indicator	
R154	1K	Level_Indicator	
R155	1K	Level_Indicator	
R162	1K	Level_Indicator	Sets brightness of BLUE negative LED
R163	1.5K	Level_Indicator	Sets brightness of YELLOW normal LED
R199	1.5K	Level_Indicator	Could be 3.3K if R198 is changed to 10K
R164	2.7K	Level_Indicator	Sets brightness of RED peak LED
R153	4.7K	Level_Indicator	
R160	4.7K	Level_Indicator	
R161	4.7K	Level_Indicator	Sets brightness of GREEN positive LED
R167	4.7K	Level_Indicator	
R169	4.7K	Level_Indicator	
R170	4.7K	Level_Indicator	
R171	4.7K	Level_Indicator	
R172	4.7K	Level_Indicator	
R198	5.6K	Level_Indicator	Could be 10K if R199 is changed to 3.3K
R159	22K	Level_Indicator	
R156	100K	Level_Indicator	
R157	100K	Level_Indicator	
R158	100k	Level_Indicator	
R165	1Meg	Level_Indicator	
R168	2K trim-pot	Level_Indicator	Adjust Pos Neg Balance
U151	LF-353 OR TL-082	Level_Indicator	
U152	LM-339	Level_Indicator	
C031N	.1uF	Line 1, Line 2	
C031P	.1uF	Line 1, Line 2	
U031	LF-353	Line 1, Line 2	
C031	.001uF	Line In 1	
C032	.001uF	Line In 1	
C033	.001uF	Line In 1	
C034	.001uF	Line In 1	
C035	10uF	Line In 1	
R032	2K	Line In 1	
R033	2K	Line In 1	

R034	20K	Line In 1	
R035	20K	Line In 1	
R036	47K	Line In 1	
R037	47K	Line In 1	
R038	2K Log taper	Line In 1	Panel Mount or Trim Pot, Line In 1 Gain
R031	10K trim-pot	Line In 1	Input Attenuator
C041	.001uF	Line In 2	
C042	.001uF	Line In 2	
C043	.001uF	Line In 2	
C044	.001uF	Line In 2	
C045	10uF	Line In 2	
R042	2K	Line In 2	
R043	2K	Line In 2	
R044	20K	Line In 2	
R045	20K	Line In 2	
R046	47K	Line In 2	
R047	47K	Line In 2	
R048	2K Log taper	Line In 2	Panel Mount or Trim Pot, Line In 2 Gain
R041	10K trim-pot	Line In 2	Input Attenuator
C261	.1uF	Line Out 1	
C261N	.1uF	Line Out 1	
C261P	.1uF	Line Out 1	
C262	.1uF	Line Out 1	
C263	47uF	Line Out 1	Pad with blocking capacitor for Mic Input Interface
C264	47uF	Line Out 1	Pad with blocking capacitor for Mic Input Interface
R266		47 Line Out 1	
R267		47 Line Out 1	
R270		100 Line Out 1	
R271		100 Line Out 1	
R272		100 Line Out 1	
R273		100 Line Out 1	
R265A	4.7K	Line Out 1	
R264	5.1K	Line Out 1	
R263	9.1K	Line Out 1	
R262	10K	Line Out 1	
R268	10K	Line Out 1	
R269	10K	Line Out 1	

R261	50K trim-pot	Line Out 1	
R265	100K trim-pot	Line Out 1	
U261	NE-5532	Line Out 1	
R276		12 Line Out 1 40 dB pad	
R277		12 Line Out 1 40 dB pad	
R274		560 Line Out 1 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R275		560 Line Out 1 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R278		560 Line Out 1 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R279		560 Line Out 1 40 dB pad	Pad with blocking capacitor for Mic Input Interface
C281	.1uF	Line Out 2	
C281N	.1uF	Line Out 2	
C281P	.1uF	Line Out 2	
C282	.1uF	Line Out 2	
C283	47uF	Line Out 2	Pad with blocking capacitor for Mic Input Interface
C284	47uF	Line Out 2	Pad with blocking capacitor for Mic Input Interface
R286		47 Line Out 2	
R287		47 Line Out 2	
R290		100 Line Out 2	
R291		100 Line Out 2	
R292		100 Line Out 2	
R293		100 Line Out 2	
R285A	4.7K	Line Out 2	
R284	5.1K	Line Out 2	
R283	9.1K	Line Out 2	
R282	10K	Line Out 2	
R288	10K	Line Out 2	
R289	10K	Line Out 2	
R281	50K trim-pot	Line Out 2	
R285	100K trim-pot	Line Out 2	
U281	NE-5532	Line Out 2	
R296		12 Line Out 2 40 dB pad	
R297		12 Line Out 2 40 dB pad	
R294		560 Line Out 2 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R295		560 Line Out 2 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R298		560 Line Out 2 40 dB pad	Pad with blocking capacitor for Mic Input Interface
R299		560 Line Out 2 40 dB pad	Pad with blocking capacitor for Mic Input Interface
C051	.082uF	Low Cut Filter	Change value to adjust LCF corner freq.

