1 X5 HOLE
1 X6 HOLE
1 X7 HOLE
1 X8 HOLE
1 X9 HOLE
1 X10 HOLE

RAD1
R4

SPDIF

Вход

J4 1 2
R9 120R
TR3-A H1102 1 2 15 16 14
C55 M10
+3V3D C54 M10
C50 10M
C51 N47
R8 75R
VCC B A GND RS-485 RO RE DE DI U4 ADM3485
SPDIFIN

Выход

J5 1 2 9 11
TR3-B H1102 6 7 10
R6
K22
C52 10N
C53 M10
+3V3D
R7 K22
VCC B A GND RS-485 RO RE DE DI U5 ADM3485
SPDIFOUT

ADAU1452

DATA_ADC 59	SDATA_IN0 IO	SDATA_OUT0 41	DATA0_DAC
BCLK_ADC 57	BCLK_IN0	BCLK_OUT0 40	BCLK0_DAC
LRCLK_ADC 58	LRCLK_IN0/MP10	LRCLK_OUT0/MP4 39	LRCLK0_DAC
62	SDATA_IN1	SDATA_OUT1 44	DATA1_DAC
60	BCLK_IN1	BCLK_OUT1 43	
61	LRCLK_IN1/MP11	LRCLK_OUT1/MP5 42	
67	SDATA_IN2	SDATA_OUT2 49	
65	BCLK_IN2	BCLK_OUT2 48	
66	LRCLK_IN2/MP12	LRCLK_OUT2/MP8 47	
DATA_BT 70	SDATA_IN3	SDATA_OUT3 52	
BCLK_BT 68	BCLK_IN3	BCLK_OUT3 51	
LRCLK_BT 69	LRCLK_IN3/MP13	LRCLK_OUT3/MP9 50	
SPDIFIN 4	SPDIFIN	CLKOUT 23	MCLK_OUT
SPDIFOUT 5	SPDIFOUT		
EEPROM_MISO 29	SDA_M/MISO_M/MP3	IOVDD 2	+3V3D
EEPROM_SCK 28	SCL_M/SCLK_M/MP2	IOVDD 18	
EEPROM_MOSI 27	MOSI_M/MP1	IOVDD 38	
EEPROM_NSS 26	SS_M/MP0	IOVDD 56	
SDA(MISO) 30	MISO/SDA	DVDD 20	VPP
SCL 31	SCLK/SCL	DVDD 35	
MOSI 32	MOSI/ADDR1	DVDD 53	
SS 33	SS/ADDR0	DVDD 71	
8	AUXADC0	DGND 1	
GPIO1 9	AUXADC1	DGND 17	
GPIO2 10	AUXADC2	DGND 19	
GPIO3 11	AUXADC3	DGND 36	
GPIO4 12	AUXADC4	DGND 37	
GPIO5 13	AUXADC5	DGND 25	
		DGND 54	
MCLK_OSC 21	XTALIN/MCLK	DGND 55	
22	XTALOUT	DGND 72	
RST 24	RESET	AVDD 7	AVDD
SELFBOOT 34	SELFBOOT	AGND 6	
63	THD_M		
64	THD_P	PLLFILT 16	PLLFILTR
46	MP7	PVDD 15	PVDD
45	MP6	PGND 14	
EXPOSEDPAD 73	DD2	VDRIVE 3	VDRIVE

I2S_IN | I2S_OUT

MA12070P AUDIO

DATA0_DAC 23	SD0	OUT0A 4	VD2 SS16 BLE32PN300SN1L L5 C70 2200M
DATA1_DAC 24	SD1	OUT0A 5	SS16 VD1 C61 10M C69 10M C60 1N0
BCLK0_DAC 21	SCK	CF0AP 6	→ J2-B
LRCLK0_DAC 22	WS	CF0AN 3	→ J2-A
MCLK_OUT 32	CLK		→ J2-C
31	CLKM/S	OUT0B 10	VD3 SS16 BLE32PN300SN1L L6
+5VD 4K3 R66		OUT0B 11	SS16 VD6 C71 10M C73 10M C74 1N0
SCL_AMPL 27	SCL	CF0BP 9	
SDA_AMPL 30	SDA	CF0BN 12	
4K3 R67		OUT1A 44	VD7 SS16 BLE32PN300SN1L L9 C85 2200M
MUTE 28	AD0	OUT1A 45	SS16 VD8 C75 10M C81 10M C83 1N0
ENABLE 29	AD1	CF1AP 43	→ J2-D
+5VA 34		CF1AN 46	→ J2-E
33	MUTE	OUT1B 38	VD10 SS16 BLE32PN300SN1L L10 C20 25V 22.0 uF
VD4 VD5 1K0 R68 1K0 R69 15 16	ENABLE CLIP ERROR	OUT1B 39	SS16 VD9 C79 10M C82 10M C84 1N0
MSEL0 51	MSEL0	CF1BP 40	→ J2-F
MSEL1 50	MSEL1	CF1BN 37	→ J2-G
1M0 C89 50V C17 M10	CFGDP 62	VGDC 54	C9 1M0 25V
C8 M10	63 CFGDN	DVDD 55	+5VD C19 M10
1M0 C92 50V C18 M10	CGD0P 60	DVSS 26	
C11 1M0 25V	61 CGD0N	DVSS 59	
C12 1M0 25V	CGD1P 53	CDC 56	C10 1M0 25V
C13 1M0 25V	52 CGD1N	PVDD 7	
	58 CFDCN	PVDD 8	C6 1M0 50V C4 M10
	57 CFDCP	PVDD 41	+24V_IN
+5VA C14 1M0 25V C15 1M0 25V C16 1M0 25V	AVDD 17	PVDD 42	→ J2-H
	20 CREF		→ J2-I
	CMSE 18		→ J2-J
	AVSS 19	PVSS 1	C104 2200M
	AVSS 25	PVSS 2	C7 1M0 50V C5 M10
	49 NC	PVSS 13	
	64 NC	PVSS 14	
	65 EPAD	PVSS 35	
	DA9	PVSS 36	
		PVSS 47	
		PVSS 48	

