REQUIRED 1000MM^2 PCB HEATSINK AREA.

REVISIONS				
REV	ECO #	DESCRIPTION	DATE	APPROVAL
A		PRODUCTION RELEASE		D. NGUYEN

Power Connector

V+5D	J8	1
V+5D	J8	2
V+5D	J8	3
GND	J8	4
GND	J8	5
GND	J8	6

F1 2.5A. U2 LM1086-ADJ (IN, OUT, GND). TP12 V+5D. TP13 3.27v. TP14 V+2.5D. CR106 1N4148. R1 221. R2 357. C11 0.1uF. C4 100/6.3V. C5 100/6.3V.

$VO = 1.25 * \left(1 + \frac{R2}{R1}\right)$

Do not populate.

PRA	J9	1
PRB	J9	2
TMS	J9	3
TCK	J9	4
TDI	J9	5
TDO	J9	6

PRA, PRB, TMS, TDI, TDO, TCK

One cap for each side. C28 0.1uF, C27 0.1uF, C26 0.1uF, C25 0.1uF.

One cap for each side. C29 0.1uF, C7 0.1uF, C8 0.1uF, C9 0.1uF, C10 0.1uF.

POR. R28 1M. CR87 1N4761. C13 0.1uF. C1 10/35. C15 0.1uF.

U1 AK4112A AES/EBU RX. PDN, VD+, DGND, XTI, XTO, RX1, RX2/DIF0, RX3/DIF1, RX4/DIF2, P/SN, R_EXT, VA+, AGND, TVDD, MCKO1, MCKO2, V/TX, BICK, SDTO, LRCK, ERF, FS96, AUTO, DAUX, CMO/CDTO, CM1/CDT1, OCKS1/CCLK, OCKSO/CSN.

C2 10/35. C17 0.1uF. C12 0.1uF. C3 10/35. C16 0.1uF. R32 1K. R27 75. R42 0. U4 74AC14.

24 BIT, I2S FORMAT PARALLEL MODE.

64FS_CLK. FS_CLK. AVG_DSPLY. R55 1K.

U8 DIGITAL METER, FPGA. SQFP14X14-100. ACTEL A54SX16A-100TQFP.

TCK, TDI, I2S_DATA, LRCLK, ERF, TMS, VCCI1, GND1, AVG_DSPLY, TRST, TP1, TP2, VCCI2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, PRB, VCCA, GND2, HCLK, VCCI5, TDO, GND3, PRA, GND5, VCCA1, CLK1, 64FS_CLK, VCCI4, RST, SCLK, SDATA, LE, OE, GND4, VKS_GND, VPP_VCCA, OVR_LD_LT, OVR_LD_RT, VCCI3, VSV_VCCA, LEVEL_SEL_0, LEVEL_SEL_1, PEAK_HOLD.

R31 68.1K. R21 39.2. CR41 BLUE. CR42 BLUE. R35 357. R36 357. R26 357. R29 357. R33 357. DSW2. SDCLK. SDCLK_TRM.

Test Points.

Level Setting:	DSW2 Setting DSW2-3	DSW2-2	DSW2-1
Default Setting --> -0dB ==>		OFF	OFF
-2dB ==>		OFF	ON
-4dB ==>		ON	OFF
-6dB ==>		ON	ON

OFF (PEAK HOLD)
ON (NON - PEAK HOLD)

R39 110 <-- Do not populate. R38 110. C30 0.1uF.

SDCLK_TRM * DSW2-5 Setting for SDCLK termination.

DSW2-5	Note
ON	--> For Meter # 1 ONLY.
OFF	--> For Meter # 2,3,4 and 5.

SDATA	J3	1
GND	J3	2
NC	J3	3
GND	J3	4
SDCLK	J3	5
GND	J3	6
DSPLY1	J3	7
DSPLY2	J3	8
DSPLY3	J3	9
DSPLY4	J3	10
DSPLY5	J3	11
GND	J3	12
AVG_DSPLY	J3	13
PR	J3	14

DSW1. SDCLK. AVG_DSPLY. C6 10/35. C18 0.1uF. DS1 SCD55104 10 char. display. R43 0.