C052	.082uF	Low Cut Filter	Change value to adjust LCF corner freq.
C051N	.1uF	Low Cut Filter	
C051P	.1uF	Low Cut Filter	
R051	27K	Low Cut Filter	Change value to adjust HPF corner freq.
R052	27K	Low Cut Filter	Change value to adjust HPF corner freq.
C011	.001uF	Mic 1	
C012	.001uF	Mic 1	
C013	.001uF	Mic 1	
C014	.001uF	Mic 1	
C011N	.1uF	Mic 1	
C011P	.1uF	Mic 1	
R015	Open	Mic 1	Leave open for balanced differential input
R011		47 Mic 1	Use only for Differential
R012		47 Mic 1	
R011A		470 Mic 1	Use only for Differential
R012A		470 Mic 1	
R018	4.7K	Mic 1	
R013	47K	Mic 1	Use 47K for balanced differential input
R015ALT	47K	Mic 1	Use 47K for Single-ended D-104, etc.
R017	47K	Mic 1	
R014	100K	Mic 1	Trim Pot for Gain Adjustment
R013ALT	10Meg	Mic 1	Use 10 Meg for D-104
R010	10K Log taper	Mic 1	Input Level Attenuator (Front Panel Control)
U011	LF-353	Mic 1	
C021	.001uF	Mic 2	
C022	.001uF	Mic 2	
C023	.001uF	Mic 2	
C024	.001uF	Mic 2	
C021N	.1uF	Mic 2	
C021P	.1uF	Mic 2	
R025	Open	Mic 2	47K, Used for Single-ended D-104, etc.
R021		47 Mic 2	
R022		47 Mic 2	Use only for Differential, jumper for D-104
R021A		470 Mic 2	
R022A		470 Mic 2	
R028	4.7K	Mic 2	
R023	47K	Mic 2	

R025ALT	47K	Mic 2	Use 47K for Single-ended D-104, etc.
R027	47K	Mic 2	
R024	100K	Mic 2	Trim Pot for Gain Adjustment
R023ALT	10Meg	Mic 2	Use 10 Meg for D-104
R020	10K Log taper	Mic 2	Input Level Attenuator (Front Panel Control)
U021	LF-353	Mic 2	
U051	LF353 OR TL-082	Phase , LCF	
C015	10uF	Phase Inverter	
R054	2.2K	Phase Inverter	
R053	4.7K	Phase Inverter	
R055	4.7K	Phase Inverter	
C304	.1uF	Power Supply	
C305	.1uF	Power Supply	
C306	.1uF	Power Supply	
C307	.1uF	Power Supply	
C308	.1uF	Power Supply	
C309	.1uF	Power Supply	
C310	.1uF	Power Supply	
C311	.1uF	Power Supply	
C312	.1uF	Power Supply	
C313	.1uF	Power Supply	
C316	.1uF	Power Supply	
C317	.1uF	Power Supply	
C318	.1uF	Power Supply	
C302	470uF	Power Supply	
C303	470uF	Power Supply	
D301	1N4007	Power Supply	
D302	1N4007	Power Supply	
D303	1N4007	Power Supply	
D304	1N4007	Power Supply	
D305	1N4007	Power Supply	
D306	1N4007	Power Supply	
D307	1N4007	Power Supply	
D308	1N4007	Power Supply	
D309	1N4007	Power Supply	
D310	1N4007	Power Supply	
D307	LED_BLUE_3MM	Power Supply	Indicator for negative 5 volts