RT7272B

+24V_IN
VIN EN RLIM GND PAD PWM DA10 BOOT SW FB COMP
PW_EN
75K R74
Uen=15V
C137 10M C138 10M C139 10M
R75 10K R70 82K
I_Lim=5A
R71 16K C133 2N7
M10 C140
5uH L14 CDRH5D28
75K R73
R72 24K
C141 10M C142 10M C143 10M
5uH L13 CDRH5D28
+3V3D
C145 10M C134 10M

SY21019

+24V_IN
BS EN IN PWM DA11 LX FB GND
C147 10M 50V C148 10M 50V C149 10M 50V
M10 C150
VD17 SS16
33uH L16 CDRH6D28NP
M12 R109
C155 1N0
13K R110
C151 10M 10V C152 10M 10V C153 10M 10V C154 10M 10V
+6V

LD2981CU50TR

+6V
IN LDO DA12 OUT GND
C157 10M
C158 10M C156 M10
+5VD

LD2981CU50TR

IN LDO DA1 OUT GND
C2 10M
C3 10M C1 M10
+5VA

Bluetooth

J10
+5VD
R3 0R MCLK_OSC
DATA_BT
LRCLK_BT
BCLK_BT

кварц генератор

C115 M10
C41 4M7
NC GND QUARTZ U3 UCC OUT SCO-103
+3V3D
R2 0R MCLK_OSC

программатор

+3V3D
R62 10K R63 10K R64 10K R65 10K
J13
SDA(MISO)
SCL
MOSI
SS

АЦП

J9
VIN_L
VIN_R
C105 2M2 R26 K47 R22 20K C110 2N2
C107 2M2 R24 K47 R23 20K C106 2N2
PCM1808 AD1
VINL VINR VREF VCC VDD AGND DGND DOUT SCKI LRCK BCK MD0 MD1 FMT
DATA_ADC
MCLK_OUT
LRCLK_ADC
BCLK_ADC
C42 4M7 C109 M10
C43 4M7 C111 M10
C44 4M7 C113 M10
+5VA
+3V3D

EEPROM

R57 20K C118 M10
+3V3D
SST26VF032B-X-104I/SM DD3 SPIEE PROM CS SO WP VSS VDD HOLD SCK SI
EEPROM_NSS
EEPROM_MISO
EEPROM_SCK
EEPROM_MOSI

GPIO

J1
AVDD
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5

джампер переключения загрузки

R61 20K +3V3D
Если 1, загрузка с EEPROM
J12 SELFBOOT

порог 20V

R80 M15 +24V_IN C146 M10
R78 0R R79 10K C160 M10
IN+ IN- REF COMP DA13 V+ OUT V-
TLV3012AIDBVR
+5VD PWR_GOOD

600 Ohm @100Mh

+3V3D L12 CC0402 C37 M10 C36 10M C40 N15 C39 5N6 4K3 R59 PLLFILTR PVDD

600 Ohm @100Mh

+3V3D L11 CC0402 C21 M10 C23 M10 C24 M10 C25 M10 C38 M10 C35 10M AVDD

+3V3D C144 10M R58 1K VDRIVE
VT1 2SB1202
C34 10M 0R5 R1
C26 M10 C27 M10 C28 M10 C29 M10 C30 10N C31 10N C32 10N C33 10N
VPP

ATTINY20

C136 4M7 C135 M10 +5VD
R76 10K
X13
PWR_GOOD
VCC PB0 PB1 PB3 PB2 PA7 PA6 ATTINY GND PA0 PA1 PA2 PA3 PA4 PA5 DD4
R82 20K
R81 10K RST
VOL_CONTR
SCL_AMPL
SDA_AMPL
ENABLE
MUTE
R77 10K

+5VD J3 1 2 3
VOL_CONTR
C22 M10

+5VD JMP1 1 2 3 MSEL0
JMP2 1 2 3 MSEL1

При включении

1) Enable device: /ENABLE = 0.
2) Program applicable initialization to registers.
3) Unmute device: /MUTE = 1.

При выключении обратный порядок

CLK must be present before enabling the amplifier.