* DSW1 Setting:

- Set DSW1-1 to ON position for Meter # 1 only. Others OFF.
- Set DSW1-2 to ON position for Meter # 2 only. Others OFF.
- Set DSW1-3 to ON position for Meter # 3 only. Others OFF.
- Set DSW1-4 to ON position for Meter # 4 only. Others OFF.
- Set DSW1-5 to ON position for Meter # 5 only. Others OFF.

Clock | Meter 1 | Meter 2 | Meter 3 | Meter 4 | Meter 5 | Timer

FRONT VIEW

U3 A6276ELW. L -4DB, L -5DB, L -6DB, L -7DB, L -8DB, L -9DB, L -10DB, L -11DB, L -12DB, L -13DB, L -14DB, L -15DB, L -16DB, L -17DB, L -18DB, L -19DB. CR43, CR44, CR45, CR75, CR76, CR77, CR78, CR79, CR80, CR81, CR82, CR83, CR84, CR85, CR86, CR89.

U4 A6276ELW. L -20DB, L -21DB, L -22DB, L -23DB, L -24DB, L -25DB, L -26DB, L -27DB, L -28DB, L -29DB, L -30DB, L -33DB, L -36DB, L -39DB, L -42DB, L -45DB. CR13, CR14, CR16, CR15, CR1, CR2, CR3, CR4, CR5, CR6, CR8, CR7, CR12, CR11, CR9, CR10.

U5 A6276ELW. L 0DB, L -1DB, L -2DB, L -3DB, L -48DB, L -51DB, L -54DB, L -57DB, R -54DB, R -51DB, R -48DB, R -3DB, R -2DB, R -1DB, R 0DB. CR74, CR73, CR72, CR71, CR33, CR34, CR35, CR36, CR37, CR38, CR39, CR40, CR67, CR68, CR69, CR70.

U6 A6276ELW. R -45DB, R -42DB, R -39DB, R -36DB, R -33DB, R -30DB, R -29DB, R -28DB, R -27DB, R -26DB, R -25DB, R -24DB, R -23DB, R -22DB, R -21DB, R -20DB. CR17, CR28, CR27, CR26, CR23, CR22, CR24, CR25, CR20, CR21, CR19, CR18, CR30, CR29, CR31, CR32.

U7 A6276ELW. R -19DB, R -18DB, R -17DB, R -16DB, R -15DB, R -14DB, R -13DB, R -12DB, R -11DB, R -10DB, R -9DB, R -8DB, R -7DB, R -6DB, R -5DB, R -4DB. CR54, CR55, CR56, CR57, CR58, CR59, CR60, CR61, CR62, CR63, CR64, CR65, CR66, CR48, CR47, CR46.

R24 5.76K. R6 5.76K. R7 5.76K. R8 5.76K. R18 5.76K. R25 75. R20 75.

IO = 15.25 * (1.23 / Rext)

Io = 3.26 mA with Rext = 5.76K Ohm.

LEFT. RIGHT. R3 470. R4 470. CR53, CR105, CR49, CR104. LEGEND BAR.

R5 470. R2 470. CR102, CR100, CR99, CR96, CR93, CR50, CR52, CR94, CR101, CR98, CR97, CR95, CR92, CR51, CR91, CR90. LEGEND BAR.

APPROVALS	DATE
D. NGUYEN	5/24/01

USED ON

HARRIS DESIGNS BY CORPORATION BROADCAST SYSTEMS DIVISION
PACIFIC RESEARCH & ENGINEERING

SCHEMATIC

NQX, DIGITAL METER BOARD

SIZE	DRAWING NUMBER	REV.
D	92-1177	A

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