D308	LED_GREEN_3MM	Power Supply	Indicator for positive 5 volts
D310	LED_RED_3MM	Power Supply	Indicator for positive 12 volts
D309	LED_YELLOW_3MM	Power Supply	Indicator for negative 12 volts
R301		10 Power Supply	
R310		10 Power Supply	
R311		10 Power Supply	
R302		47 Power Supply	
R303		47 Power Supply	
R304		47 Power Supply	
R305		47 Power Supply	
R306		47 Power Supply	
R307		47 Power Supply	
R308		47 Power Supply	
R309		47 Power Supply	
R351	4.7K	Power Supply	
R352	4.7K	Power Supply	
R353	4.7K	Power Supply	
R354	4.7K	Power Supply	
U305		7805 Power Supply	
U303		7812 Power Supply	
U301		7818 Power Supply	
U306		7905 Power Supply	
U304		7912 Power Supply	
U302		7918 Power Supply	
C082	Open	Pre-Emphasis	
C081	.05uF	Pre-Emphasis	.047 is good here if .05 is not available
R081	Open	Pre-Emphasis	
R082	Open	Pre-Emphasis	
R083	Jumper	Pre-Emphasis	
R088	Open	Pre-Emphasis	
R091	Jumper	Pre-Emphasis	
R092	Open	Pre-Emphasis	
R085	4.7K	Pre-Emphasis	
R087	4.7K	Pre-Emphasis	
R089	4.7K	Pre-Emphasis	
R084	15K	Pre-Emphasis	
R086	20K	Pre-Emphasis	

U081	LF353 OR TL-082	Pre-Emphasis	
C148	.001uF	SCAF	First LPF
C141N	.1uF	SCAF	
C141P	.1uF	SCAF	
C142N	.1uF	SCAF	
C142P	.1uF	SCAF	
C143	10uF	SCAF	
C144	10uF	SCAF	
C147	10uF	SCAF	
R147	Open	SCAF	
R145	2.2K	SCAF	
R141	4.7K	SCAF	
R142	4.7K	SCAF	
R148	4.7K	SCAF	First LPF
R146	6.8K	SCAF	
R143	100K	SCAF	
R144	100K	SCAF	
U141	Max295	SCAF	
U142	Max295	SCAF	
C134B	50pF	SCAF Clock	Optional to tune clock frequency
C134A	200pF	SCAF Clock	Optional to tune clock frequency
C132	.001uF	SCAF Clock	
C134	.001uF	SCAF Clock	Stable Mylar or Plastic
C133	.01uF	SCAF Clock	
C131P	.1uF	SCAF Clock	
C131E	47uF	SCAF Clock	
R132		470 SCAF Clock	
R133		470 SCAF Clock	
R131	1.5K	SCAF Clock	
R355	10K	SCAF Clock	Test Point for Calibration of Clock Frequencies
R134	2K trim-pot	SCAF Clock	
R134A	5K trim-pot	SCAF Clock	
R134B	10K trim-pot	SCAF Clock	
U131	NE-555	SCAF Clock	
R019		100 Summing Network	
R029		100 Summing Network	
R039		100 Summing Network	

R049		100 Summing Network	
C241N	.1uF	Util Out	
C241P	.1uF	Util Out	
U241	NE-5532	Util Out	
C241	Jumper	Util Out 1	Use 10uF if DC coupling is not desired
R244	Jumper	Util Out 1	Use 3600 ohm resistor if required by VU Meter
R242	4.7K	Util Out 1	Change if gain required on Util Output
R243	4.7K	Util Out 1	Change if gain required on Util Output
R245	Open	Util Out 1	Insert 100K if needed with optional C241
R241	50K Trim Pot	Util Out 1	
C251	Jumper	Util Out 2	Use 10uF if DC coupling is not desired
R254	Jumper	Util Out 2	Use 3600 ohm resistor if required by VU Meter
R252	4.7K	Util Out 2	Change if gain required on Util Output
R253	4.7K	Util Out 2	Change if gain required on Util Output
R255	Open	Util Out 2	Insert 100K if needed with optional C251
R251	50K Trim Pot	Util Out 2	Input gain for Utility / VU-Meter Output
R244A	3.6K		for VU meter
R254A	3.6K		for VU meter