IC1

RST
GND
+5V
C2 C22 18p
C23 18p
Y3 ABM3-16.000MHZ-D2Y-T

RESET 20
XTAL2 23
XTAL1
AREF
AVCC
AGND
GND
VCC
VCC
GND 22
GND 53

100n 100n 100n
C1 C34 IC2
GND

(AD7)PA7 44 AD_SPA
(AD6)PA6 45
(AD5)PA5 46
(AD4)PA4 47 UA
(AD3)PA3 48 UR
(AD2)PA2 49
(AD1)PA1 50
(AD0)PA0 51
33n C45
33n C82
GND

(OC0A/OC1C/PCINT7)PB7 17 IGNC
(OC1B/PCINT6)PB6 16 CRANK
(OC1A/PCINT5)PB5 15
(OC2A/PCINT4)PB4 14
(MISO/PCINT3)PB3 13 MISO
(MOSI/PCINT2)PB2 12 MOSI
(SCK/PCINT1)PB1 11 SCK
(SS/PCINT0)PB0 10 CS

(A15)PC7 42
(A14)PC6 41
(A13)PC5 40
(A12)PC4 39
(A11)PC3 38
(A10)PC2 37
(A9)PC1 36
(A8)PC0 35 IGNA

(T0)PD7 32
(T1)PD6 31
(XCK1)PD5 30
(ICP1)PD4 29
(TXD1/INT3)PD3 28 TXD2
(RXD1/INT2)PD2 27 RXD2
(SDA/INT1)PD1 26 SDA
(SCL/INT0)PD0 25 SCL

(CLKO/ICP3/INT7)PE7 9
(T3/INT6)PE6 8
(OC3C/INT5)PE5 7 INJA
(OC3B/INT4)PE4 6 INJB
(OC3A/AIN1)PE3 5 DIAHG
(XCK0/AIN0)PE2 4
(TXD0/PDO)PE1 3 TXD
(RXD0/PCIN8/PDI)PE0 2 RXD

(ADC7/TDI)PF7 54
(ADC6/TDO)PF6 55 AD_5V
(ADC5/TMS)PF5 56 AD_BAT
(ADC4/TCK)PF4 57 AD_MAP
(ADC3)PF3 58 AD_CLT
(ADC2)PF2 59 AD_IAT
(ADC1)PF1 60 AD_LMM
(ADC0)PF0 61 AD_TPS

(OC0B)PG5 1
(TOSC1)PG4 19
(TOSC2)PG3 18 CS2
(ALE)PG2 43
(RD)PG1 34 IGNB
(WR)PG0 33 IGND

ATMEGA2561-16AU

+UB
MURS120
DC27
SM4x12A
B72530V1140S262
TVS B72530V1140S262
+12V
D2
1k R1
TACH_OUT
BP_OUT
INJB_OUT
IDV_OUT
INJA_OUT
GND

IC2
KIO 1   TXD 24
VIN 2   RXD 23
OUT5 3   AGND 22
OUT4 4   +5V 21
OUT3 5   NRO 20 RST
PGND 6   IN3 19 INJB
OUT2 7   IN1 18 INJA
OUT1 8   CS 17 CS
PGND 9   SCK 16 SCK
VR+ 10   MOSI 15 MOSI
VR- 11   MISO 14 MISO
WD_DIS 12   VR_OUT 13 CRANK
PGND 25
TLE8080
GND

+5V
22u 100n
C3 C4
GND

VR+ 10k R3
VR- 10k R7
1n C7
GND

+5V
10k R6
TXD 6 5
SCK 4 3
RST 2 1 RXD
JP5
GND

+12V IC10
LM340MP-05
+5V/1
100n 1 VI VO 3
C9   GND
4
C6 22u
GND

AD_SPA
5
4
3
2
1
GND +5V
JP1 JP3
D3_1
R39k R37
R55
10k R47
AD_BAT
DA112S1
REF1

+5V
2k49 R34
CLT 1k R5
AD_CLT
1n C36 1u C42
DA112S1
D3-5 REF2
REF1
GND

+5V
2k49 R35
IAT 1k R13
AD_IAT
1n C30 1u C41
DA112S1
D3-4 REF2
REF1
GND

L0805C100MDWIT
VU L1 USB+
C47   C50
1u   1n
GND

TPS 1k R30
AD_TPS
1n C28 220n C39
DA112S1
D3-2 REF2
REF1
GND

+5V
2k49(NC) R12
LMM 1k R18
AD_LMM
1n C8 220n C40
DA112S1
D3-3 REF2
REF1
GND

MAP 1k R32
AD_MAP
1n C5 220n C16
DA112S1
D3-6 REF2
REF1
GND

IC8
VCC 2
VOUT 4 MAP
GND 3
MPXH6400AC6T1
+5V
GND

DA+ R8
DA- R4 27R
RST 27R
C12 100n
GND

CH330N
D+ 1   3V3 8 3V3
D- 2   RXD 7 TXD
GND 3   TXD 6 RXD
RTS 4   VCC 5 VUA
U$1
100n C11
GND
GND

+5V
39k R73
AD_5V
D4 LM4041DIM3-1.2
GND

IC5
VCC 1   VUA 8
IO1 2   DA- 7
IO2 3   DA+ 6
GND 4   5
USB6B1
GND GND

JP4
USB+ 1
D+ 2
D- 3
GND 4
GND

5566-24
+UB X1-1
HEAT- X1-2
BP_OUT X1-3
IDV_OUT X1-4
VR+ X1-5
VR- X1-6
LMM X1-7
VM X1-8
IP X1-9
GND1 X1-10
COIL X1-11
0R(NC) R19
TACH_OUT X1-12... X1-13
INJB_OUT X1-14
INJA_OUT X1-15
+5V X1-16
TPS X1-17
IAT X1-18
CLT X1-19
IA X1-20
UN X1-21
IGNA_OUT X1-22
IGNB_OUT X1-23
X1-24
GND

MCP14F10

IC3

MCP14F10

IC9

R52
IGNA
R56
39k
IGNB

R15
IGNC
R16
39k
IGND

1	ENA ENB	8
2	INA OUTA	7
3	GND VCC	6
4	INB OUTB	5

R14
120R
IGNA_OUT

R24
120R
IGNB_OUT

R10
120R
IGNC_OUT

R17
120R(NC)
(IGND_OUT)

+5V/1

R2
0R(NC)
FGB3056_F085

IC4

G C
E

1 ... 3 COIL

2

GND1

GND

IC7

CJ125_32

UN	31	UN	RF	27
IP	32	IP	CF	26
IA	2	IA	UA	23	UA
	3	OSZ	UP	22
DIAHG	4	DIAHG	US	21
DIAHD	6	DIAHD	VM	20	VM
RST	7	RST	VCC	19
RS	8	RS	SS	17	CS2
RM	10	RM	MOSI	15	MOSI
CM	11	CM	MISO	14	MISO
UR	12	UR	SCK	13	SCK
VCCS	5	VCCS	UB	30
VCCSS	18	VCCSS		
GND	29	GND		
GNDS	28	GNDS		

C14 2n2
61R9
R103
R104
10k
R11
10k VM
R102
31k6/1%
R105
300/1%
C65 100n

GND

+5V GND

100k
R107
4k7
R109
100k
R108
C66
470k
R110
100k

C10 C107
100n 100n
+5V

100n
C25
+12V
GND

+5V

HEAT-
altn. VND5N07-E

DIAHG
R78
4k7
R80
100k
6k8
R79
DIAHD

GND