



**PWM from FPGA**

**CLK from FPGA  
12bit data to FPGA**

Title		
Size	Number	Revision
A3		
Date:	2012-3-5	Sheet of
File:	G:\508 \	SchDraDrawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
Cap	Capacitor	C0, C1, C9, C11, C15, C16, C17, C18, C19	c0603n	Cap	9
Cap Pol2	Polarized Capacitor (Axial)	C2, C6	DIA16MM	Cap Pol2	2
Cap Semi	Capacitor (Semiconductor SIM Model)	C3	CBB-1	Cap Semi	1
Cap	Capacitor	C4	CBB-1	Cap	1
Cap Pol2	Polarized Capacitor (Axial)	C5	DIA8MM	Cap Pol2	1
Cap Semi	Capacitor (Semiconductor SIM Model)	C7	C-HV	Cap Semi	1
Cap Pol2	Polarized Capacitor (Axial)	C8	c0805	Cap Pol2	1
Cap Pol2	Polarized Capacitor (Axial)	C10	10UF	Cap Pol2	1
Cap Semi	Capacitor (Semiconductor SIM Model)	C12, C13, C14	c0805	Cap Semi	3
2A/600v	Full Wave Diode Bridge	D1	BRIDGE2A	Bridge1	1
MBR10H100	Fast Soft Recovery Rectifier	D2, D3	TO-220AC	10ETF04	2
1N4148	Schottky Diode	D4, D5, D6, D9, D10	diode1206	D Schottky	5
12V	Zener Diode	D7	diode1206	D Zener	1
5V	Zener Diode	D8	diode1206	D Zener	1
1A	Fuse	F1	R1/2	Fuse 1	1
TL431	Adjustable Shunt Regulator	IC1	SOT23_N	TL430ILP	1
LT1420		IC2	NSSOP28	LT1420	1
IR2304		IC3	SOIC127P600-8L	Component_1_1	1
100uH	Magnetic-Core Inductor	L1	L-F1	Inductor Iron	1
DC12V	Header, 2-Pin	P1	5.08X2	Header 2	1
AC220V	Header, 3-Pin	P2	5.08X3	Header 3	1
Header 4	Header, 4-Pin	P3	2.0X4	Header 4	1
Header 8X2A	Header, 8-Pin, Dual row	P4	2.0X8X2	Header 8X2A	1
8050	NPN General Purpose Amplifier	Q1	TO-92-1	2N3904	1
13005	NPN High-voltage Transistor	Q2	to-220ab	BF422	1
8550	PNP General-purpose	Q3, Q5	SOT23_N	BC857	2
4N60	HEXFET Power MOSFET	Q4, Q6	TO-220AB	IRF530N	2
Res2	Resistor	R1, R3, R6, R7, R8, R12, R13,	0603n	Res2	8
47K/2W	Resistor	R2, R5	R2W-2	Res2	2
Res2	Resistor	R4	R2W-2	Res2	1
100K/2W	Resistor	R9	R2W-2	Res2	1
10K/2W	Resistor	R10	R2W-2	Res2	1
RPot	Potentiometer	R11	RV	RPot	1
470R	Resistor	R15	0603n	Res2	1
1K	Resistor	R16, R17, R18, R23	0603n	Res2	4
4.7R	Resistor	R19, R21	0603n	Res2	2
10K	Resistor	R20, R24	0603n	Res2	2
330R	Resistor	R22, R25	0603n	Res2	2
	Transformer (Coupled Inductor Model)	T1	L-F	Trans Coupl	1
Trans3	Three-winding Transformer (Non-Ideal)	T2	TR-1	Trans3	1
TLP521	4-Pin Phototransisto	U1, U2	DIP-4	Optoisolator1	2